

Crafting a Strategic Enterprise Architecture Roadmap:

Methodology and Tools for Success

Jason Porterfield
North American Vice President, Enterprise Architecture
SAP America

Las Vegas

2024

SAPinsider



In This Session

Delve into the essential components of a holistic approach to enterprise architecture. We explore the strategic imperative of enterprise architecture and how it underpins organizational success.

We will outline SAP's comprehensive Enterprise Architecture Framework methodology, rooted in best practices, for building an effective enterprise architecture roadmap. Gain insights into how we leverage our methodology and tools to assist organizations in modernizing their Enterprise Architecture.

What We'll Cover

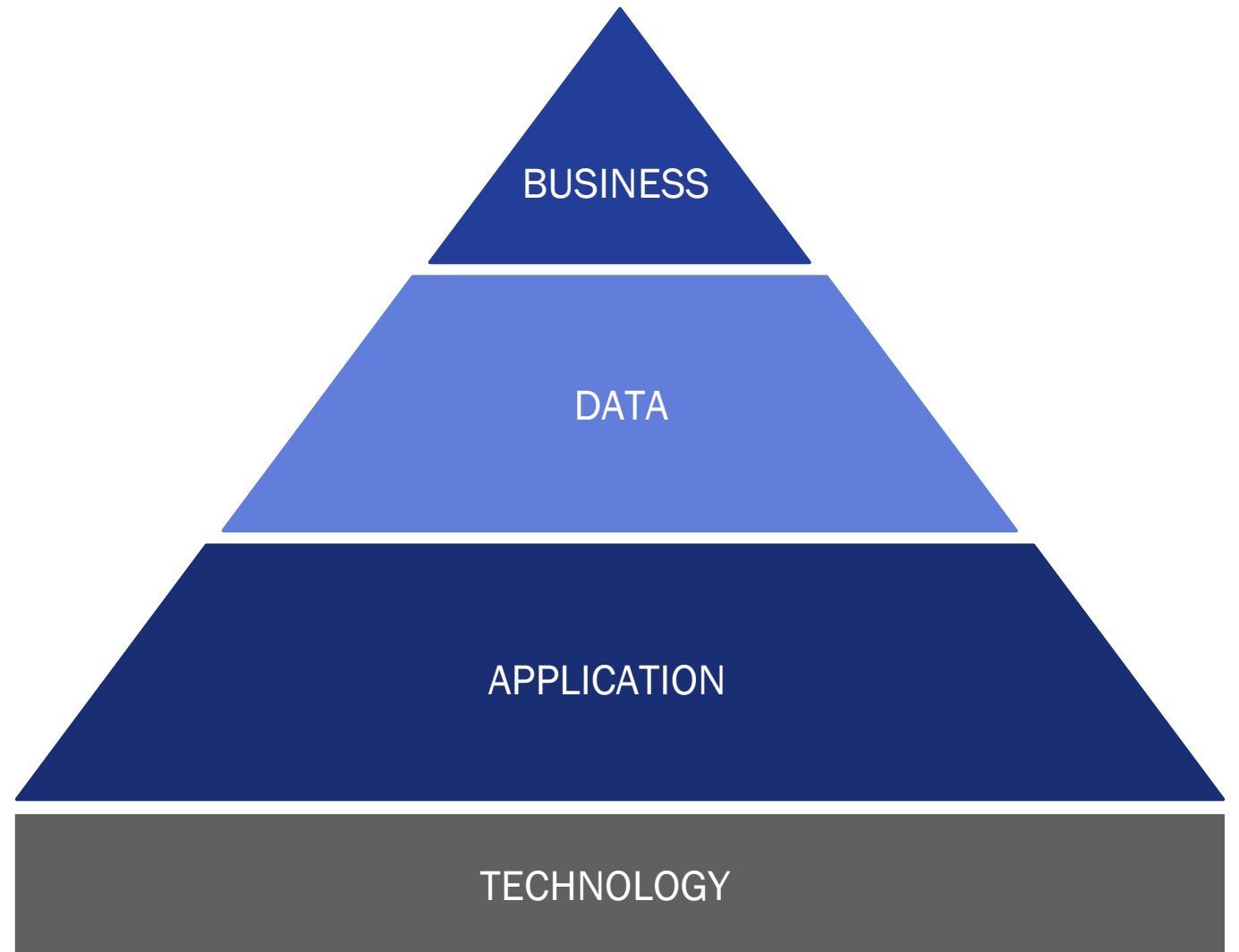
- **Enterprise Architect NorthStar**
- **Building a Sustainable Environment**
- **SAP Enterprise Architect Methodology**
- **SAP Enterprise Architect Approach**
- **Tooling**
- **Wrap Up**



Enterprise Architect NorthStar



Enterprise Architecture Domains





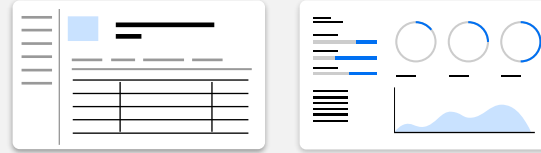
DEFINITION

Com·po·sa·bi·li·ty

The ability of a system allowing **selection, assembly, and rearrangement** of components to fit specific and changing user requirements.

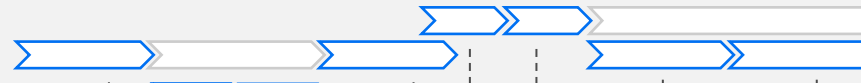
Enterprise Architecture NorthStar **Composability**

Applications



Towards an Autonomous ERP
Assisted human-controlled environment

Workflows



SAP PBCs + 3RD Party PBCs

AI-driven orchestration

Interoperability

Components

Packaged Business
Capability (PBC)

User Interfaces

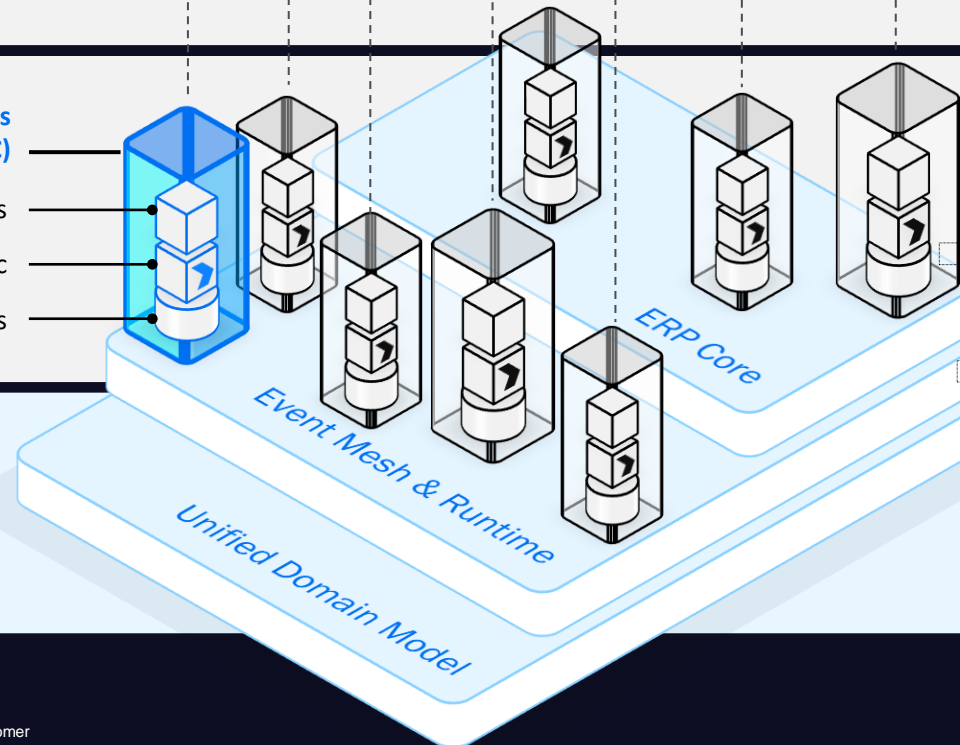
Business Logic

Business Objects

Key Ingredients

A composable architecture builds the foundation

Foundations

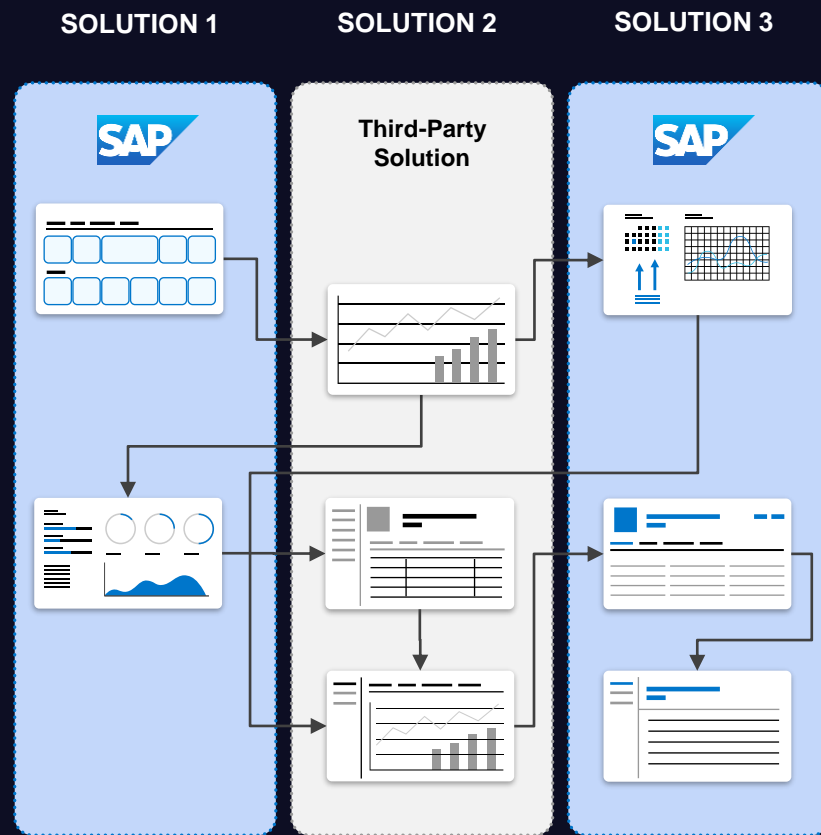


Explicit, executable processes

Interchangeable components (PBCs)

Let's rethink the way processes are implemented

From *application-centric* integration...



...to *process-centric* composition



Building a Sustainable Environment



1. BUSINESS CHANGE

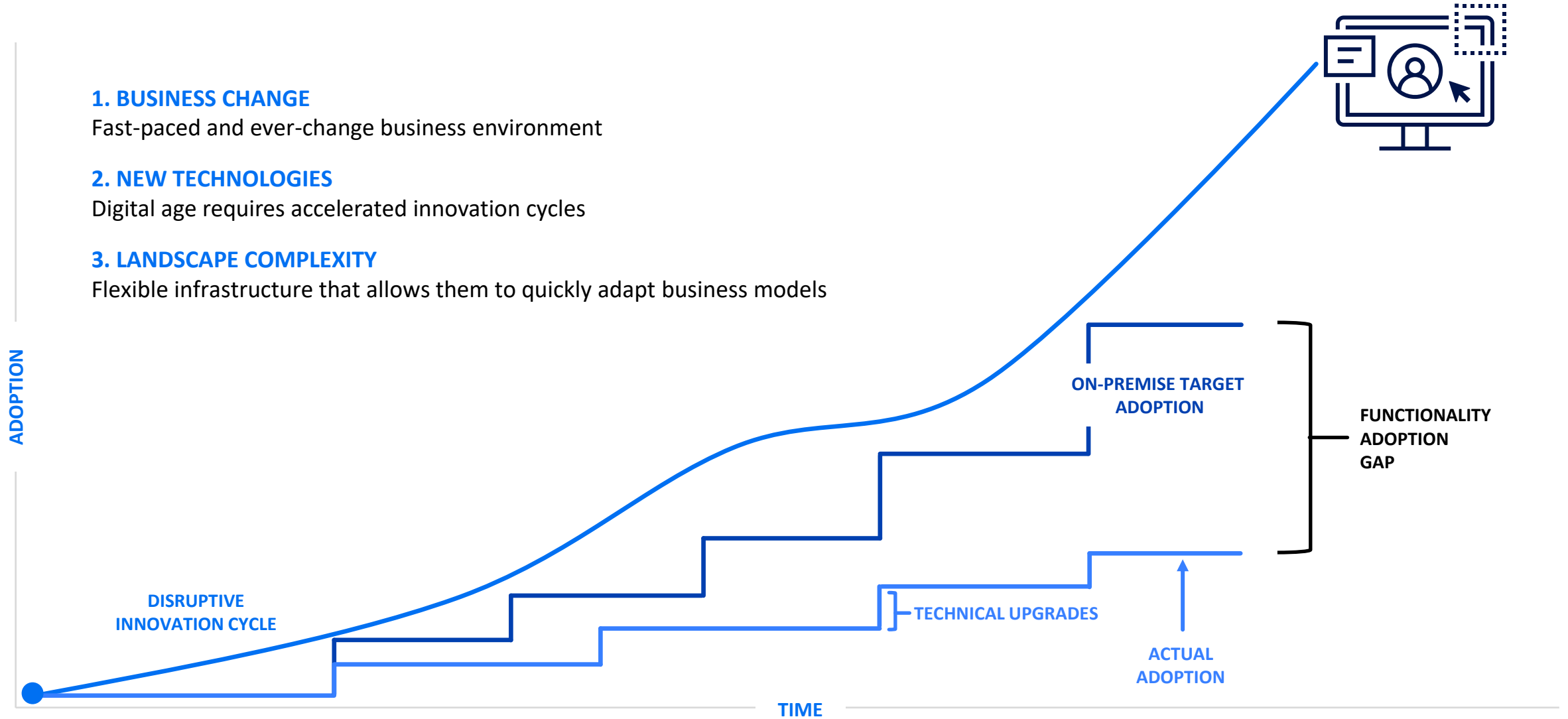
Fast-paced and ever-change business environment

2. NEW TECHNOLOGIES

Digital age requires accelerated innovation cycles

3. LANDSCAPE COMPLEXITY

Flexible infrastructure that allows them to quickly adapt business models





Let's Talk

CLEAN CORE

The “clean core” concept is a **mindset** and **philosophy** supported with governance and guidelines that lay the foundation for a flexible and future ready ERP.

