

SAP eXperience Day

Compliance e Sicurezza negli ambienti SAP

Vimercate, 18 giugno 2019

#ImpreseIntelligenti

THE BEST RUN 

Agenda

10.30 **Welcome and Introduction**

Christos Papalabros, South Europe Sales Director CFO Office Solutions, SAP
Victor Garcia, Europe Lead (CoC) SAP Security & SAP GRC, IBM
Andrea Cavalleri, Partner, Aglea

10.40 **Positioning of SAP GRC and SAP Security portfolio**

Neil Patrick, COE Resp. GRC & Security EMEA South, SAP

11.15 **Automation of SAP GRC – Integration and automation of 3 lines of defense**

Victor Garcia, Europe Lead (CoC) SAP Security & SAP GRC, IBM

11.45 **IBM's approach to SAP Security**

Holistic approach to cover the 13 layers of SAP Security

Victor Garcia, Europe Lead (CoC) SAP Security & SAP GRC, IBM
Andrea Cavalleri, Partner, Aglea

12.25 **Q&A and Closing**

Christos Papalabros, South Europe Sales Director CFO Office Solutions, SAP
Victor Garcia, Europe Lead (CoC) SAP Security & SAP GRC, IBM
Andrea Cavalleri, Partner, Aglea



Positioning of SAP GRC and Security Portfolio

Dr. Neil Patrick, Director COE GRC & Security, EMEA South
18 June 2019

PUBLIC

Follow us



www.sap.com/contactsap

© 2019 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

The information contained herein may be changed without prior notice. Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platforms, directions, and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, and they should not be relied upon in making purchasing decisions.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

See www.sap.com/copyright for additional trademark information and notices.



Agenda

Intelligent Objectives Management

- Example – Risk Management & Process Control
- Example – Audit Management
- Example – Business Integrity Screening

Intelligent Digital Trust

- Example – Identity Lifecycle
- Example – Enterprise Threat Detection

Real Time Analytics SAP Analytics Cloud - Digital Boardroom

Build High Performance Business: Teamwork + Specialisation, Common Goals



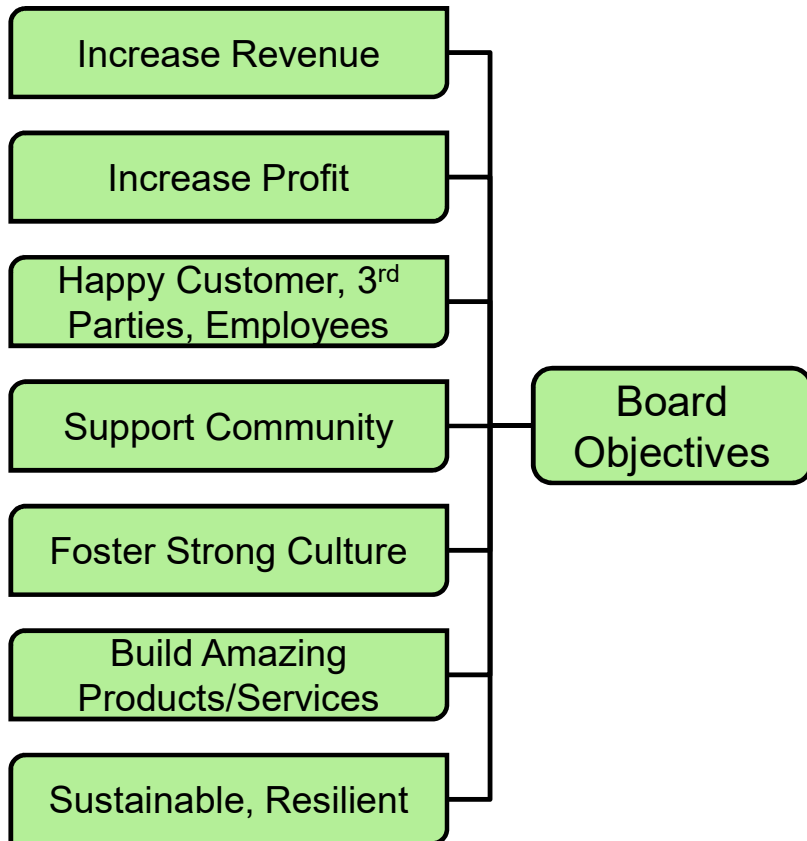
Core AM, RM, PC (3LOD), BIS. Extend with GTS. Add AC, IDM, SSO for IAM

© 2019 SAP SE or an SAP affiliate company. All rights reserved. | PUBLIC

To win a round the world yacht race:

- State of the art yacht, sails, navigation equipment, deep-sea clothes & safety
- A well-thought out course (on a map) & strategy - to a common target(s)
- Ability to vary the course & strategy if circumstances change
- Accepting some parts of the journey are unknown at the start
- Specialisation in the team
- Unity of direction as a team
- Practice as a team
- Both the journey and the destination

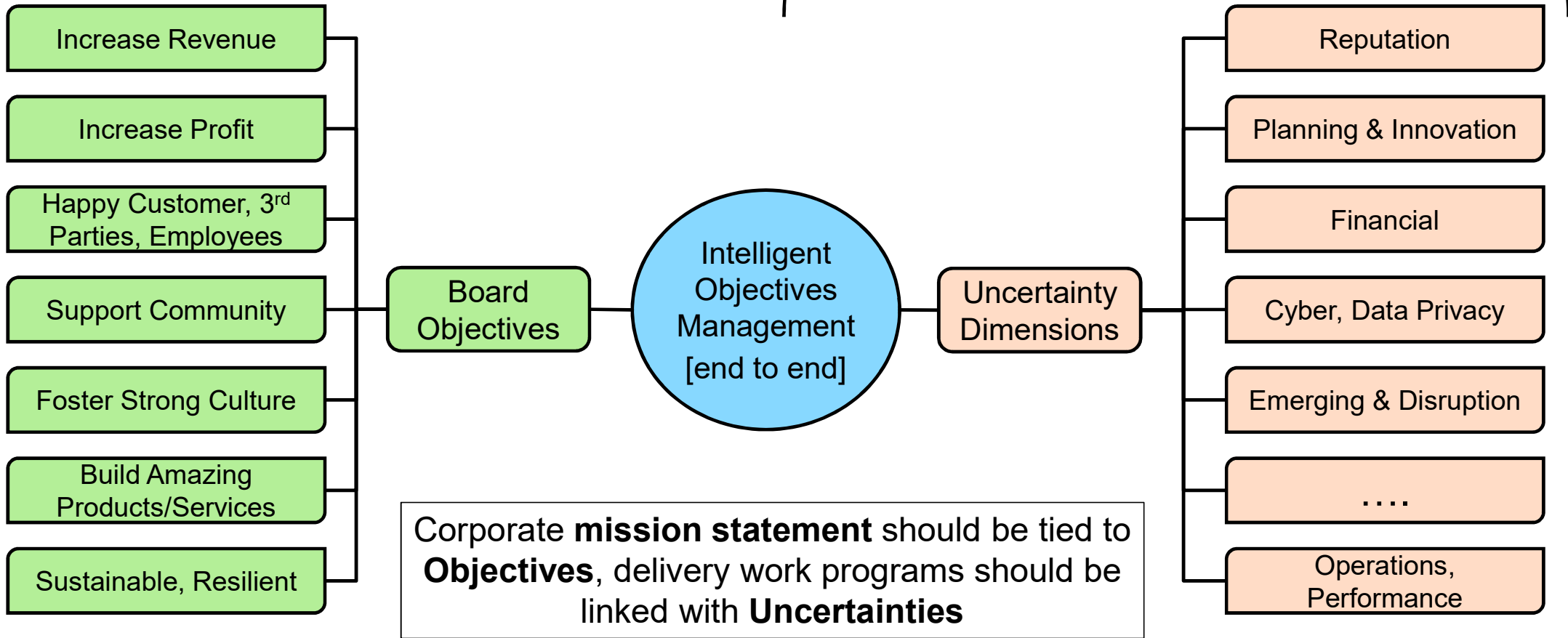
Intelligent Objectives Management with SAP



