
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV
Kellogg's
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CPG203

Kellogg’s modernization journey: A worldwide business transformation

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Agenda

AWS + CPG

The Kellogg’s Transformation Journey

- Opportunity
- Challenges
- Solutions and Approach



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Let's start with a little trivia!

What year was Kellogg's founded?

1906

What was the first product manufactured?

Toasted Corn Flakes

Kellogg's is splitting into how many OPCOs in 2023?

Three

Where is the Kellogg's headquarters?

Battle Creek, MI

What is the top-selling Kellogg's product on Amazon.com?

Cereal Variety Pk

What is the name of the tiger on Frosted Flakes?

Tony

BONUS: What is Tony's famous slogan?

"They're Great!"



Kellogg's

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At Amazon, our vision is to be Earth's most customer-centric company

THE AGILITY OF A STARTUP; THE EXPERIENCE OF AN ENTERPRISE LEADER



We help our consumer products and retail customers go further and faster . . .

In consumer products

- **Building brands** consumers love
- **Innovating beyond the consumer product** in retail execution, customer planning, ecommerce, and consumer experience
- **Driving operational efficiency** with advanced manufacturing, supply chain, and distribution solutions

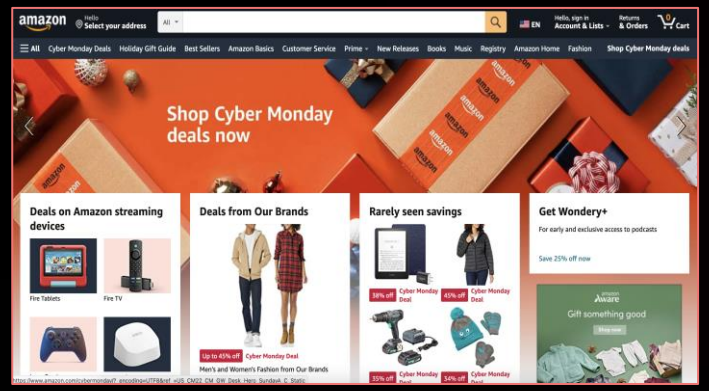
In retail

- **Leveraging Amazon's "born from retail,"** built for retailers' innovations
- **Enabling frictionless commerce** that powers differentiated shopper experiences
- **Driving operational efficiency** with store operations, inventory planning, merchandising, and last-mile solutions

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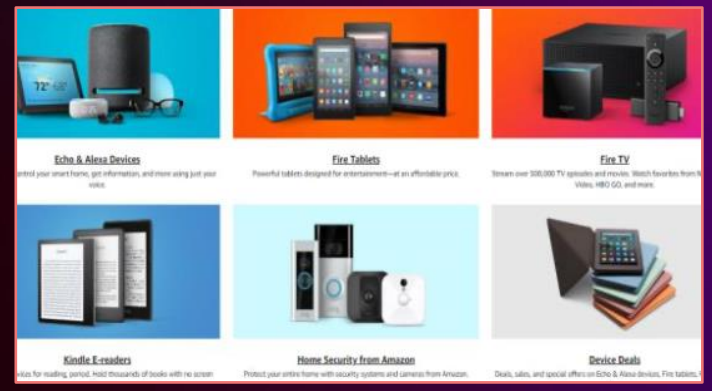
Amazon and CPG



eCommerce Marketplace



AWS



Devices



Streaming + Advertising



Consumables



Physical retail

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Amazon and CPG

Helping the vast majority of global, SMB, and startup CPG brands



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CPG + food & beverage



Product

- Product shelf life / expiration dates
- Label requirements
- Sustainability, recycling, and upcycling priority (e.g., PET, aluminum)
- Cold fill vs. hot fill
- FDA regulations



Route to market

- Direct store delivery
- Three-tier distribution in wine, spirits, beer
- Bottlers as manufacturers and distributors
- Refrigerated product (cold chain) logistics
- Wholesale / distributor
- “Weight” of beverage product shipping challenge
- Vending



Innovation

- Consumer flavor profiles, textures, sizes, and shapes in innovation
- Product pack variations by geography and channel
- Health & wellness trend in growth brands
- Large number of new startups in the F&B subsegment – largely direct-to-consumer (DTC)

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CPG priorities

3 priorities | CPG execution

Grow top-line revenue and margin

- How do we accelerate our momentum in the ecommerce channel?
- How do we optimize the price and package plan versus channel performance?
- What new consumer insights are we able to use in execution?
- How can we modernize our B2B commerce platforms and capabilities?
- What new actionable insights are available with advanced AI/ML?

Digitize supply chain, manufacturing, and operations

- How do we improve our forecast accuracy?
- How can we deploy new smart factory and digital manufacturing solutions?
- How can we predict equipment maintenance/downtime and utilize digital twins?
- How do we use IoT in products? What is our process?
- What new tools enable supply chain visibility?
- Do we need help in the last mile?

Accelerate commercial execution

- How do we put better insights into the hands of field sellers/merchandising?
- How do we better utilize consumer data?
- What is our ad spend strategy across channels?
- Does our RGM strategy still make sense?
- What new categories/brands should be on our radar screen?
- How is our outlet execution daily?

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CPG solutions strategy

solution areas

6

CPG

MAKE

MANUFACTURING

- Connected, smart factory
- Asset optimization, OEE
- Predictive maintenance
- Ops and product sustainability

MOVE

SUPPLY CHAIN

- Demand forecasting/planning
- End-to-end visibility
- Optimized transport and logistics
- Dynamic sourcing, supplier risk

MARKET

UNIFIED COMMERCE

- Direct to consumer (DTC)
- B2B/B2C commerce services (e.g. contact center, service)
- JBP, shelf, RGM, execution

MARKET

MARKETING

- Digital channel engagement
- Personalization
- Sales and service CRM
- Customer 360

MEASURE

DATA & ANALYTICS

- Integrated customer data
- Amazon retail data/insights
- AI/ML services
- Marketing and ad optimization

