Digital Transformation of Supply Chains

Getting Sourcing, Supplier Management and Supply Chain on the Same Page

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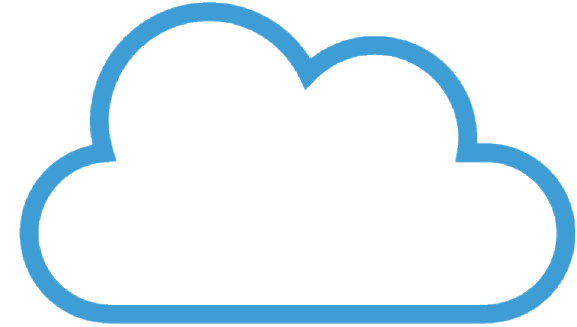
Digital Disruption is here

96% are influenced by social media and reviews before buying

Sophisticated customers expect 100% service experience

83% of companies use public cloud, 51% workload through cloud today

Data Explosion: 90% of data generated in last 2 years

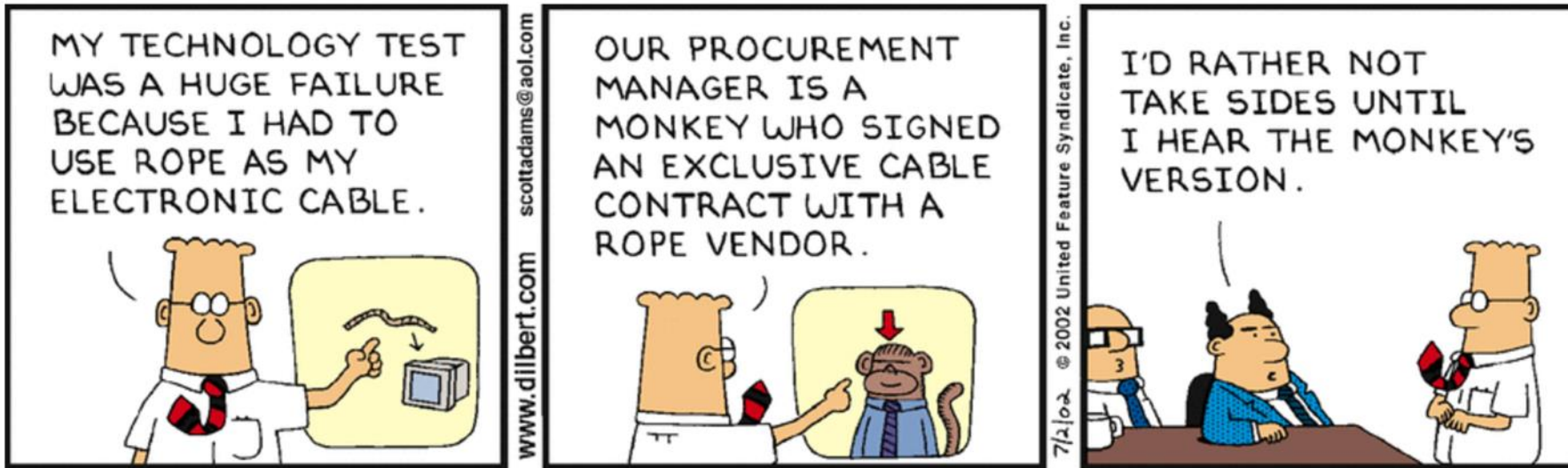50.3% of commerce transactions through mobile

And Procurement technology?

A new generation of workers

Three silos that inhibit collaboration in your supply chain

#1 Psychological Silo

- Lack of visibility and control
- Fear of dependency and failure
- Stay within comfort zone
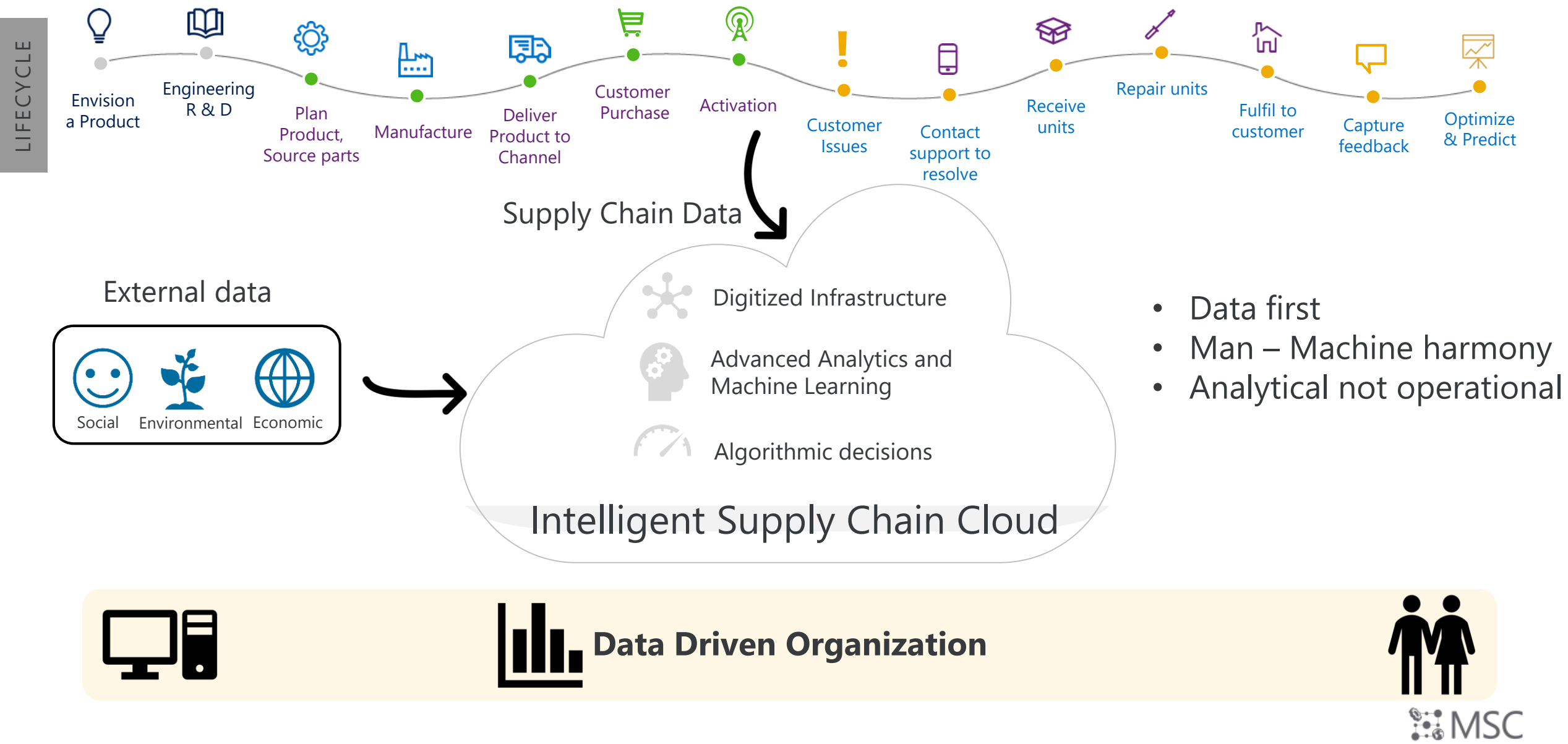
#2 Organizational Silo

