Digital Journey - Simple as ABC

Patrick Thompson
Chief Information Officer
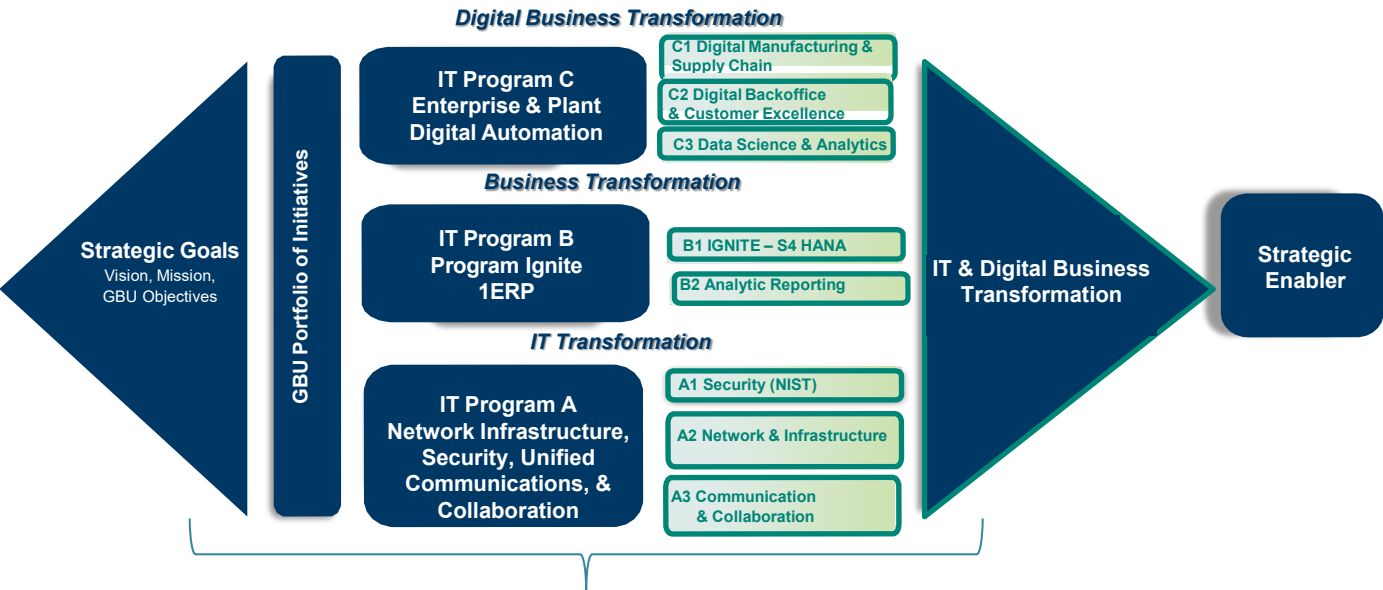## Albemarle

Global Business IT Strategy

Albemarle IT Mission

Right Information. Right Time. Anywhere!
Empowering our Employees Potential!

Digital Business Transformation

IT Program C
Enterprise & Plant
Digital Automation

- C1 Digital Manufacturing & Supply Chain
- C2 Digital Backoffice & Customer Excellence
- C3 Data Science & Analytics

Business Transformation

IT Program B
Program Ignite
1ERP

- B1 IGNITE – S4 HANA
- B2 Analytic Reporting

IT Transformation

IT Program A
Network Infrastructure,
Security, Unified
Communications, &
Collaboration

- A1 Security (NIST)
- A2 Network & Infrastructure
- A3 Communication & Collaboration

