Blockchain for Cross-Company Process Automation in Construction

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April 29th 2021

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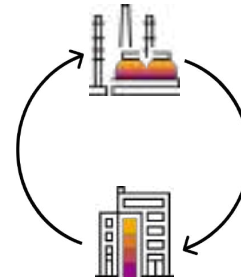
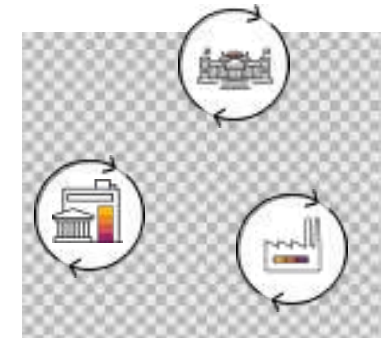# Our point of view: Blockchain in the Enterprise

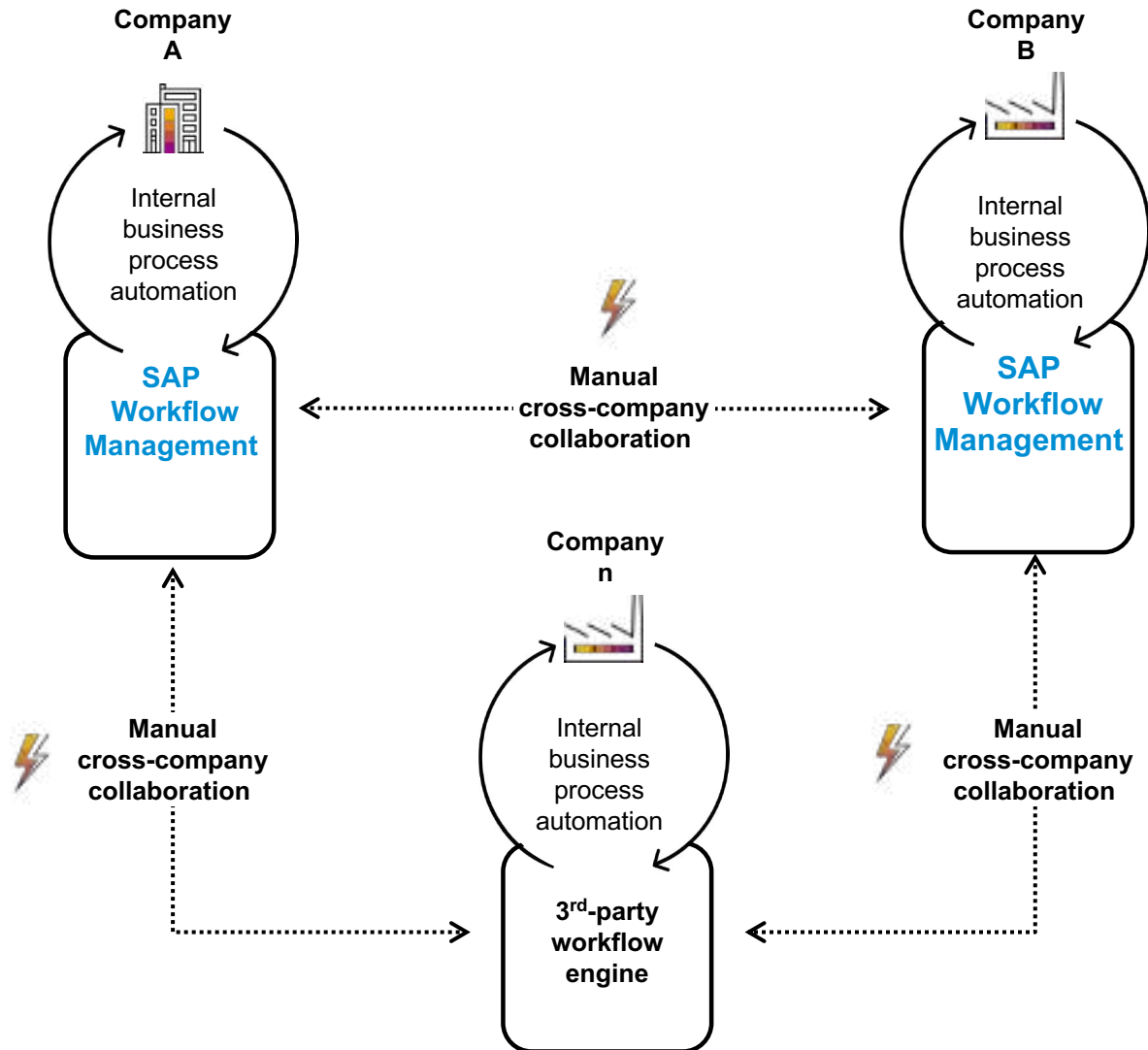**Enterprise Solution** = **Shared Ledger Technology** + **Cross-company business processes** + **Open business collaboration networks**