MODERNIZE

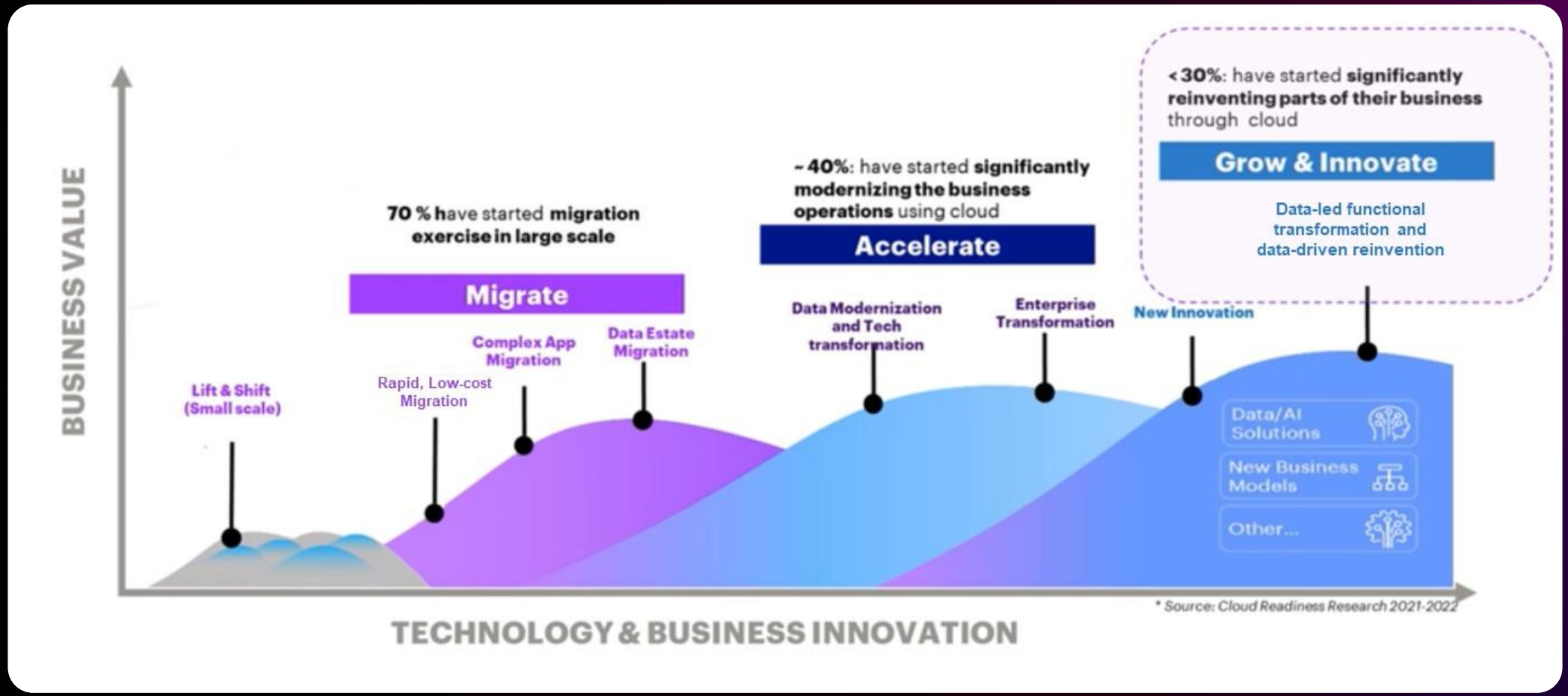
DIGITAL CORE

- Cloud strategy and security
- Data center migration
- Core systems modernization
- ERP on AWS

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CPG and the cloud continuum



Accenture 2022

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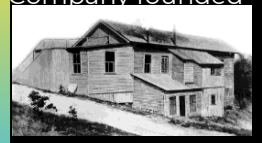
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116-year heritage of progressive growth