Strategic Goals
Vision, Mission,
GBU Objectives

GBU Portfolio of Initiatives

IT & Digital Business Transformation

Strategic Enabler

3 Strategic IT Transformation Program Workstreams

THE ALBEMARLE WAY

2

Digital Transformation Vision Road Map

Shared Services
Efficiencies & Increased Scalability

Improve OEE Asset &
Quality Product Delivery

Ariba Supply Chain
Sourcing, Warehouse,
Delivery, Global Trade

Digital Operations Centers

Client
Retention & New Market Share

Business Process Mining &
Robotics Process Automation

Plant Historian
Osi Pi Analytics

LIMs
NWA Analytics

Increase Observations
& Well Inspections to
Increase Asset
Performance

Salesforce Customer
Portals and Track &
Trace

Digital
BackOffice
Excellence

Digital
Manufacturing
Excellence

Digital
Supply Chain
Excellence

Drones & Digital
Cameras

Digital
Customer
Excellence

Digital Drones
& Smart Helmet

Smart Helmet

Eliminate & Reduce
Incidents & Recordables

Drones & Digital
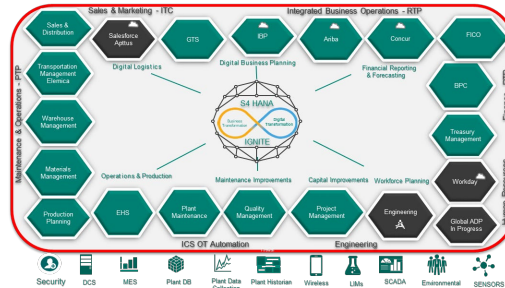Cameras

Digital Twin
(Safety Auditor
Smart Helmet)

Digital
Workflow &
Mobility

Fiori Employee
Productivity & Empowerment

Mobility

Sales & Marketing - ITC
Integrated Business Operations - RTP

Sales & Distribution
Salesforce Aptus
GTS
ISP
Ariba
Concur
FICO

Transportation Management Elemca
Digital Logistics
Digital Business Planning
Financial Reporting & Forecasting
BPC

Warehouse Management
Treasury Management

Materials Management
Operations & Production
Maintenance Improvements
Capital Improvements
Workforce Planning
Workday

Production Planning
EHS
Plant Maintenance
Quality Management
Project Management
Engineering
Global ADP In Progress

S4 HANA
IGNITE

ICS OT Automation
Engineering

Maintenance & Operations - PTP
Finance - RTR
Human Resources

Security | DCS | MES | Plant DB | Plant Data Collection | Plant Historian | Wireless | LIMs | SCADA | Environmental | SENSORS

ALBEMARLE®

IGNITE SAP S4 HANA Foundation

3

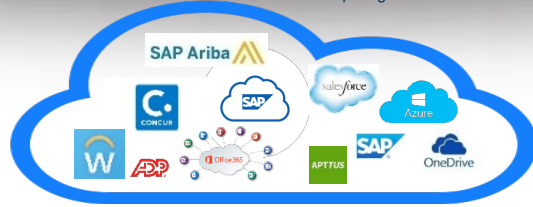# Program A+B+C = Digital Business Transformation

Engineering & HSE Apps

Collaboration
Albert, Sync, Share
ConvergePoint

Private & Public Cloud Computing

BYOD
Albert, Workflow, Communications,
Fiori, Cloud Apps, Office 365

3-1 Mobility Computing
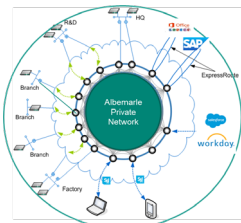Desktop/Laptop/Tablet

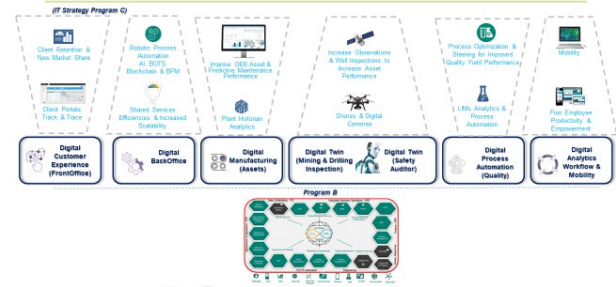Always On - VPN Anywhere
SSO &
Self Service Password Reset

Plant
SharePoint Management of Change
(Lotus Notes Sunset)

