SAP Workloads in der Cloud
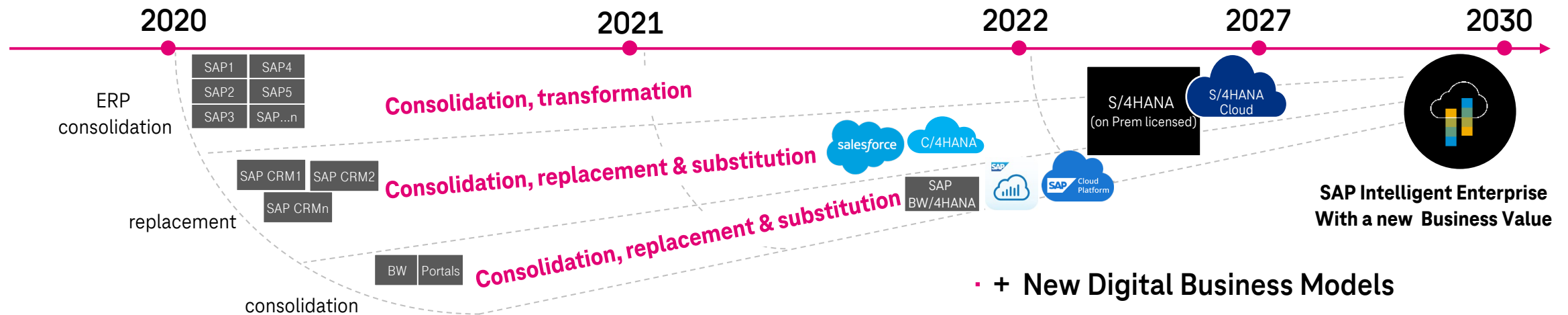
Lars Micheel, T-Systems

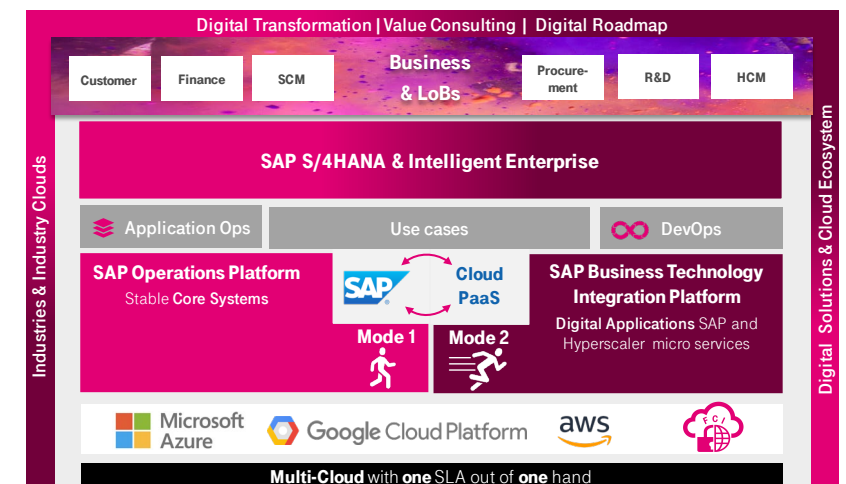**·T··Systems·**

Let's power
higher performance

SAP customers face a tremendous change of their IT landscape
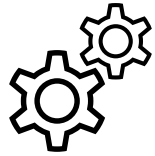
2020 — **2021** — **2022** — **2027** — **2030**

ERP consolidation

SAP1	SAP4
SAP2	SAP5
SAP3	SAP…n

Consolidation, transformation

replacement

| SAP CRM1 | SAP CRM2 |
| SAP CRMn | |

salesforce   C/4HANA

Consolidation, replacement & substitution

SAP BW/4HANA

S/4HANA (on Prem licensed)   S/4HANA Cloud

consolidation

| BW | Portals |

Consolidation, replacement & substitution

SAP Intelligent Enterprise With a new Business Value

· **+ New Digital Business Models**

Change dimensions		Client impact
Enterprise Architecture	➤	**SAP system consolidation** leads to large, but central SAP S/4 instance(s) deployed on hyperscalers
Cloud and SaaS	➤	**SAP product strategy** strongly **cloud and SaaS driven**, increased role of best of breed/SaaS (non-SAP) applications
Microservices	➤	**New 'micro applications'** based on hybrid PaaS, cloud native and SAP services

