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Americas' SAP Users' Group

How Content has Transformed a Technology-Driven Construction Company: Katerra Case Study.

Samrat Sengupta, Sr. Director IT Enterprise Apps, Katerra
Session ID #ASUG83191
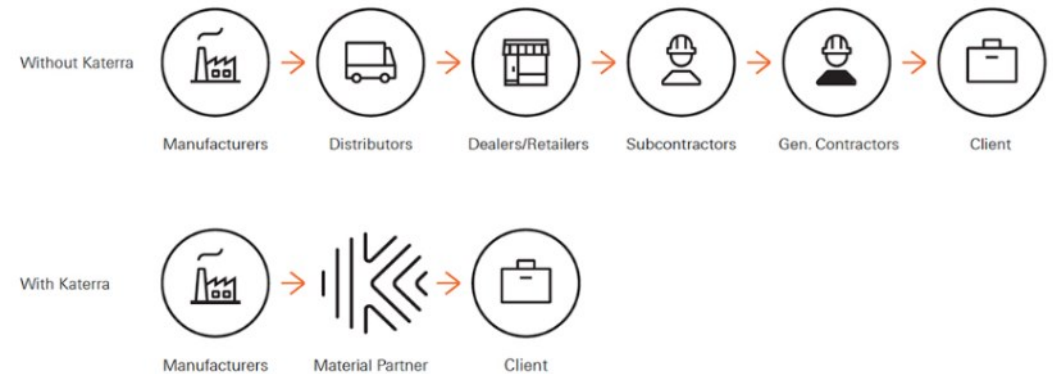
About the Speakers

Samrat Sengupta

- Sr. Director IT Enterprise Apps
- Katerra
- Senior IT leader with a strong focus on execution, establishing strategic road maps and business partnerships across all enterprise applications. He joined Katerra in 2016 and replaced NetSuite with SAP S/4HANA within 5 months. Prior to Katerra, he was with SanDisk for 9 years and responsible for all large enterprise applications such as SAP, i2, MS CRM, and Agile for supply chain, operations, logistics, and sales.

- On his free time likes to ride his motorcycle

Jaime Gutierrez

- Founding Partner and Chief Architect Officer
- Optima ECM Consulting
- 15+ years architecting (20+ consulting), deploying and optimizing SAP ECM and OpenText solutions for Global clients. Certified SAP Consultant in different technologies, 3 consecutive times recognized as one of the best SAP trainers by SAP Latin America. Frequent speaker at SAP and Microsoft conferences on the topics of Content Management, ILM/Data Archiving, Document Management and Information Governance

- Has been with SAP and OpenText for more than half of his life.

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About Katerra

- Founded in 2015
- 5000 Employees
- A technology company at heart, we're applying tested systems approaches from other industries to design and construction.
  - Vertically Integrated
  - Balancing Design Efficiency + Choice
  - Global Supply Chain
  - Factory & Jobsite Integration

Without Katerra: Manufacturers → Distributors → Dealers/Retailers → Subcontractors → Gen. Contractors → Client

With Katerra: Manufacturers → Material Partner → Client

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What we do

Katerra is an end-to-end building services provider.

Architecture
Interior Design
Engineering
Manufacturing
Building Material Supply
General Contracting
Skilled Labor
Renovations
Property Management
Software
Intelligent Buildings

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Progress

2015 — **Katerra** Was Founded

2016 — **Top 25** Multifamily US GC

2017 — **15 Projects** Broken Ground

2018 — **700+ Projects** In Progress

GC Licensed Nationally

ARCH Licensed In 31 states + BC, AB

3 Operational Factories

4 Factories in Dev.

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Global presence

Asia & Europe

- Graz
- Neom
- Dammam
- Riyadh
- Jeddah
- Dubai
- Lucknow
- Mumbai
- Pune
- Hyderabad
- Bangalore
- Shanghai
- Hangzhou
- Shenzhen
- Hong Kong