1906 - Kellogg Company founded



Canadian expansion

Overseas expansion into UK, Australia



1950s – Latin America, Mexico entry

1960s – Asia, Japan entry

Expands into select Frozen Food products in U.S. and bars

Eggo

Nutri-Grain

Enters biscuits, cookies, crackers categories with Keebler acquisition

Keebler

Kellogg's 100

Acquired Pringles

Pringles

Wilmar International joint venture

Tolaram Africa joint venture

Tolaram Group

Acquired Mass Food Group, leading Egyptian cereal company

MASS FOOD

Acquired RXBAR, fastest-growing US nutrition bar brand

RXBAR

Launched Deploy for Growth Strategy

Divested Keebler cookies and related businesses

1906 1920 1940 1960 1980 2000 2012 2013 2014 2015 2016 2017 2018 2019 2022

Numerous iconic foods launched from the 1930s to the 1980s



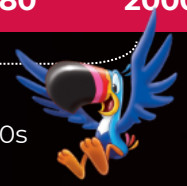
ALL-BRAN

Special K









Acquired Kashi and MorningStar Farms soy-based vegetarian foods

Kashi

MorningStar Farms

$14.6 billion in sales

Acquired Bisco Misr, Egyptian biscuits company

Bisco Misr



Acquired Parati, leading Brazilian biscuits, pasta and powder beverage company

Parati

Kellogg expands partnership with Tolaram in West Africa

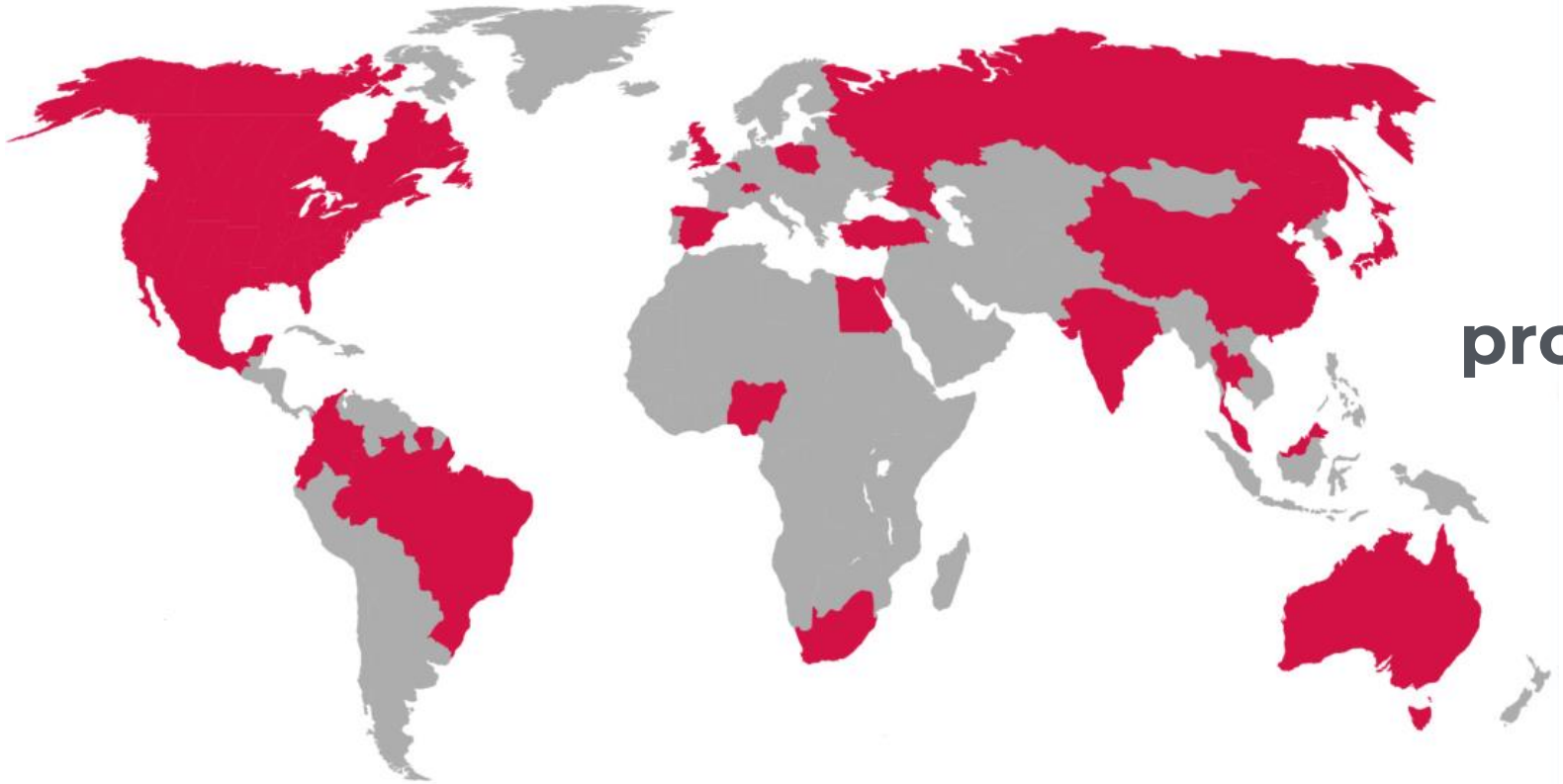
Tolaram Group

Announced plan to separate North American cereal and plant-based foods businesses

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Bringing our best to the world



Over **1,000** products marketed in **180** countries

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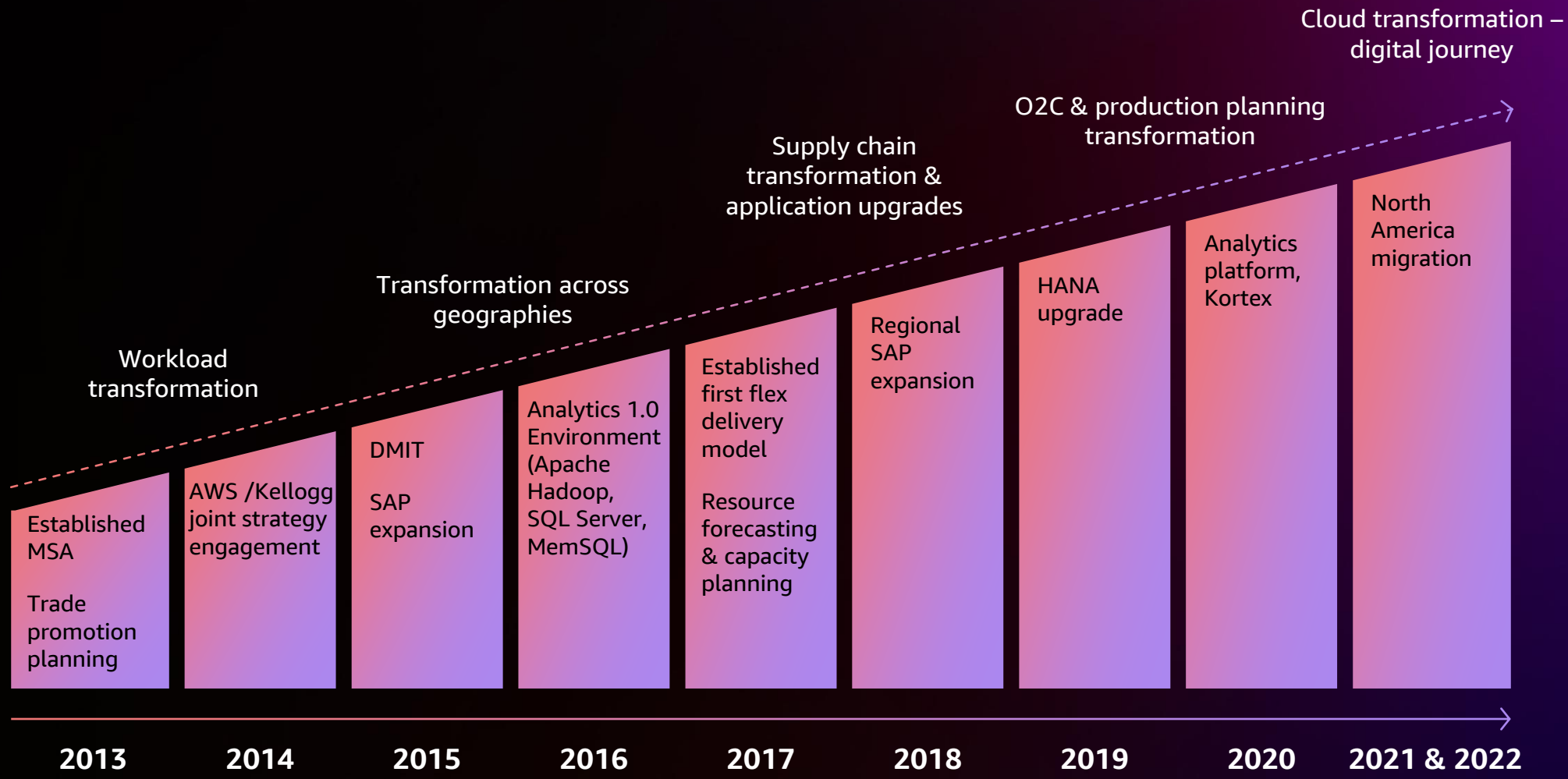
AWS and Kellogg's journey

10 years of relationship

450+ workloads

4 regions supported globally

100% executive sponsorship



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Kellogg’s transformation challenges



Aligning business outcomes



Keeping pace with escalating business demand



Building new operating models



Attracting, building, and retaining the right skills



Reducing technical debt

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A responsive platform



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Why partner with AWS?