- No view of bigger picture
- Local goals and performance metrics
- No cross department recognition
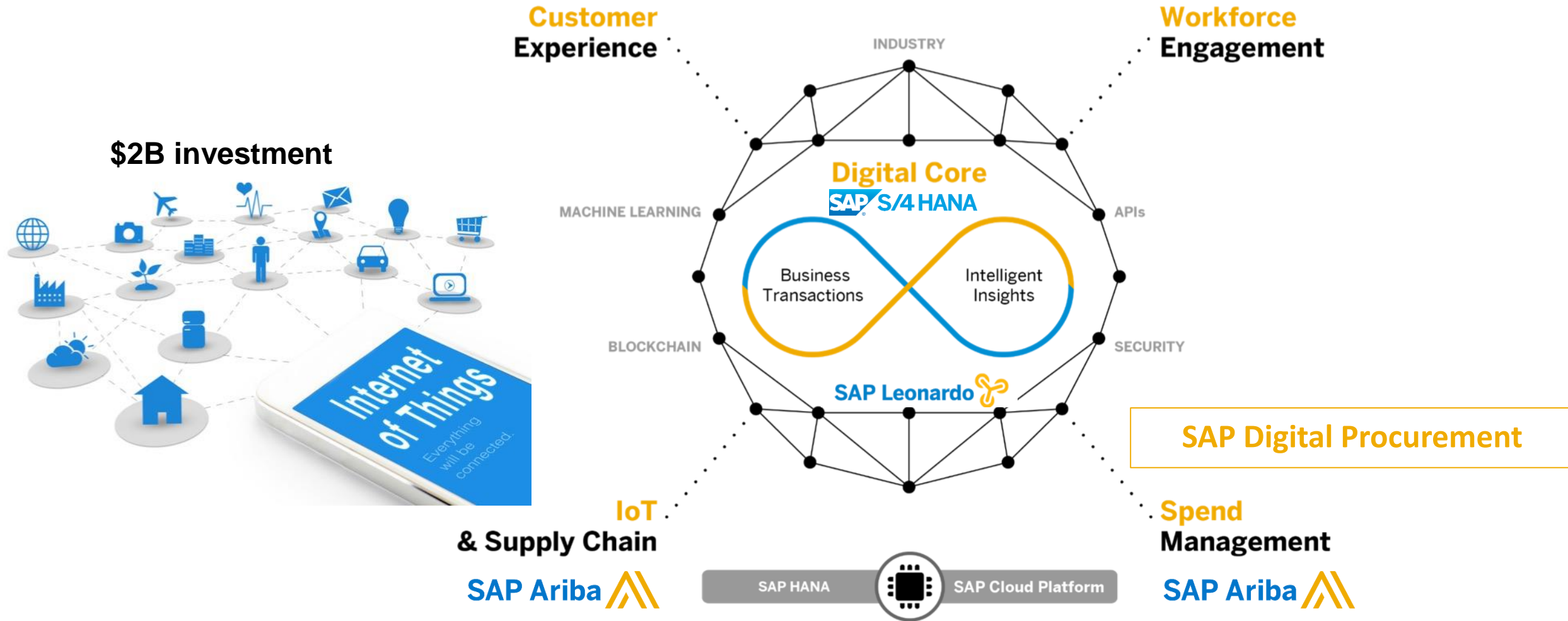
#3 Information Silo