...agility

Clean environments decrease time to value. Additional process requirements can be implemented faster and business models can adapt to short term challenges more easily.

...Leverage latest innovations i.e. to **stay current**.

Adaptation effort in the context of updates and upgrades is reduced. Cloud services can be integrated faster.

...efficient and secure operations

E.g. no costly maintenance for unused artefacts.

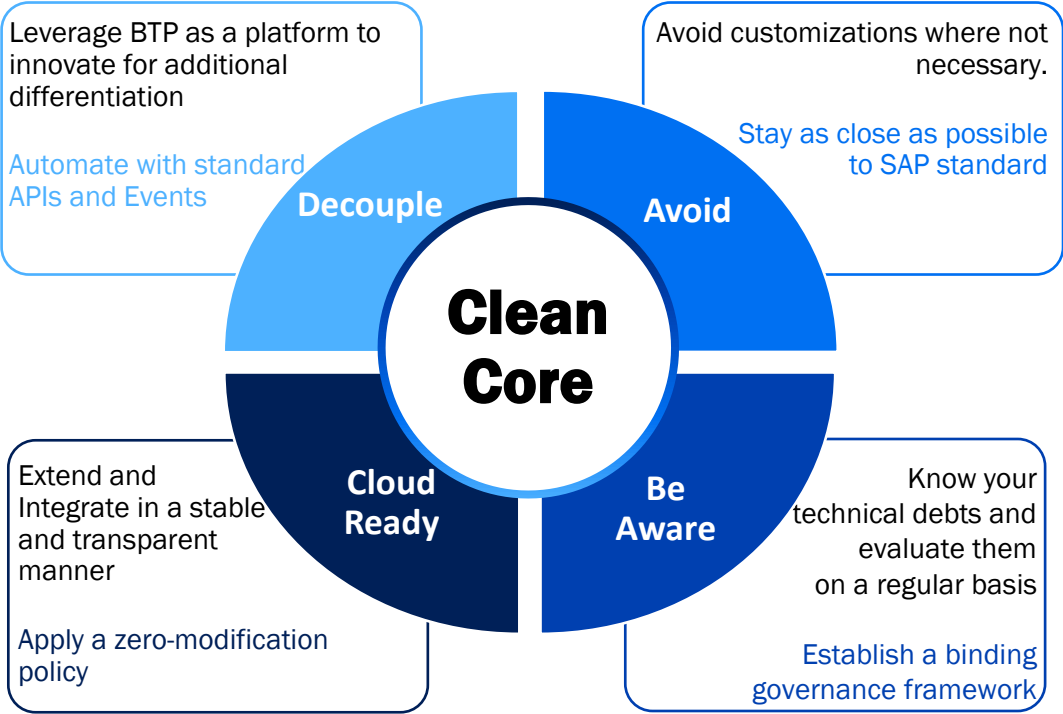
...data to value

Consistent data allows reliable forecasts and precise predictions.

Clean Core Strategy

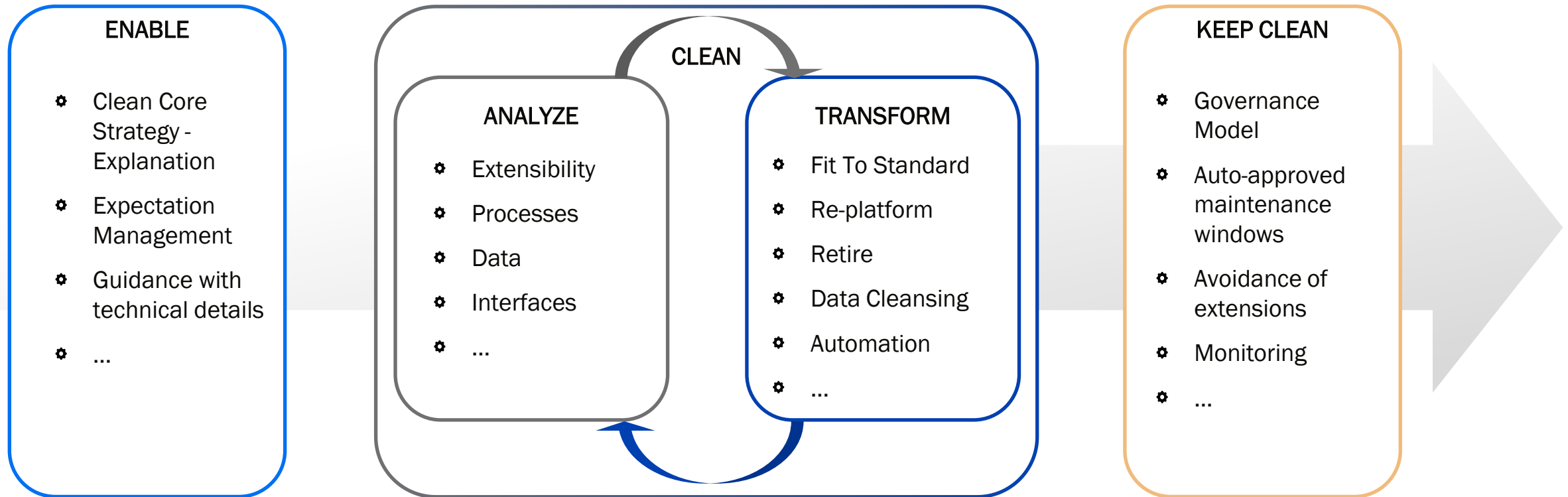


Dimensions



Guiding Principles

Start by **understanding** with transparency, on what to **rework** in order to continuously **monitor**

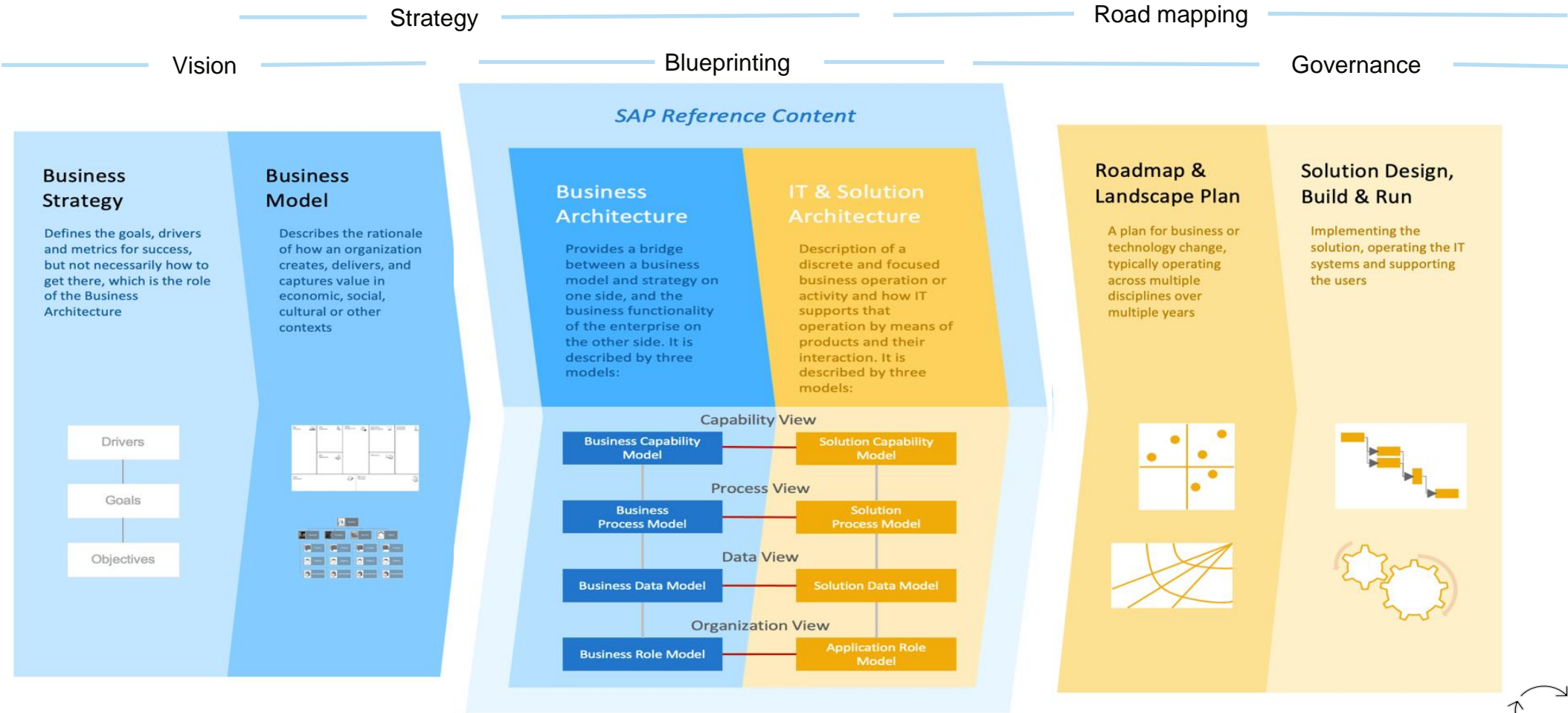


SAP Enterprise Architect Methodology



SAP Enterprise Architecture Methodology

Linking Business and IT



Alignment

A. Architecture Vision

B. Business Architecture

C. Application & Data Architecture
D. Technology Architecture

E. Opportunities & Solutions

F. Migration Planning

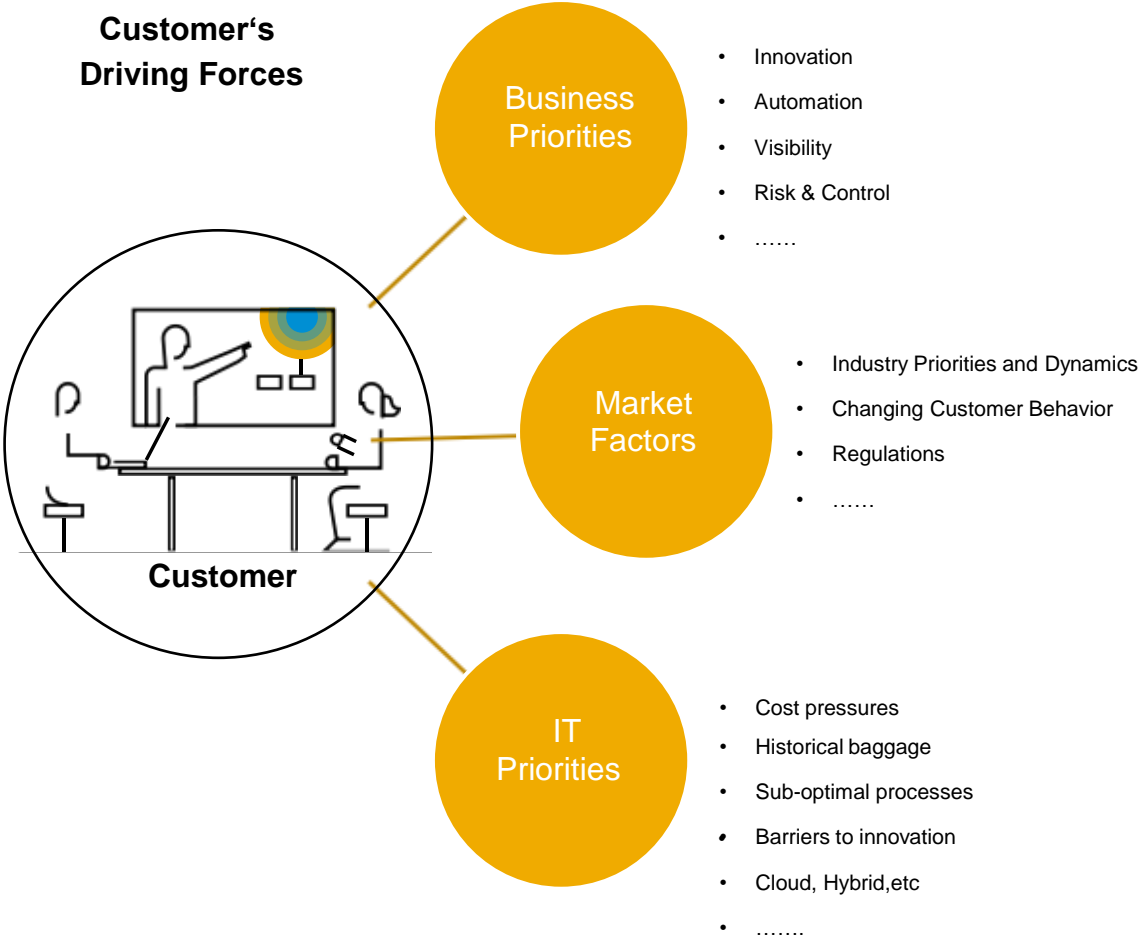
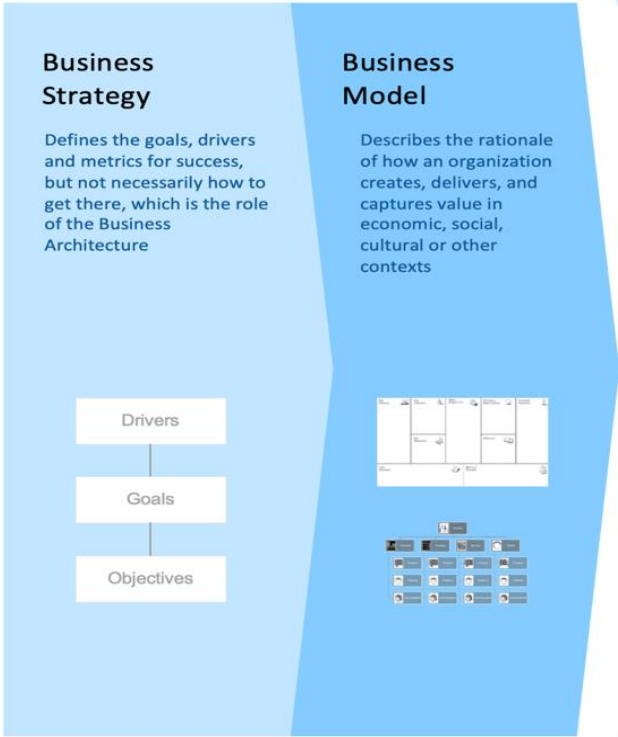
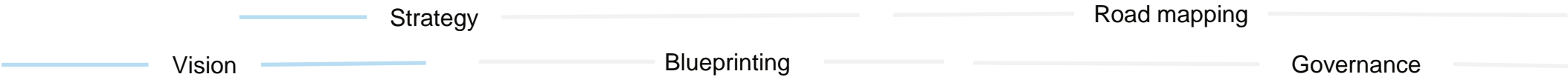
G. Implementation Governance