North America

- Vancouver
- Seattle
- Spokane
- Toronto
- Denver
- New Jersey
- San Francisco
- Menlo Park
- Tracy
- Scottsdale
- Phoenix
- Dallas
- Texas Factory
- Guadalajara

Legend:
- Office
- Engineering Center
- Component Factory
- Future Factory
- CLT Factory

5,000+ Global Team

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Katerra Services

Flexible solutions across the building life cycle.
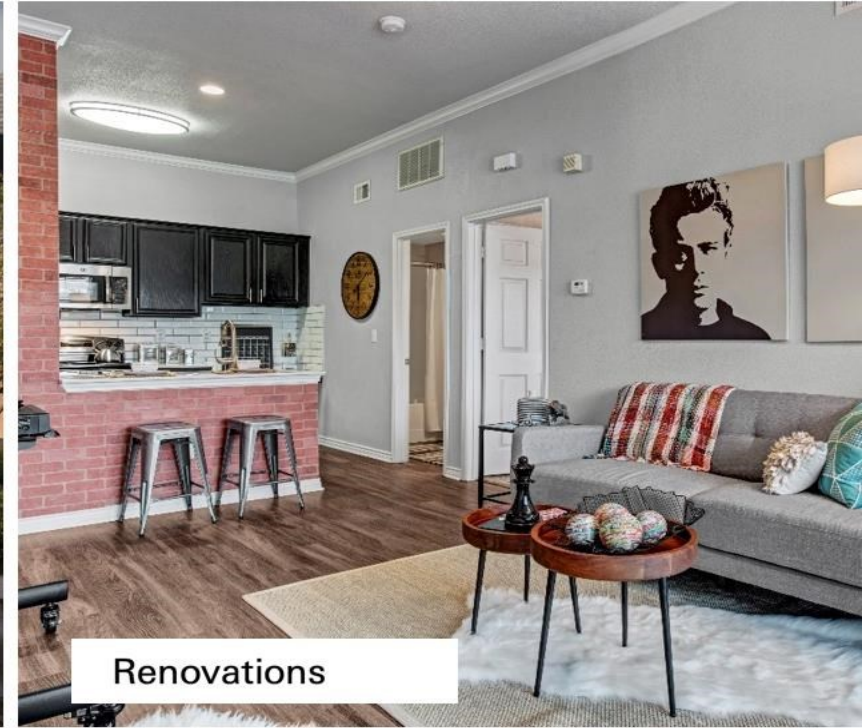

Materials

New Build

Renovations

- **Direct Material Sales**
- Curated catalog of structural components, finish items, and kitchen & bath products
- Management of all logistics, including delivery and installation

- **End-to-End Services**
- Fully-integrated delivery of building projects, including design, materials procurement, manufacturing, and construction

- **Renovation Services**
- Fully-integrated renovation services for multifamily market rate, affordable, commercial, and retail markets