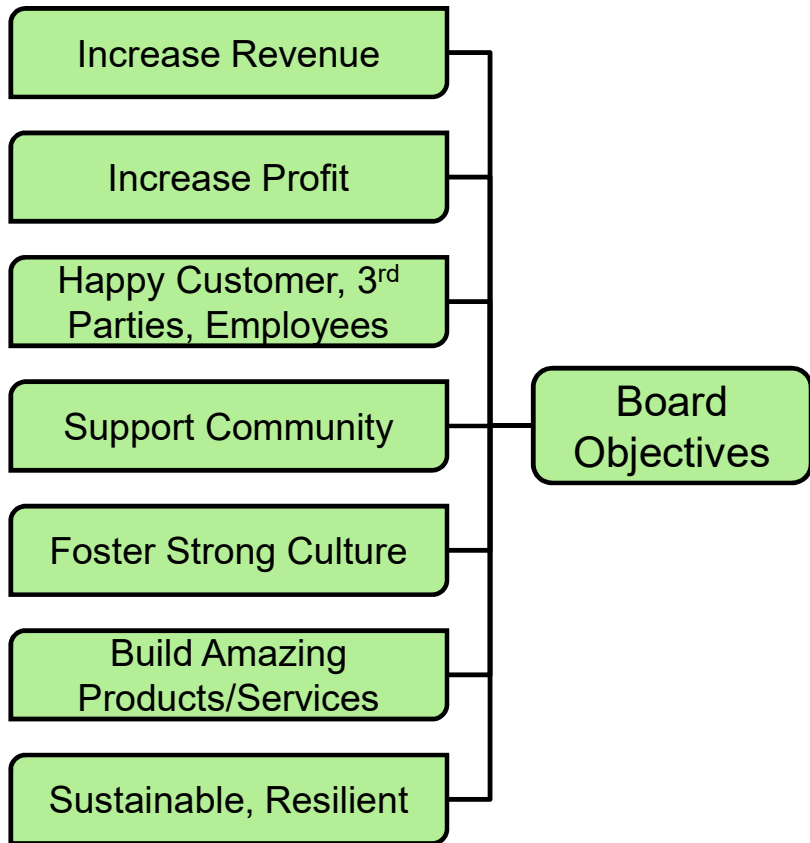
- Strategy is delivered through Objectives
- Business success = meeting Objectives
- Sustainable growth = meeting Objectives