Hardware **end of life in 2022**
Major investment needed to replace



Cost optimization
High CapEx & OpEx costs of running two data centers



Increase reliability
AWS offers 99.95% guaranteed uptime



Increase speed and agility
We can add infrastructure and services in minutes



Scale
Add more resources to cope with customer and business demand



Control our costs
Only pay for what we use



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Kellogg's®

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Infrastructure landscape

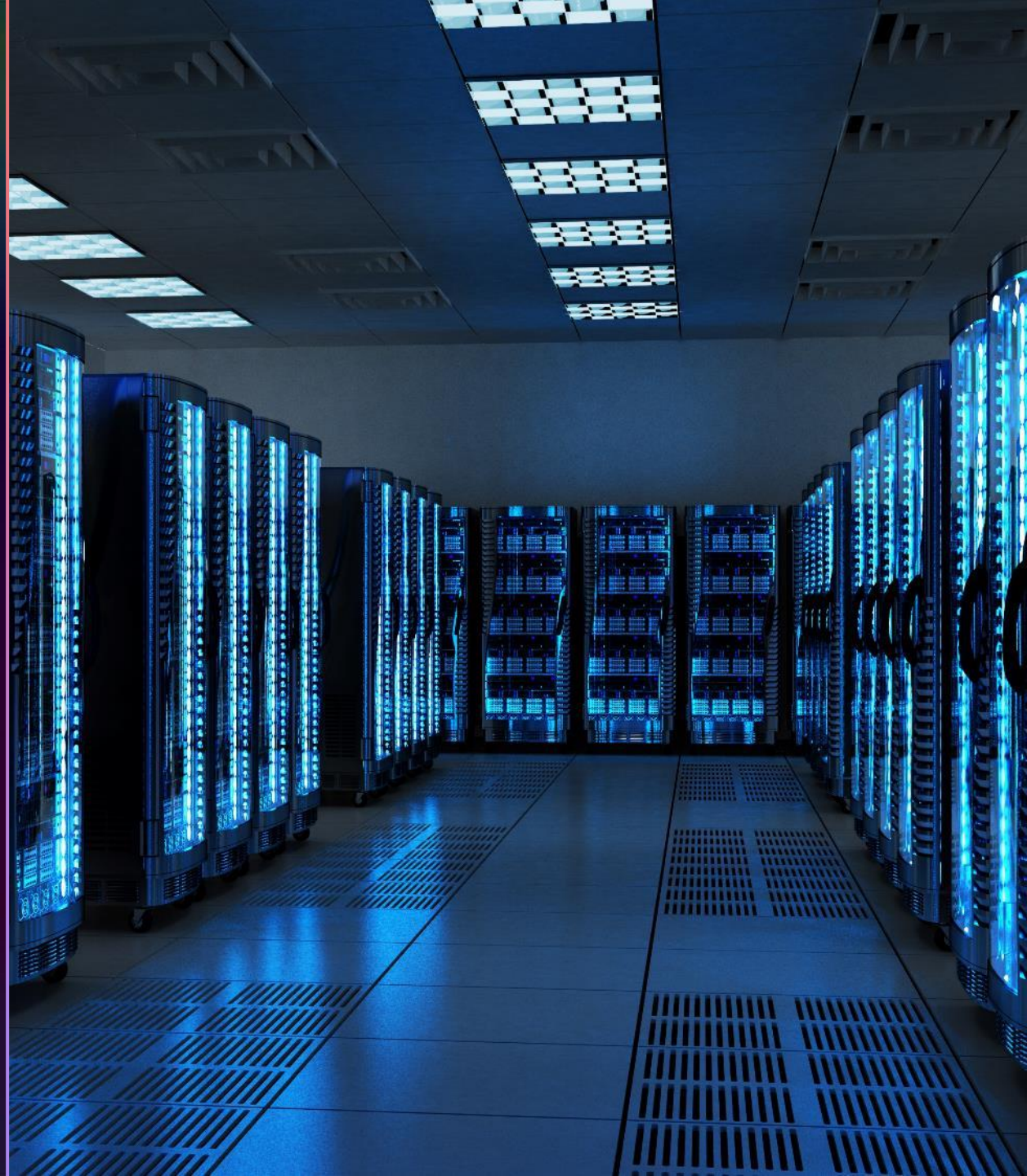
2 Data Centers

2,000+ Devices

1,800+ Servers

450+ Applications

Systems and services included SAP, commercial sales, digital marketing, warehouse and distribution systems



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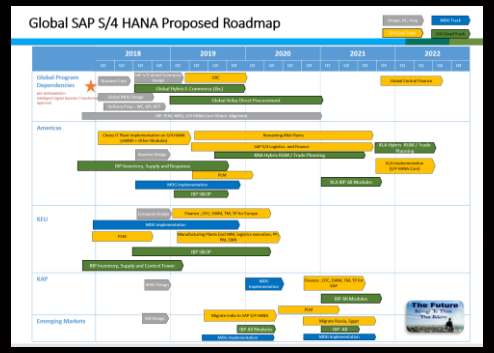
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Two approaches to cloud migration



A) Infrastructure Driven Approach: Traditional “Lift and Shift” approach moving from on-premises to public cloud.

- High up-front costs ($20MM+)
- Extremely disruptive to application roadmaps & the end user community
- Moves Kellogg into the cloud quickly but no real modernization of Applications, DB or OS platforms



B) Application Led Approach: Application led approach is based on building new business capabilities while moving to supported platforms

- Supports application modernization roadmaps
- Supports Operating System and Database modernization
- Less disruptive to user community
- Allows for application rationalization & consolidation to North Star platforms

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Migration strategies – the five R's