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Market Experience

Multifamily

Senior Living

Student Housing

Masterplan Development

Commercial

Hospitality

Education

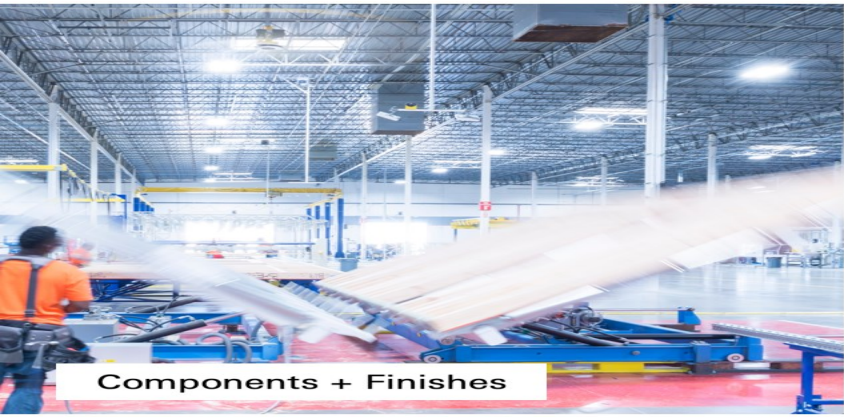Industrial

Retail

Hospitals

Schools

Malls

Complete material expertise

Engineered Wood

Light Gauge Steel

Mass Timber

Precast Concrete

Robotic Manufacturing

Components + Finishes

Mass Timber

Precast Concrete

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Current IT portfolio

Enterprise Applications & Data	Manufacturing Applications	Design & Construction	Collaboration Stack	Infrastructure & Security	Web
Arena PLM	CAD (Various)	Revit Architecture	Zoom Voice / Video	AWS Application Hosting	Adobe .com
SAP ERP & BW	CAM (Various)	Innovaya Material Takeoff	Box Document Management	AWS Virtual Desktop	Adobe Catalog
MS-Dynamics CRM	Factory Quality App.	HCSS Estimation	O365 Suite Email, Security	CrowdStrike Anti-Virus/Malware & APT	SAP Hybris B2B for Materials
EDI-Dell Boomi	Service-Now Asset and Facility Mgmt. & Maintenance	Navvis Clash Detection	Skype Chat		External Account Management
SAP Ariba Contract/ Sourcing		P6 Scheduling (New Infra.+ Mobile App.)	Sharepoint Intranet	Cisco Networking	Project Portal
SAP Warehouse Management	SAP MES / MII				
Mobility-Fiori		Onsite Inventory Receiving	Service-Now Incidents & Service	Firewalls Palo Alto Network	
SAP-OpenText Content Mgmt.		SAP Visual Enterprise	ADP-HR Integration		
SAP – Financial Planning				SIEM Security & Infra Monitoring	
TMS (Process Weaver)			OneLogin Single Sign-On	Nasuni File Management	

Industry Best-in-class Solutions & Platforms

Legend:
- ▇ Implemented
- ▇ Being Implemented
- ▇ Evaluation

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Current IT Applications roadmap

Master Data Governance – Customer, Product, Project & Workforce

Construction

Project Scheduling – P6/SAP

Integration with Katerra Construct

Architecture & Design

Project Time(Ajeera)

Project Billing - SAP

Corp. Functions

ERP – SAP	HR Solutions (Workday)
Marketing (AEM)	AP Invoice Imaging and Workflow(Open Text)
MS CRM – Lead and Oppt	Financial Planning (SAP)
Engineering (TBD)	

Other Business Units

Lighting - ERP – SAP	UR – GL Trial Balance - SAP
Construct Corp. – GL Trail Balance - SAP	Int'l Sites - India

Materials

ERP – SAP	PLM (Arena)
Quote	EDI(AVC->SAP)
Supplier Lifecycle(Ariba)	Customer Ordering Portal(Hybris)
WMS Factory(SAP)	Transaction Document management(Open Text)

Factory

Factory Automation

SAP –ME/MII

Factory Time & Attendance (Acumen)

Production Order

Mobility - Fiori

Reporting – Dashboard/ Visualization(Tableau)

Business Intelligence & Data Analytics

Identity Mgr. (Microsoft Azure AD) - Authentication & Security

Enterprise Collaboration – Intranet (SharePoint)