The adaption of the blockchain concept for the intelligent enterprise to enable open business collaboration across company boundaries in decentralized business networks.

SAP Cross-Company Workflow

Missing digital process automation for decentralized cross-company collaboration

Company A

Internal business process automation

SAP Workflow Management

Manual cross-company collaboration

Company B

Internal business process automation

SAP Workflow Management

Manual cross-company collaboration

Company n

Internal business process automation

3rd-party workflow engine

Manual cross-company collaboration

Today's cross-company workflow collaboration in decentralized business networks

Manual and tedious orchestration of business process
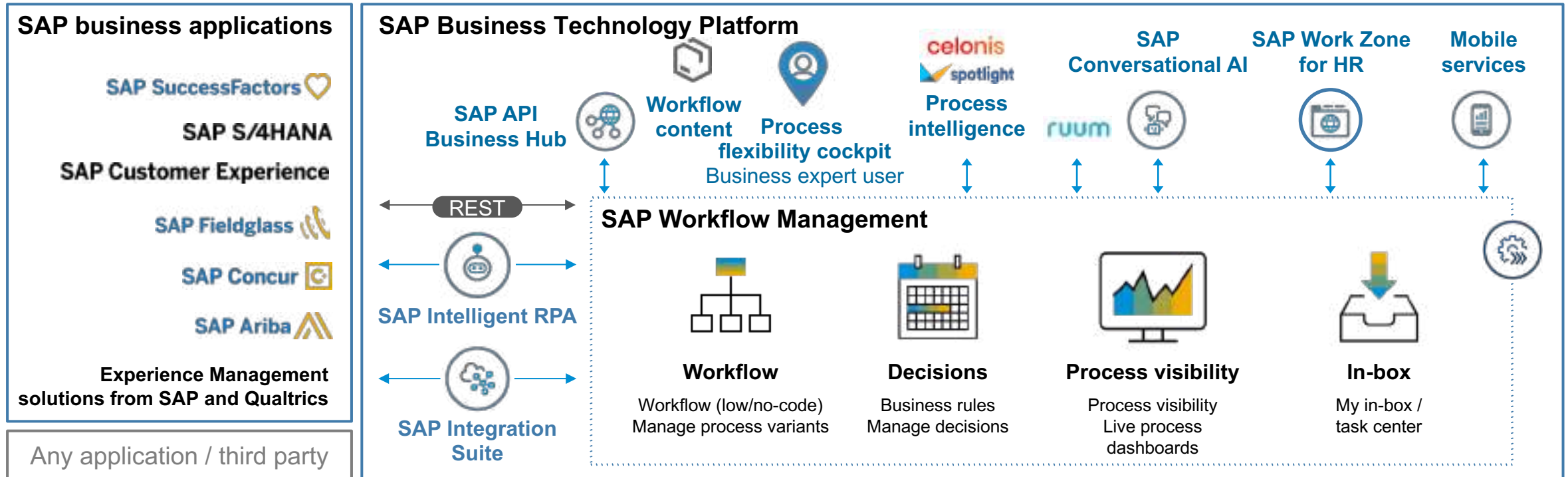
Errors and costs

Complexity and inflexibility when integrating with internal processes

Inefficiencies and delays

No verifiable and consistent end-to-end documentation of collaboration activities