Network & ICS
Zoning Improvements

Program C - Digital Business Transformation

OEE & Yield Improvements
Performance Analytics

Elemica
Transportation Management
Track & Trace

NIST, GDRP, DRM
Document & Records
Management

Data Science & Analytics

SAP S4 Fiori Support

Compliance, Financial, & Spend Analytic Dashboards

BPM & RPA

Microsoft Teams

ALBEMARLE®

4
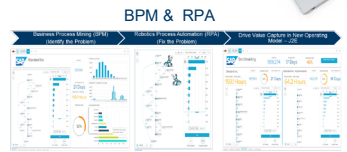
SAP S4 Upgrade Timeline – N-1 Strategy

SAP S/4 HANA

S4 HANA & FIORI From ECC 6 & 4.6

2017	2018	2019	2020	2021	2022

- 1610 Release 1
- 1610 Release 2
- 1610 Release 3
- 1610 Release 4
- 1610 to 1809 upgrade
- Delay Upgrade to 2022
- 1909/2020 upgrade

1709 released

18XX release

19XX release

20XX release

21XX release

22XX release

Ignite

Hyper
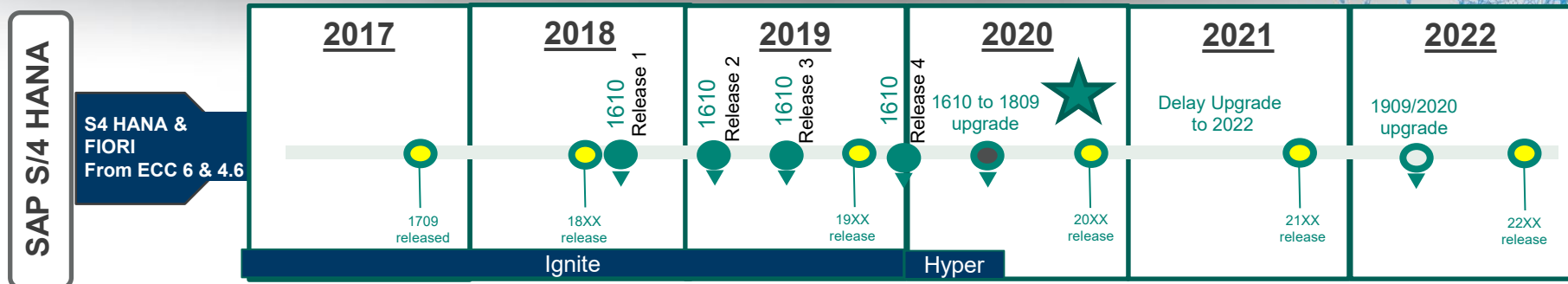
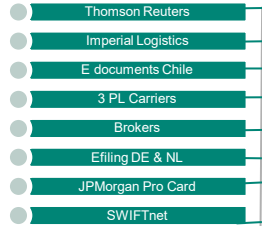| Description	Frequency Released by SAP	Frequency Applied by Albemarle
Error correction identified by project team	When identified	As needed
Activate new business functions	On going	As needed
Version updates	Quarterly	Quarterly post Ignite
Upgrades	Annual S4 N-1 Strategy	Annual Upgrades Keeping current N-1 SAP releases

ALBEMARLE®

Albemarle Digital Core – SAP S4 HANA Landscape

Cloud

Blackline Ariba SAP IBP Concur Workday

Salesforce Serengeti Apptus OneSource Elemica

3rd Party Integrations

- Thomson Reuters
- Imperial Logistics
- E documents Chile
- 3 PL Carriers
- Brokers
- Efiling DE & NL
- JPMorgan Pro Card
- SWIFTnet
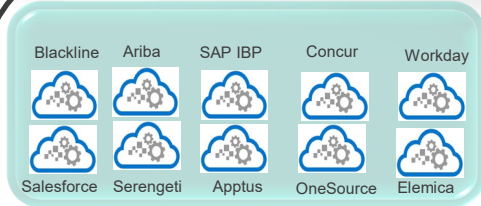
On-Premise Integrations