- Tools not connected
- Different perspectives disjointed
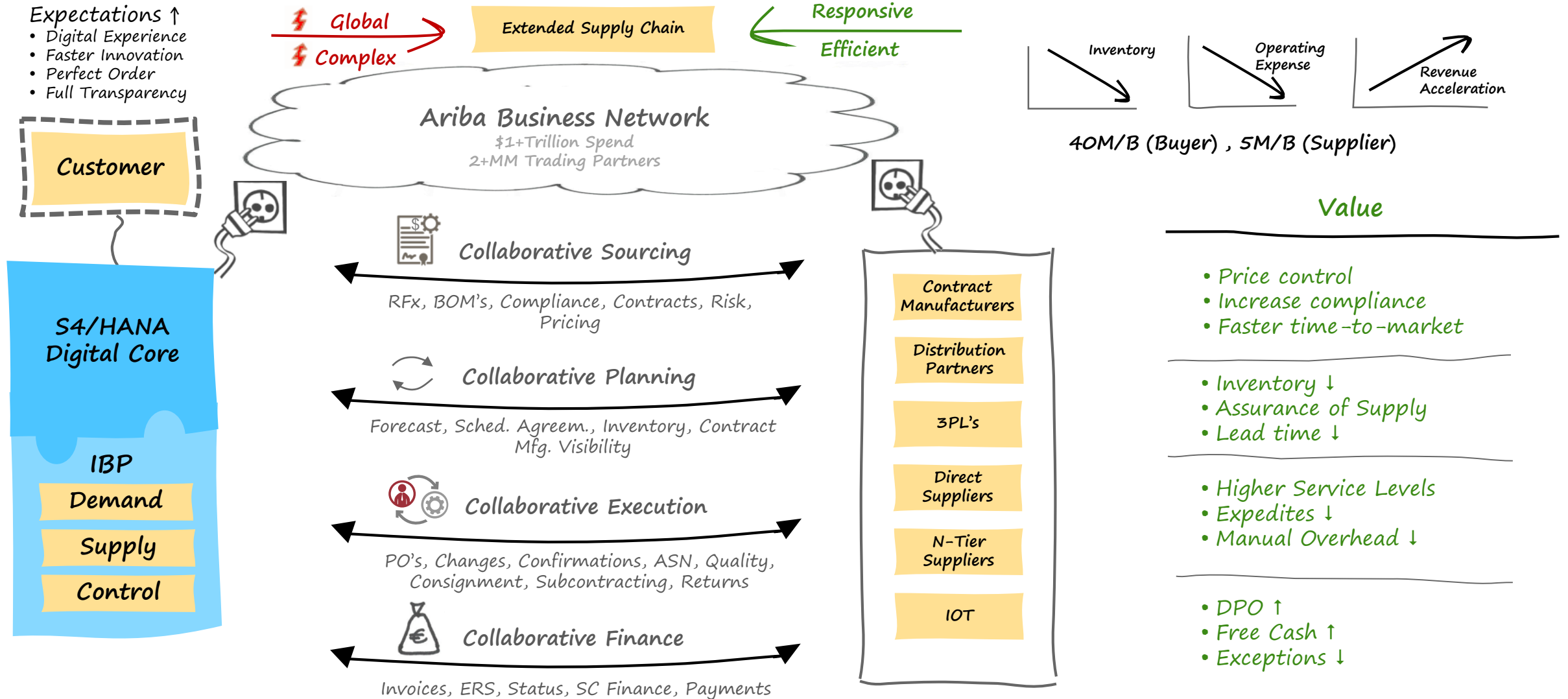- Data replication and rapid ageing
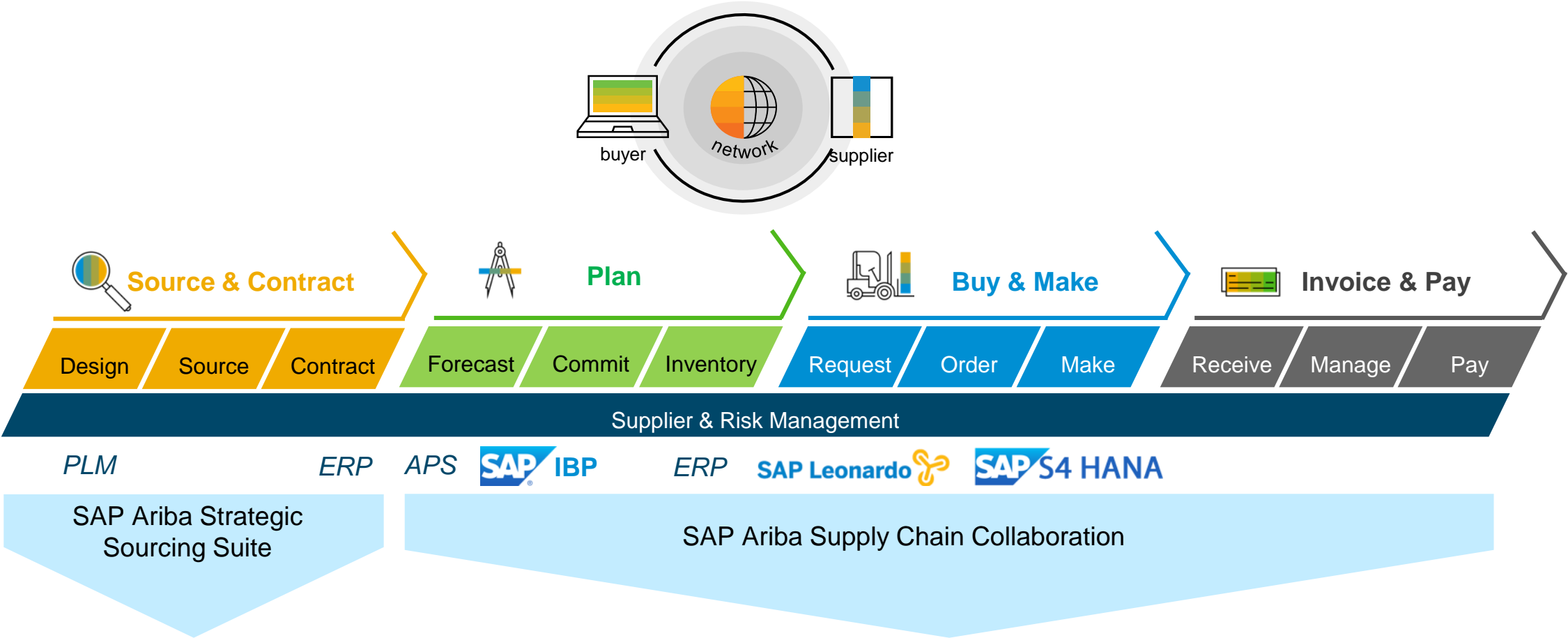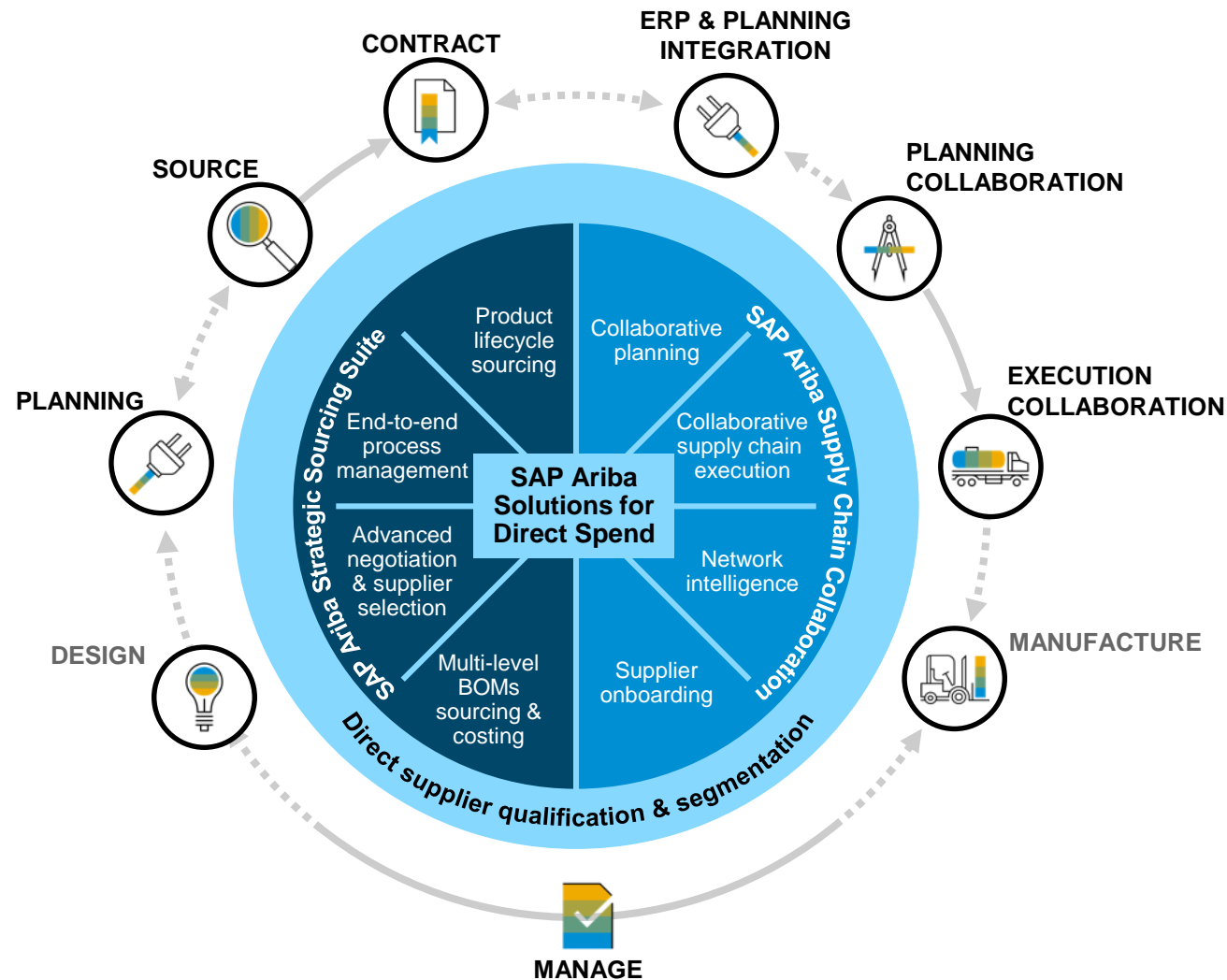
Example of an adopter: Intelligent Supply Chain

LIFECYCLE

Envision a Product
Engineering R & D
Plan Product, Source parts
Manufacture
Deliver Product to Channel
Customer Purchase
Activation
Customer Issues
Contact support to resolve
Receive units
Repair units
Fulfil to customer
Capture feedback
Optimize & Predict

Supply Chain Data

External data

Social   Environmental   Economic

Digitized Infrastructure

Advanced Analytics and Machine Learning

Algorithmic decisions

Intelligent Supply Chain Cloud

- Data first
- Man – Machine harmony
- Analytical not operational

Data Driven Organization

MSC

SAP Digital Framework

$2B investment

Customer Experience

Workforce Engagement

INDUSTRY

MACHINE LEARNING

Digital Core
SAP S/4 HANA

APIs

Business Transactions — Intelligent Insights

BLOCKCHAIN

SECURITY

SAP Leonardo

IoT & Supply Chain

SAP Ariba

Spend Management

SAP Ariba

SAP HANA — SAP Cloud Platform

SAP Digital Procurement

Internet of Things — Everything will be connected.