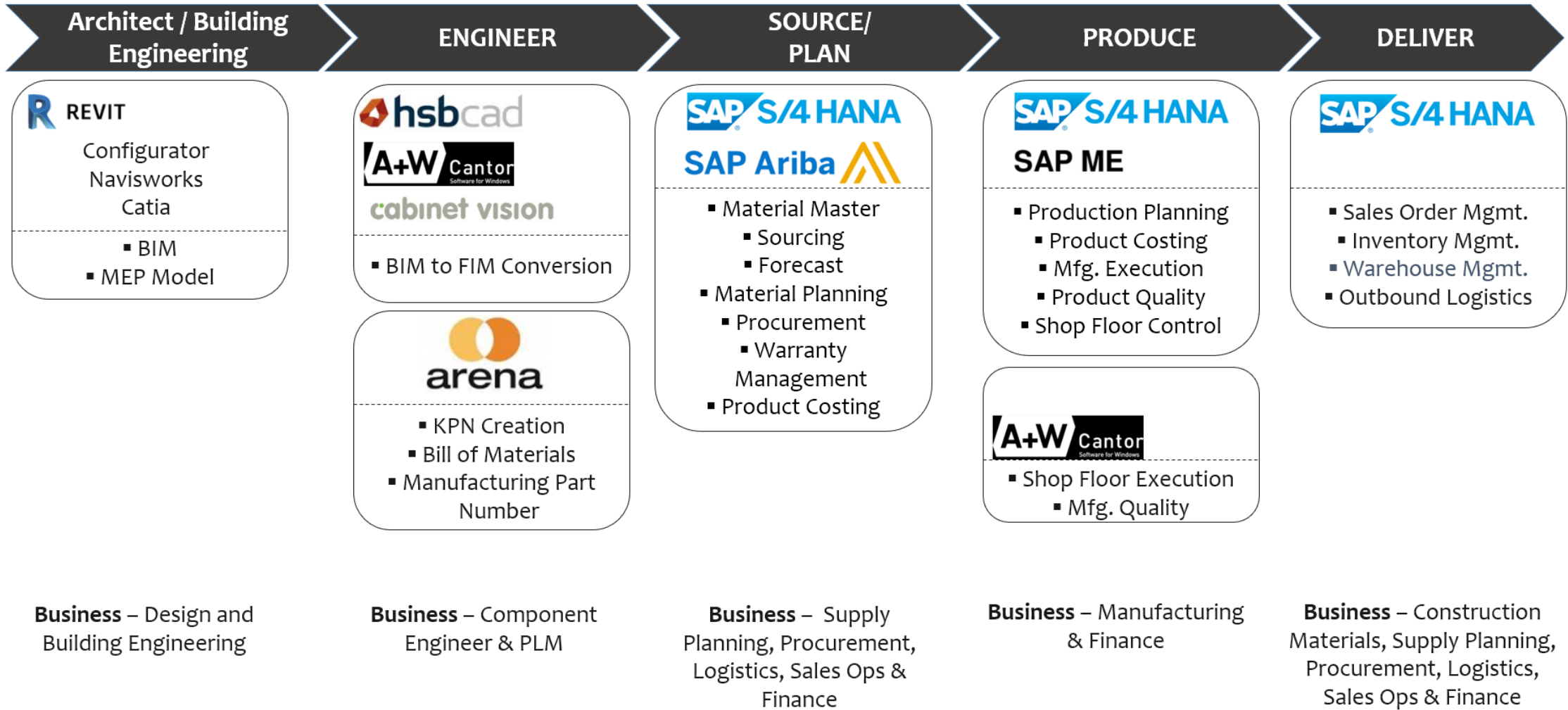**Adobe Experience Manager - External Websites**

Enterprise Content Management-Open Text

Completed	In-Flight	FY18 2H Priority	Future

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Value Chain and System Architecture Overview

Architect / Building Engineering	ENGINEER	SOURCE/ PLAN	PRODUCE	DELIVER
REVIT Configurator Navisworks Catia - BIM - MEP Model	**hsbcad** **A+W Cantor** *cabinet vision* - BIM to FIM Conversion **arena** - KPN Creation - Bill of Materials - Manufacturing Part Number	**SAP S/4 HANA** **SAP Ariba** - Material Master - Sourcing - Forecast - Material Planning - Procurement - Warranty Management - Product Costing	**SAP S/4 HANA** **SAP ME** - Production Planning - Product Costing - Mfg. Execution - Product Quality - Shop Floor Control **A+W Cantor** - Shop Floor Execution - Mfg. Quality	**SAP S/4 HANA** - Sales Order Mgmt. - Inventory Mgmt. - Warehouse Mgmt. - Outbound Logistics
Business – Design and Building Engineering	**Business** – Component Engineer & PLM	**Business** – Supply Planning, Procurement, Logistics, Sales Ops & Finance	**Business** – Manufacturing & Finance	**Business** – Construction Materials, Supply Planning, Procurement, Logistics, Sales Ops & Finance