H. Architecture Change Management



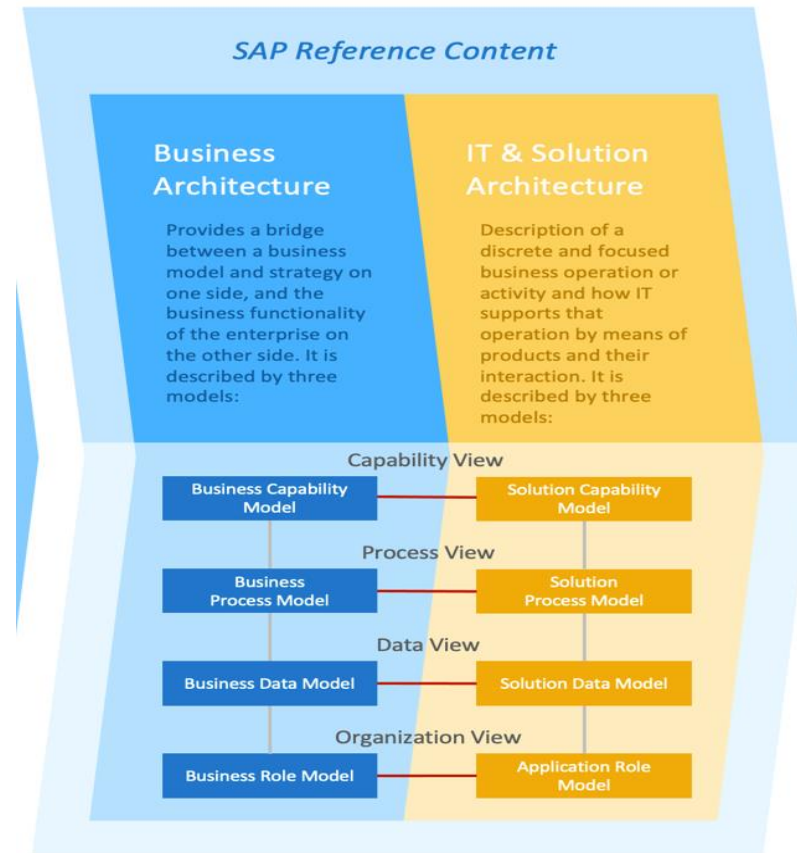
SAP Enterprise Architecture Methodology

Linking Business and IT



SAP Enterprise Architecture Methodology

Linking Business and IT



B. Business Architecture

C. Application & Data Architecture

D. Technology Architecture

E. Opportunities & Solutions

SAP EA Methodology

- Proven methodology based on [TOGAF](#), adopted widely throughout SAP.

SAP EA Content

- **Reference Business Architecture (RBA)**
 - Business Process Model
(Business Activity is primarily [APQC](#) based)
 - Business Capability Model
- **Reference Solution Architecture (RSA)**
 - Cloud – S/4HANA Public Cloud
 - Hybrid – S/4HANA OP / Private Cloud

SAP EA Tooling

- SAP Signavio
- Lean IX

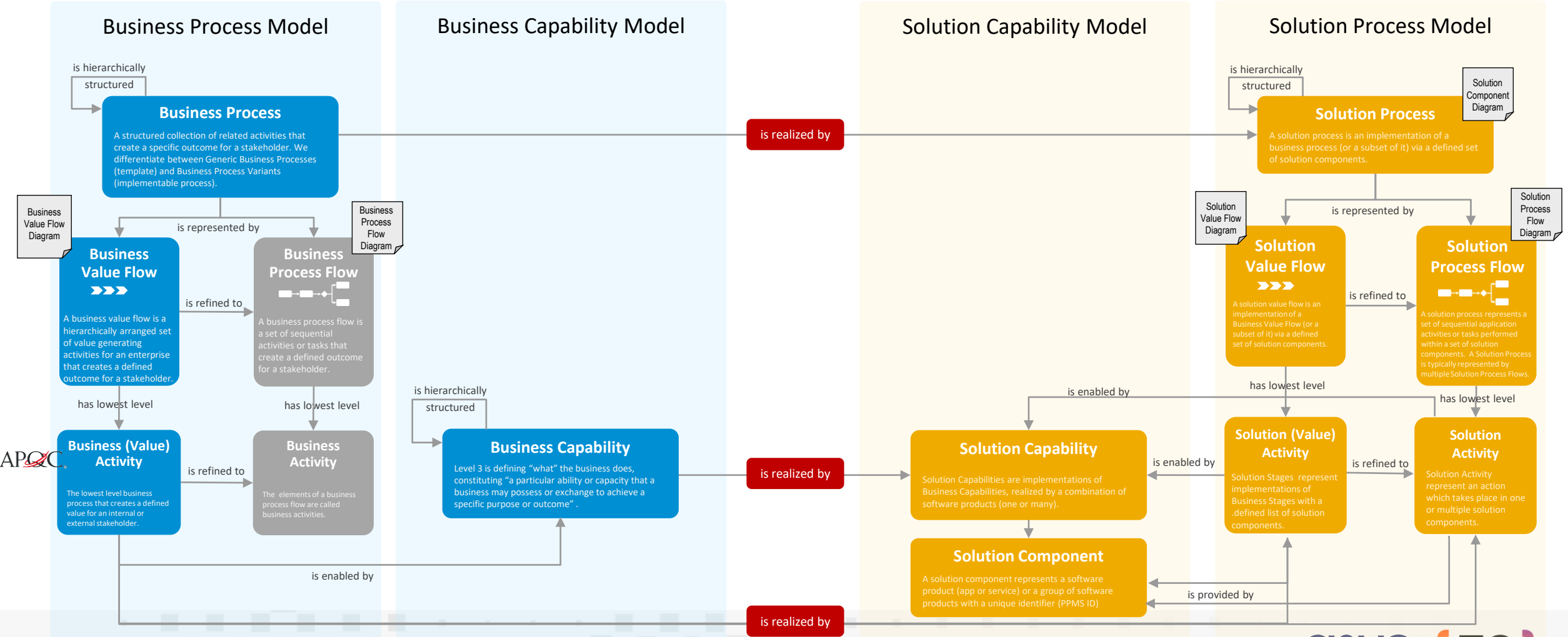
SAP Enterprise Architecture Methodology

Linking Business and IT

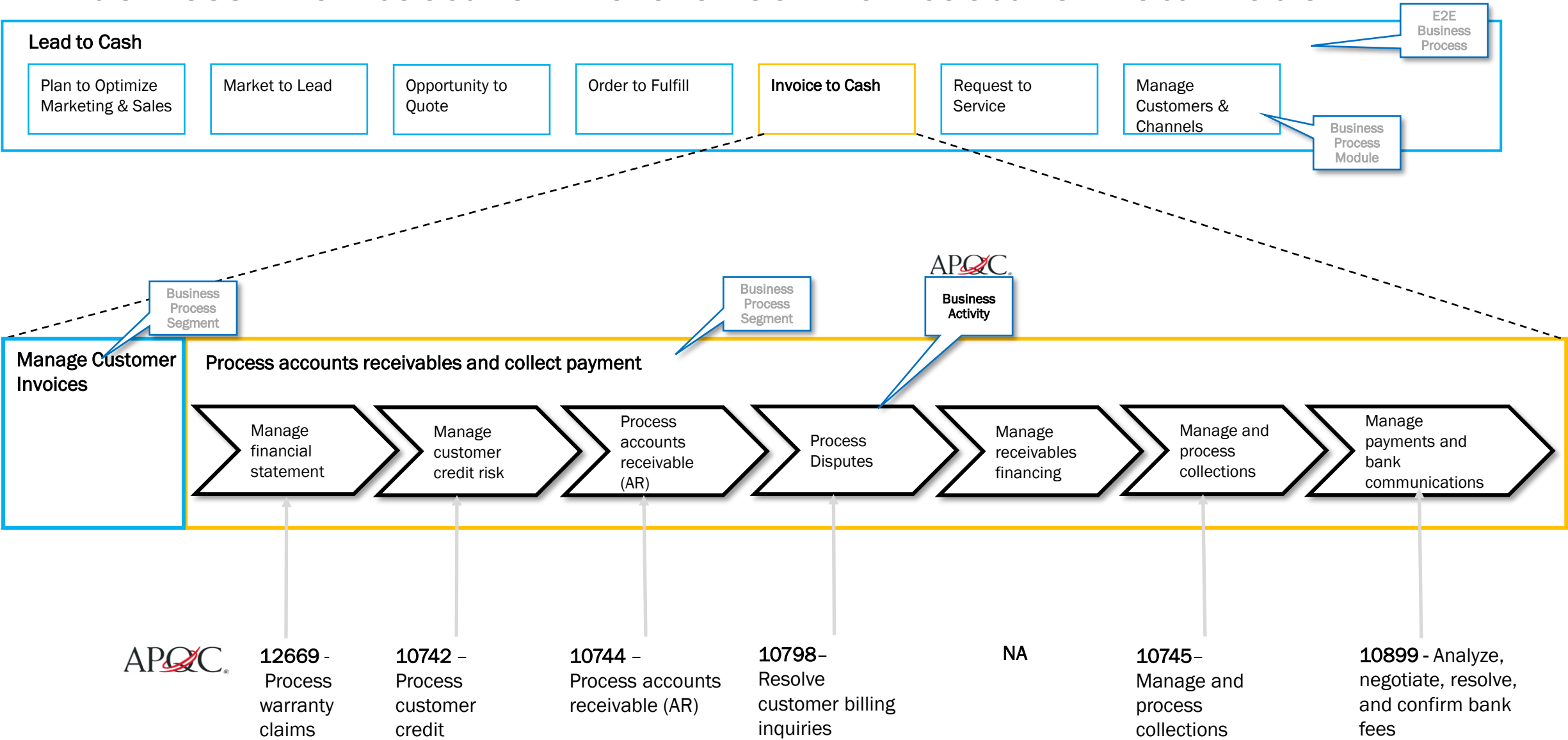
Business Architecture – ‘WHAT’ the business needs