Rehost

- 5% of workloads

Re-platform

- 30% of workloads

Refactor

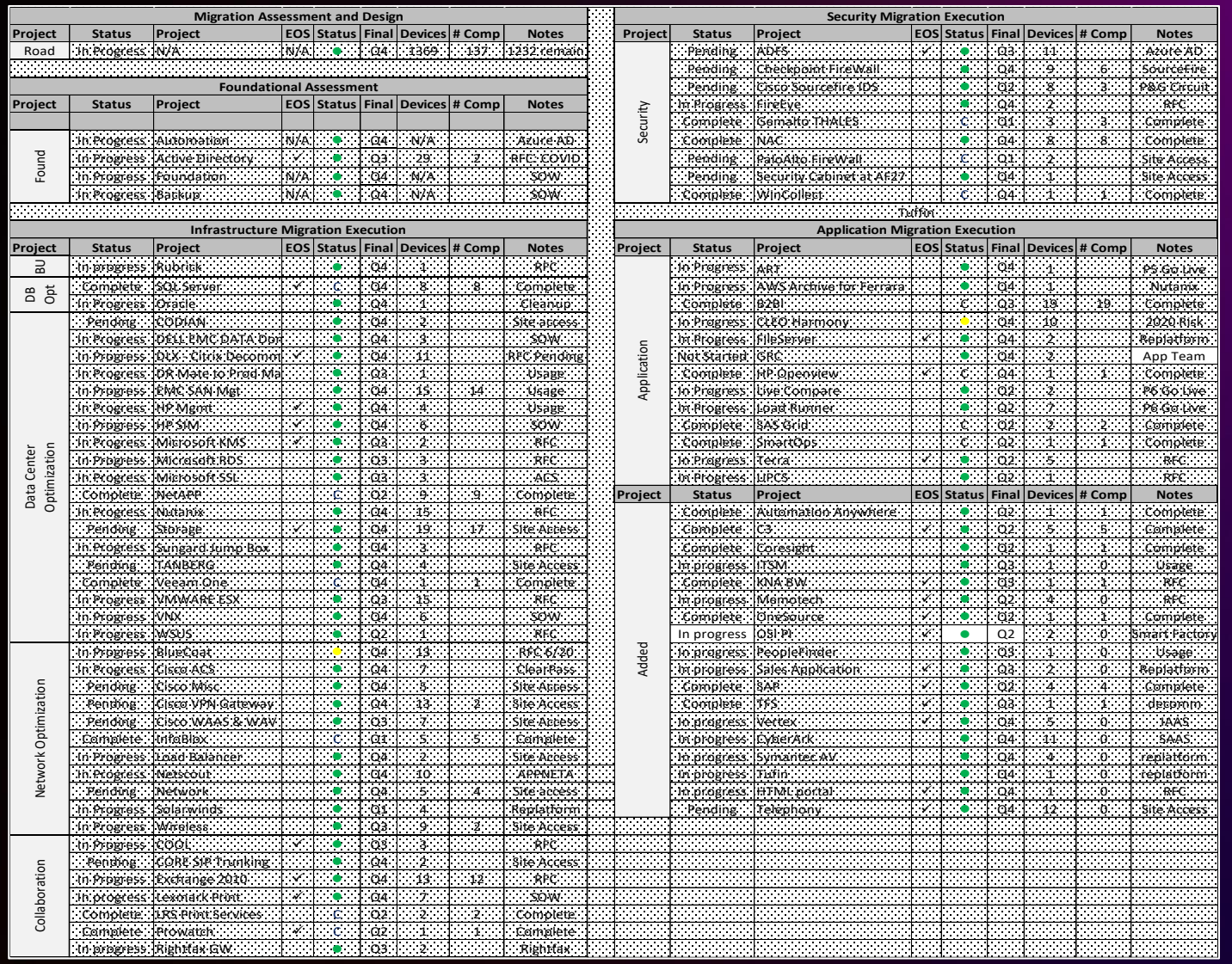
- 15% of workloads

Re-purchase

- 30% of workloads

Retire

- 20% of workloads



Migration Assessment and Design

Project	Status	Project	EOS	Status	Final	Devices	# Comp	Notes
Road	In Progress	N/A	N/A		Q4	1369	137	1232 remain

Foundational Assessment

Project	Status	Project	EOS	Status	Final	Devices	# Comp	Notes
Found	In Progress	Automation	N/A		Q4	N/A		Azure AD
	In Progress	Active Directory	✓		Q3	29	2	RFC COVID
	In Progress	Foundation	N/A		Q4	N/A		SOW
	In Progress	Backup	N/A		Q4	N/A		SOW

Infrastructure Migration Execution

Project	Status	Project	EOS	Status	Final	Devices	# Comp	Notes
BU	In progress	Rubrik			Q4	1		RFC
DB Opt	Complete	SQL Server	✓	C	Q4	8	8	Complete
	In Progress	Oracle			Q4	1		Cleanup
Data Center Optimization	Pending	CODIAN			Q4	2		Site access
	In Progress	DELL EMC DATA Dpr			Q4	3		SOW
	In Progress	DLX - Citrix Decomm	✓		Q4	11		RFC Pending
	In Progress	DR Mate to Prod Ma			Q3	1		Usage
	In Progress	EMC SAN Mgt			Q4	15	14	Usage
	In Progress	HP Mgmt	✓		Q4	4		Usage
	In Progress	HP SIM	✓		Q4	5		SOW
	In Progress	Microsoft KMS	✓		Q3	2		RFC
	In Progress	Microsoft RDS			Q3	3		RFC
	In Progress	Microsoft SSL			Q3	3		ACS
	Complete	NetAPP		C	Q2	9	9	Complete
	In Progress	Nutanix			Q4	15		RFC
	Pending	Storage	✓		Q4	19	17	Site Access
	In Progress	Sungard Jump Box			Q4	3		RFC
	Pending	TANBERG			Q4	4		Site Access
	Complete	Veeam One		C	Q4	1	1	Complete
	In Progress	VMWARE ESX			Q3	15		RFC
	In Progress	VNX			Q4	5		SOW
	In Progress	WSUS			Q2	1		RFC
Network Optimization	In Progress	BlueCoat			Q4	13		RFC 6/20
	In Progress	Cisco ACS			Q4	7		ClearPass
	Pending	Cisco Misc			Q4	5		Site Access
	Pending	Cisco VPN Gateway			Q4	13	2	Site Access
	Pending	Cisco WAAS & WAV			Q3	7		Site Access
	Complete	InfoBlox		C	Q3	5	5	Complete
	In Progress	Load Balancer			Q4	2		Site Access
	In Progress	Netscout			Q4	10		APPNETA
	Pending	Network			Q4	5	4	Site access
	In Progress	Solarwinds			Q1	1		Replatform
	In Progress	Wireless			Q3	9	2	Site Access
Collaboration	In Progress	COOL	✓		Q3	3		RFC
	Pending	CORE SIP Trunking			Q4	2		Site Access
	In Progress	Exchange 2010	✓		Q4	13	12	RFC
	In progress	Lexmark Print	✓		Q4	7		SOW
	Complete	LRS Print Services		C	Q2	2	2	Complete
	Complete	Prowatch	✓	C	Q2	1	1	Complete
	In progress	Rightfax GW			Q3	2		Rightfax