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Our Journey on S/4HANA

2015

2016

2017

2018

Katerra
Was Founded

NETSUITE

SAP S/4HANA

SAP Ariba

SAP ME

SAP Fiori

opentext

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What Drove the Need for OpenText

- Attaching content across almost all SAP transactions

- Ability to download all attachments from different SAP Objects at once

- High volume of expenses without POs that should get directed to our customers to get paid

- Automation of the AP process with a Workflow-Based tool that integrates content

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Content integration in Business Processes
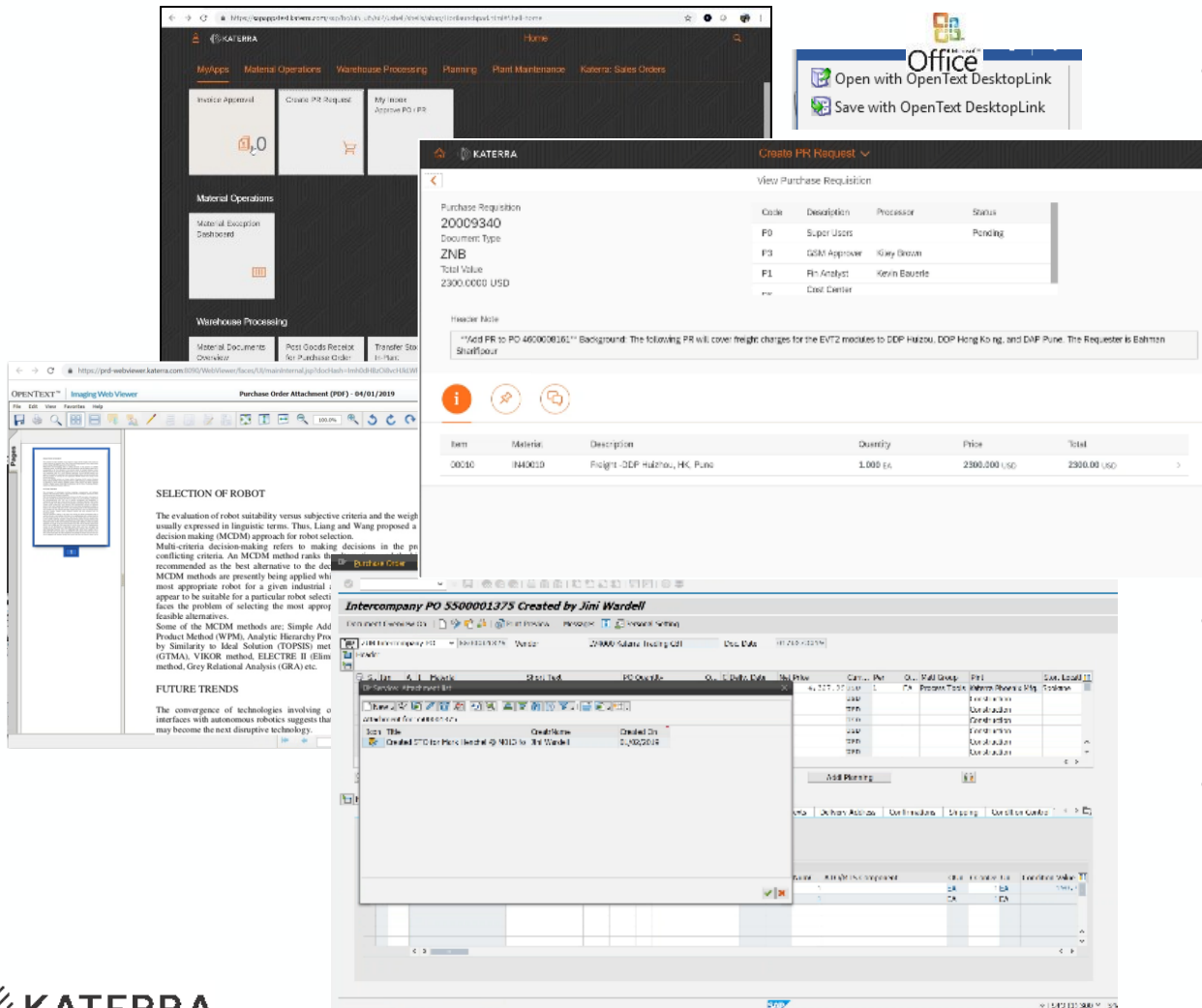
- Migration of **100k** attachments from SAP Office (SAP DB) to OpenText Archive Center
- Ability to handle attachments on more than **(15)** fifteen S/4 HANA Business Objects via SAP GUI or Launchpad / FIORI UI
- Integration of MS Office Suite for document creation
- Creation Attachments from **Fiori Apps**