Intelligent Objectives Management with SAP

Execution of Three Lines of Defence

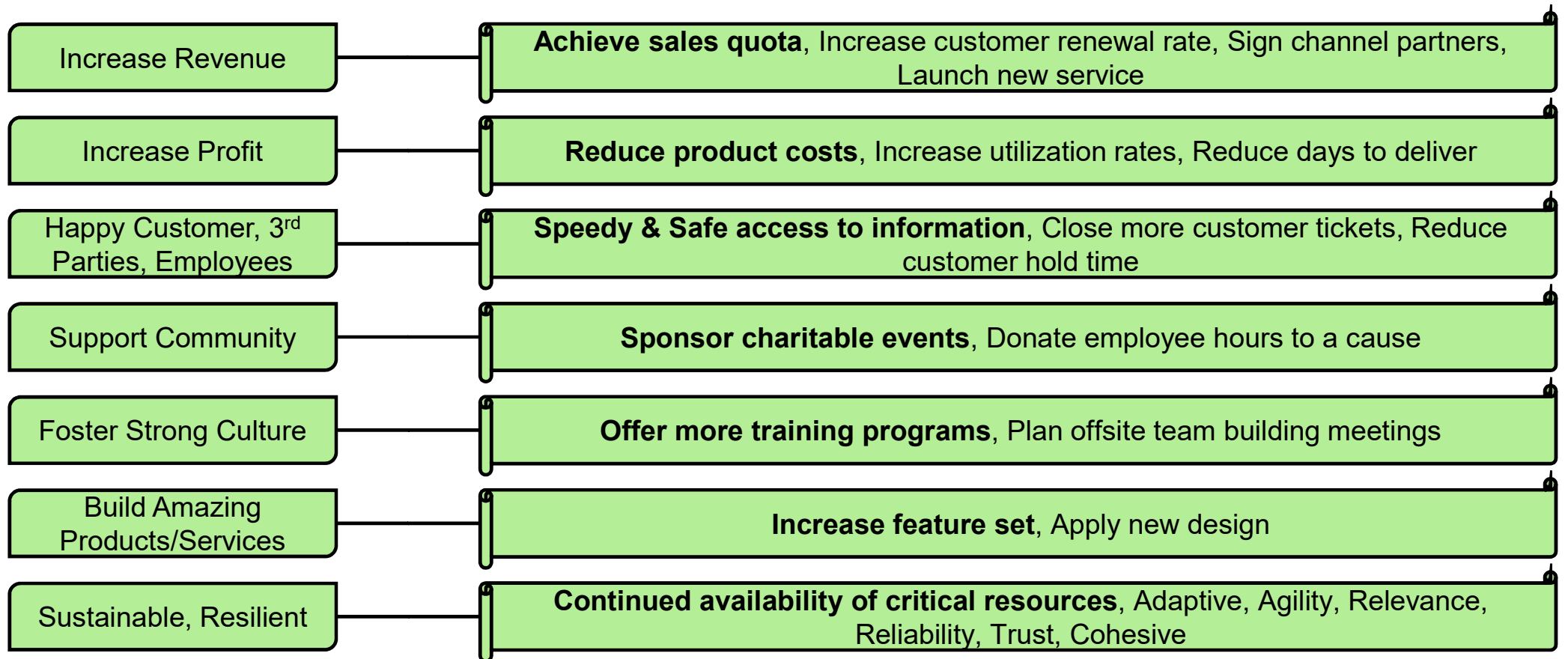


Intelligent Objectives Management with SAP



Intelligent Objectives Management with SAP

Examples

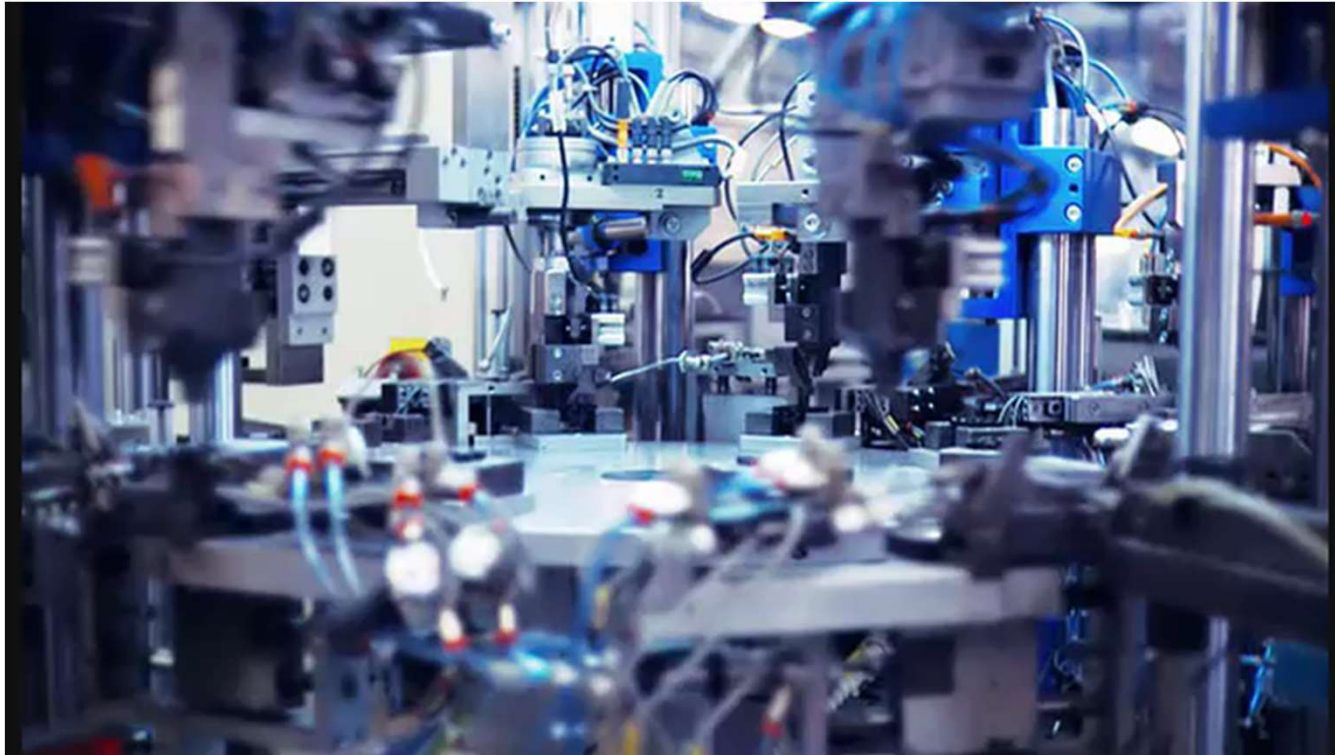


Intelligent Objectives Management with SAP

Examples

Increase Profit

Reduce product costs, Increase utilization rates, Reduce days to deliver



Intelligent Objectives Management with SAP

Examples

Increase Profit

Reduce product costs, Increase utilization rates, Reduce days to deliver

SAP Process Control, Risk Management

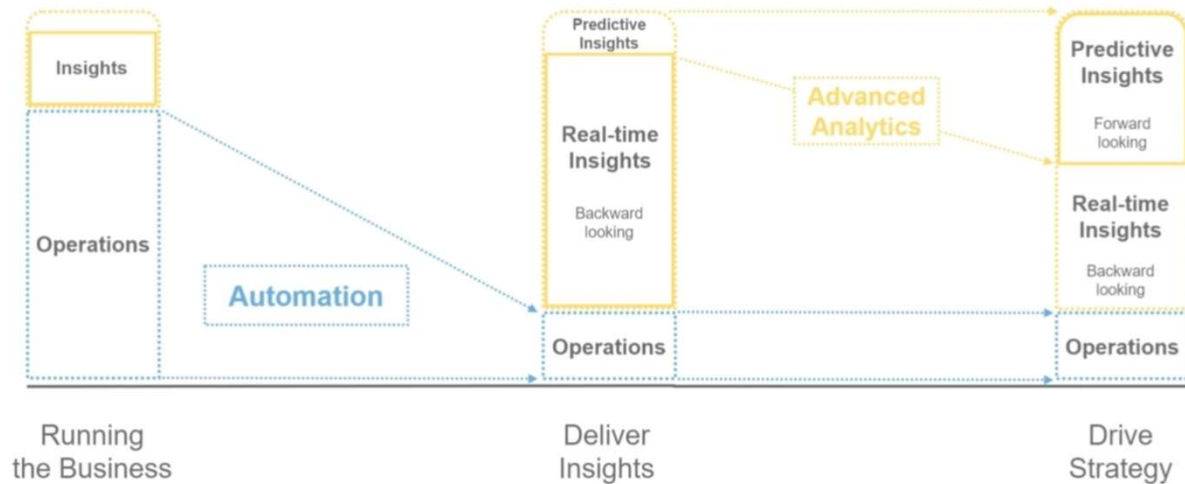
Document and roll out standard, best processes

Delivery within policy, regulation, risk tolerance

Materiality & risk-based change management

Audit RPA, automatically

Comprehensive operational intelligence



Risk Assessment and Scoping

Develop appropriate test strategies to minimize effort and cost



Perform Control Risk Assessment: P2P_Invoice Payments Personalize Help

Organization Company US Subprocess P2P_Invoice Payments Timeframe Year 2008

<Success message text>

You Can Also

Assessment Attachments and Links

Control	Control Description	# of Issues Last Year	Deficiency Last Year	Complexity	Judgement to...	Potential for...	History of Control Failure	Overall Rating
P2P_Duplicate invoice...	Invoices posted...	3	Deficient	Medium	High	High	High	High
P2P_Vendor master...	Vendor master...	2	Significantly Deficient	Low	High	High	High	High

General Data

Comments:

Key benefits

Use a risk-based approach

to focus documentation and evaluation efforts on high-impact processes and controls

Automatically select controls and execute test strategies based on desired level of evidence

Reduce documentation and evaluation efforts while documenting scoping results for audits

Intelligent Objectives Management with SAP

Examples

Sustainable, Resilient

Continued availability of critical resources, Adaptive, Agility, Relevance, Reliability, Trust, Cohesive



Intelligent Objectives Management with SAP

Examples

Sustainable, Resilient

Continued availability of critical resources, Adaptive, Agility, Relevance, Reliability, Trust, Cohesive

SAP Audit Management

Best practices (IIA), risk-based design

Integrate with other parts of the business & data

Light-weight engagement of business (1st line)

End to end information flow

Comprehensive operational intelligence

What can/do the business do that will break the business?

"It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change."

Charles Darwin



Audit Dashboard



Audit - Master Data

Organizations



Dimensions



Risk Register



Controls



Audit - Audit Planning

Create Auditable Item



Audit Universe

33
Open

Create Audit Plan



Maintain Audit Plans

1
Audit Plans

Display Released Audit Plans

1
Audit Plans

Display Archived Audit Plans

3
Audit Plans

Create Audit

My Ongoing Audits

Search for ongoing audits



Ongoing Audits (6)



ID	Title	Status	Time Period	Actual Time Period
2016-012	Anti-Corruption_Compliance_XX	In Execution	13.12.2016 - 23.12.2016	>
2015-001	Anti Corruption Compliance	In Execution	28.08.2015 - 10.09.2015	>
2014-057	System Migration Program "Future"	In Execution	09.11.2014 - 01.12.2014	>
2014-041	Enterprise Information Security Program Audit	Final Report Approved	13.10.2014 - 31.10.2014	>
2014-023	Financial Audit	In Execution	04.04.2014 - 01.12.2014	>
2014-022	Budgeting and Planning Audit	In Execution	04.04.2014 - 01.07.2014	>

Intelligent Objectives Management with SAP

Examples

Increase Revenue

Achieve sales quota, Increase customer renewal rate, Sign channel partners, Launch new service