The Business-IT Link

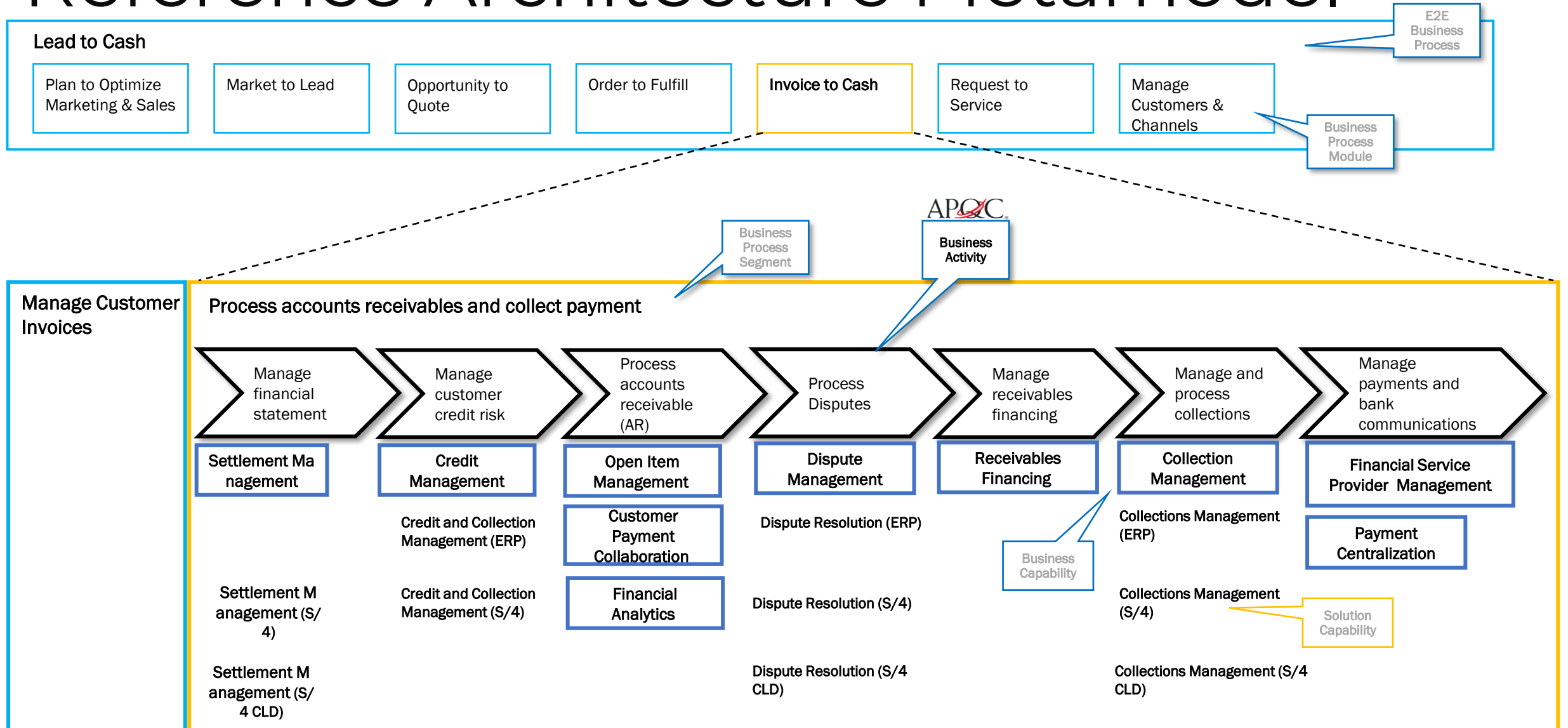
Solution Architecture – ‘HOW’ IT solutions implement the business



Business Architecture – Reference Architecture metamodel



Business & Solution Architecture – Reference Architecture Metamodel



Our Approach To Growing Our Future Around Process & Capability Models

"We always claimed that we are not going to develop process model out of greenfield approach and not look what's out there – we looked at APQC. APQC has a processes model they entertain for Cross and Industry specific."
Christine Fotteler

50+
Years of Knowledge &
Experience

SAP

Bluefield

Brownfield

Greenfield

Leveraging Globally Recognized Organizations



<https://www.apqc.org/>

APQC is the world's foremost authority in benchmarking, best practices, process and performance improvement, and knowledge management.

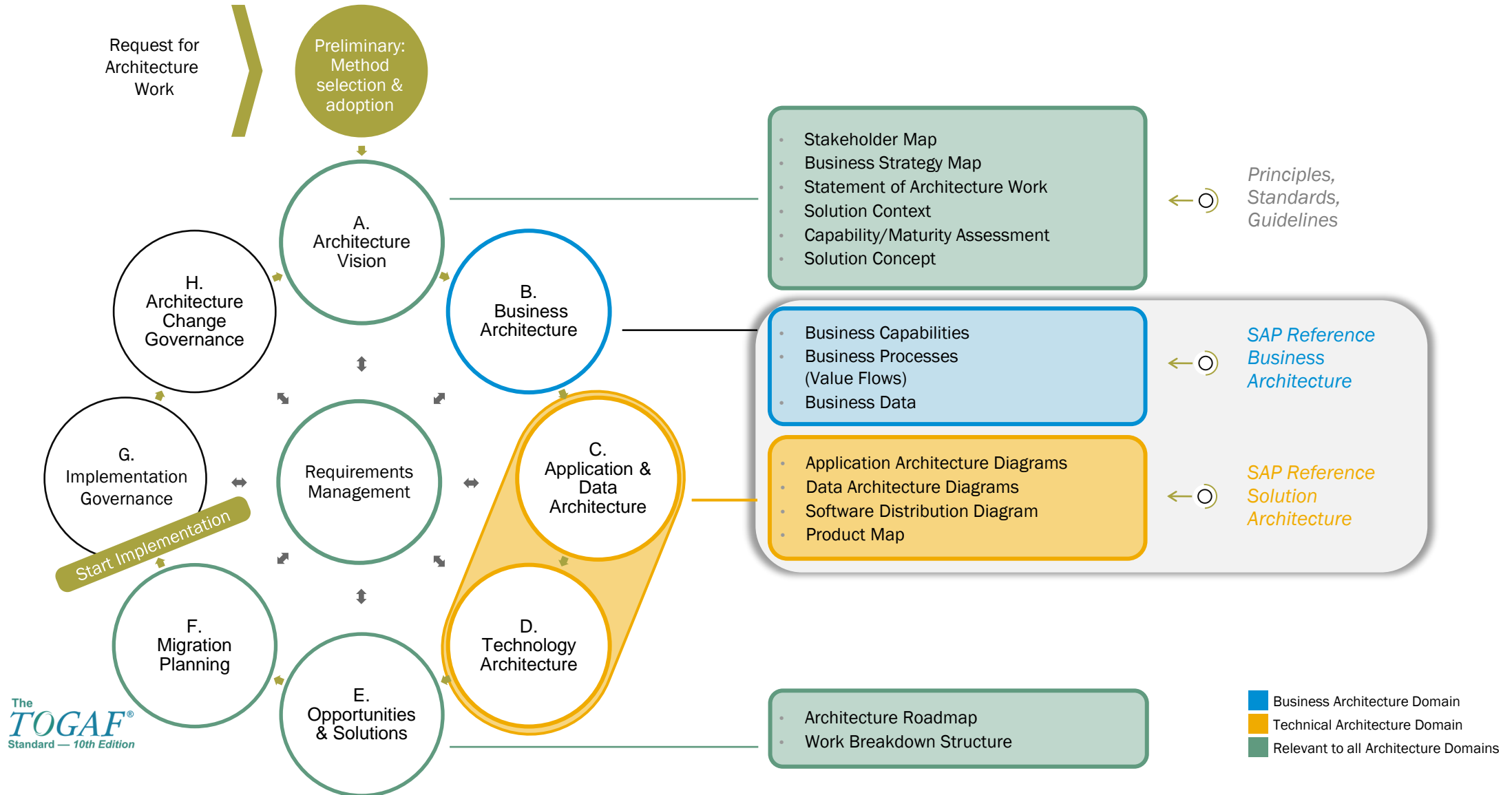


<https://www.opengroup.org/>

The TOGAF® Standard, a standard of The Open Group, is a proven Enterprise Architecture methodology and framework used by the world's leading organizations to improve business efficiency. The standard is constantly evolving as a result of the work delivered by members of The Open Group Architecture Forum and TOGAF certification has been achieved by nearly 120,000 individuals worldwide.

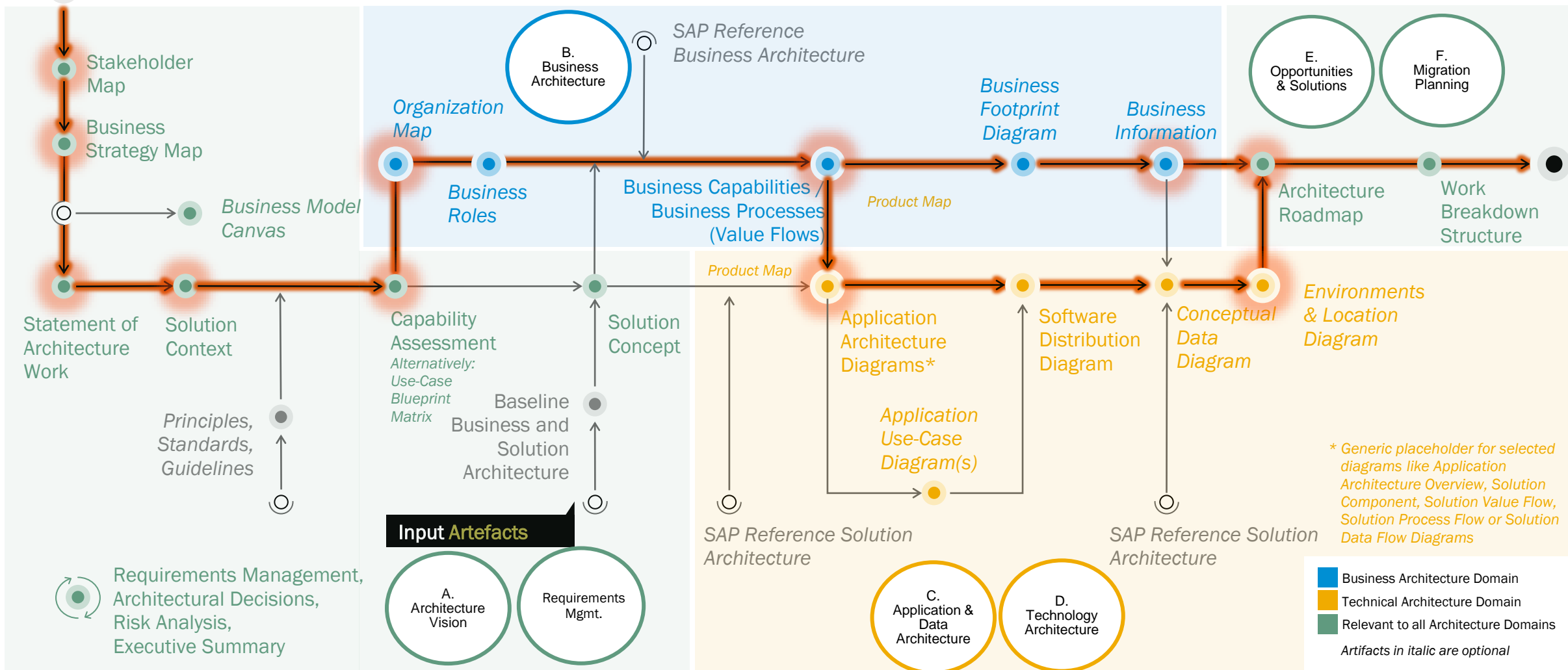
SAP Enterprise Architecture Methodology

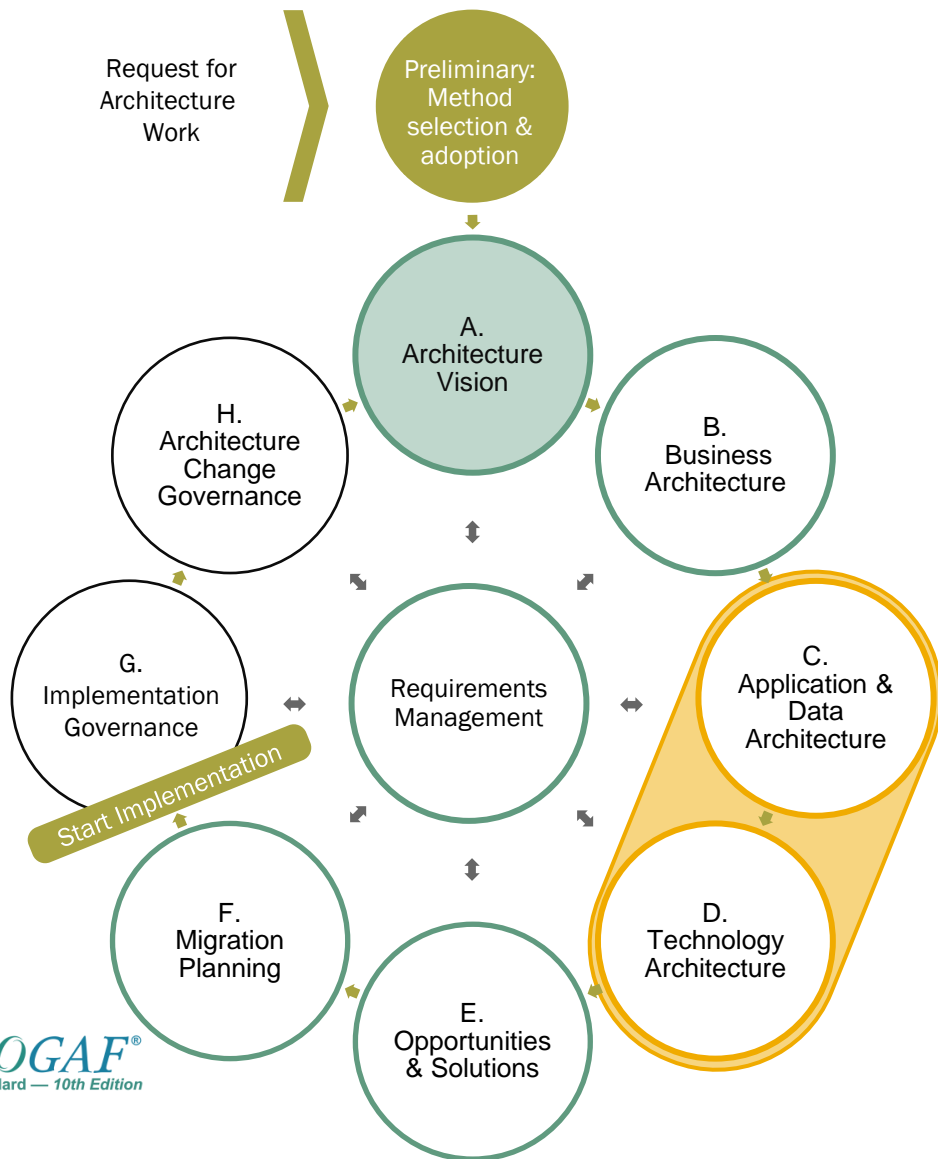
Enterprise architecture development process based on TOGAF® ADM with SAP-recommended artifacts



Request for Architectural Work

Start Implementation





Description

The Architecture Vision aims to create a clear and compelling description of the desired future state of an enterprise's architecture. During this phase, architects and stakeholders collaborate to establish a well-defined vision that aligns with business objectives and requirements. The Architecture Vision provides a high-level overview of the proposed changes, outlines key architectural principles, and acts as a foundation for subsequent architectural development and decision-making throughout the enterprise transformation process.