Digital Transformation | Value Consulting | Digital Roadmap

| Customer | Finance | SCM | **Business & LoBs** | Procure-ment | R&D | HCM |

Industries & Industry Clouds

SAP S/4HANA & Intelligent Enterprise

| ▣ Application Ops | Use cases | ∞ DevOps |

| **SAP Operations Platform** Stable **Core** Systems | SAP ⇄ Cloud PaaS | **SAP Business Technology Integration Platform** Digital Applications SAP and Hyperscaler micro services |
| | Mode 1   Mode 2 | |

Microsoft Azure   Google Cloud Platform   aws

Digital Solutions & Cloud Ecosystem

Multi-Cloud with **one** SLA out of **one** hand

2

Three main aspects drive Business Decisions

Business Continuity

During **transformation** & **operation**

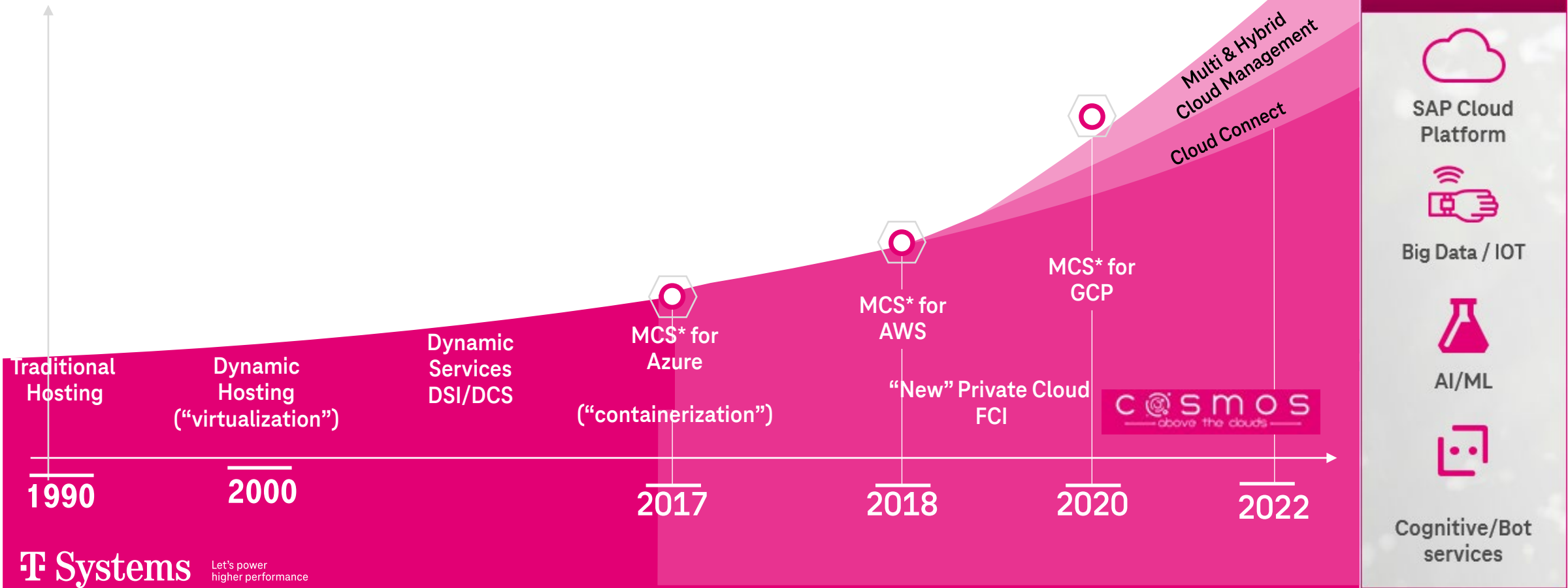## Data Privacy

In **platform** & **operation**

Digitalization

New Business Models

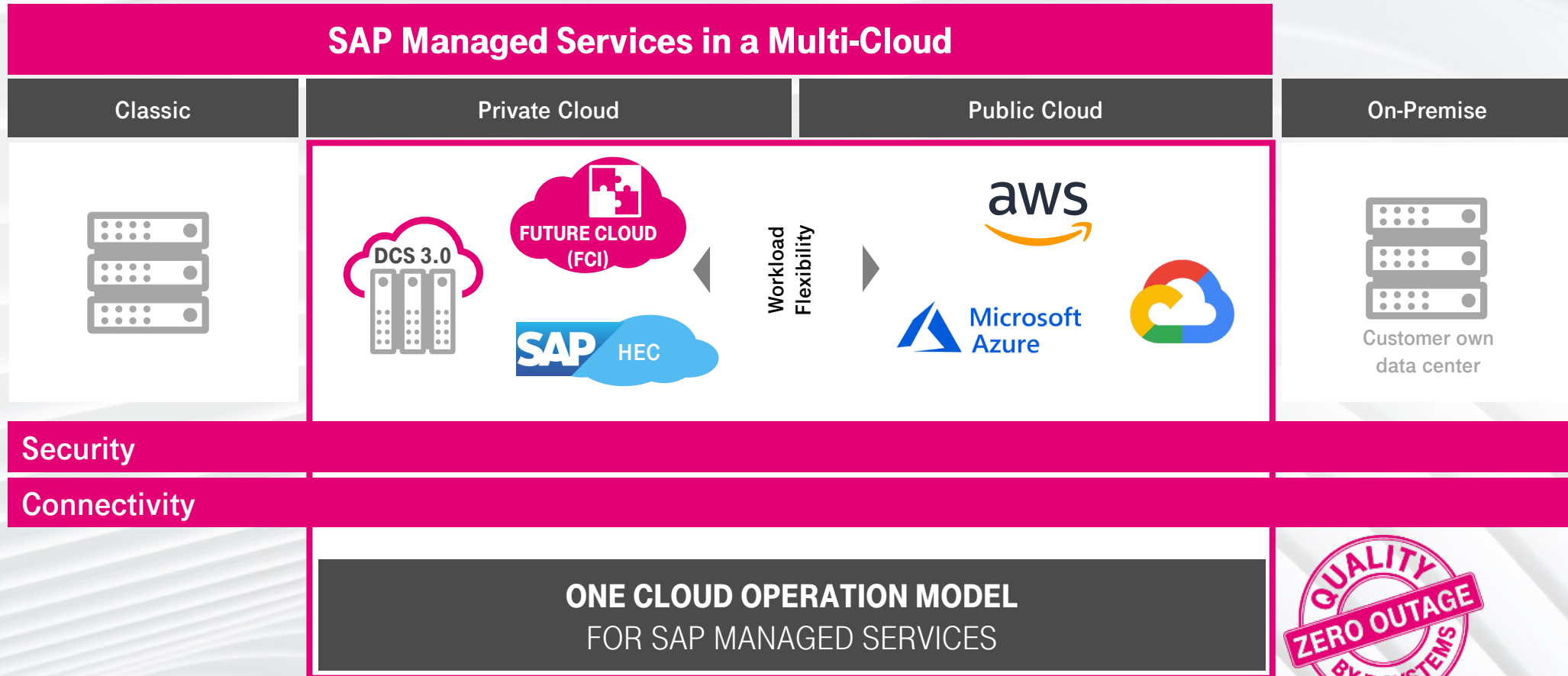Leverage **cloud services** & **integration**