Security Migration Execution

Project	Status	Project	EOS	Status	Final	Devices	# Comp	Notes
Security	Pending	ADFS	✓		Q3	11		Azure AD
	Pending	Checkpoint FireWall			Q4	9	6	Sourcefire
	Pending	Cisco Sourcefire IDS			Q2	8	3	P&G Circuit
	In Progress	FireEye			Q4	2		RFC
	Complete	Gemalto THALES		C	Q1	3	3	Complete
	Complete	NAC			Q4	8	8	Complete
	Pending	PaloAlto FireWall		C	Q1	2		Site Access
	Pending	Security Cabinet at AF27			Q4	1		Site Access
	Complete	WinCollect		C	Q4	1	1	Complete

Jaffon

Application Migration Execution

Project	Status	Project	EOS	Status	Final	Devices	# Comp	Notes
Application	In Progress	ART			Q4	1		PS Go Live
	In Progress	AWS Archive for Ferrara			Q4	1		Nutanix
	Complete	B2BI		C	Q3	19	19	Complete
	In Progress	CLEO Harmony			Q4	10		2020 Risk
	In Progress	FileServer	✓		Q4	2		Replatform
	Not Started	GRC			Q4	2		App Team
	Complete	HP Openview	✓	C	Q4	1	1	Complete
	In Progress	Live Compare			Q2	2		P6 Go Live
	In Progress	Load Runner			Q2	7		P6 Go Live
	Complete	SAS Grid		C	Q2	2	2	Complete
	Complete	SmartOps		C	Q2	1	1	Complete
	In Progress	Terra	✓		Q2	5		RFC
	In Progress	UPCS			Q2	1		RFC

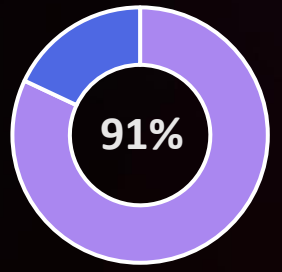
Project	Status	Project	EOS	Status	Final	Devices	# Comp	Notes
Added	Complete	Automation Anywhere			Q2	1	1	Complete
	Complete	C3	✓		Q2	5	5	Complete
	Complete	Coresight			Q2	1	1	Complete
	In progress	ITSM			Q3	1	0	Usage
	Complete	KNA BW	✓		Q3	1	1	RFC
	In progress	Memotech	✓		Q2	4	0	RFC
	Complete	OneSource	✓		Q2	1	1	Complete
	In progress	OSI PI	✓		Q2	2	0	Smart Factory
	In progress	PeopleFinder			Q3	1	0	Usage
	In progress	Sales Application	✓		Q3	2	0	Replatform
	Complete	SAP	✓		Q2	4	4	Complete
	Complete	TFS	✓		Q3	1	1	decomm
	In progress	Vertex	✓		Q4	5	0	IAAS
	In progress	CyberArk			Q4	11	0	SAAS
	In progress	Symantec AV			Q4	4	0	replatform
	In progress	Tufin			Q4	1	0	replatform
	In progress	HTML portal	✓		Q4	1	0	RFC
	Pending	Telephony	✓		Q4	12	0	Site Access

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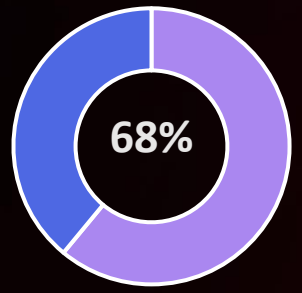
Migration progress

48 months

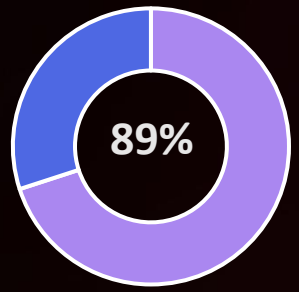
Overall Migration Planning & Execution for all workloads



Applications removed



Devices removed



Elapsed time

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Technical benefits

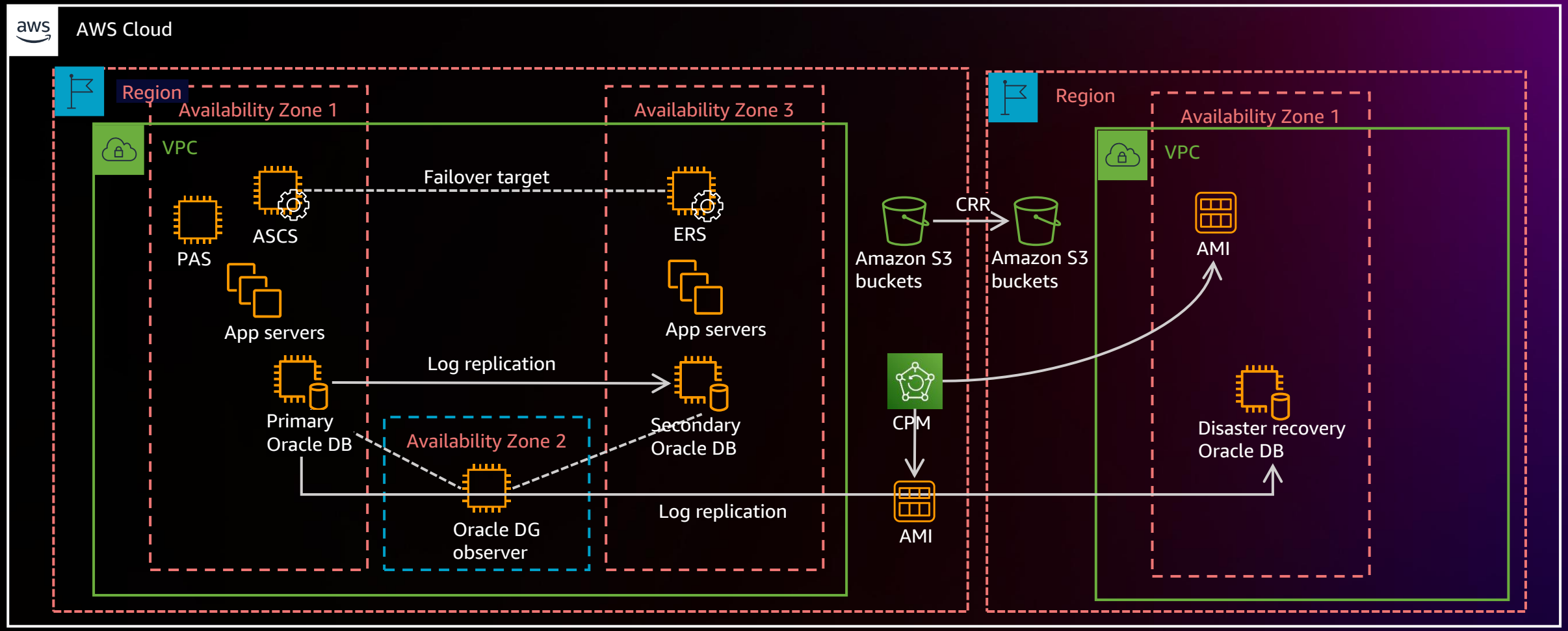
- Once everything is migrated, everything is in one place on one platform and aligns with our cloud-first strategy. Expand on innovation
- Team efficiencies, less wastage managing multiple platforms
- No CapEx replacement cycles – saving time and eliminating the need to predict five years of usage
- On-demand disaster recovery and backup
- Automation capabilities with infrastructure as code