What do I do?

What do I deliver?



Approach

- Understanding Business Drivers and Goals
- Defining Scope and Constraints
- Creating a High-Level Description of the Future State
- Identifying Stakeholders
- Creating a Statement of Architecture Work



Customer Stakeholders Involved

Business Unit Leads, CXOs, and/or customers with a transformation initiative and intent



Deliverables

- Statement of Architecture Work
- Stakeholder Map
- Business Strategy Map
- Business Model (Canvas)
- Architecture Principles
- Solution Context (scope)
- Capability Assessment (business/solution, heat-mapping, risk analysis)
- Solution Concept
- Requirements List/Catalog (observed, given, derived, ...)

Key Partners



Who are our Key Partners?
Who are key Suppliers?
Which Key Resources are we acquiring from partners?
Which key Activities do partners perform?

Partner & Ecosystem

MOTIVATIONS FOR PARTNERSHIPS

Optimization and economy
Reduction of risk and uncertainty
Acquisition of resources and activities

Key Activities



What Key Activities do our Value Propositions require?
Our Distribution Channels?
Customer Relationships?
Revenue stream?

Resources



What Key Resources do our Value Propositions require?
Our Distribution Channels? Customer Relationships?
Revenue Streams?

TYPES OF RESOURCES

Physical, Intellectual (brand patents, copyrights, data), Human, Financial

Value Proposition



Product Strategy and Architecture

What do we deliver to the customer?
What part of our customer's problem are we solving?
What features of products and service are we offering to each Customer Segment?
Which customer needs are we satisfying?

CHARACTERISTICS

Newness
Performance
Customization
"Getting the Job Done"
Design
Brand/Status
Price
Cost Reduction
Risk Reduction
Accessibility
Convenience/Usability

People Strategy

Cost Structure

What are the most important costs inherent in our business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?

IS YOUR BUSINESS MORE

Cost Driven (leanest cost structure, low price value proposition, maximum automation, extensive outsourcing)

Value Driven (focused on value creation, premium value proposition)

Revenue Streams



What value are our customers really willing to pay?
What are they currently paying?
What are they currently paying?
What do they prefer to pay?
Which Revenue Stream contributes most to overall revenues?

Fixed pricing or Dynamic Pricing)

Asset Sale, Usage Fee, Subscription Fees, Lending/Renting/Leasing, Licensing, Brokerage fees, Advertising

Customer Relationships



What type of relationship does each of our Customer Segments expect us to establish and maintain with them?
Which ones have we established?
How are they integrated with the rest of our business model?
How costly are they?

Customer Segments



For whom are we creating value?
Who are our most important customers?

Mass Markets
Niche Market
Segmented

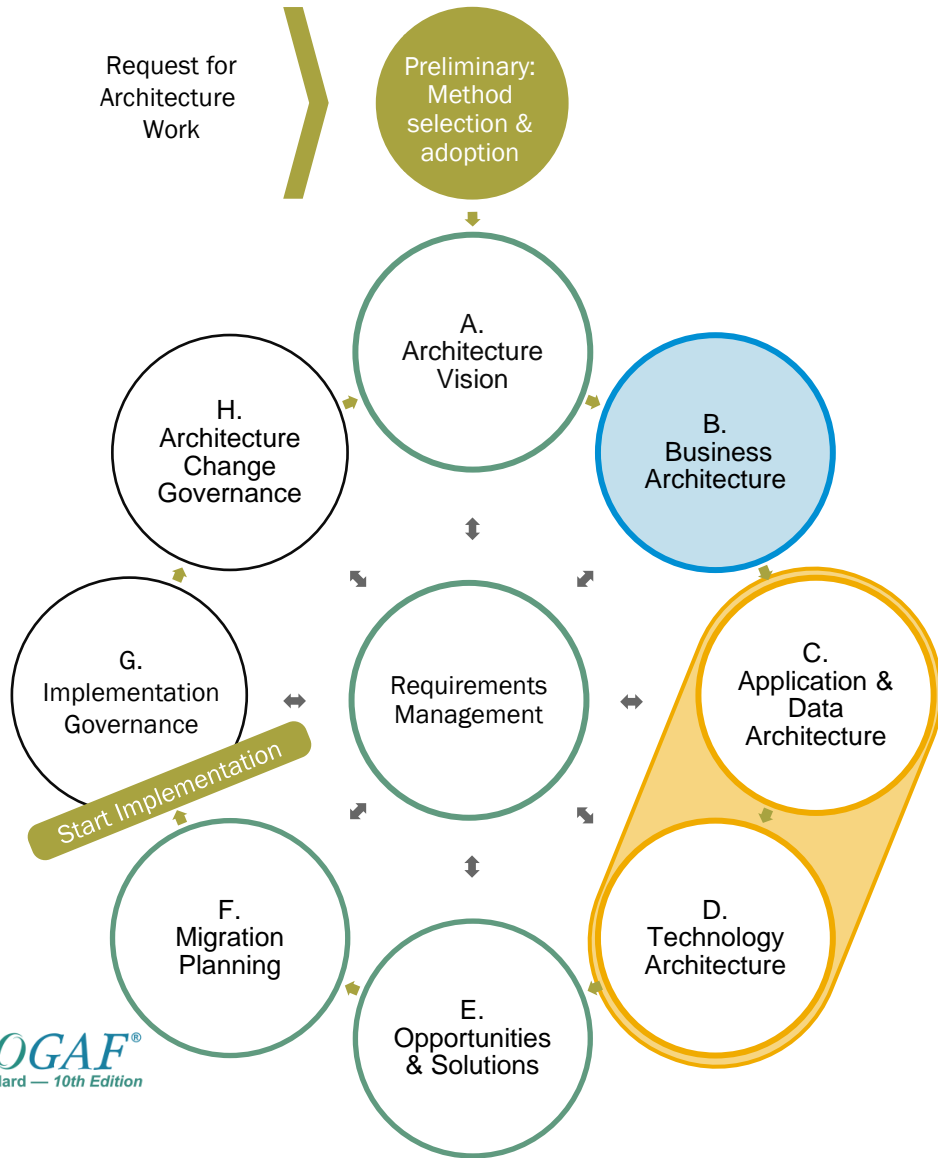
Customer Engagement

Channels



Through which Channels do our Customer Segments want to be reached?
How are we reaching them now?
How are our Channels integrated?
Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer routines?

Financial Plan



Description

Business Architecture Development helps the customer take the inputs from their business model via our assessment and link the business initiatives (connected to the strategy) to the Business Capability Model, the Business Process Models and Business Roles. The above models are presented through standard/templated deliverables using the best set of tools available within SAP.

What do I do?



Approach

- Run discovery tools e.g. SAP Signavio Process Explorer and Process Navigator or SAP Transformation Navigator where possible
- Perform interviews to assess business capability maturity and levels of impact
- Create the level 1 Application Portfolio Assessment and level 1 IT Application Gap View using data captured via the Technical Discovery Worksheet



Customer Stakeholders Involved

Customer Business Leader (validation)
Customer Business Function Leader (assessment and validation)

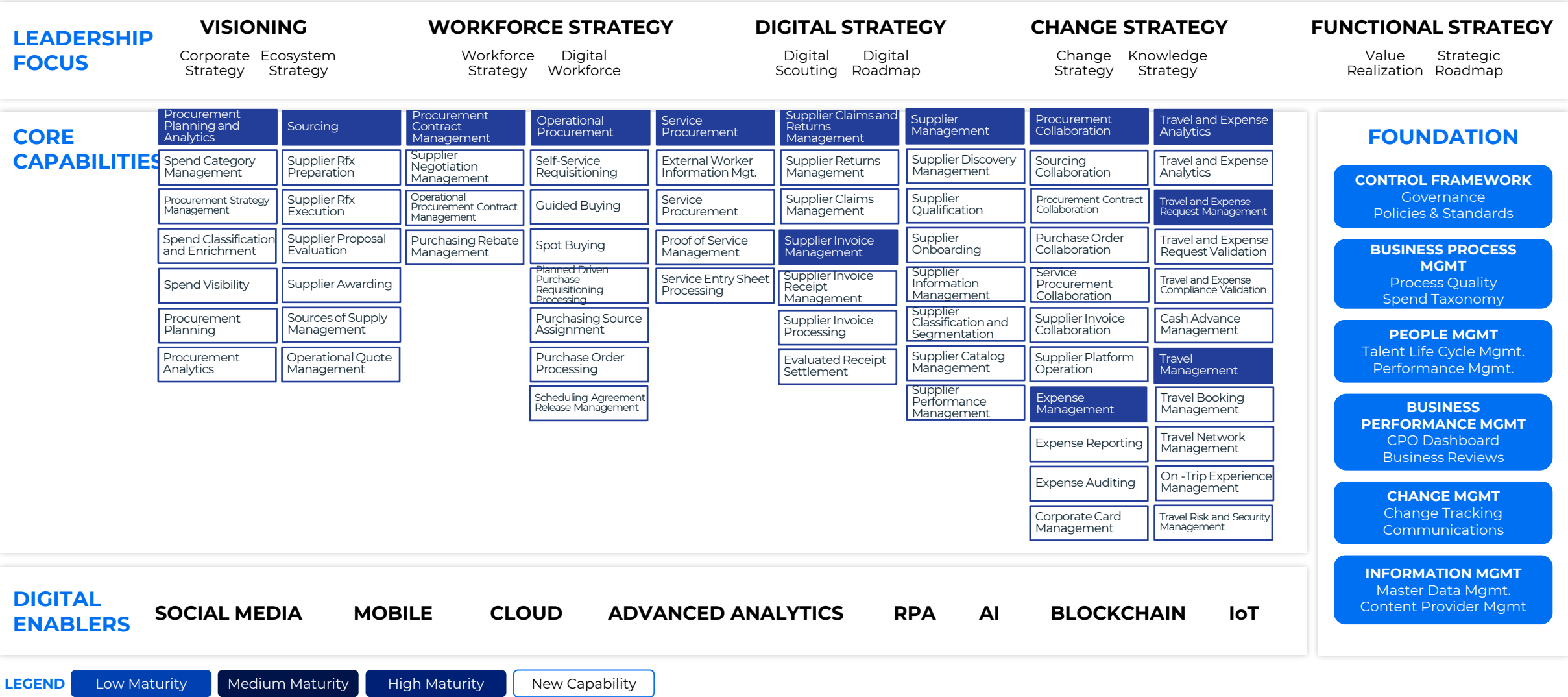
What do I deliver ?