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Content flow through Business Processes

Replication Framework

BO — Sales order

Business Rules

BO — Purchase Requisition

Business Rules

BO — 3rd Party PO

CONTENT
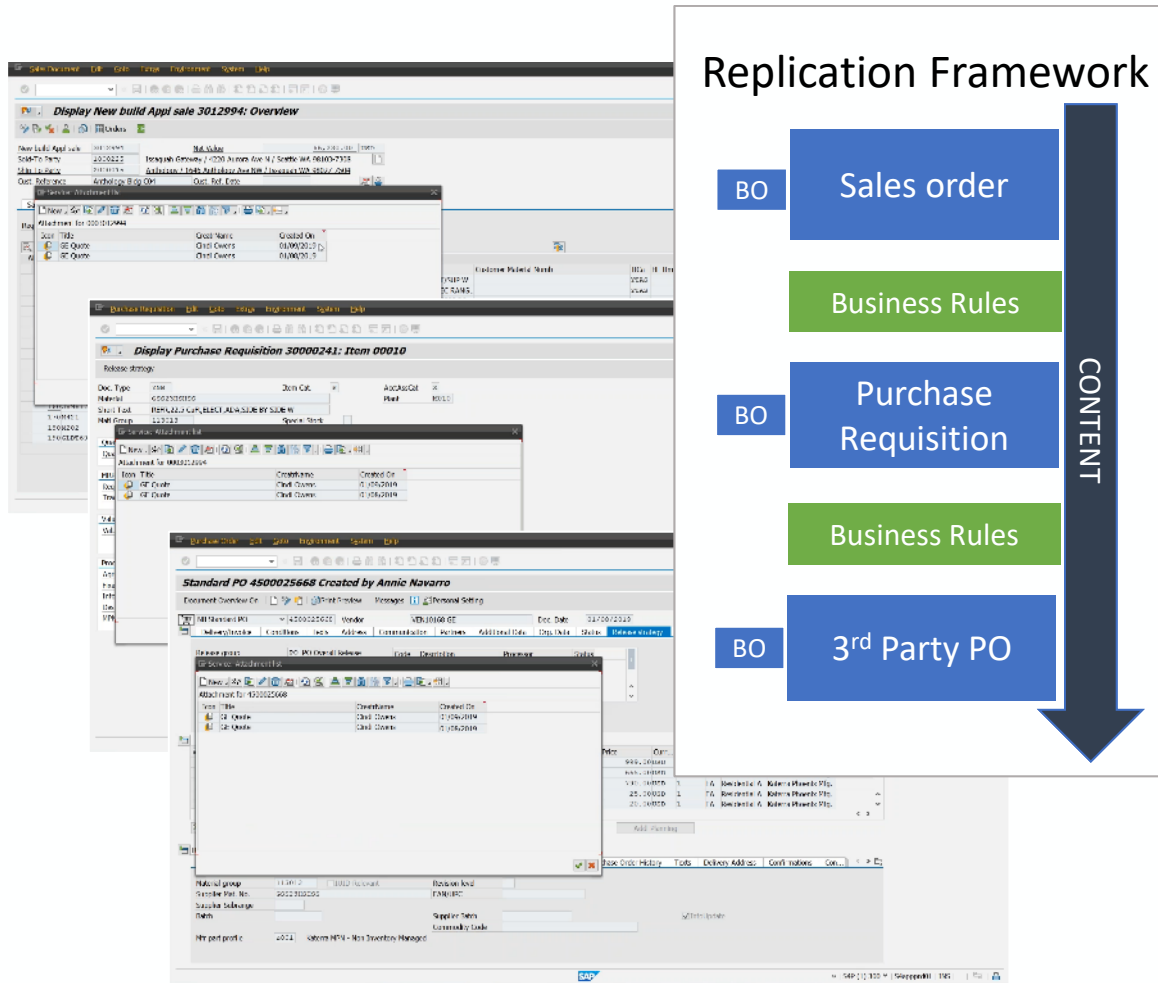
- Automated replication of attachment-linkage between SAP objects based on business rules