Digital Transformation for Supply Networks

SAP **SAP Ariba**

Expectations ↑
- Digital Experience
- Faster Innovation
- Perfect Order
- Full Transparency

⚡ **Global**
⚡ **Complex**

Extended Supply Chain

Responsive
Efficient

Inventory

Operating Expense

Revenue Acceleration

4OM/B (Buyer) , 5M/B (Supplier)

Customer

Ariba Business Network
$1+Trillion Spend
2+MM Trading Partners

S4/HANA Digital Core

IBP
Demand
Supply
Control

Collaborative Sourcing
RFx, BOM's, Compliance, Contracts, Risk, Pricing

Collaborative Planning
Forecast, Sched. Agreem., Inventory, Contract Mfg. Visibility

Collaborative Execution
PO's, Changes, Confirmations, ASN, Quality, Consignment, Subcontracting, Returns

Collaborative Finance
Invoices, ERS, Status, SC Finance, Payments

Contract Manufacturers

Distribution Partners

3PL's

Direct Suppliers

N-Tier Suppliers

IOT

Value

- Price control
- Increase compliance
- Faster time-to-market

- Inventory ↓
- Assurance of Supply
- Lead time ↓

- Higher Service Levels
- Expedites ↓
- Manual Overhead ↓

- DPO ↑
- Free Cash ↑
- Exceptions ↓

SAP Ariba Solutions for Direct Spend: Supply Chain

buyer — network — supplier

Source & Contract — Design | Source | Contract

Plan — Forecast | Commit | Inventory

Buy & Make — Request | Order | Make

Invoice & Pay — Receive | Manage | Pay

Supplier & Risk Management

PLM — ERP — APS — SAP IBP — ERP — SAP Leonardo — SAP S4 HANA

SAP Ariba Strategic Sourcing Suite

SAP Ariba Supply Chain Collaboration

Speed time to market, lower cost of goods sold, avoid supply chain disruptions

SAP Ariba Solutions for Direct Spend

Supplier Management Challenges

Supply Chain / Manufacturing

- **Primary trigger:** Ensuring continuity of supply & product quality
- **Challenge:** Supply chain disruptions and product quality issues that could have been avoided with better risk insights and supplier performance visibility
- **Goal:** Clear visibility into supplier performance and risk

Operations, Risk & Compliance

- **Primary trigger:** concerned about integration with existing ERP systems (IT). Concerned about regulatory, reputational and financial risk impact
- **Challenge:** high cost and difficulty of integration with ERP (IT). Reactive, after-the-fact risk management may lead to costly business disruptions
- **Goal:** want cost effective integration and a 360 view of suppliers (IT). Want to be more efficient and proactive in driving preventive measures to minimize business disruptions (GRC)

Suppliers

- **Primary trigger:** Fatigue. Constantly updating multiple customer systems
- **Challenge:** Continuous requests to enter information into multiple systems from multiple contacts across the customer business including finance, procurement and risk & compliance
- **Goal:** Have a single system in which to maintain relevant data that's easy to access

SAP Ariba Supplier Management Architecture

SAP Ariba Source-to-Settle application suite

Common supplier record

| Onboarding | Due Diligence & Qualification | Segmentation | Performance management | Development & phase-out |

Supplier Lifecycle and Performance

| Vendor model | Qualification matrix | Segmentation matrix | Spend matrix |

| Segmentation by Risk | Preliminary Due Diligence | Engagement Risk Assessments | Risk Remediation | Ongoing Monitoring |

Supplier Risk

External data sources

| News sources | Government sources | Ratings sources | Financial sources |

SAP Business Suite and other ERPs

MDG-S

Other DWs SQL and NoSQL DBs

Other ERPs

Two-way sync

Sync business process

Sync business process

Supplier-managed information

buyer   network   supplier

Example of an adopter: Leading chemicals company

Company

Supplier Management	Sourcing	Contract Management	Purchase-to-Pay
Registration	RfQ	Creation / Red Lining	Purchase Order
Qualification	Bid evaluation	Monitoring	PO Confirmation
Evaluation			
Development	Awarding	Price updates	Invoice

Ariba Network

Ariba Network

Registration	RfQ	Red Lining	Purchase Order
Qualification	Bidding		PO Confirmation
Evaluation			
Development	Awarding	Pricing	Invoice

Supplier

Marketing, Sales, CRM	Marketing, Sales	Marketing, Sales	Sales Order Mgmt., Acc.Receivable

Key Takeaways: Digital business interaction:

- **Harmonizes across categories (direct/indirect/MRO)**
- **Integrating a global network to collaborate**
- **Incremental solution capabilities every quarter**
- **Natively integrated into SAP ECC**
- **Reduction of manual touches**

Assessing Supplier Risk

Supplier engagements*

- Inherent
- Relationship
- Performance
- Supplier ratings

Incidents

- Legal & regulatory compliance
- Environmental & social
- Financial
- Operational

Supplier risk scoring model

Integrated Open Configurable

Exposure

Impact*

- Assessments
- Adjudication*
- Remediation*

Business continuity

Business reputation

* Include planned innovations.

Comprehensive risk categories

Regulatory and legal compliance

- Sanctions and watch lists
- Bribery and corruption
- Legal
- IT security
- Fraud
- Anticompetitive behavior
- Corporate crime

Environmental and social

- Human rights
- Labor issues
- Health and safety
- Environmental issues
- Conflict minerals
- Unethical practice
- Decertification

Financial

- Bankruptcy
- Insolvency
- Mergers and acquisitions
- Divestiture
- Credit rating downgrade
- Downsizing
- Liquidation
- Tax issue

Operational

- Natural disasters and accidents
- Plant disruption or shutdown
- Labor issues
- Product issues
- Project delays

SAP Ariba Strategic Sourcing Suite
Application Innovation: Product Sourcing - Multi-Level Material Hierarchies (BOM)

Product Capabilities

- ERP/PLM integration
- Multi-Level BOM Tagging and Rollup, additional costs
- Volume/time based pricing, price history
- RFP's and Auctioning, Supplier 360 view
- Category and Program Management
- Contract creation and collaboration, incl. e-signatures
- Dashboard driven exception management