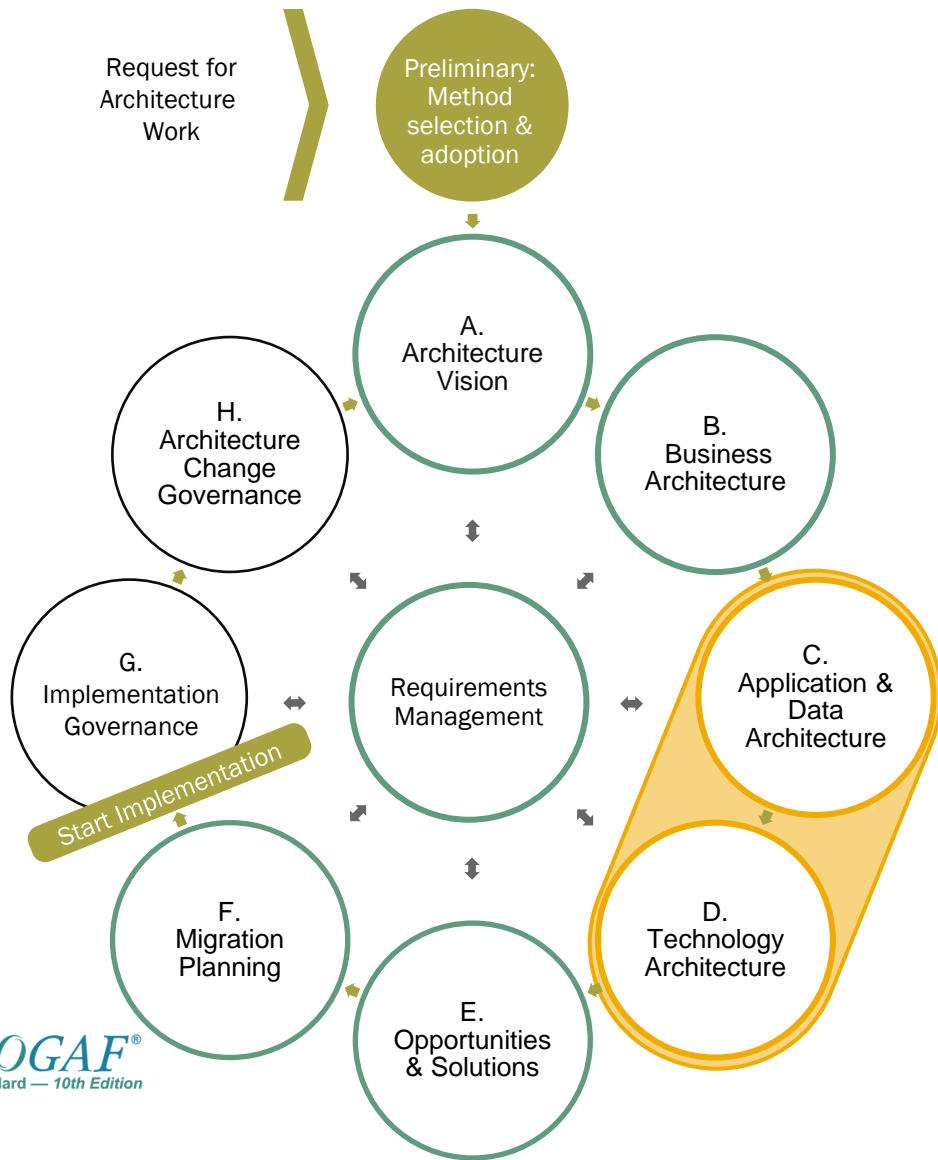


Deliverables

- Business Capabilities
- Business Processes (Value Flows)
- Business Data

Business Capability Map | Overview





Description

Application architecture helps organizations plan, design, and manage their application portfolio in alignment with their strategic goals and business needs. It describes how various applications work together to support the organization's business processes. It addresses aspects such as data flow, communication protocols, and integration points between applications.

What do I do?



Approach

- Understand the requirement from the customer
- Review Technical Discovery Outputs
- Understand SAP solutions that align with the requirements
- Understand any roadmap and constraints with SAP solutions
- Leverage the above information and tools to create the Solution Architecture views as necessary
- Socialize with Customer and update as required



Customer Stakeholders Involved

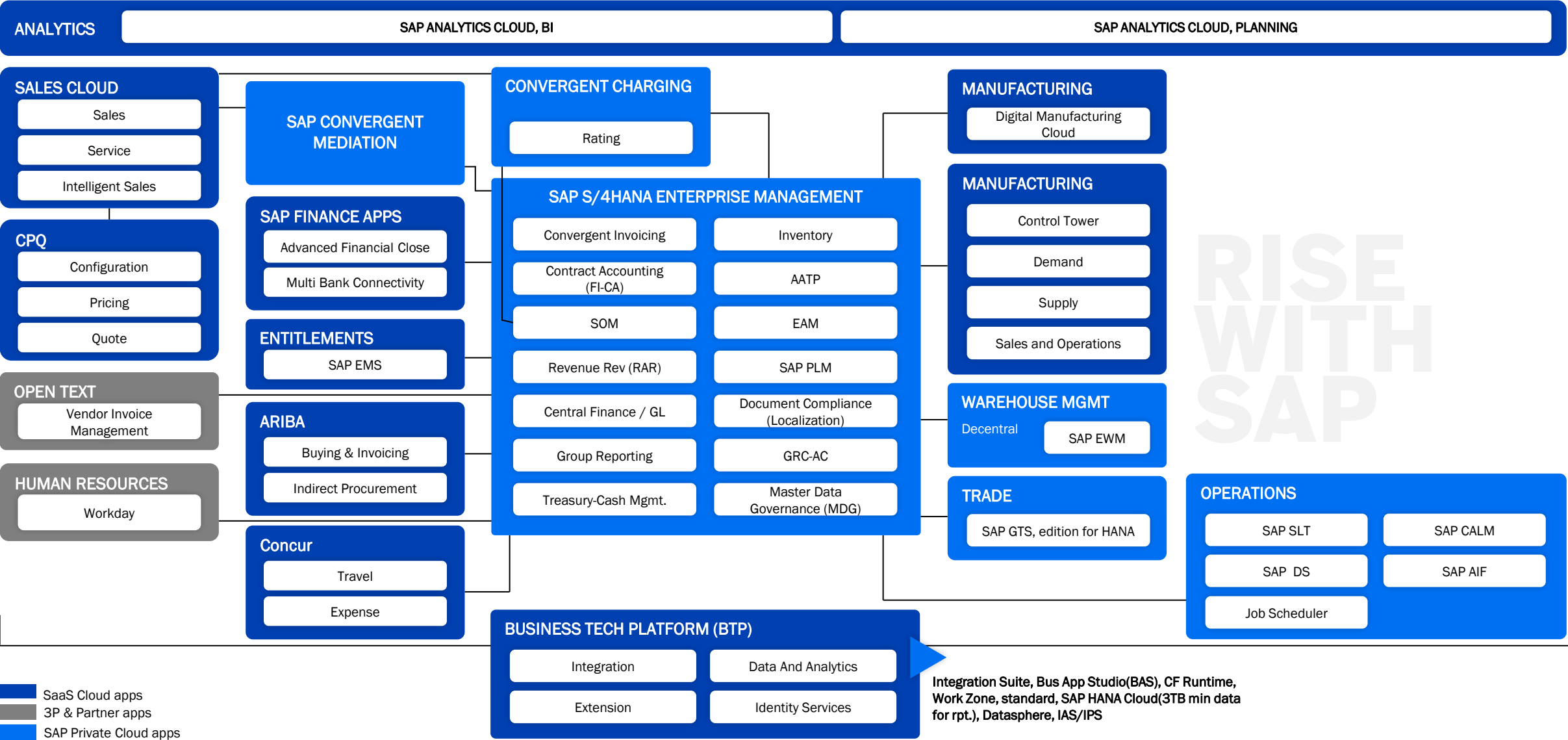
Sponsor, EA, CIO, CTO, SAP Competence Center, SAP PMs



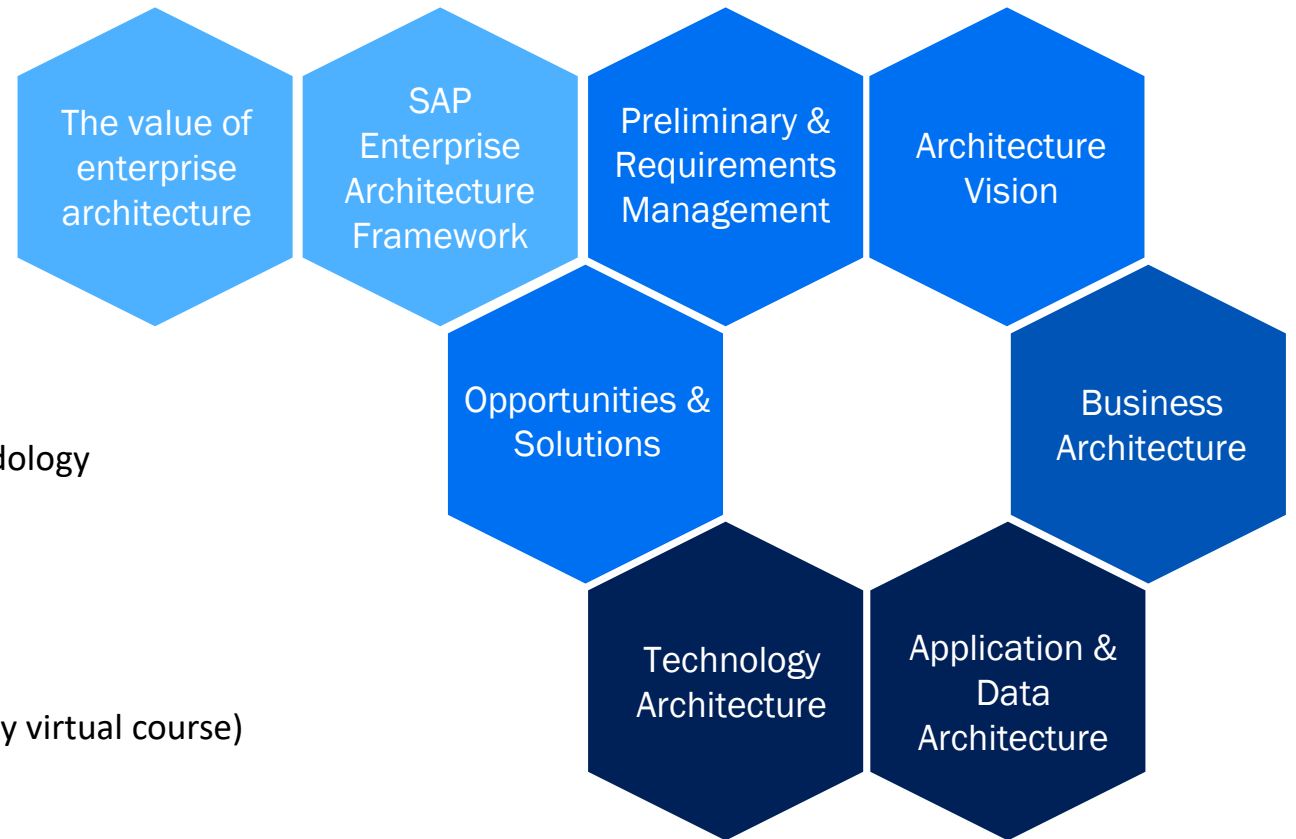
Deliverables

- Application Architecture Diagrams
- Data Architecture Diagrams
- Software Distribution Diagram
- Product Map

What do I deliver ?



New SAP Intelligent Enterprise Architecture Training (IEA10)



Content highlights:

- Insights into SAP Reference Architecture content
- Guidance on how to apply the SAP Enterprise Architecture Methodology
- SAP Enterprise Architecture best practices
- Hands-on experience with and end-to-end case study from business strategy to implementation roadmap
- 5-day course (available since Jan 2023)
- Certification program incl. digital badge
- SAP Intelligent Enterprise Architecture Quick Starter planned (1-day virtual course)

...Find out more on [SAP IEA10 Certification](#)



SAP Enterprise Architecture Approach



What is transformation?

Transformation is the process of evolving the business to compete by strategically investing in People, Process and Technology enabling future business value.

SAP can drive Business transformations designed to allow our clients to be innovative with their business models and adapt to the market forces to best compete in their industry.

Impacts of Transformation

People

- Definition: Making changes to the day to day roles and responsibilities of our clients people to help them be more effective.
- Result: Reduced waste and new opportunities for people to be more strategic and create more value

Process

- Definition: Streamlining and improve the way a company executes, optimizing for efficiencies.
- Result: Reduce the number of manual processes, bottlenecks, and redundancy



Technology

- Definition: investing in systems to innovate and differentiate the business and enable strategy
- Results: Improved data and analytics, added automation, machine learning.