T-Systems – adpated operational model Hosting Evolution for SAP Workloads
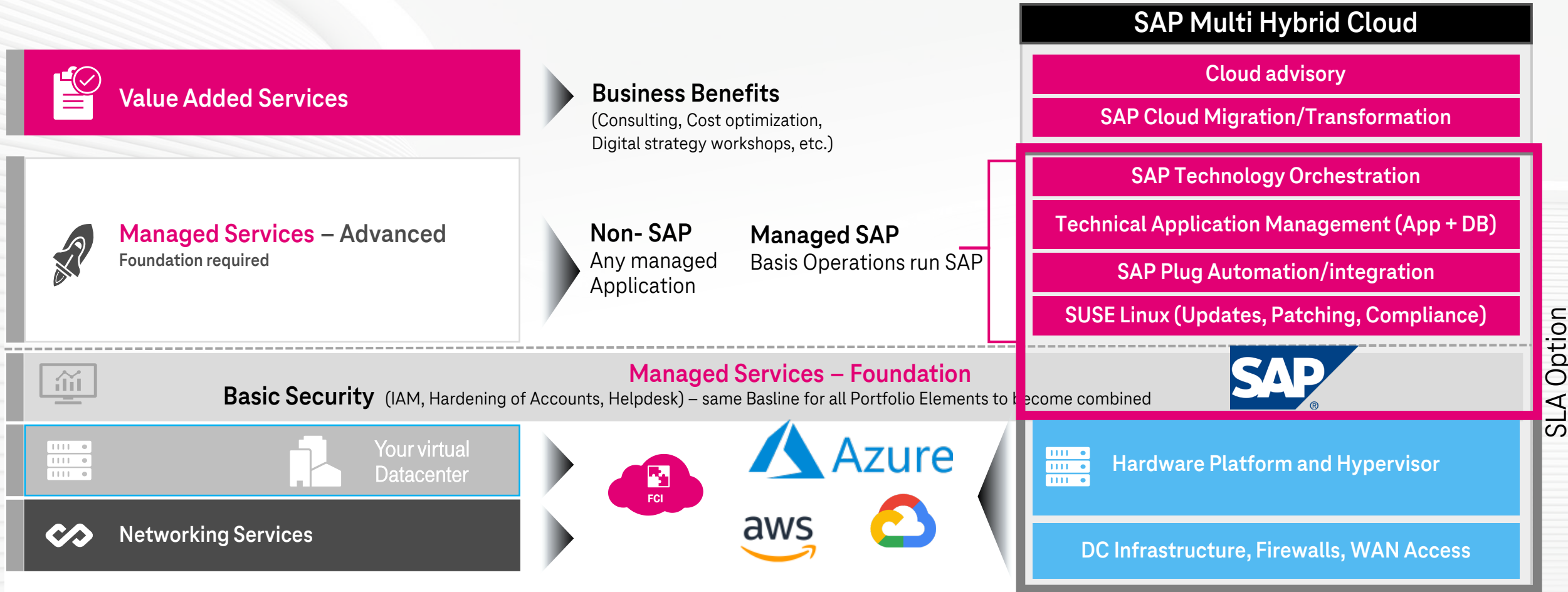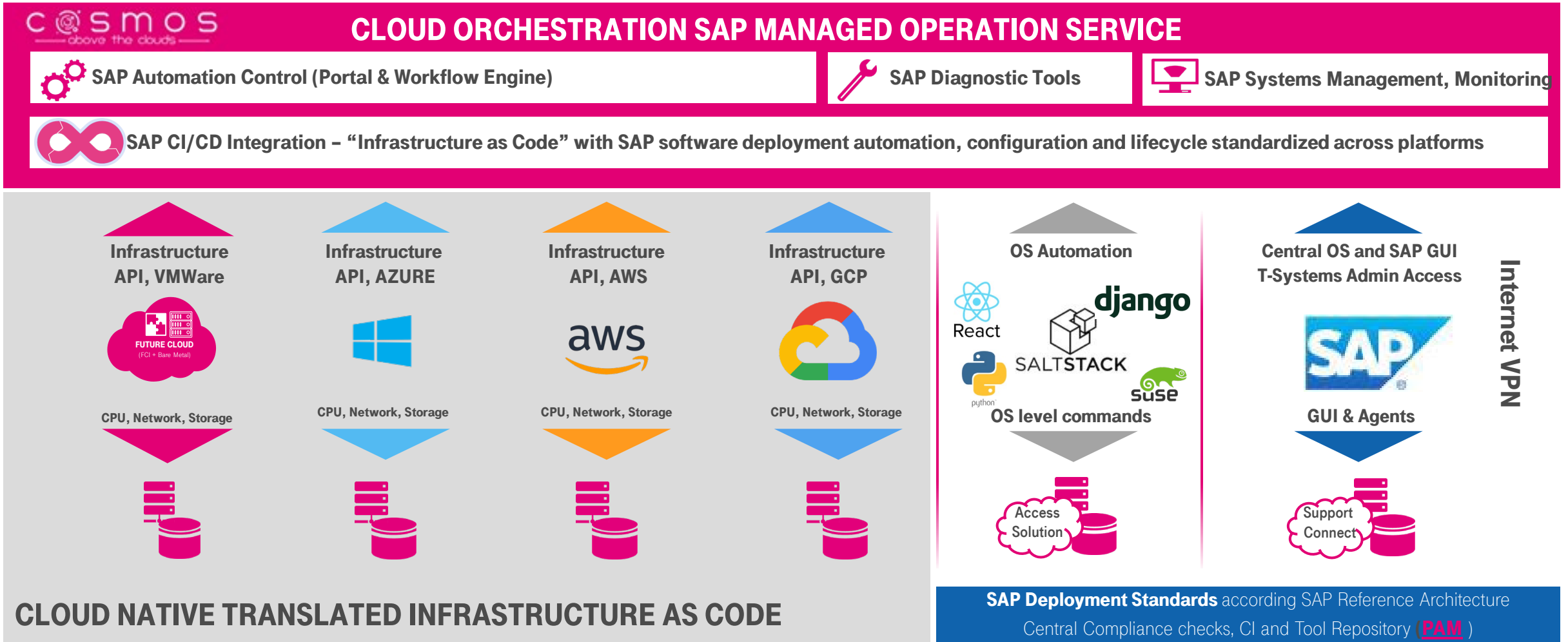
Multi & Hybrid Cloud Management