Key Benefits

- Automate end-to-end processes
- Eliminate data re-entry
- Real time pricing visibility
- Easier reporting and filtering
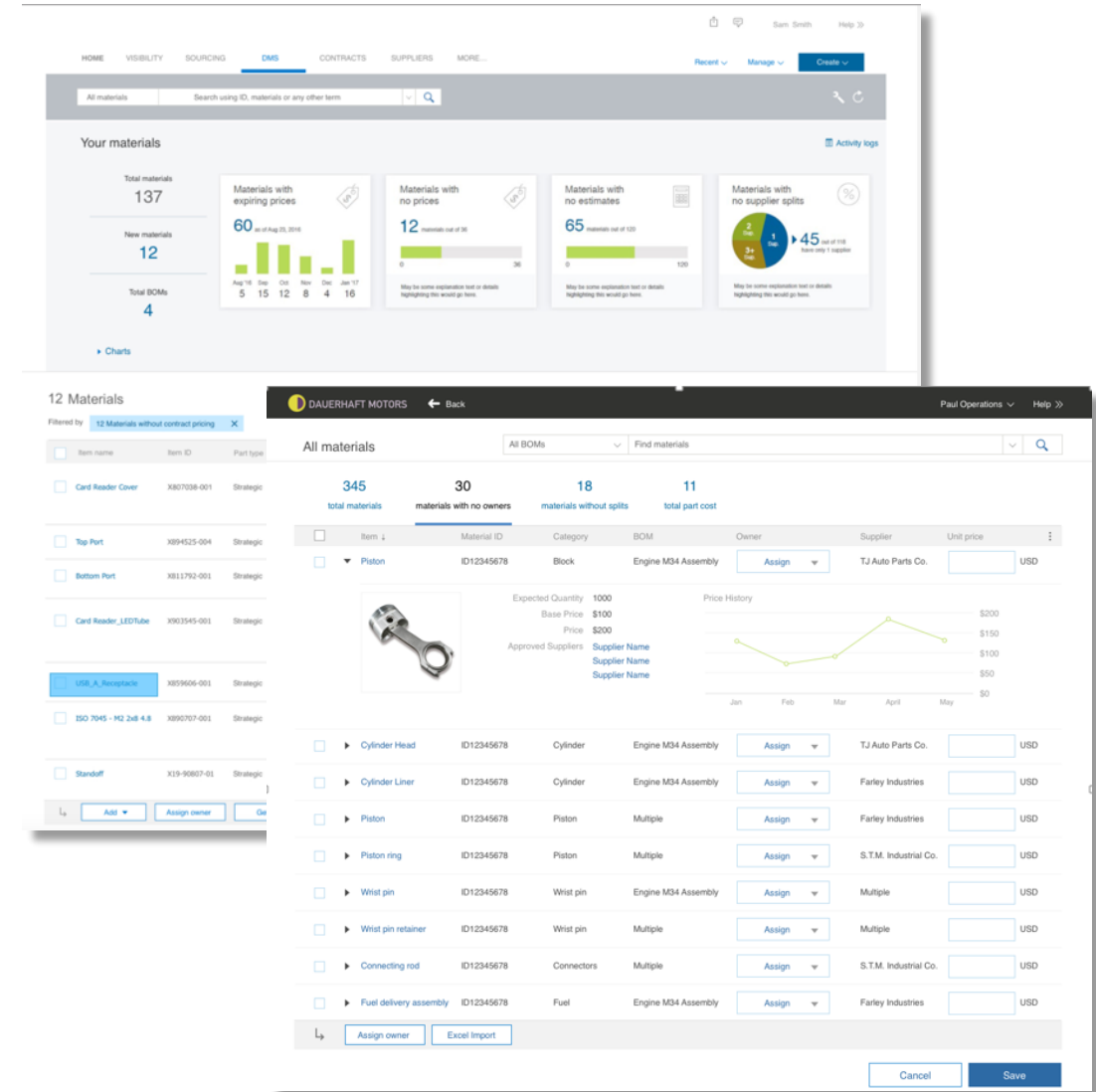
Supply Chain Collaboration requires a Business Network

HIGH TECH

INDUSTRIAL

AUTOMOTIVE

CPG

buyer   network   supplier

CONTRACT MANUFACTURING

COMPONENT SUPPLIERS

SUBASSEMBLY MANUFACTURING

RAW MATERIAL SUPPLIERS

DISTRIBUTION CENTERS

LOGISTICS PROVIDER
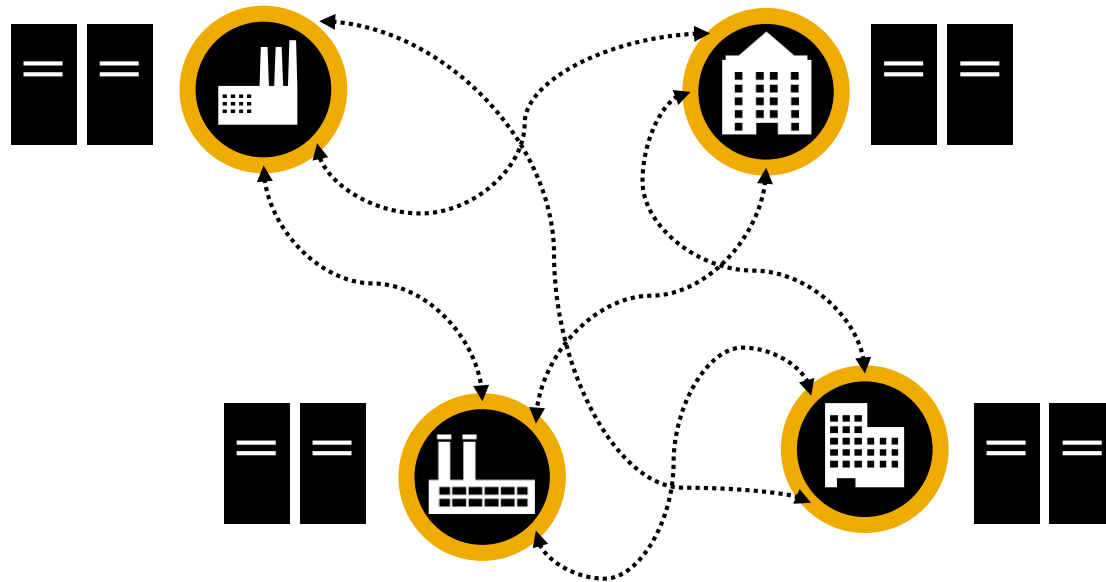
POINT-TO-POINT INTEGRATION

- PROCESSES CUSTOMIZED PER TRADING PARTNER
- EDI FORMATS AND CONNECTIVITY STANDARDS
- NO BUSINESS LOGIC
- NO AGGREGATED DATA CONTENT OR HISTORY
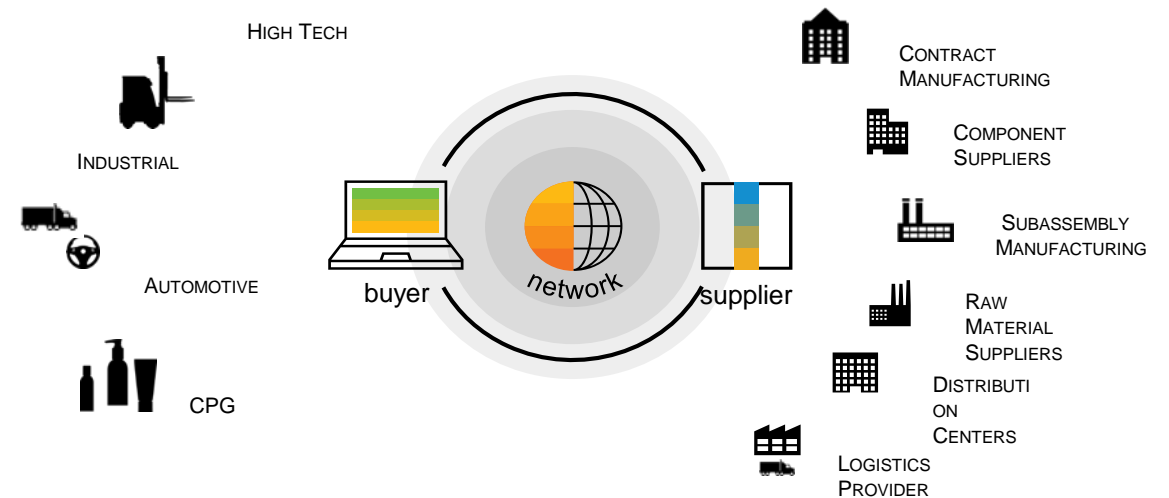
BUSINESS NETWORKS

- STANDARDIZED PROCESSES
- MULTIPLE CONNECTIVITY OPTIONS
- CONFIGURABLE RULES AND BUSINESS LOGIC
- COMMUNITY INTELLIGENCE
- 1-TIME CONNECT FOR BUYER OR SELLER