ALFRED
Business Owner

Biz  Tech
Global  Local





BETHANY
Process Owner

Biz  Tech
Global  Local

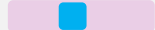



CHASE
Process Consultant

Biz  Tech
Global  Local





DIANA
Enterprise Architect

Biz  Tech
Global  Local





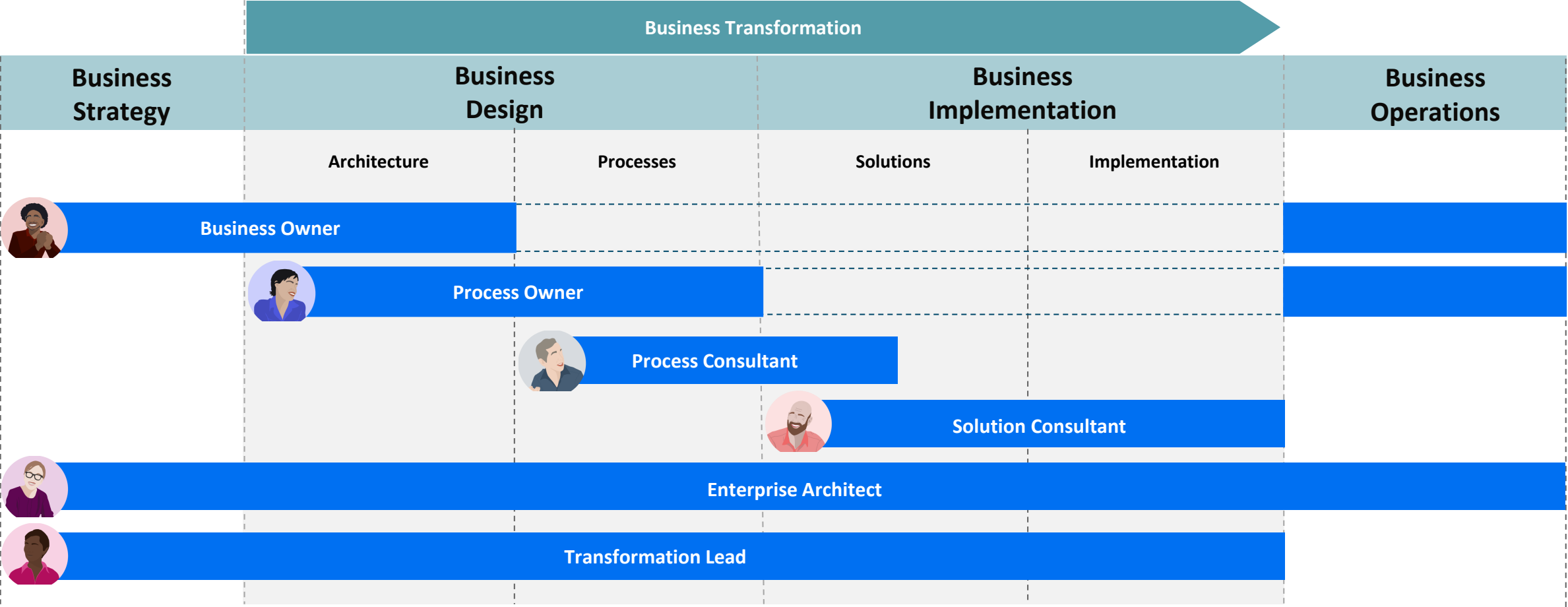
ERIC
Solution Consultant

Biz  Tech
Global  Local

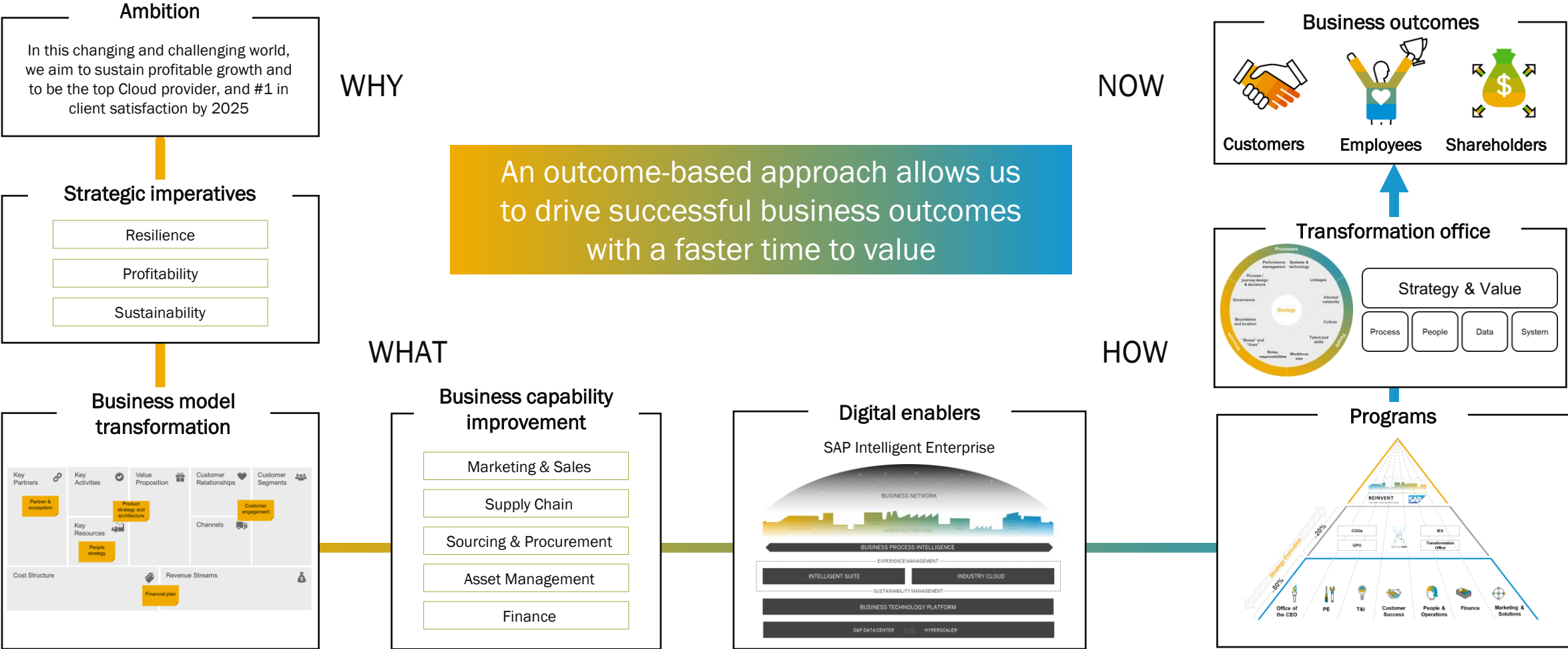


FELICITY
Transformation Lead

Biz  Tech
Global  Local



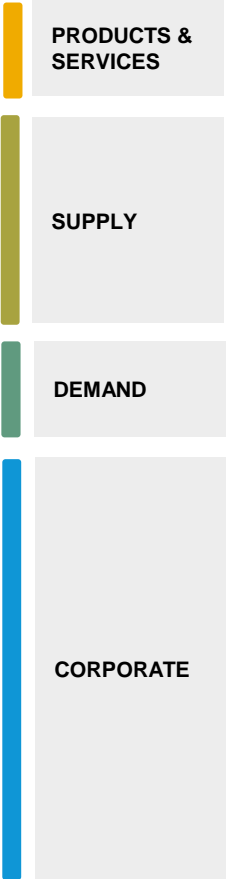
Outcome-based Approach Enables Business Transformation



Reference Business Architecture Framework

Enterprise Domains

Business Processes & Capabilities are structured along the 4 Enterprise Domains.



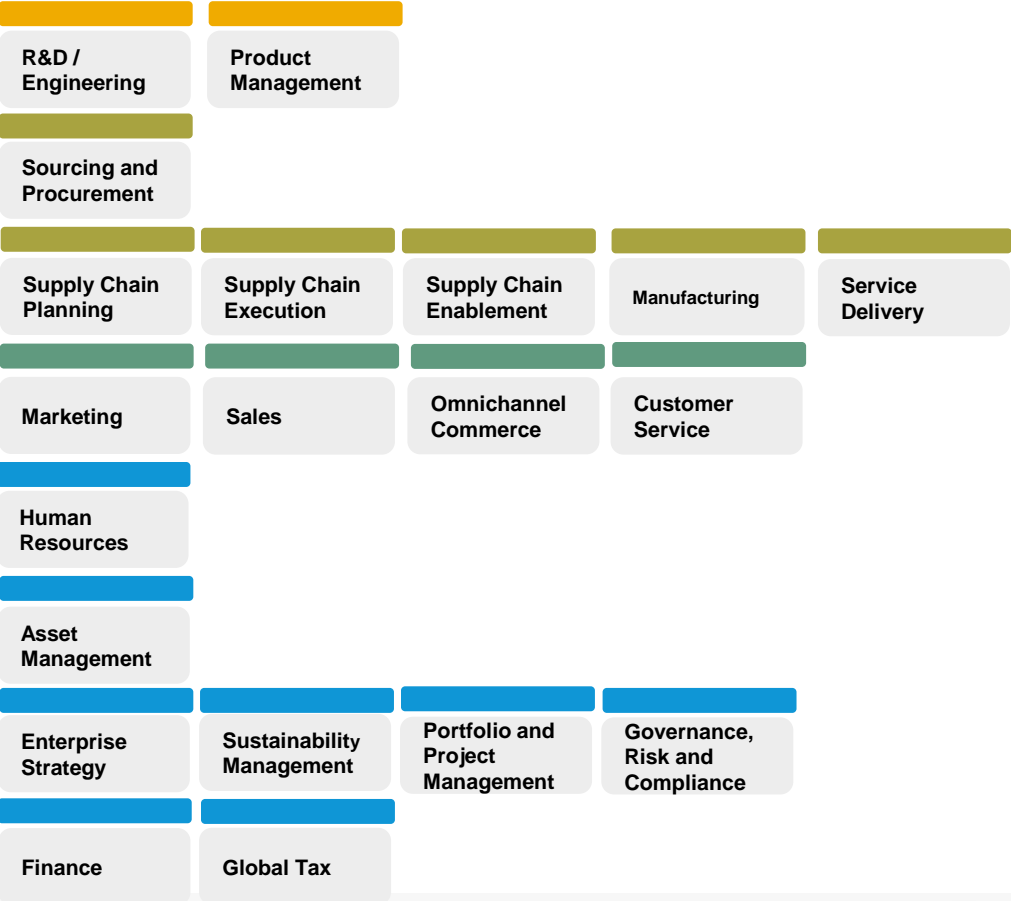
Business Process Model

Represents the E2E Value Chain of an Enterprise that define the building blocks and template to model Business Processes.



Business Capability Model

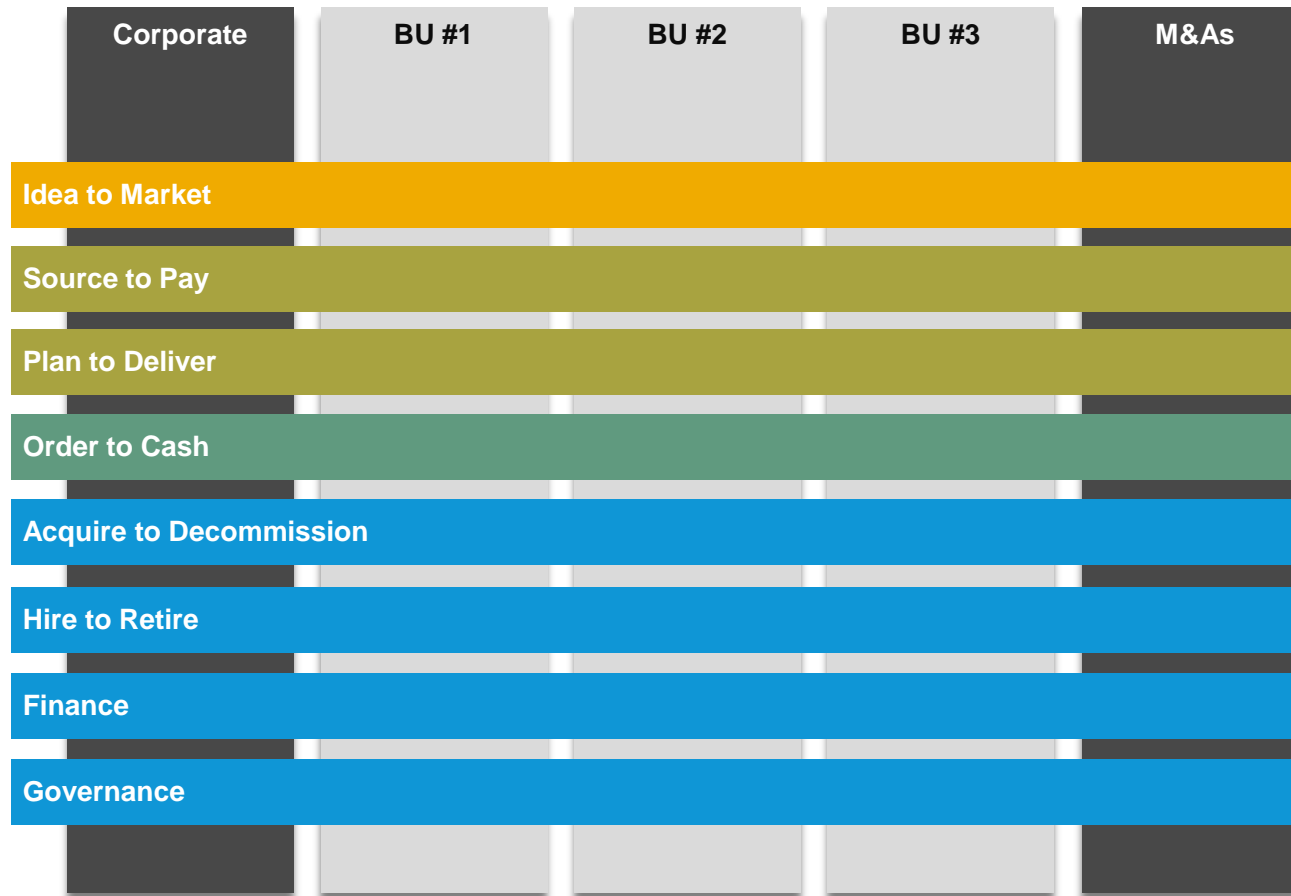
Describe the ability of an Enterprise to deliver value. They are hierarchically structured by Business Domains which refers to the high-level business functions that enable an organization to operate and achieve its strategic objectives



Enterprise Transformation

Understand your business operating model

Value streams shown below are priority areas to address business process challenges



...and therefore point to three major transformation opportunities...