SAP Business Integrity Screening

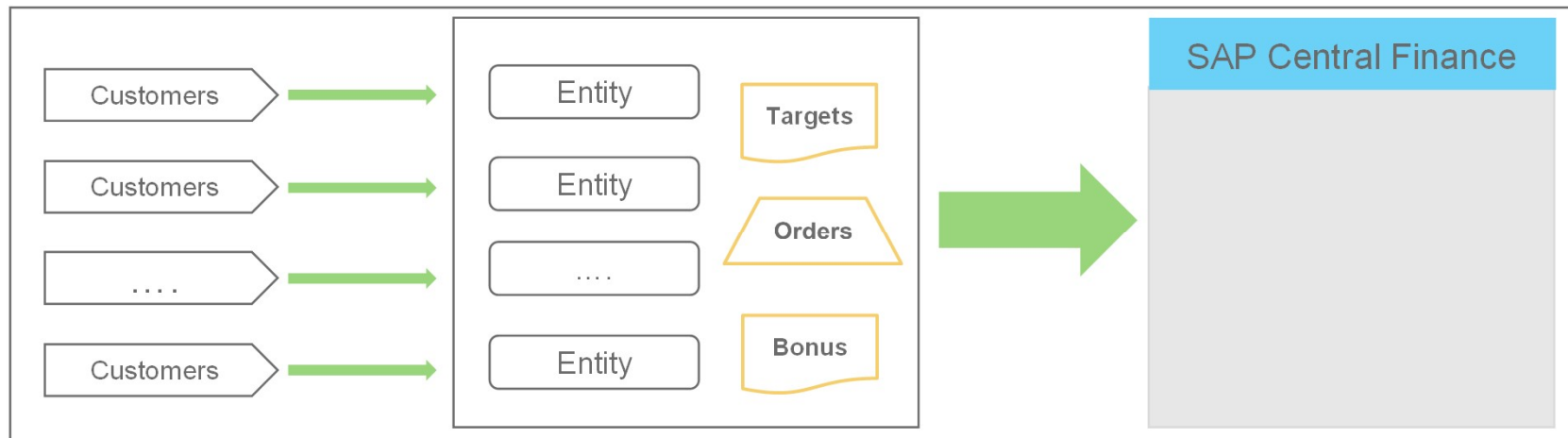
Anomaly, policy and fraud risk content

Real-time analysis, alerts, remediation

Agility and mature your operations

Machine Learning

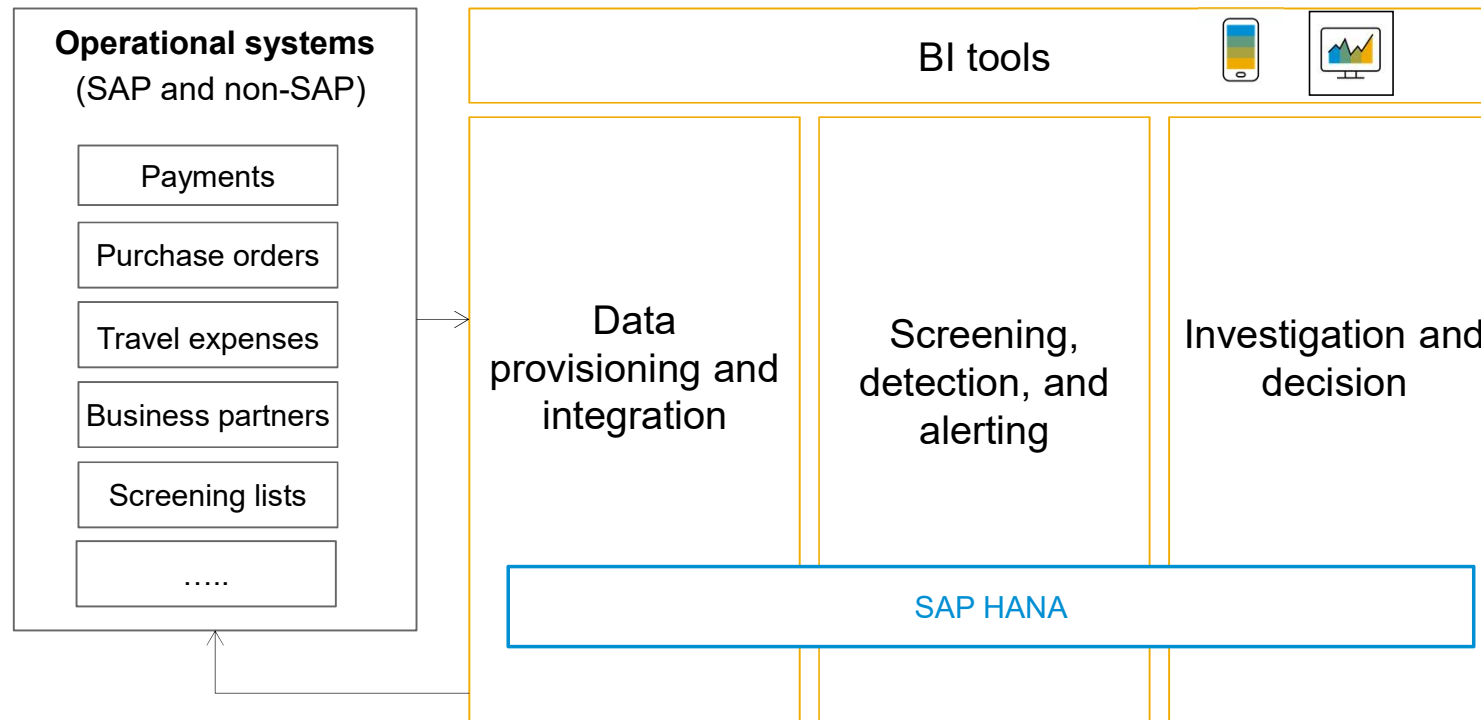
Comprehensive operational intelligence



High-performance application architecture

A flexible and powerful environment to increase process efficiency

High-performance processing of very large data volumes



Key benefits

Powerful data integration from **SAP and non-SAP** operational systems

Flexible modeling of screening and detection rules

Optionally provide feedback on status to external processing of operational business events (for example, suspend a suspicious or erroneous payment)

Enable Detection Rules

Predelivered content: examples



Vendor and service provider

*Frequent changes in the master data of a vendor
Vendor located in high-risk country*



Payments

*Smurfing on outgoing payments (split invoices)
Irregularities in payments to vendors*



Customer

*Customer located in high-risk country
Bank account and address in different countries
List screening (for example, PEP lists)*



Accounting

Accounting documents posted on exceptional dates



Purchasing

*Address screening
Conflicts of interest
Irregularities in purchase orders*



Invoices

*Irregularities in invoices
High-value keyword search*



Travel expenses

Irregularities in travel expenses



Compliance

*Foreign Corrupt Practices Act
International Anti-Bribery Act*

Alert and Investigation Management

The dashboard includes several key widgets:

- Manage Alerts**: Icon for alert management.
- Unassigned Alerts**: 385
- Tasks**: 17 Today
- Create Worklists**: Icon for creating worklists.
- My Worklists**: Icon for managing worklists.
- Start Ad Hoc Requests**: Icon for starting ad hoc requests.
- Manage Worklist Variants**: Icon for managing variants.
- Address Screening Hits**: Icon for address screening.

Alerts (7.827) Standard Layout *

Alert	Risk Rating	Person Responsible	ID 1
<input type="checkbox"/>			
<input type="checkbox"/>	🟡🟡🟡🟡	John Snow	EAA0000076
<input type="checkbox"/>	🟡🟡🟡🟡	Henry Miller	FF0KBD003
<input type="checkbox"/>	🟡🟡🟡🟡		FF0KBD002
<input type="checkbox"/>	🟡🟡🟡🟡		FF0KBD001
<input type="checkbox"/>	🟡🟡🟡🟡	John Snow	EAA0000072
<input type="checkbox"/>	🟡🟡🟡🟡		EAA0000070
<input type="checkbox"/>	🟡🟡🟡🟡		FF00000IU
<input type="checkbox"/>	🟡🟡🟡🟡		FF00000I4
<input type="checkbox"/>	🟡🟡🟡🟡		FF00000I6
<input type="checkbox"/>	🟡🟡🟡🟡	John Snow	EAA000006R
<input type="checkbox"/>	🟡🟡🟡🟡		EAA000006P
<input type="checkbox"/>	🟡🟡🟡🟡		EAA0000037
<input type="checkbox"/>	🟡🟡🟡🟡	Henry Miller	50685

Alert: 39473 Vendor Security Services

Info Detection Conflict of Interest **Network Analysis** Documentation Activity Decision Map

Network Diagram:

- Proven Fraud 31268
- Open Alert 39473
- US - Rank 19
- Alert ID: A006088451

Detection Strategy Execution

ZFRA_IA_PUR_COI
ZFRA_IA_PUR_COI2 / 3

Execution Date: 12.06.2017, 0... Threshold: 14 Risk Score: 51 Risk Value: EUR 5.431.67...

Detection Method	Result	Parameters	Evaluation
Predictive Rule for COI (ZFRA_IA_PUR_RGB_FA)	Risk Score: 18 Contribution: 35,2 % Risk Value 0,00	Automated Classification Threshold : 0,6200000000	
Percentage of Invoicing Approved by Single Person (ZFRA_IA_PUR_RGB_AS)	Risk Score: 17 Contribution: 33,3 % Risk Value: 5.431.674,00 Value: EUR	Approver Threshold (Percent) : 75	1 suspicious approver(s) found for vendor AGENCY00 in company code 1000
Growth Between 1st and 2nd Year Exceeds Threshold (ZFRA_IA_PUR_RGB_ZV)	Risk Score: 16 Contribution: 31,3 % Risk Value: 843.333,00 Value: EUR	Currency of Invoice Threshold Amount.: EUR Minimum Vendor Revenue: 5000,00 Vendor Growth between 1st and 2nd Year : 18	Growth is 427 % (threshold for growth is 18 %) Revenue: 1st year is 134.433,00 EUR; 2nd year is 708.900,00 EUR

AN_ALERT_VIEW

Document View Open Risks

Open Risks Summary:

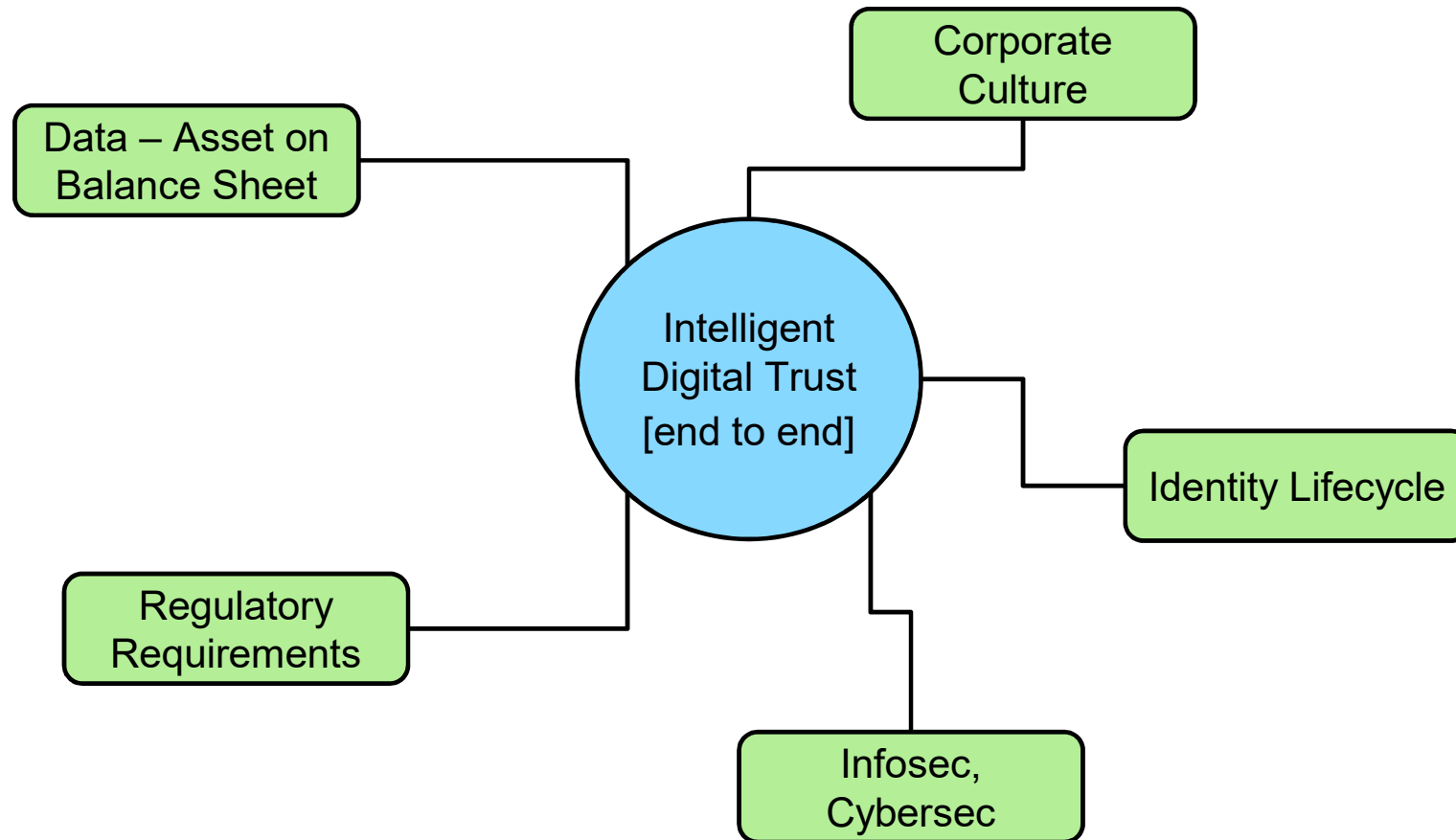
- Not started Alerts: 31
- InProgress Alerts: 16,165
- Outstanding Risks: 274B