Disputes and audits

Big picture in the SAP software landscape: SAP Workflow Management

SAP business applications

SAP SuccessFactors

SAP S/4HANA

SAP Customer Experience

SAP Fieldglass

SAP Concur

SAP Ariba

Experience Management solutions from SAP and Qualtrics

Any application / third party

SAP Business Technology Platform

celonis spotlight

SAP Conversational AI

SAP Work Zone for HR

Mobile services

SAP API Business Hub

Workflow content

Process flexibility cockpit
Business expert user

Process intelligence

ruum

REST

SAP Intelligent RPA

SAP Integration Suite

SAP Workflow Management

Workflow
Workflow (low/no-code)
Manage process variants

Decisions
Business rules
Manage decisions

Process visibility
Process visibility
Live process dashboards

In-box
My in-box /
task center

Do more with less
Empower employees through process automation, freeing up their time to do more meaningful work
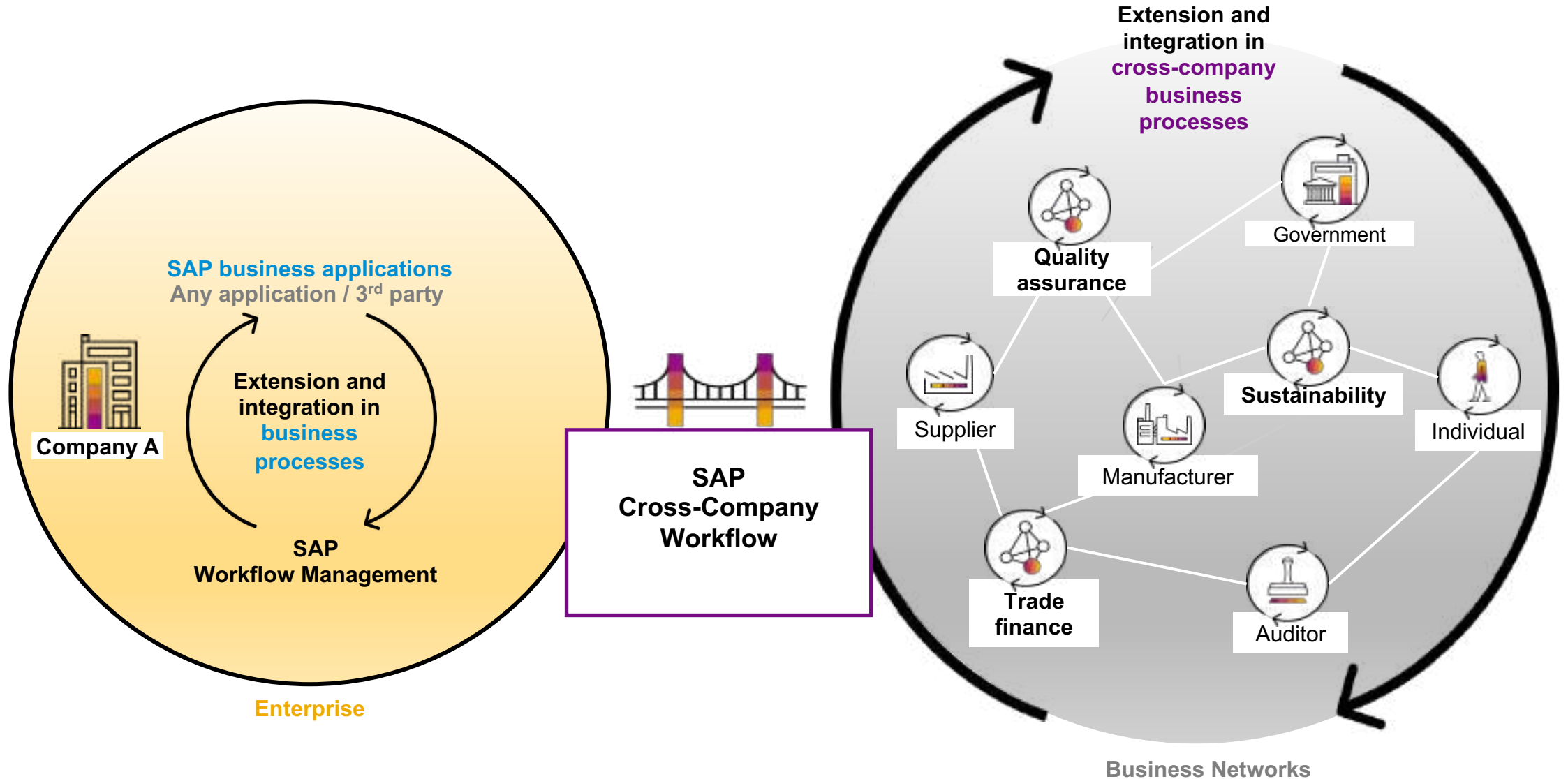
Enable compliance
Comply with policies and regulations through clear responsibilities and audit trails
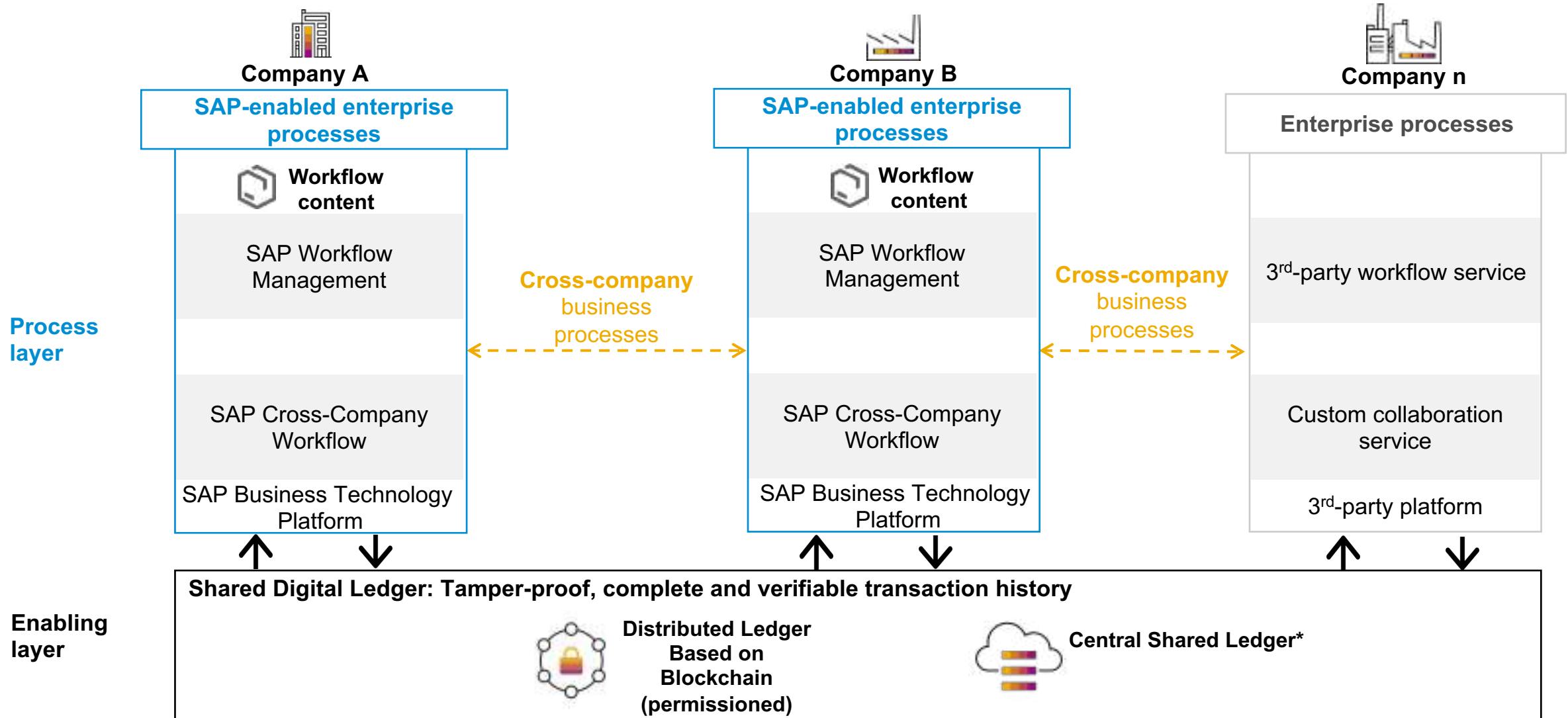
Flexibly adapt to new requirements
Tailor business processes to business needs, support new business model innovations, and fix broken processes for business resilience