- Implemented scenario for Purchase Requisition to Purchase Order attachment replication

- Implemented scenario for Sales Order to Purchase Requisition attachment replication

360-degree View of Content in Context for Construction Projects
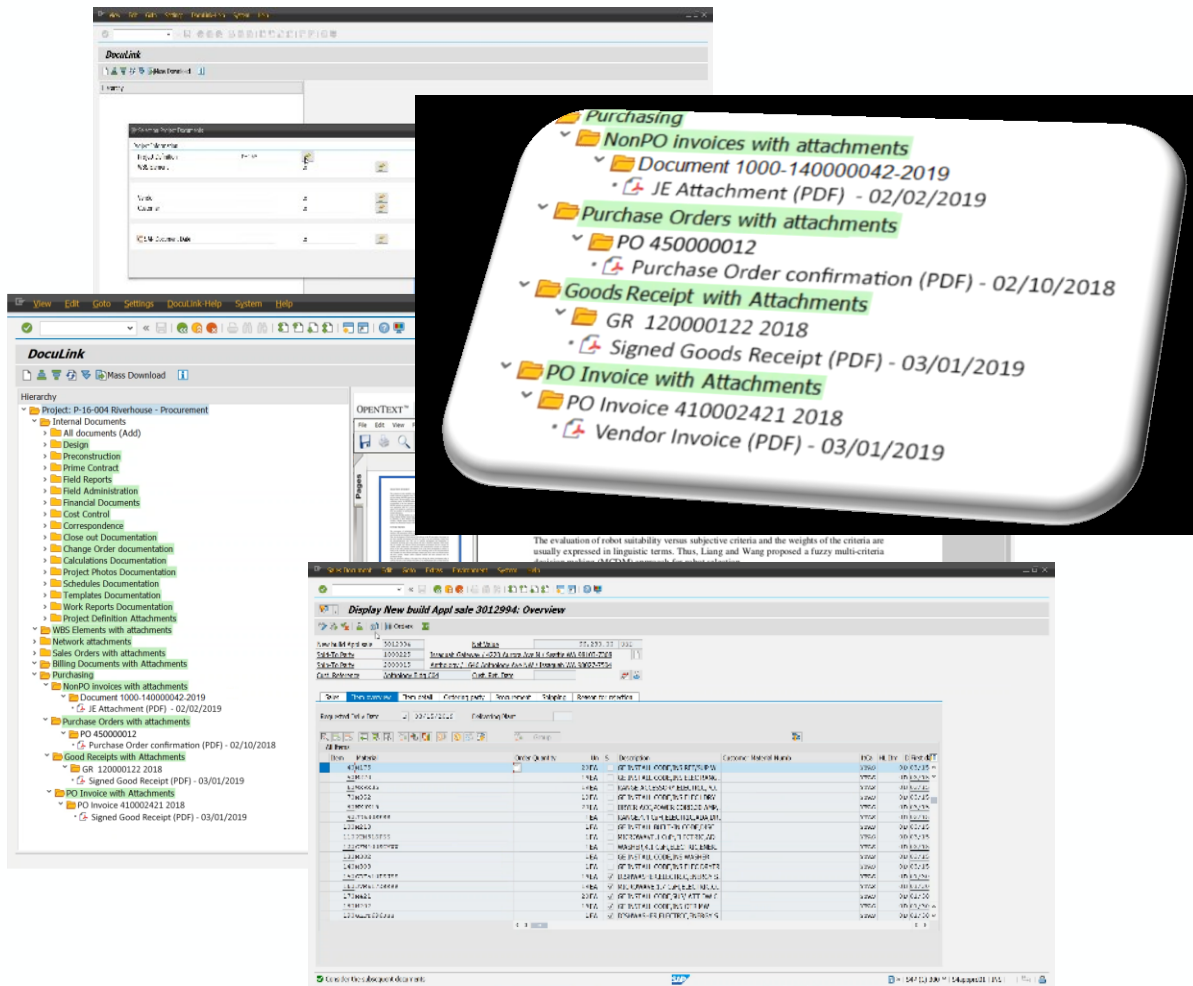
- Ability to search, browse and display content spread along +15 S/4 HANA business objects based on individual construction projects