Number of Open Alerts by Country

Risk Value by Country

Country: United States
Risk Value: 193.869,105.257.81

Intelligent Digital Trust with SAP

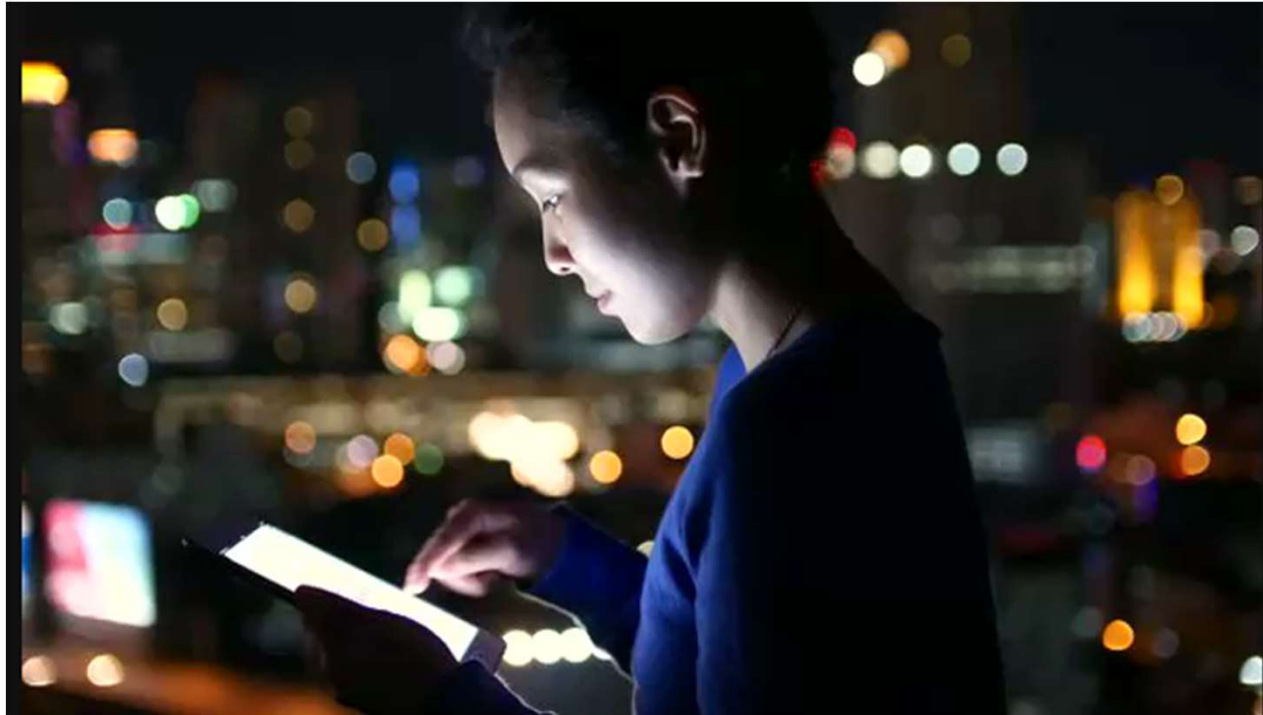


Intelligent Digital Trust with SAP

Examples

Happy Customers, 3rd
Parties, Employees

Speedy & Safe access to information, Close more customer tickets, Reduce customer hold time



Intelligent Digital Trust with SAP

Examples

Happy Customers, 3rd Parties, Employees

Speedy & Safe access to information, Close more customer tickets, Reduce customer hold time

Concept: Identity and Access Management

Works for SAP and non-SAP systems

Link to HR triggers, workflow & automation

Identity: employee, 3rd party, IoT

Machine Learning

Comprehensive operational intelligence



Mobile



Hyper Connectivity



Internet of Things



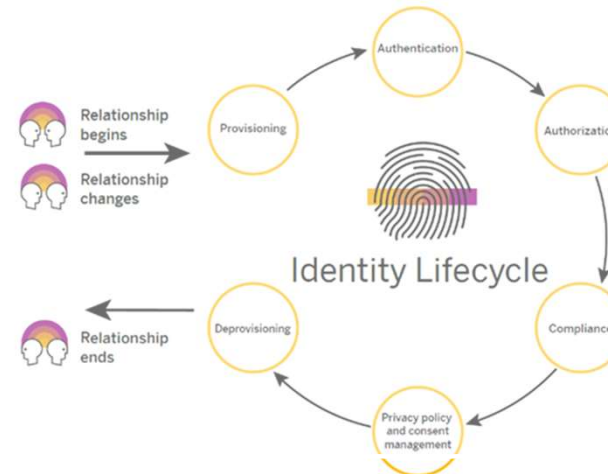
Big Data



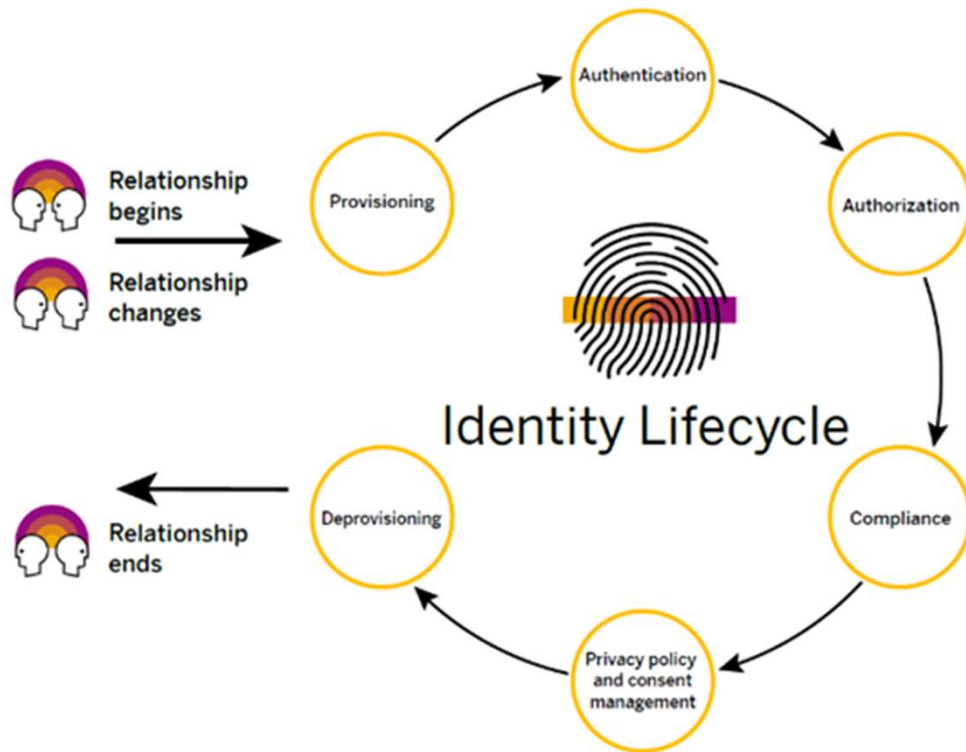
Cybersecurity



Cloud



SAP Solutions addressing Identity and Access Management



SAP Solutions (for SAP and non-SAP estate):

Identity Management: Creates a central, master, user identity directory to every other system. Link to AD etc. Provisioning users according to their current business roles (authorisation). Link to HR triggers.