SAP Cross-Company Workflow

SAP business applications
Any application / 3rd party

Extension and integration in business processes

SAP Workflow Management

Company A

Enterprise

SAP Cross-Company Workflow

Extension and integration in cross-company business processes

Quality assurance

Government

Sustainability

Individual

Supplier

Manufacturer

Trade finance

Auditor

Business Networks

E2E orchestration of workflows across company and system boundaries

Company A

Company B

Company n

Process layer

SAP-enabled enterprise processes	SAP-enabled enterprise processes	Enterprise processes
Workflow content	**Workflow content**	
SAP Workflow Management	SAP Workflow Management	3rd-party workflow service
Cross-company business processes	*Cross-company business processes*	*Cross-company business processes*
SAP Cross-Company Workflow	SAP Cross-Company Workflow	Custom collaboration service
SAP Business Technology Platform	SAP Business Technology Platform	3rd-party platform

Enabling layer

Shared Digital Ledger: Tamper-proof, complete and verifiable transaction history

Distributed Ledger Based on Blockchain (permissioned)

Central Shared Ledger*

*Lab Preview: Currently explored by SAP Innovation Center Network

Key business values

Provide a [pragmatic and non-invasive integration point](#) from business workflows to cross-company task collaborations, so that customers do not need to replace their existing systems to gain value from this collaboration.

[Orchestrate and automate](#) the business workflows collaboration between several independent organizations in a business network based on collaboration task templates.

[Document](#) the cross-company collaboration in a transparent, consistent, complete and tamperproof ledger that is accessible by all participants of a specific cross-company process.

Cross-company workflow collaboration scenarios
Send and process cross-company tasks from local workflows
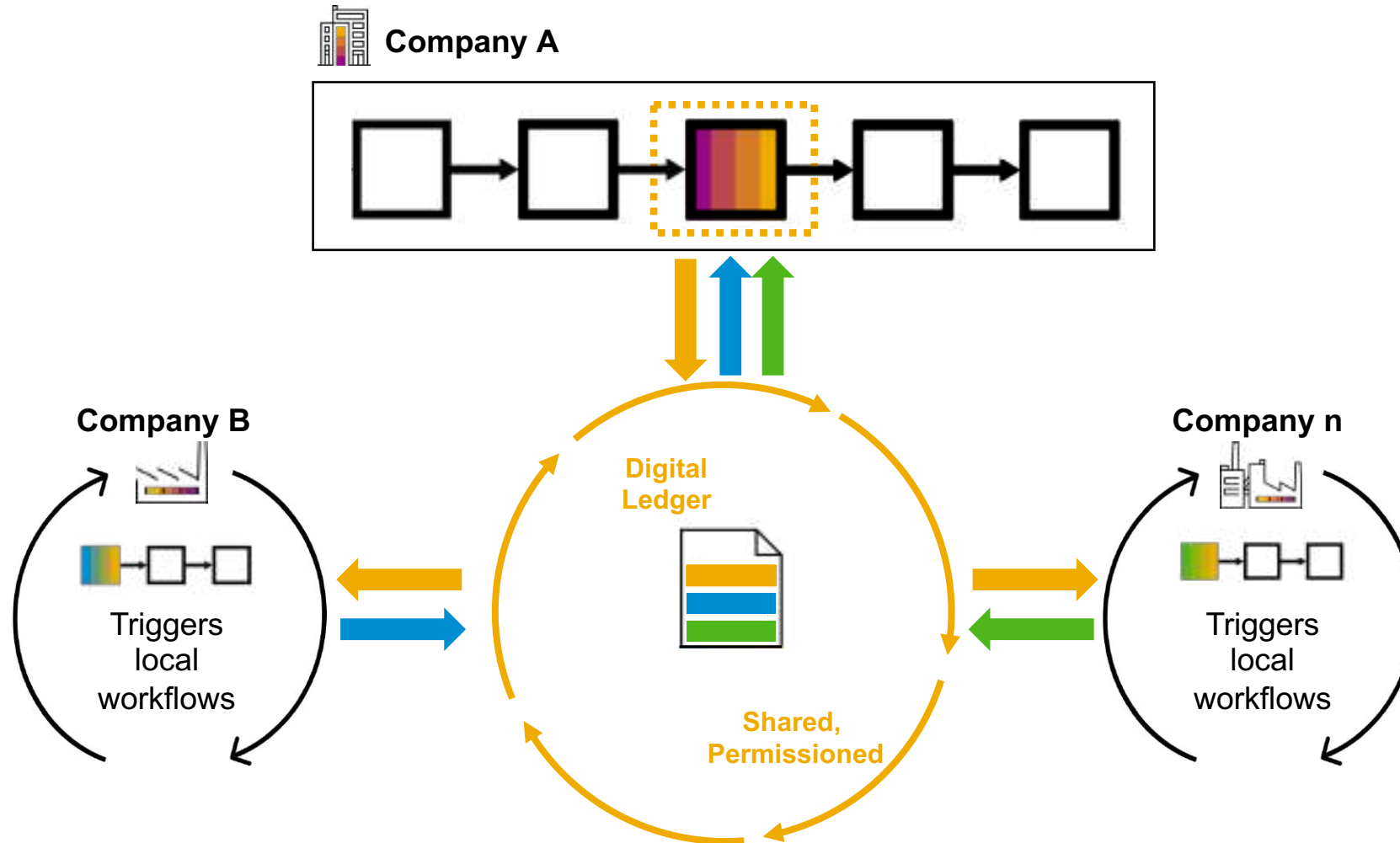
Use cases across different lines of business and industries