- Mass-downloading of multiple documents from different Business Objects at once

AP automation with Vendor Invoice Management (VIM)

- Streamlined the AP process for invoice processing

- Automated email processing for Vendor Invoice ingestion

OCR integration for invoice recognition

Project Highlights

Applications

S/4HANA
SAP Document Access by OpenText
SAP Vendor Invoice Management by OpenText

Scope

Phase #1: Migration SAP Office to OpenText Archive Center – Automatic replication of content links – Mass download of attachments - Bringing content from mobile applications
Phase #2: Implementation of Vendor Invoice Management with OCR capability

Grow Digital

New business architecture
Big step forward in the right direction, and more improvements are still to come

Partnership

High consultative value and trusted advisor throughout the transformation journey
Strong engagement, extensive knowledge and expertise helped the Katerra team to deliver a successful Go-Live

Change Management

Lead change with process, not technology
Build change coalition and communicate

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Lessons Learned

1. Having the business paying attention to the approval workflow and have the approvers involved early on to have them approve invoices in the test system

2. On the hardware, there are some setups needed on the laptop/desktop is a pre-requisite and so it's a good idea to not assume all user laptops would have those setups.

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About Optima ECM Consulting

90%+

On Time and on Budget Projects

350+

Completed Implementations

250,000

Hours of Quality Services Delivered

90%+

Client Satisfaction

3

Global Offices US, Mexico, Spain

35%

Progressive YOY Growth Rate

Optima is an EIM thought leader focused on helping our clients achieve their goal of becoming an Intelligent Enterprise.

Our focus on Process Optimization with best of class solutions has resulted in our clients' achieving process excellence.

We are an SAP:

✓ Services Partner

✓ Sell Partner

✓ Consulting Services Partner

SAP Gold Partner ™

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Key Outcomes & Benefits

1. Invoice approval processing time reduced by 70%

2. Content was moved to OpenText Archive Center in S/4 HANA

3. No need for local clients to view documents (OpenText Web Viewer)

4. Mass download of attachments

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Looking Ahead

Implement SAP Extended ECM by OpenText to:

- – Single repository for all content and collaboration
- – Scalable solution seamlessly integrated with SAP
- – Apply Records Management

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Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:
http://info.asug.com/2019-ac-slides

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Q&A

For questions after this session, contact us at [email] and [email].

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