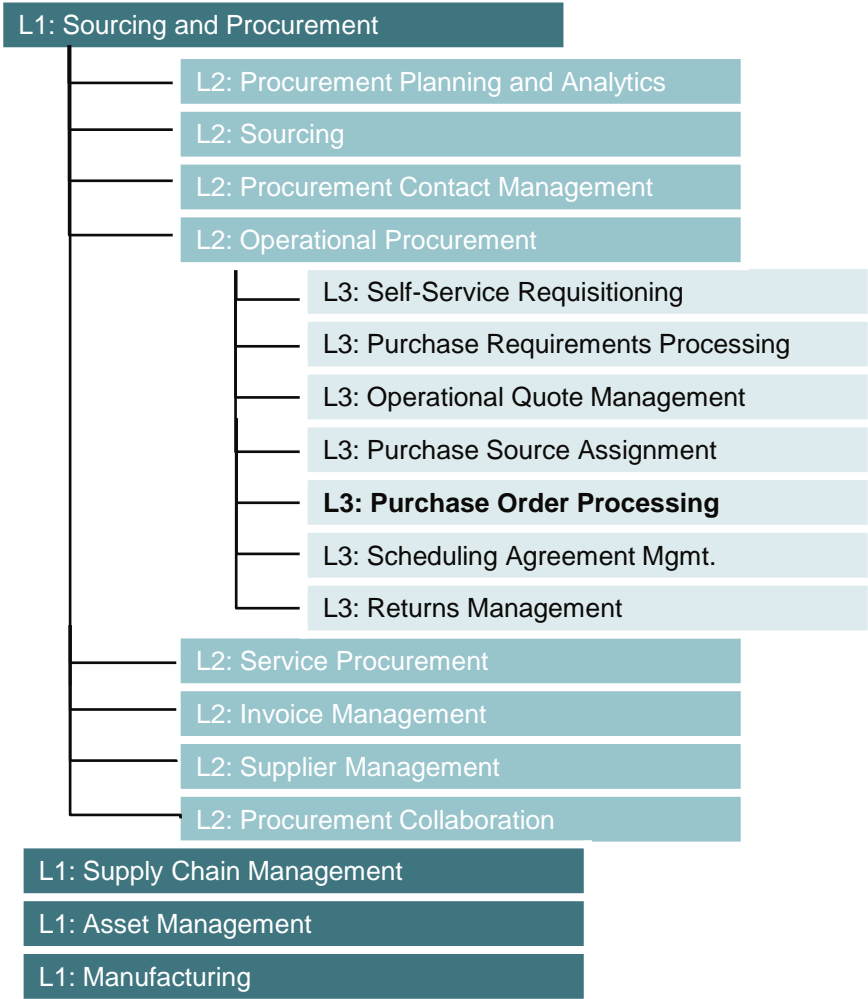
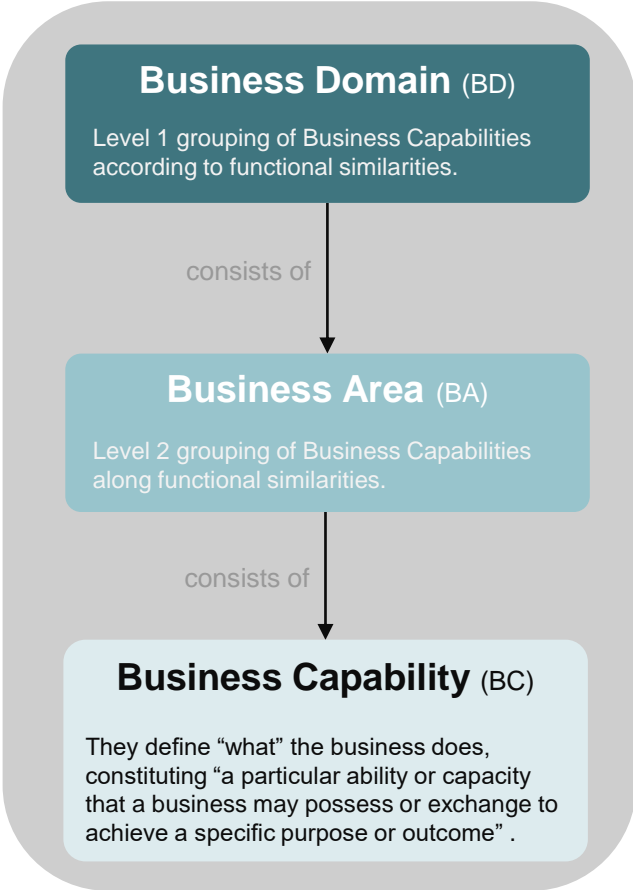
1 Increase simplicity and commonality where possible in business unit-specific processes and optimize their efficiency and effectiveness with broadly applied best practices to minimize customizations.

2 Enable high quality standardized analytics while reducing redundant work by consolidating activities dedicated to the synchronization and harmonization master data.

3 Establish integrated and unified steering approach across all businesses & functions. Free up capacity for corporate and business unit partnering by standardization of BU and Corporate practices and centralizing key process areas.

Defining your Business Capability Model (BCM)

The Business Capability Model helps identify strategic focus areas by mapping strategies, scorecards, and/or executive priorities to the business capabilities.



WHAT

What the organization does to generate value, independent of how technology supports it.

L3

Business Capability

Purchase Order Processing

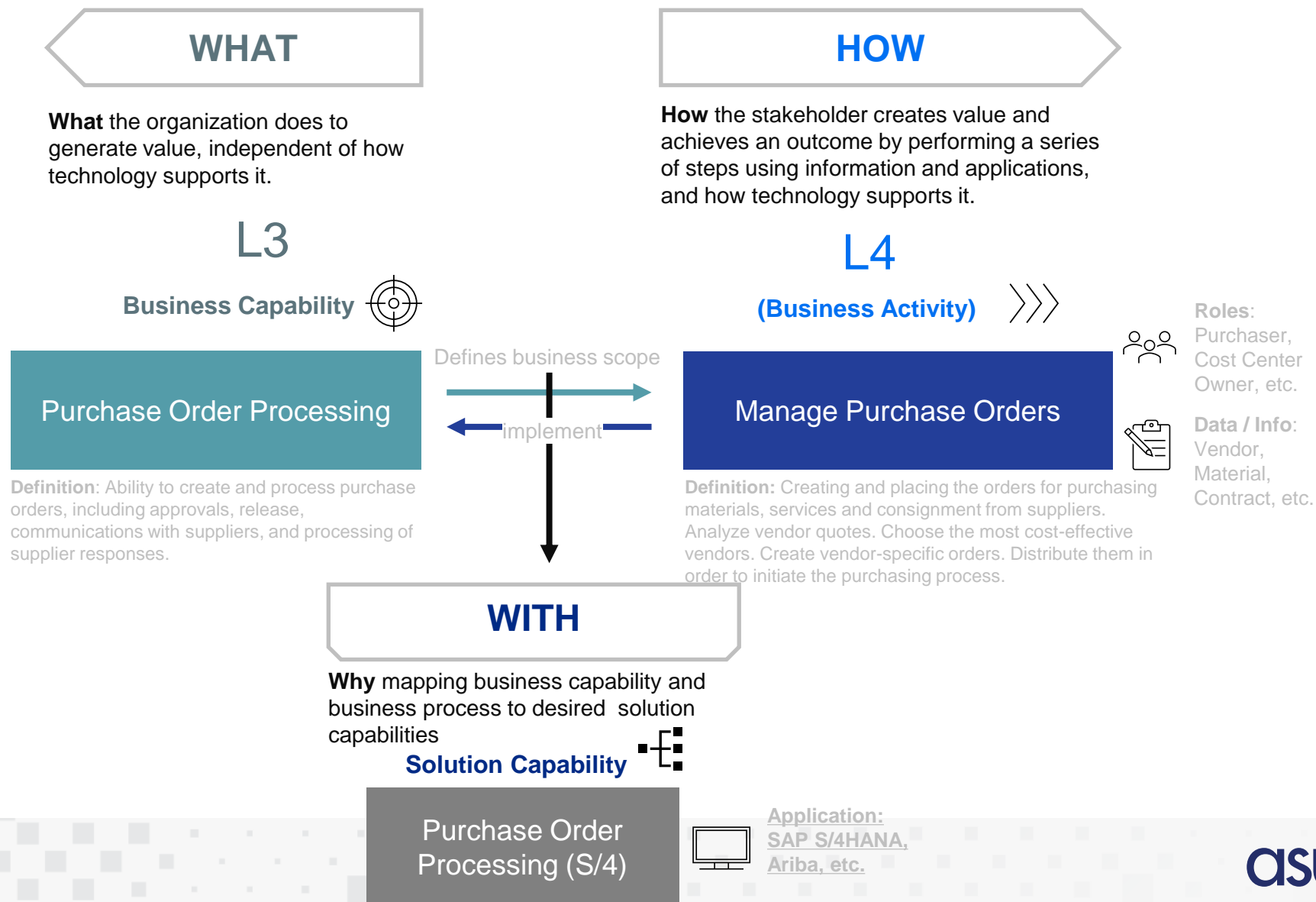
Definition: Ability to create and process purchase orders, including approvals, release, communications with suppliers, and processing of supplier responses.

APQC®

APQC®

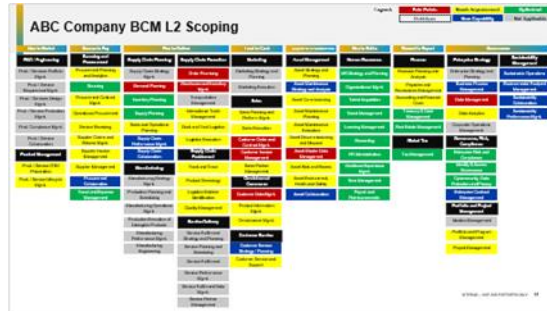


Establishing the connections between Process, Capability, and Solution



Customer Example

An outcome based approach



Identify Business Outcomes

Our first step in aiding IBM with developing their transformation was defining the transformation scope between their professional services and high tech lines of business.

Upon review we identified the key business outcomes and drivers for change.

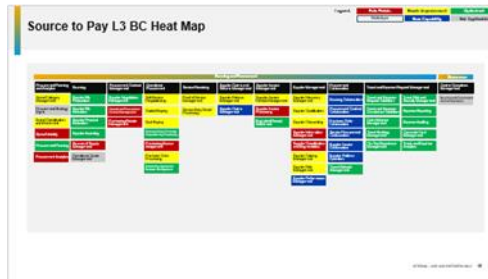
Correlated to SAP REF

Conducted a current state analysis to understand the as is business.

During the current state analysis we reviewed the IBM value streams and mapped their business architecture to our SAP Business Architecture Framework.

Simplified Processes

Processes were reviewed to identify where within the business bottlenecks and people improvements could be made in order to better enhance the business reduce redundancy and leverage automation.



Identify Business Gaps

Conducted a gap assessment from the processes maps and the capability current state to identify key areas of improvement compared to market best practices

Capability Assessment

Based on the identified gaps review the business capabilities and map them based on criteria's to support future state change.

Identify areas of opportunity for business transformation.

Business Process Mapping

Map modernized business processes in order to define how the business must adapt to support a future state architecture. Identify processes that needed overhaul.



People Changes

Outlined and marked updated people impacts as a result of the new roles and responsibilities. These changes came as a result of the updates processes.

Designed Roadmap

Developed a roadmap that outlined the implementation steps and order to execute a case for change.

Aligned to large scale initiatives currently in flight to show best timeline option.

Validated Business Outcomes

Presented case for change by outlining the roadmap to the stated business outcomes.

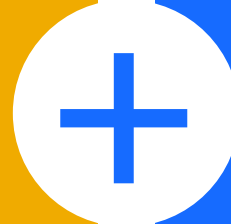
We aligned to the strategic corporate goals and presented the product in form ready for business case for change.

Tooling





Business
Processes



LeanIX

IT
Architecture

SAP Signavio

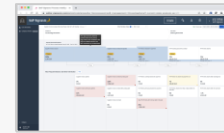


Business
Processes

Discover

Achieve Process Transparency

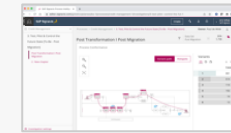
X-ray your ERP (process insights) to detect blockers and leverage actionable recommendations



Prepare

Support Business Case Creation

Define scope and priorities for process innovation and related investments



Explore

Define Target Processes

Leverage SAP best practice process and simulate process performance of to-be processes



Realize

Implement Process Improvements

Hand over target process definitions to the solution manager to start process implementation and testing



Deploy

Collaborate with Stakeholders

Use the SAP® Signavio® Process Collaboration Hub to provide the single source of truth to end-users



Run

Improve Processes Continuously

Use process intelligence to monitor process performance and process conformance





LeanIX

IT
Architecture

Wrap Up



Where to Find More Information

SAP's Enterprise Architecture Community – Get Connected!

<https://community.sap.com/t5/enterprise-architecture/gh-p/Enterprise-Architecture>

Signavio – Your Digital Twin of an Organization

<https://www.signavio.com/>

LeanIX – Make Transformations Fast not Furious

<https://www.leanix.net/en/>

EAs on SAP Insider!

<https://sapinsider.org/topic/sap-enterprise-architect/>

Key Points to Take Home

- Composable is here to stay
- Content is out there waiting for you to use it.
- EA Artifacts are Living Artifacts
- Signavio and LeanIX are the corner stones of SAP's Business Transformation Suite
- Get connected to the community help us help YOU!

Thank you! Any Questions?

Jason Porterfield

Jason.Porterfield@sap.com

<https://www.linkedin.com/in/jasonporterfield/>



Please remember to complete
your session evaluation!

SAPinsider



SAPinsider.org

PO Box 982Hampstead, NH 03841
Copyright © 2024 Wellesley Information Services.
All rights reserved.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies. Wellesley Information Services is neither owned nor controlled by SAP SE.

**SAPinsider
comprises the
largest and fastest
growing SAP
membership group
with more than
800,000 members
worldwide.**