SAP Ariba Supply Chain Collaboration
Collaborative network for real-time visibility

Buyer

- Forecast/demand
- Purchase/subcontract order
- Schedule agreement release
- Component ship notice
- Component inventory data
- Goods receipt notice
- Consignment inventory status
- Quality notification/response
- Self-billing/ERS invoice
- Payment

buyer | network | supplier
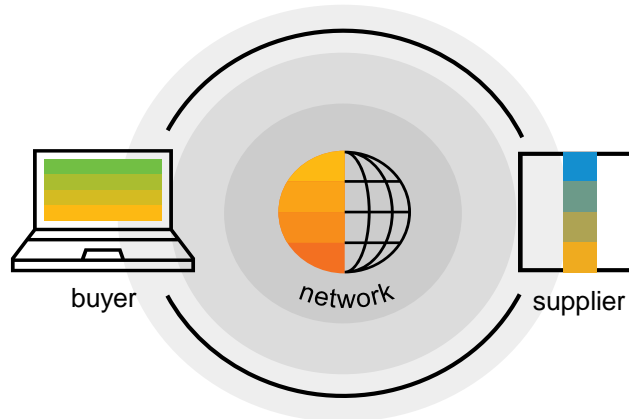
Supplier/Contract manufacturer

- Forecast commit
- PO confirmation
- Component receipt notice
- Manufacturing visibility **
- Component consumption
- Advance ship notice
- Deviation request /response
- Invoice

** B2B only, UI/upload planned in upcoming releases

Manufacturing and retail collaborative processes

- Enable collaboration with direct materials trading partners
- Complement and extend back-end systems
- Provide instant visibility into availability of supply

Example: Adopter in Pharma Industry

External manufacturing model dictates that we record all material handling / quality activity for company-owned material at CMO in our internal systems.
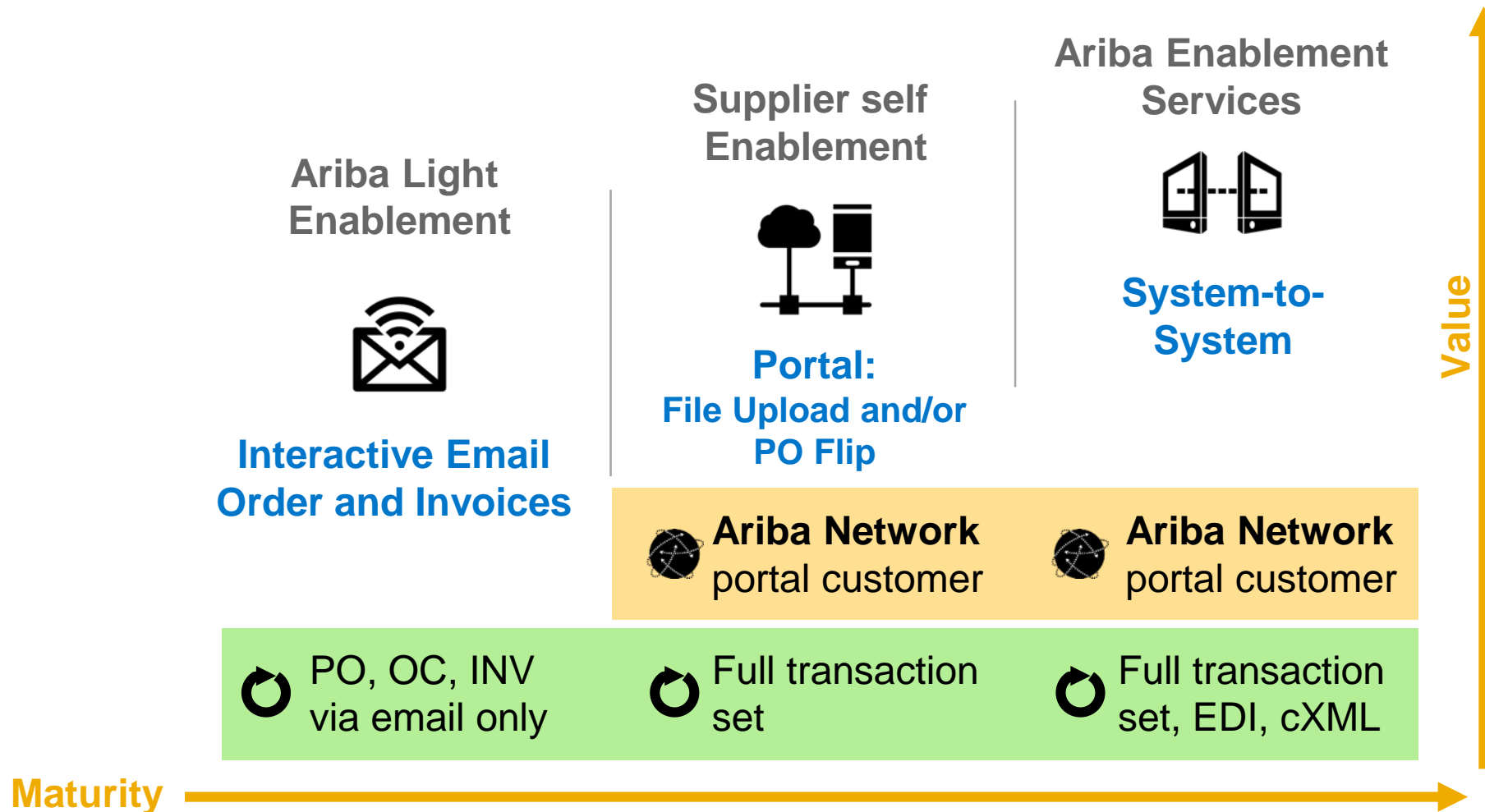
BEFORE

Multiplied by >100 Partners

| Partner | *"Manual " Information flow* | Company |

Phone/Email

Ops, Quality, Planning **1**

Ops, Quality, Planning **3**

Data entry

Data entry

System(s) of Record

Orders
Inventory transfers
Yields
Deviations
Batch Testing Results
Usage Decisions
Shipments
Batch ID's

"Work-arounds"

SAP **2**

Physical material flow

Receive company input — *make, test, release* — *Ship to next node* ... *receive at next node* — *next make operation*

Most Significant Challenges

1 Data exchanged & planning process vary by CMO relationship – (no standard process, work, data)

2 SAP **Blueprint** (process + transactions) does NOT support current process - **"Workarounds" have become the process** *(lot trace, order status, delivery stats, deviations maintained outside SAP)*

3 Volume of manual transactions and data entry steadily increasing with ExM Volume and new internal data demands

Most Significant Impacts

A **Quality/Compliance** –Impaired ability to utilize standard systems and processes for batch release, deviations - and execute those processes efficiently, effectively.

B **Reliable Supply** –Transaction delays (backlog, errors) and batch release delays create production delays at the next node. Poor data for risk management reporting.