Cloud Connect

MCS* for GCP

MCS* for AWS

"New" Private Cloud FCI

MCS* for Azure

("containerization")

Dynamic Services DSI/DCS

Dynamic Hosting ("virtualization")

Traditional Hosting

cosmos
above the clouds

1990　　2000　　2017　　2018　　2020　　2022

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Digital/Innovation Adoption

SAP Cloud Platform

Big Data / IOT

AI/ML

Cognitive/Bot services

*Managed Cloud Services
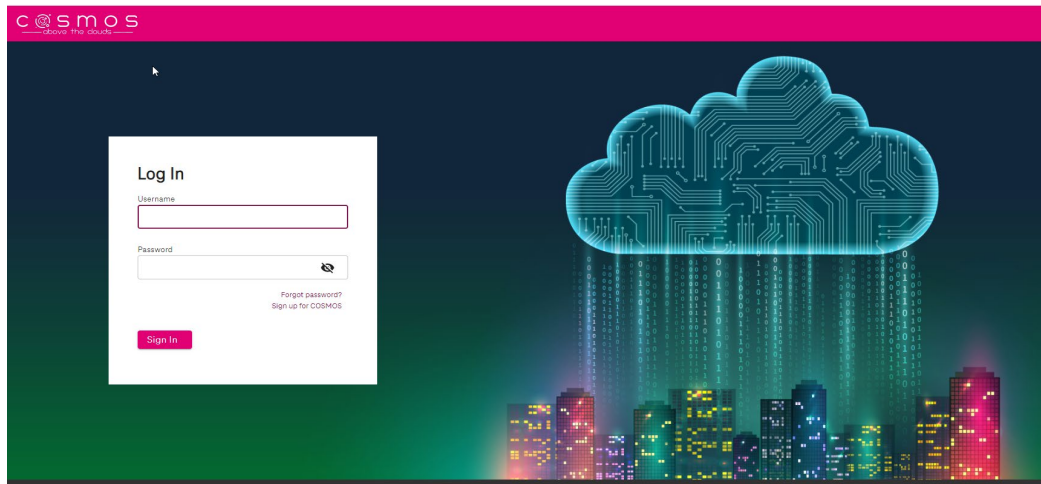
SAP Managed Services in a Multi-Cloud environment

T-Systems Multi Hybrid Cloud combine SAP and Non- SAP Offerings

Value Added Services

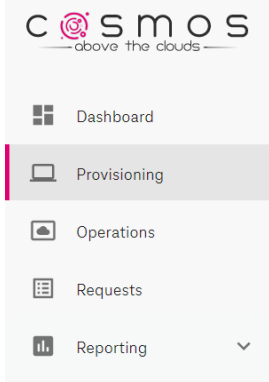**Managed Services – Advanced**
Foundation required

SAP Multi Hybrid Cloud

Cloud advisory

SAP Cloud Migration/Transformation

SAP Technology Orchestration

Technical Application Management (App + DB)

SAP Plug Automation/integration

SUSE Linux (Updates, Patching, Compliance)

Business Benefits
(Consulting, Cost optimization, Digital strategy workshops, etc.)