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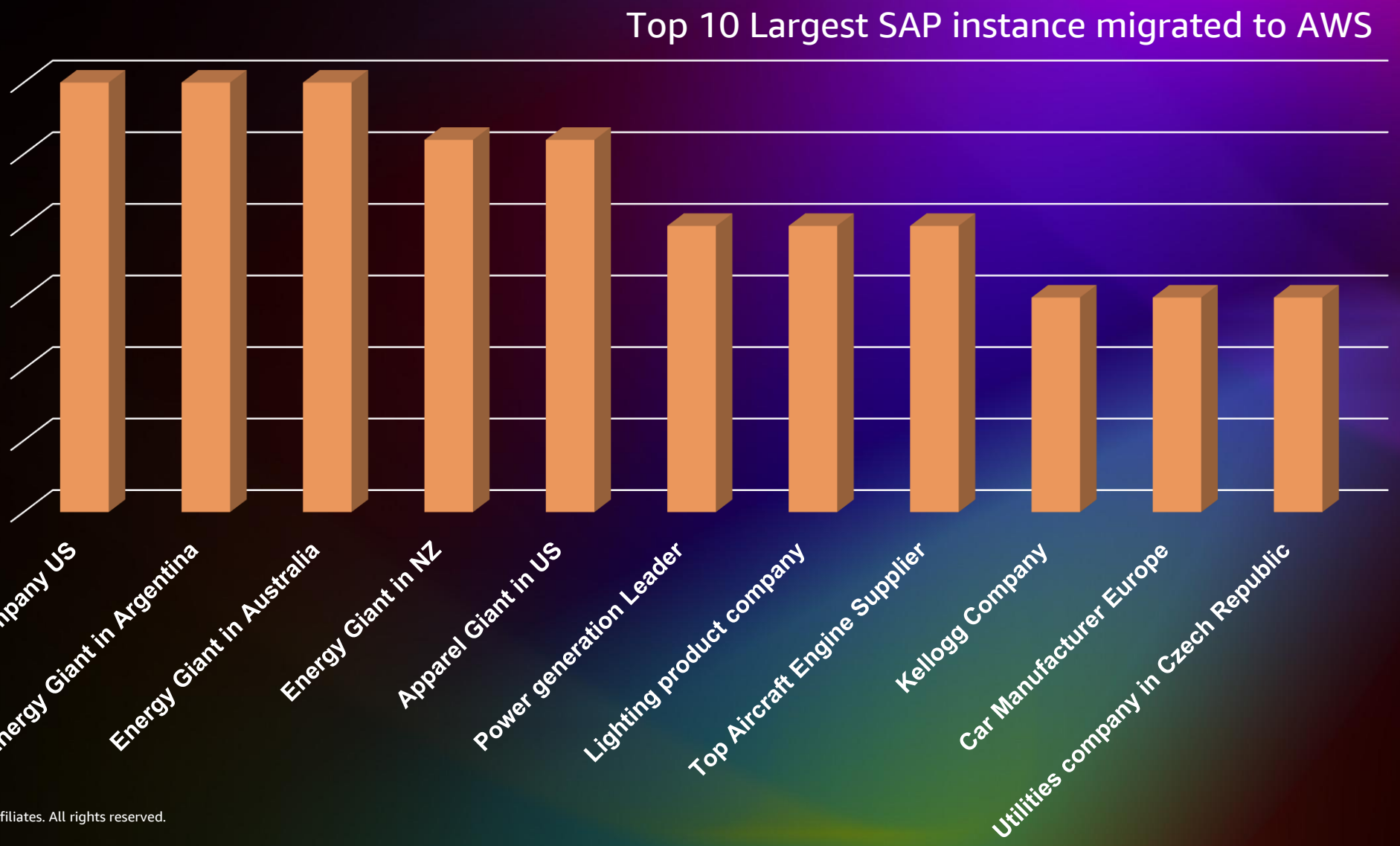
2022 highlight :: KNA SAP on AWS

ARCHITECTURE PATTERN



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We did it!