C **World Class Supplier**– ExM data quality impacts planning (CMO demand changes, poor forecast), no sufficient input data for integrated planning & analysis

Supply Chain Improvements

AFTER

Multiplied by >100 Partners

Partner | *Digital Information Flow* | **Company**

Ops, Quality, Planning

Ariba transaction portal

3

SAP Ariba

Data entry

2

System(s) of Record

Ariba Network integration

Ops, Quality, Planning

SAP

1

Standard reporting

Advanced Planning

Physical material flow

Receive company input | make, test, release | Ship to next node | receive at next node | next make operation

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Program Components

1 **Process and System improvement** – SAP Blueprint for ExM/EQA revised for current/ future needs (including Advanced Planning)

2 **Leverage Ariba Network**– via Ariba Supply Chain Collaboration (SCC) to automate order, inventory, quality transactions, improve timeliness and quality of information

3 **Process Standardization** – As each CMO on-boarded- standard planning cadence, quality process, data expectations established and enforced

Most Significant Benefits

ENHANCE VISIBILITY

IMPROVE EFFICIENCY

INCREASE CONTROL

SAP Ariba offers suppliers choice on how to collaborate digitally

Ariba Light Enablement

Interactive Email Order and Invoices

Supplier self Enablement

Portal:
File Upload and/or PO Flip

Ariba Enablement Services

System-to-System

Value

Ariba Network portal customer

Ariba Network portal customer

PO, OC, INV via email only

Full transaction set

Full transaction set, EDI, cXML

Maturity

Buyer and Supplier Performance Dashboard
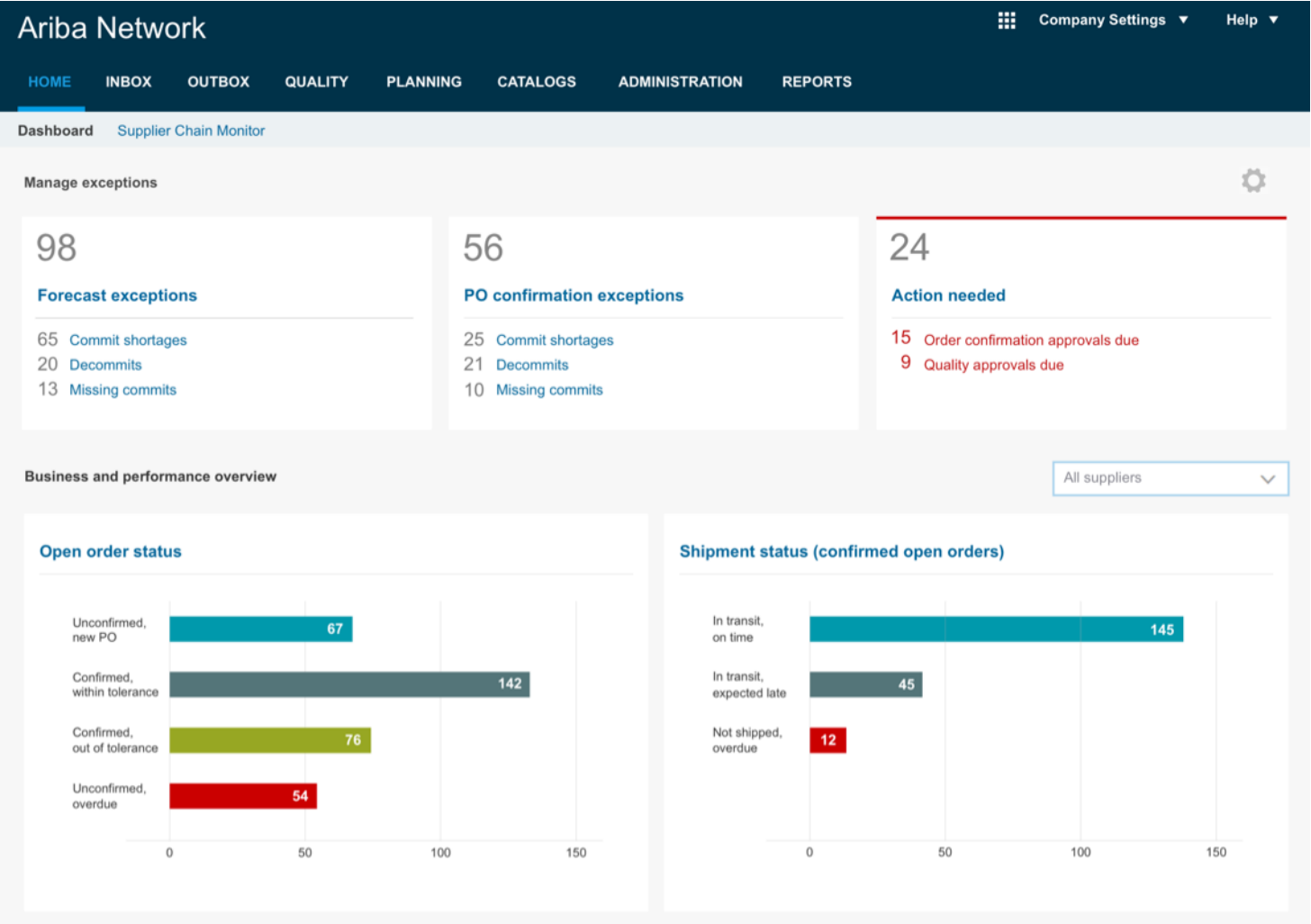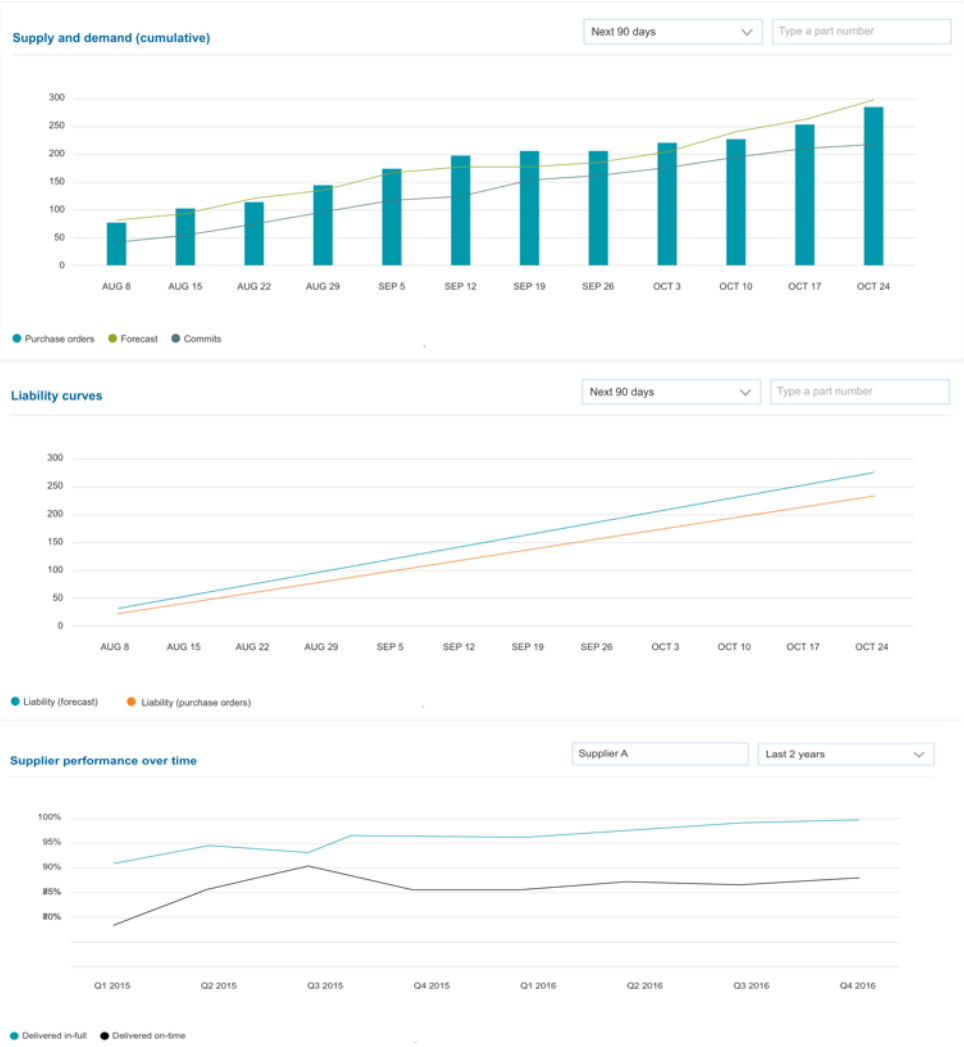
Mobile app for buyers and planners
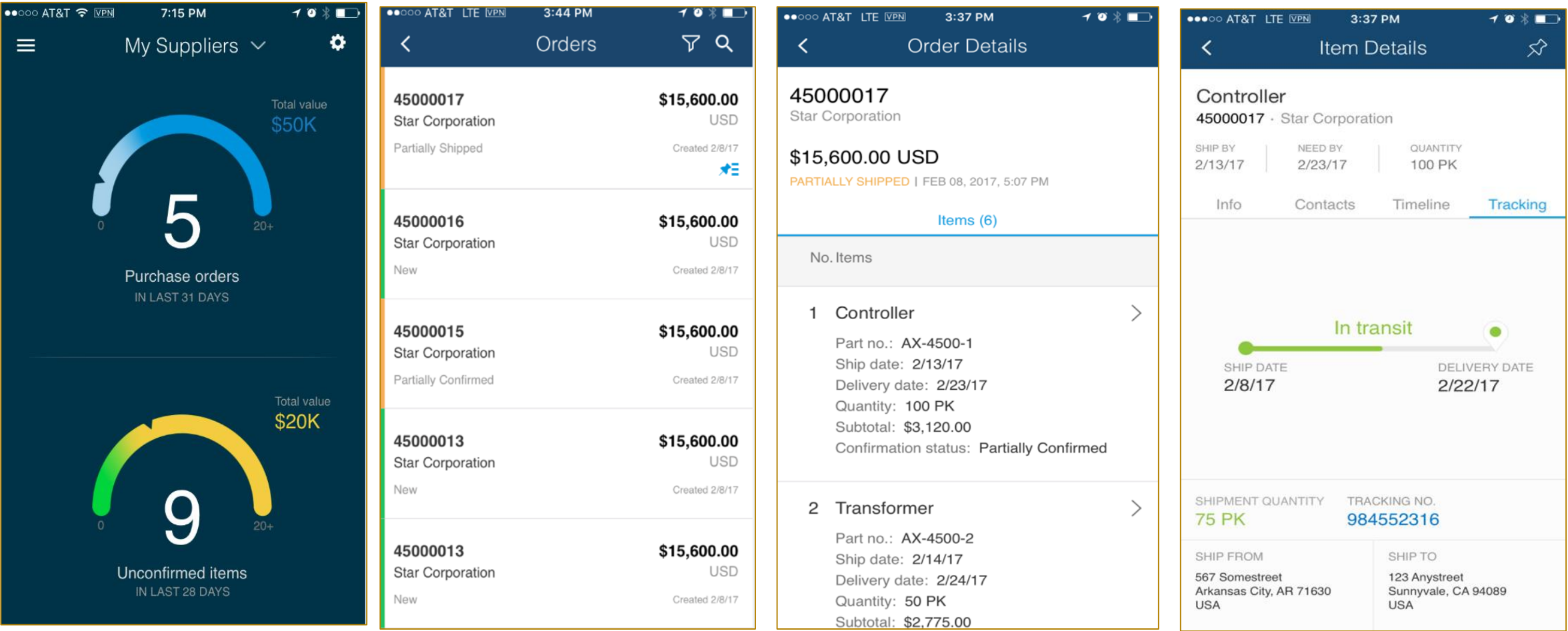
What makes Cloud Integration Gateway Innovative
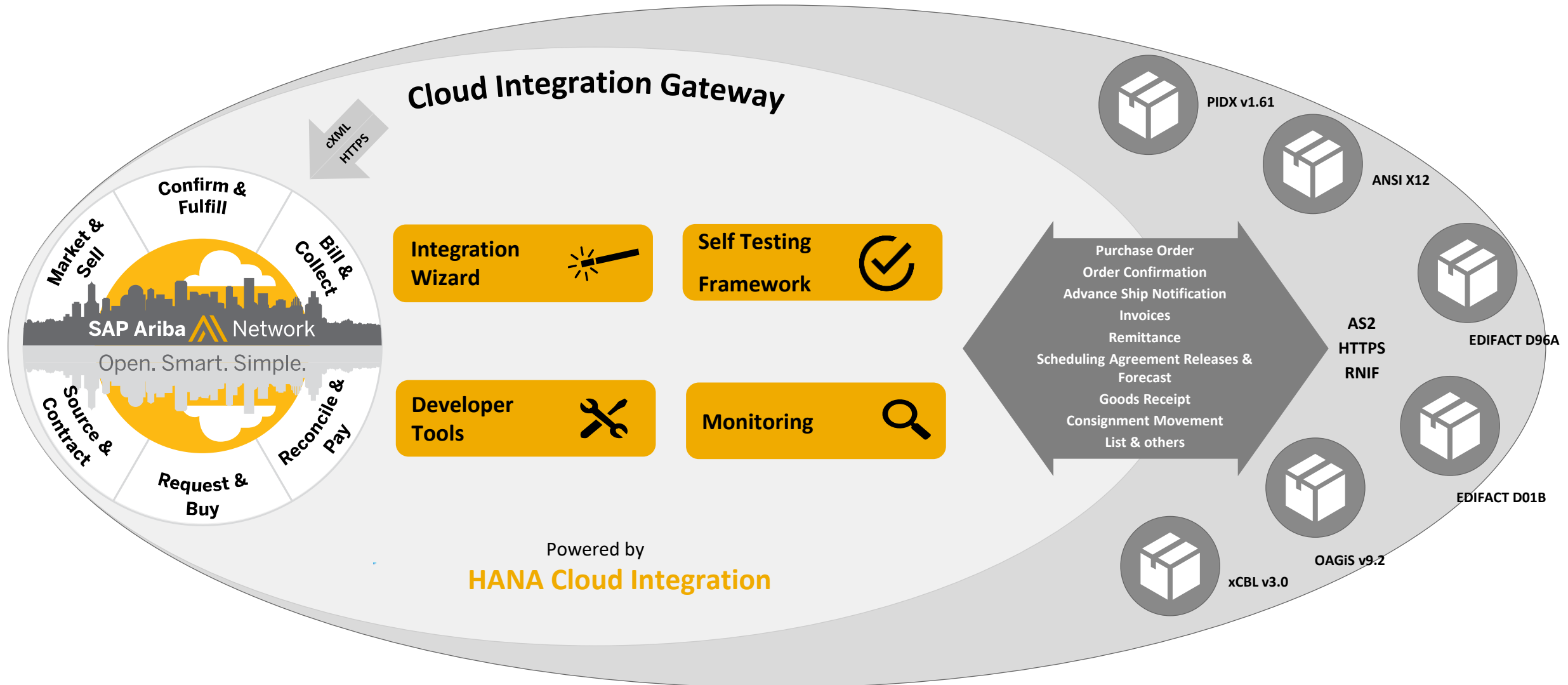
Digital Transformation Journey

Cognitive and Machine Learning

Analytics on digitized data

Digitize the process

Thank you

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