- OSI PI
- ProM
- LIMS
- IBANX

User Access

SAP FIORI
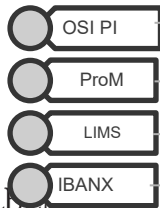
S/4 HANA Enterprise Management

| Production Planning | GL | Accounts Payable | Asset Management | GRC | EHS | BPC |
| Purchasing | Sales | Account Receivables | Inventory Management | Quality Management | MDG | PPM |

PI On-Premise Middleware

SAP Transportation Management
On Prem

SAP Global Trade Services
On Prem

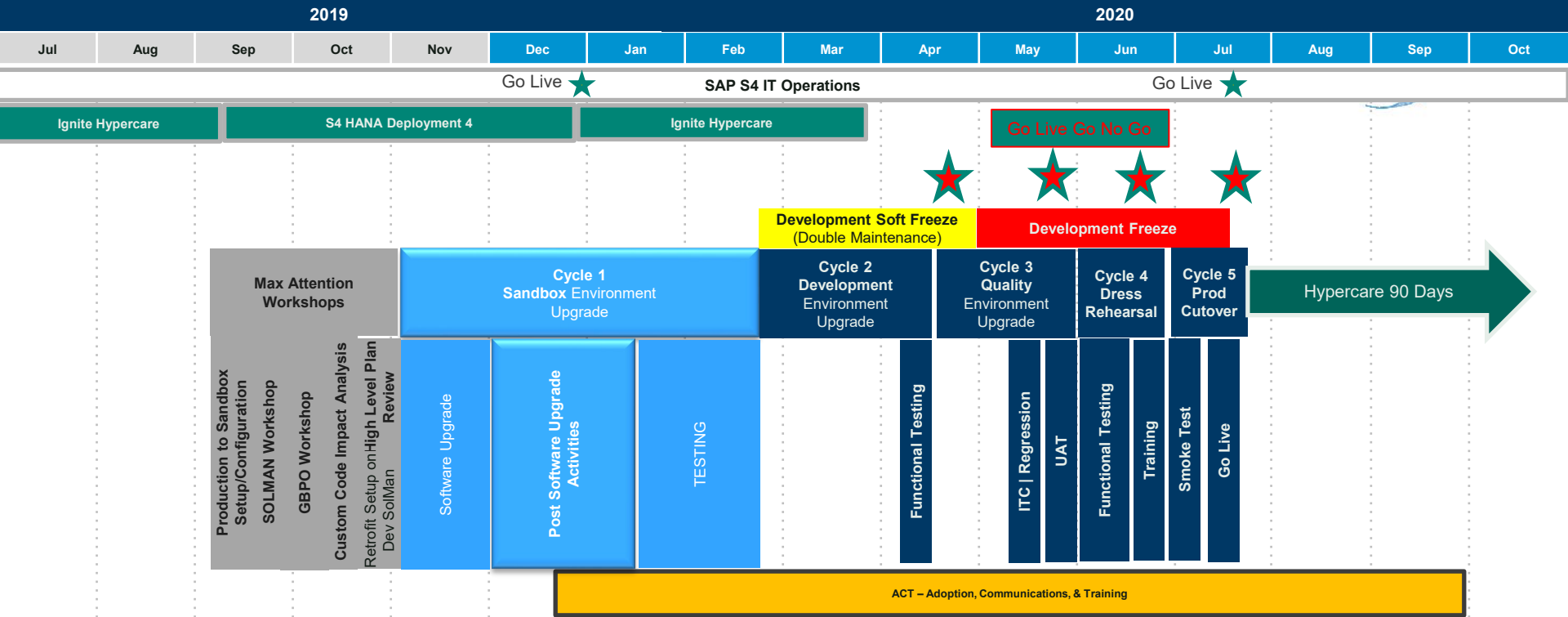---

- Solution Manager
- OPEN TEXT
- HP ALM
- Enable Now
- BOBJ
- IS/DS Enterprise Hub