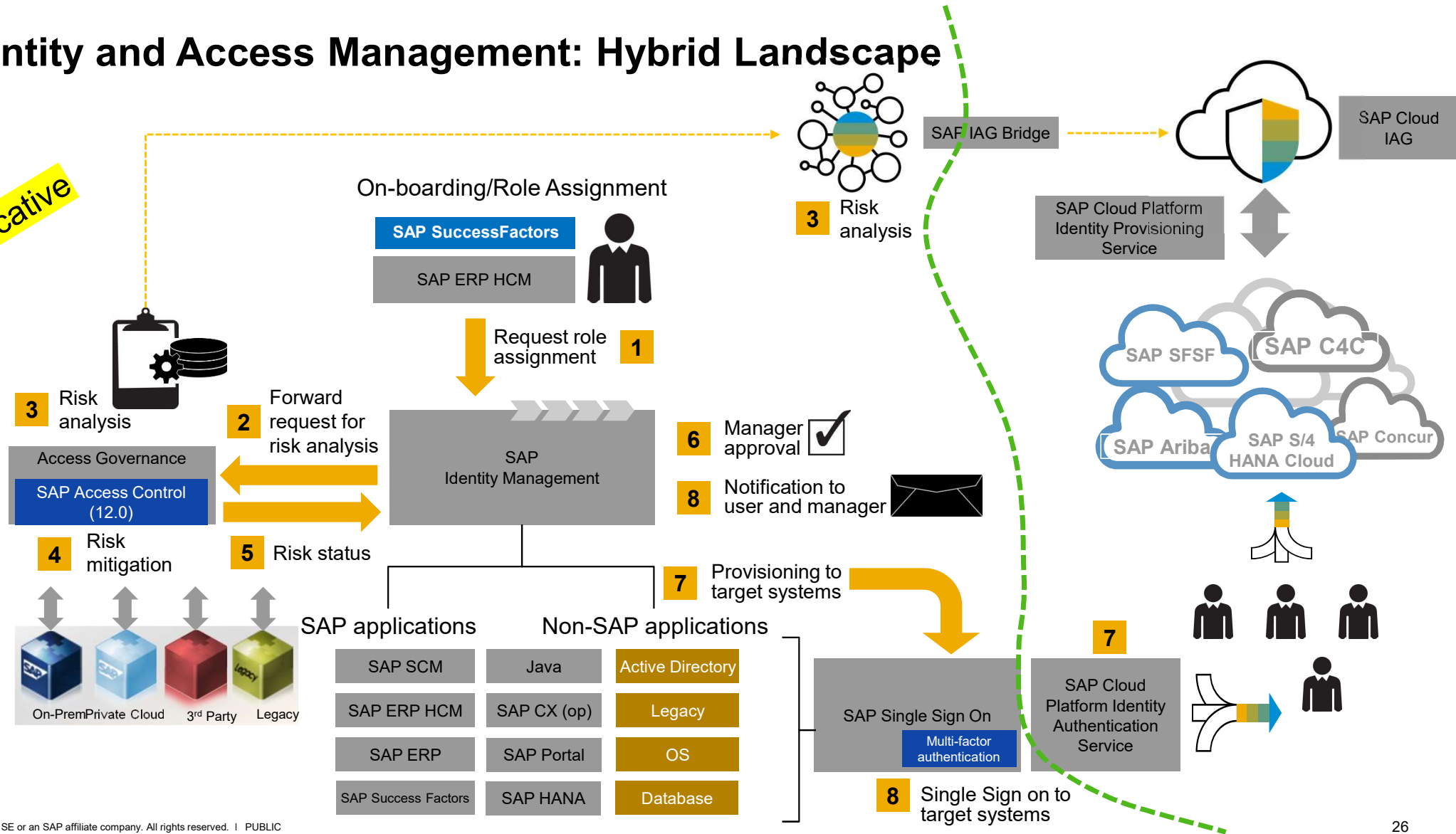
Single Sign On: Employees to log in to all applications from their initial, single, authentication

Access Control: Business risk analysis of provisioning users to applications. Also SOD, business role creep, emergency access. Link to HR triggers.

UI Masking, UI Logging: Mask what data SAP users can see on screens based on user role / permissions. Log and track what data users actually see. Lightweight to implement, doesn't impact underlying database & processes (e.g. reporting)

Identity and Access Management: Hybrid Landscape

Indicative



Intelligent Digital Trust with SAP

Examples

Sustainable, Resilient

Continued availability of critical resources, Adaptive, Agility, Relevance, Reliability, **Trust**, Cohesive



Intelligent Digital Trust with SAP

Examples

Sustainable, Resilient

Continued availability of critical resources, Adaptive, Agility, Relevance, Reliability, Trust, Cohesive

SAP Enterprise Threat Detection

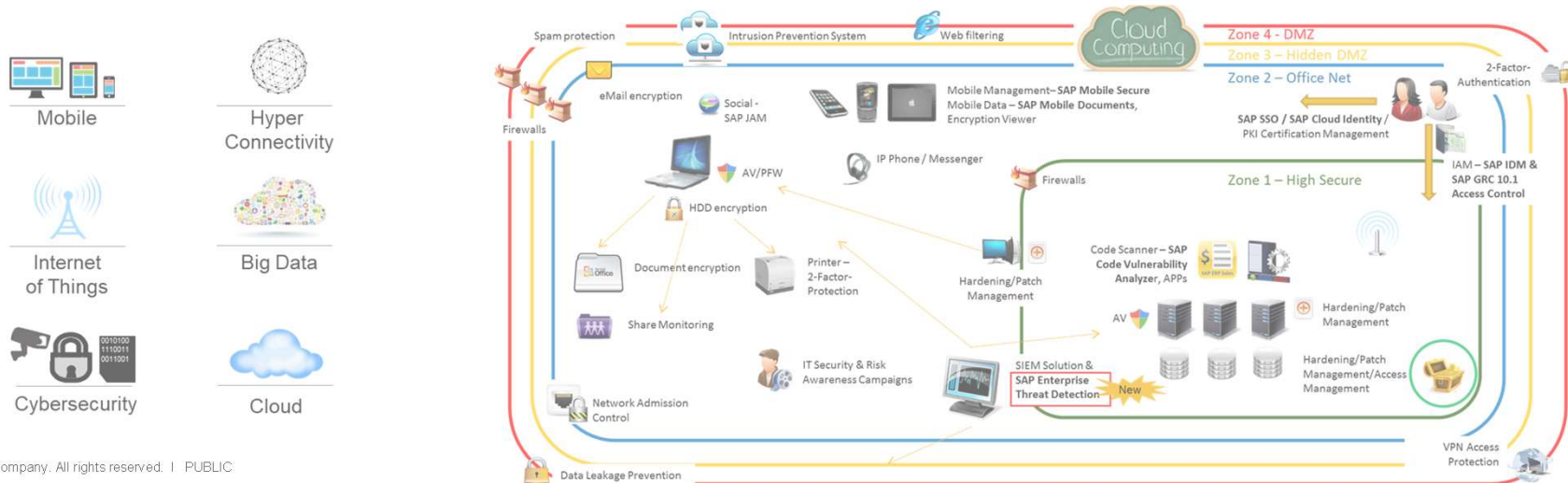
Big data, real time, complex analysis

Correlate across many platforms, user patterns

Value, Volume, Vulnerability: detective

Machine Learning

Comprehensive operational intelligence

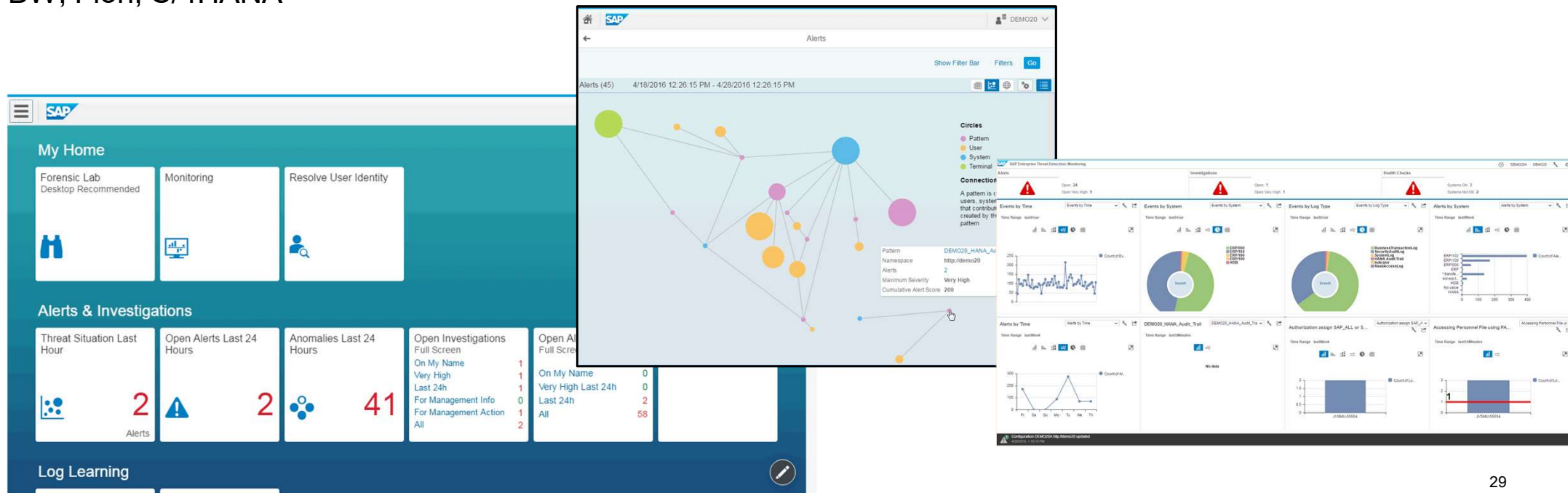


Intelligent Digital Trust with SAP

Examples

SAP Enterprise Threat Detection: Big data, real time, cybersecurity event analysis, detection and investigation. Correlates identities behaviour across multiple systems lifting out suspicious behaviour. Behavioural patterns over time, anomaly detection, semantic language. **Business level analysis** (not infrastructure) – where your IP is - and integrates with SIEM tools & SOC processes.