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Next steps

Optimize SAP landscape

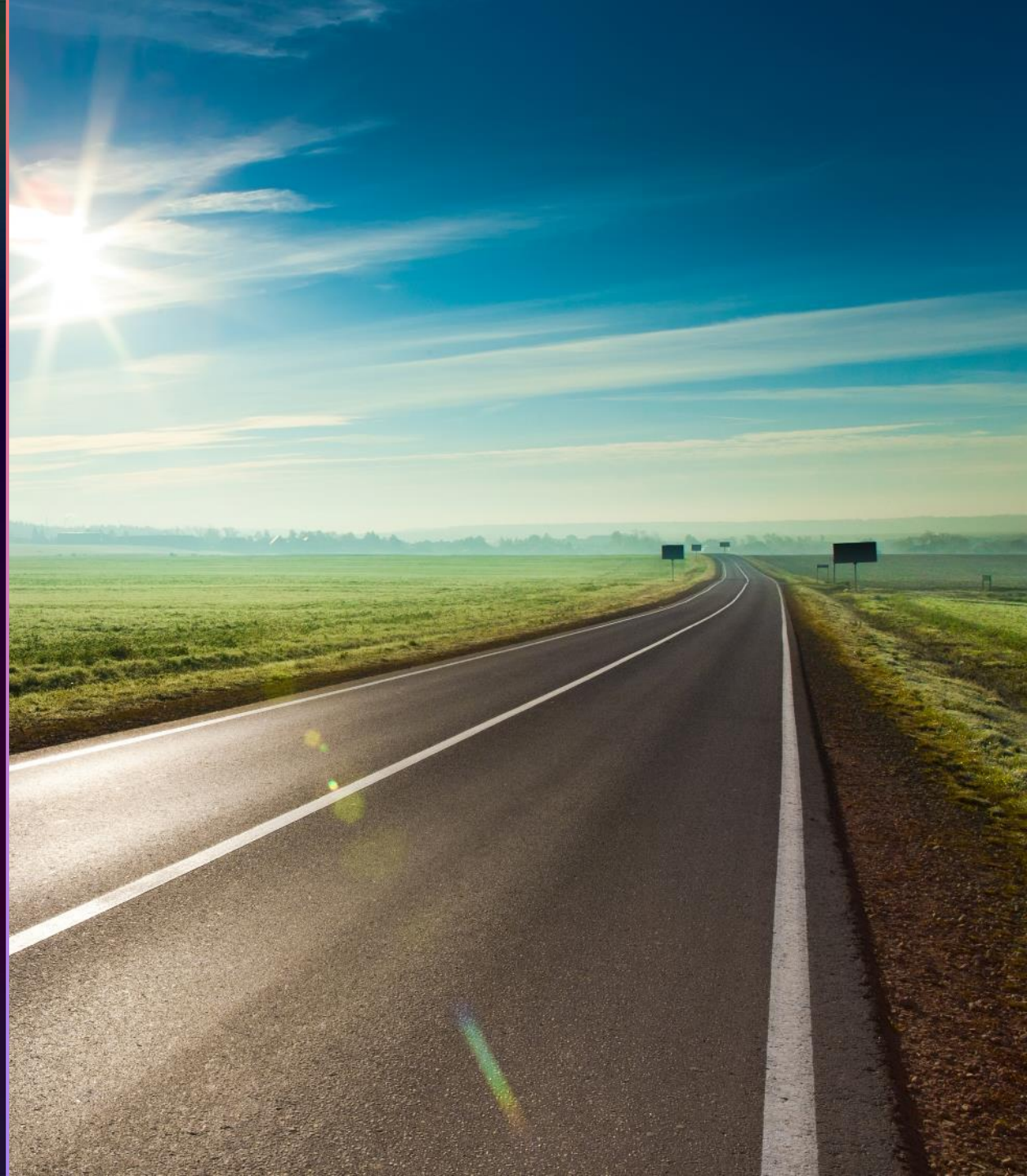
Enhanced DR testing and recovery

Expand Analytics to AWS native services

Exploit DevOps tools in AWS

Leverage AWS footprint for new use cases

Explore Cloud area network possibilities



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Business benefits

Improved performance by 30% – sales reports are sent hours quicker to our stakeholders

SAP production systems easily coped with customer demand during peak events

Business and tech more confident as we can scale SAP when going into busy periods



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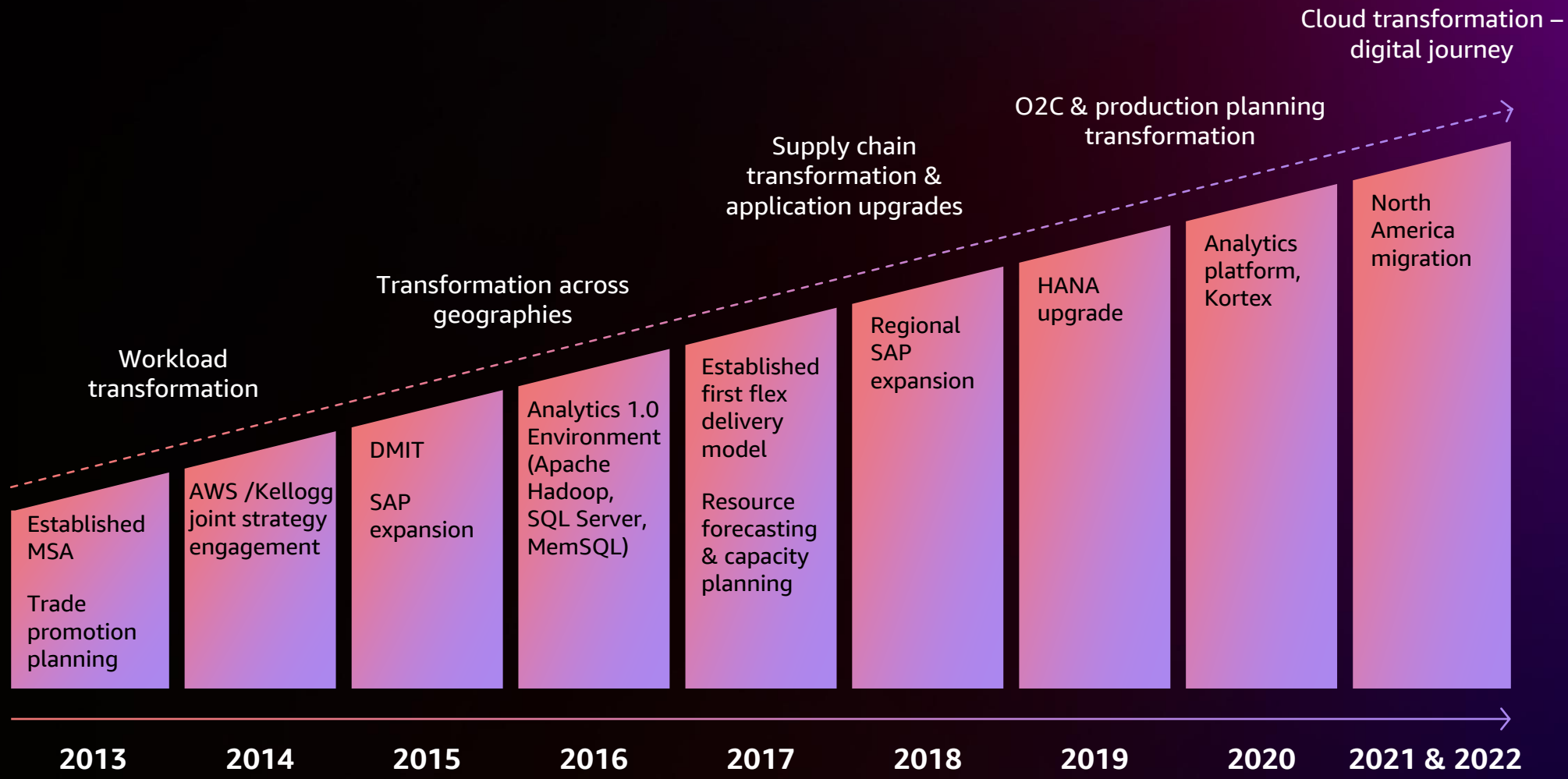
AWS and Kellogg's journey

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Key takeaways



People and Culture



Test, test, test!
Zero production issues post GoLive



Build strong bridges across the teams and partner ecosystem



Continual optimization and modernization is key

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