SAP 7.2 Solution Manager

SAP OPENTEXT

hp Application Lifecycle Management

SAP Enable Now — The Key to Successful Knowledge Transfer

SAP Business Objects

6

S4 HANA Upgrade 1610 to 1809

2019											2020						
Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct

Go Live ★   SAP S4 IT Operations   Go Live ★

| Ignite Hypercare | S4 HANA Deployment 4 | Ignite Hypercare | Go Live Go No Go |

★ ★ ★ ★

Development Soft Freeze (Double Maintenance)   **Development Freeze**

Max Attention Workshops

Cycle 1 Sandbox Environment Upgrade

Cycle 2 Development Environment Upgrade

Cycle 3 Quality Environment Upgrade

Cycle 4 Dress Rehearsal

Cycle 5 Prod Cutover

Hypercare 90 Days

Production to Sandbox Setup/Configuration

SOLMAN Workshop

GBPO Workshop

Custom Code Impact Analysis

Retrofit Setup on Dev SolMan

High Level Plan Review

Software Upgrade

Post Software Upgrade Activities

TESTING

Functional Testing

ITC | Regression

UAT

Functional Testing

Training

Smoke Test

Go Live

ACT – Adoption, Communications, & Training

Upgrade Cycle Descriptions

Production Landscape 1610 → **S41Dev 1610** → **S42Q 1610** → **S4P** 1610 to 1809

Upgrade Landscape 1809 → **S4Dev 1809** → **S4Q 1809**

S4HANA 1809 Upgrade Cycles

Cycle 1 Oct '19 – Feb '20	Cycle 2 March – Apr '20	Cycle 3 Apr – Jun '20	Cycle 4 Jun – Jul '20	Cycle 5 Jul '20
S4P 1610 **to SBX** 1809	**S41Dev** 1610 **to S4Dev** 1809	**S4P** 1610 **to S4Q** 1809	**S4P** 1610 **to S4Q** 1809	**S4P Go-live**
Source / Target S4P → SBX	**Source / Target** S41Dev → S4Dev	**Source / Target** S4P → S4Q	**Source / Target** S4P → S4Q	**Source / Target** S4P 1610 to S4 1809
Steps • a) S4P 1610 copy to SBX • b) upgrade to S4HANA 1809	**Steps** • a) S41Dev copy to S4Dev • b) upgrade to S4HANA 1809	**Steps** • a) S4P 1610 to S4Q • b) Upgrade to S4HANA 1809	**Steps** • a) S4P to S4Q • b) Upgrade to S4HANA 1809 • **c) Dress rehearsal cycle**	**Steps** • Upgrade S4P 1610 to 1809 • S4Q transport to S4P 1809
Purpose • Software Upgrade Trial Run • Software Adjustments • Create an Upgrade cookbook • Estimate the technical runtime • Testing	**Purpose** • Software Upgrade • Software Adjustments • Update the Upgrade cookbook • Estimate the technical runtime • Testing • Enable Retrofit for alignment between support landscape and upgrade landscape	**Purpose** • Software Upgrade • Software Adjustments – **Transports from S4Dev to S4Q** • Update the Upgrade cookbook • Estimate the technical runtime • Testing UAT • June Freeze Changes	**Purpose** • Run the whole upgrade like production upgrade with 24*7 simulation, following cookbook. • Update cookbook if required. • Time stamp 48 hours.	**Purpose** • Establish new S4P environment

Lessons Learned from Remote Upgrade

1. **Focus on the Plan**
2. **Weekly Cadence using Microsoft TEAMS (face to face video)**
3. **Make sure team members have a productive WFH environment**
4. **WFH Productivity Incident Management and Business Process Improvements**
5. **Training Recordings & Library**
6. **TEAM Channels & Team Screen sharing solved problems faster**
7. **24 x 7 Global Support**
8. **No Code Change & change management**
9. **Focus on the Upgrade Features that will provide the Greatest Value**
10. **Impressed with the Quality of SAP Upgrade (no technical upgrade issues)**

ALBEMARLE®

Questions & Answers

Right Information. Right Time. Anywhere.

Thank You!