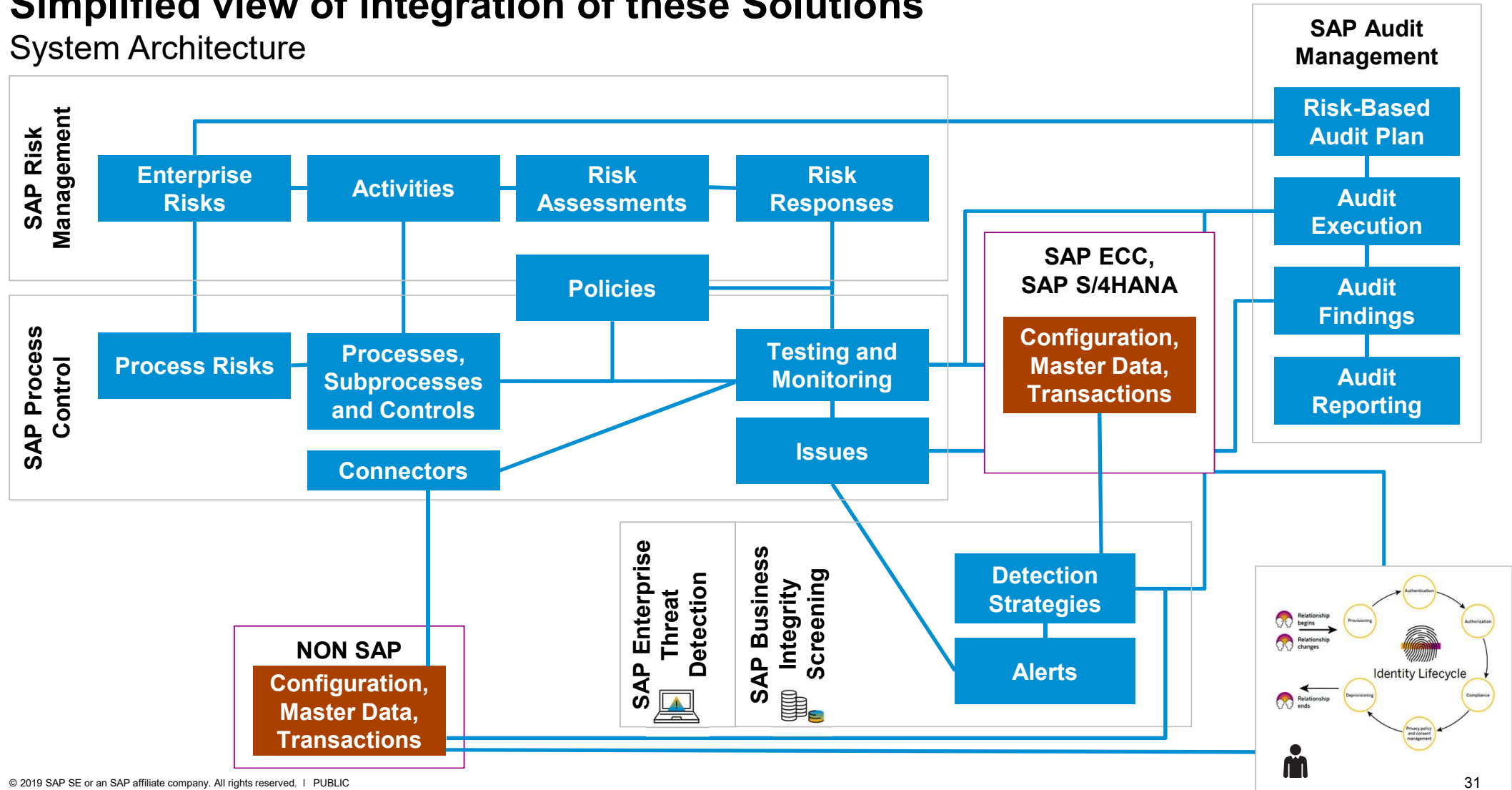
SAP UI Logging: Record which business data SAP users have viewed via: SAP GUI, WebDynpro, CRM, RFC, BW, Fiori, S/4HANA



All on One Page.....

Simplified view of integration of these Solutions

System Architecture



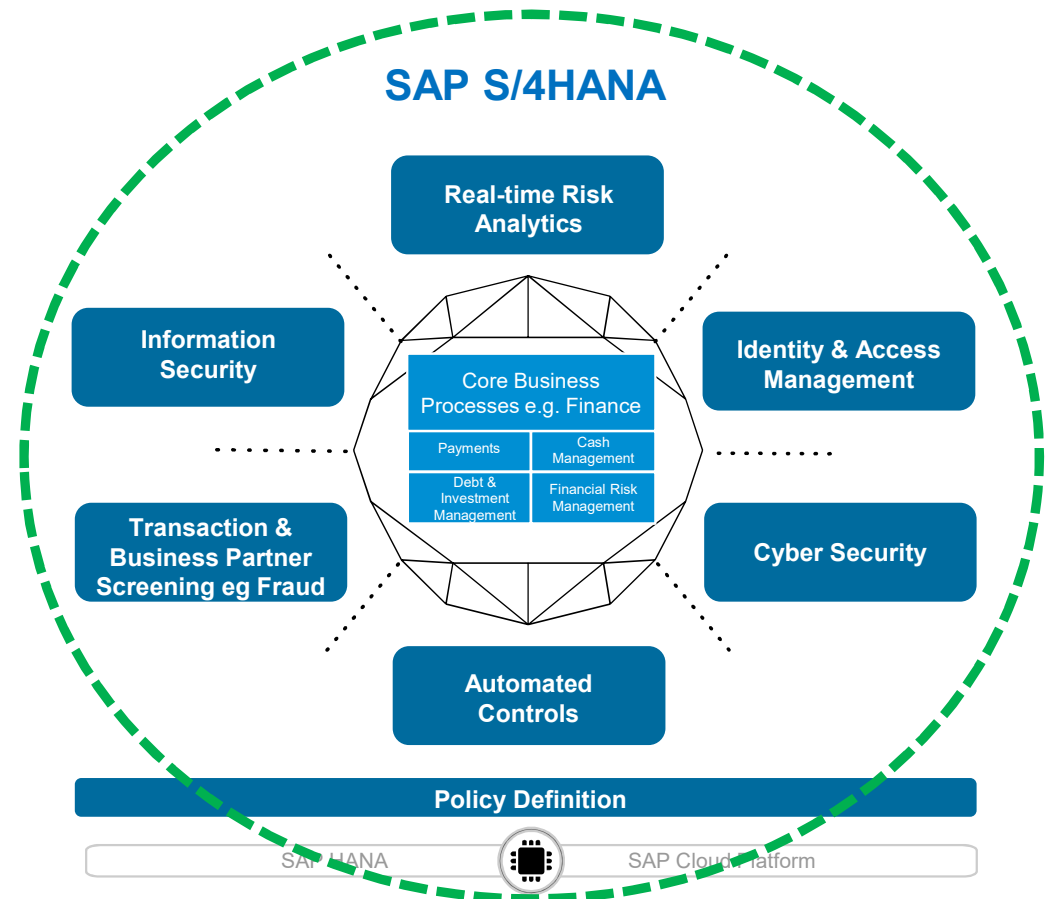
Simplified view of integration of these Solutions

Business Process Example

What organisation can continue to function without the data it holds about customers, products/services, initiatives, decision-making, performance etc?

Data is an intangible asset, like the accounting concept of goodwill.