Non- SAP
Any managed Application

Managed SAP
Basis Operations run SAP

Managed Services – Foundation

Basic Security (IAM, Hardening of Accounts, Helpdesk) – same Basline for all Portfolio Elements to become combined

SAP

Your virtual Datacenter

Azure

FCI

aws

Hardware Platform and Hypervisor

DC Infrastructure, Firewalls, WAN Access

Networking Services

SLA Option

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Managed SAP Services Overview

6

18.06.20

SAP Managed Services Platform – SAP AO Services Multi-Cloud Framework

c@smos *above the clouds*

CLOUD ORCHESTRATION SAP MANAGED OPERATION SERVICE

SAP Automation Control (Portal & Workflow Engine)

SAP Diagnostic Tools

SAP Systems Management, Monitoring

SAP CI/CD Integration – "Infrastructure as Code" with SAP software deployment automation, configuration and lifecycle standardized across platforms

Infrastructure API, VMWare	Infrastructure API, AZURE	Infrastructure API, AWS	Infrastructure API, GCP	OS Automation	Central OS and SAP GUI T-Systems Admin Access
FUTURE CLOUD (FCI + Bare Metal)		aws		React django SALTSTACK suse	SAP
CPU, Network, Storage	CPU, Network, Storage	CPU, Network, Storage	CPU, Network, Storage	OS level commands	GUI & Agents
				Access Solution	Support Connect

Internet VPN

CLOUD NATIVE TRANSLATED INFRASTRUCTURE AS CODE

SAP Deployment Standards according SAP Reference Architecture
Central Compliance checks, CI and Tool Repository (PAM)

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T-Systems Cloud for SAP® Solution Automated Build Service

- The portal organizes cloud endpoints in tenants, called Business-Groups

- Support simple and complex SAP Deployments with IaaS tailored **Reference designs** supporting most usual use cases

- Automation beyond the Infrastructure including SAP deployment

- SAP Templates Available

All Reference Designs aligned with SAP on Hyperscaler Reference Architecture!

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Automated SAP Operations for standards Tasks

- True Multicloud **Operation Model** for SAP Workloads – support SAP Hana **and** AnyDB!
- Single Point of control independed on which Infrastructure are Systems are running (private or public)
- Intelligent SAP Monitoring, Automation, Support connection and all Security settings out of the box delivered!

Why provided by T-Systems
SAP Multi and Hybrid Cloud

Operation

- Customer Self Services with **standard service catalog** for support of individual DEVOPS setups
- Managed SAP services in Europe or Offshore operation models according legal requirements
- SAP-Workload monitoring with integration in **AIOps** Framework, with over twenty years best practices as code
- Standard packages for

Technology

- **MultiCloud orchestration** tooling for private cloud and AWS, GCP and Azure
- **Central point of control** to run SAP landscapes
- Efficient Backup tooling for AnyDB and HANA (XBR)
- **Own Private Cloud** solution
- MultiCloud **Connectivity platform** to support different platforms
- Native **Infrastructure as Code** adapted to the specific IaaS stack

Security & Compliance

- Combination of different **security measures** in place
- Secure SAP landscape setup **per default**
- Additional security features possible
- **Comply with global norms and standards: ISO 9001, ISO 27001, ISO 27017, ISO, 27018, ISO 14001**
- Secure admin access via **SOC1/2 process**
- Experience in **GxP** operation

IT Service Management

- ITSM in different variations and locations available
- **Transparence cost** control and management
- Service consumption via **Standard Service catalog**
- **Flexible** Service level up or down scaling
- **Integrated** Service Desk service
- ServiceNow integration available