Collaborative product
development

Dock Appointment
Scheduling

Personalized
Medicine

Cross public agency
approval tracking

Work order
collaboration

Complex project
orchestration

Digitization of Construction Projects with Cross-Company Workflow Collaboration
Pilot

HS2 trains will connect around 30 million people.

Digitization of End-to-End Processes in Construction
Enhancing No-Code Workflow Engines Shared Ledger Technologies

Stakeholders

| HS2 Client | Design and services | Supply team | Haulers | Contractor | T2 Contractor |
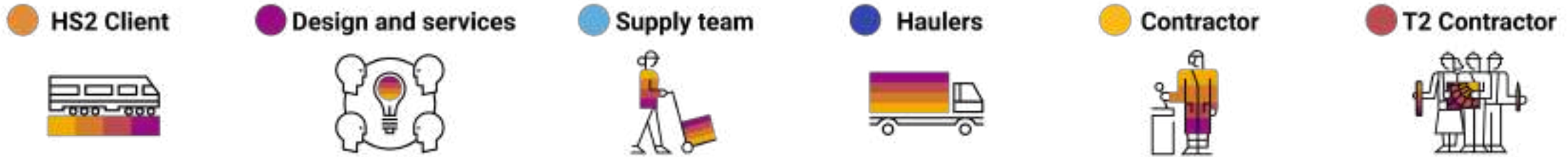
Shared Digital Ledger

Process steps

Project definition agreed → 3D Digital Model → Design evaluation and review complete → Purchase order for steel panel raised → Manufacturer confirms build and PO → Steel panel created to design spec → Steel panel delivered to construction holding site → Contractor accepts delivery of steel panel → Bar code scanned, which releases payment → Payment released
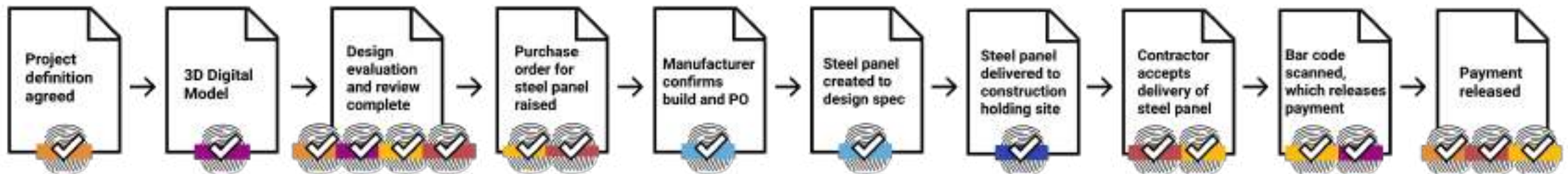
Demo

Blockchain in Construction

Join us in reinventing cross-company business processes through collaboration

Customer engagement initiative

Explore the business value that can be created by integrating distributed ledger technology with low-code workflow services.

Share your feedback with us and help us to define value-added features that should be supported by the SAP Cloud Platform.

Test the SAP Cloud Platform Cross-Company Workflow Collaboration service.

Engage with us and sign-up

cross-company-workflow@sap.com

Thank you.

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