Processes – e.g. financial – consume, create, change that data



Real Time Analytics
SAP Analytics Cloud
Digital Boardroom



3/6



Objectives Impacted

125.99



m EUR expected loss

12.68%



Incidents Evolution



GRC Blog

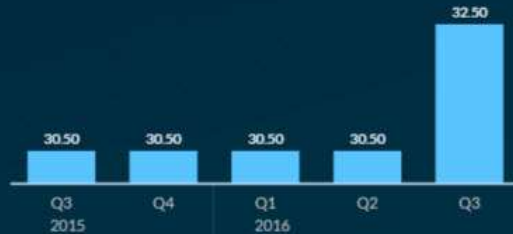
An SAPinsider Scoop: How Vivint Prepared... As we race towards one of our first event "majors" of the season, SAPinsider GRC and Financials in Las Vegas, March 21-24, I thought it would be a thought it would be a

GRC Tuesdays: How to Secure Compliance ... As time goes by, with many governments needing to reduce their budget deficits and rising national debts, collecting all tax revenue due is critical

GRC Tuesdays: Three Lines of Defense and ... The role of internal auditors is to provide "assurance," right? What does "assurance" look like? It looks like this—"In our opinion,

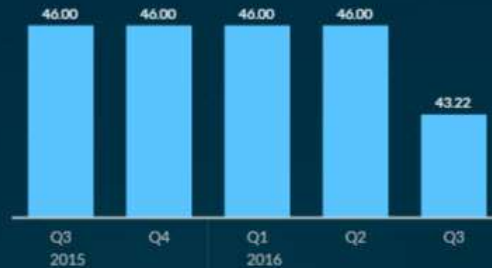
Minimize Factory Shutdown

6.56% ▲



Minimize Operating Cost

-6.04% ▼



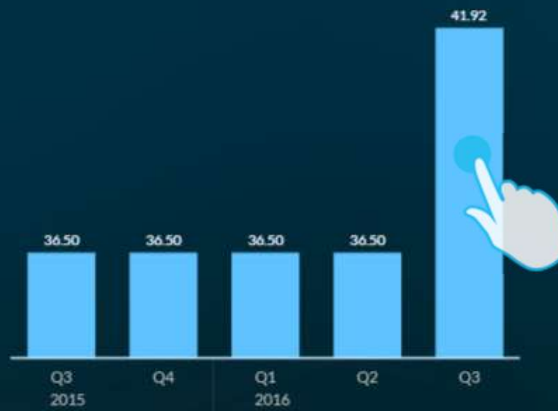
Ensure Worker Safety

0.00%



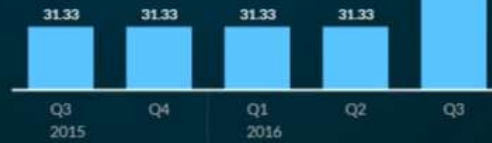
Maximize Product Revenue

14.85% ▲



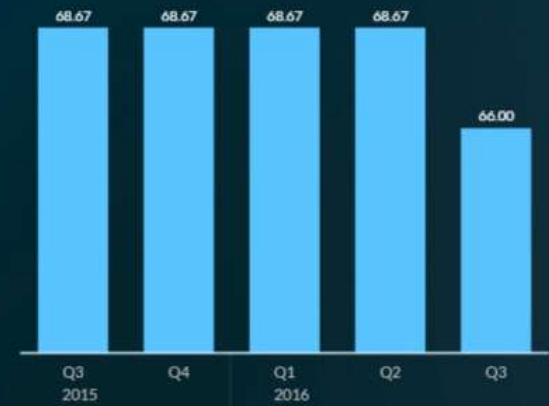
Maintain Regulatory Compliance

5.76% ▲



Prevent Fraud on Behalf of the Company

3.98% ▼



OBJECTIVE: Maximize product revenue

- Objective
- All
 - Maximize product revenue
 - Minimize operating cost
 - Ensure worker safety
 - Minimize factory shutdowns
 - Maintain regulatory compliance
 - Prevent fraud on behalf of the co...

- Organization
- All
 - Consumer Packaged Goods
 - Automotive
 - Mining
 - Life Sciences
 - Chemicals
 - Sales - EMEA

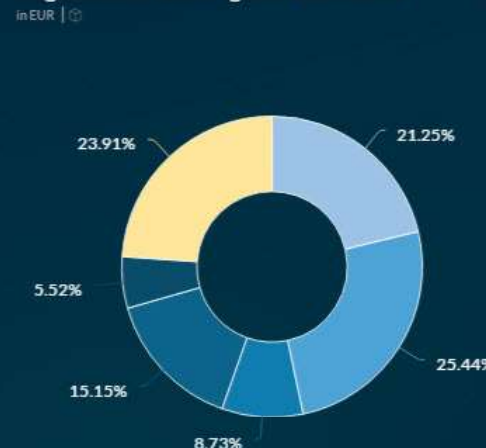
Show Inactive Values (6)

RISK ANALYSIS

Top 5 Risk Categories



Organization with Highest Risks Level



MITIGATION ANALYSIS

53.79
Completeness In%

57.85
Effectiveness In%



INCIDENTS ANALYSIS

Top Incidents



Incidents per Geo Location



OBJECTIVE: Maximize Product Revenue

RiskCategory

- All
- Clients, Products and Business P...
- Supply chain
- Improper Business or Market Pra...
- Information systems
- Corporate governance
- Interest rate risk
- Emplnt Practices and Workplace ...
- Liability lawsuits
- Execution, Delivery & Process M...
- Theft and fraud

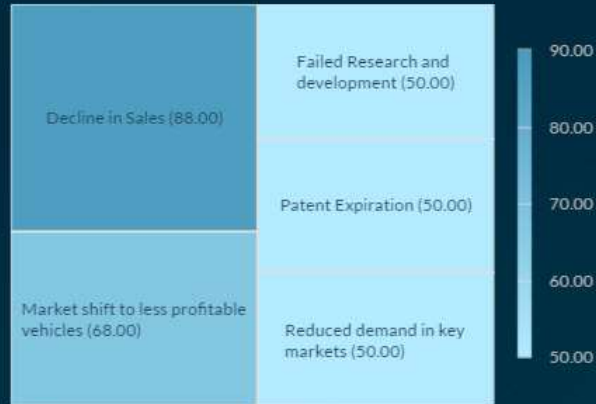
RiskOwner

- All
- Giovanni Ricci
- Jose Vega
- Isabelle Dupont
- Nandita Patel
- Antonio Ferrari
- Sam Hall
- Tomoko Sato

RISK DETAILS



Top 5 Risks

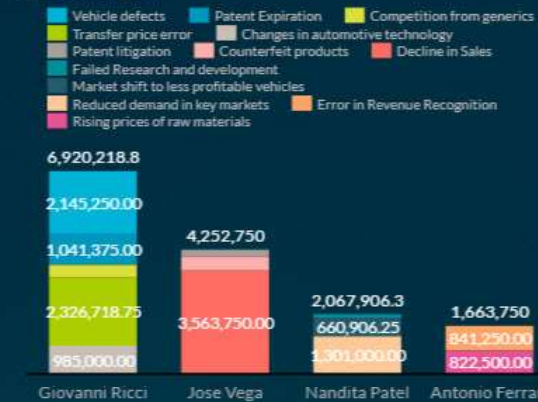


RISK OWNER



Residual Total Loss per Risk Owner

Objective filter



RESPONSE DETAILS



Full Mitigation Investment Required

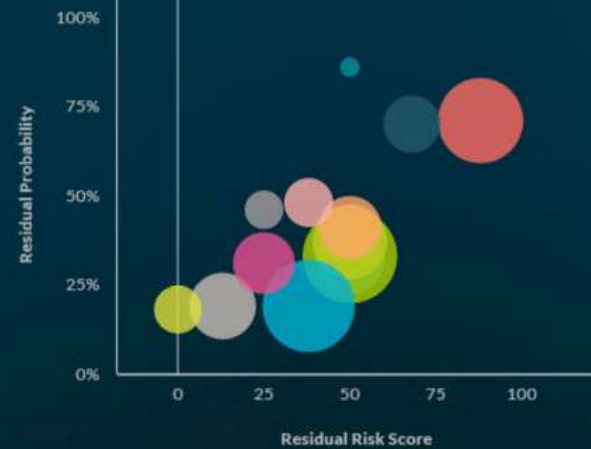
in EUR

19,458,869.24

Total cost for all risk responses

Threat level by individual risk

in % EUR | Objective filter



Risk Owner Details

in EUR | Objective filter

Risk Name	Risk Owner	Residual Loss (EUR)
Decline in Sales	Jose Vega	1,781,875.00
Changes in automotive technolo...	Giovanni Ricci	985,000.00
Market shift to less profitable ve...	Nandita Patel	660,906.25
Patent Expiration	Giovanni Ricci	1,041,375.00
Reduced demand in key markets	Nandita Patel	1,301,000.00
Patent litigation	Jose Vega	242,750.00
Transfer price error	Giovanni Ricci	2,326,718.75
Error in Revenue Recognition	Antonio Ferrari	841,250.00
Vehicle defects	Giovanni Ricci	2,145,250.00
Failed Research and development	Nandita Patel	106,000.00
Counterfeit products	Jose Vega	446,250.00

Mitigation Progress

in EUR



Thank you.

Contact information:

Dr. Neil Patrick

Director, COE GRC & Security (EMEA South)

neil.patrick@sap.com

+44 7833 480 248