

BUSINESS ARCHITECTURE REFERENCE MODEL WORKSHOP

June 20, 2019 - Amsterdam

www.businessarchitectureguild.org

WORKSHOP OBJECTIVES



- Gain hands on experience in business architecture
- Learn about value stream, capability and information mapping
- Engage in selected industry sector mapping activities

REFERENCE MODEL WORKSHOP AGENDA



Time	Workshop Topic
8:45 am	Reference Model Workshop Background, Overview & Purpose
9:00 am	Reference Model Industry Update, Mapping Approach, Workshop Logistics
10:00 am	Break
10:20 am	Value Stream Mapping: Buildout & Review
Noon	Lunch
1:00 pm	Capability Mapping: Buildout & Review
2:50 pm	Break
3:10 pm	Information Mapping: Buildout & Review
4:30 pm	General Discussion & Lessons Learned
5:00 pm	Wrap-up: Engaging in Reference Model Work Post-Workshop

WHAT IS A BUSINESS ARCHITECTURE, INDUSTRY REFERENCE MODEL?



- **Why industry reference models?**
 - Establish a principle-based, best practice-driven business architecture orientation for a given industry
 - Help jump start a company beginning a business architecture mapping effort or retrofitting existing model
 - Transfer knowledge as to what constitutes a robust, principle-based business architecture reference model
- **What form do they take?**
 - Packaged in standard BIZBOK® template format
 - BIZBOK® Guide summary level representations in Part 8
 - Downloadable content shared in populated templates
 - Content is maintained in tools by various teams
- **Long-term goal**
 - Ensure consistency across industry sectors in relation to terminology, common capabilities and value streams, decomposition structure for certain capabilities
 - Deliver a plug-and-play set of reference model components that would enable organizations with hybrid business models to construct a reference model



BUSINESS ARCHITECTURE GUILD REFERENCE MODELS AVAILABLE IN SEVERAL CATEGORIES

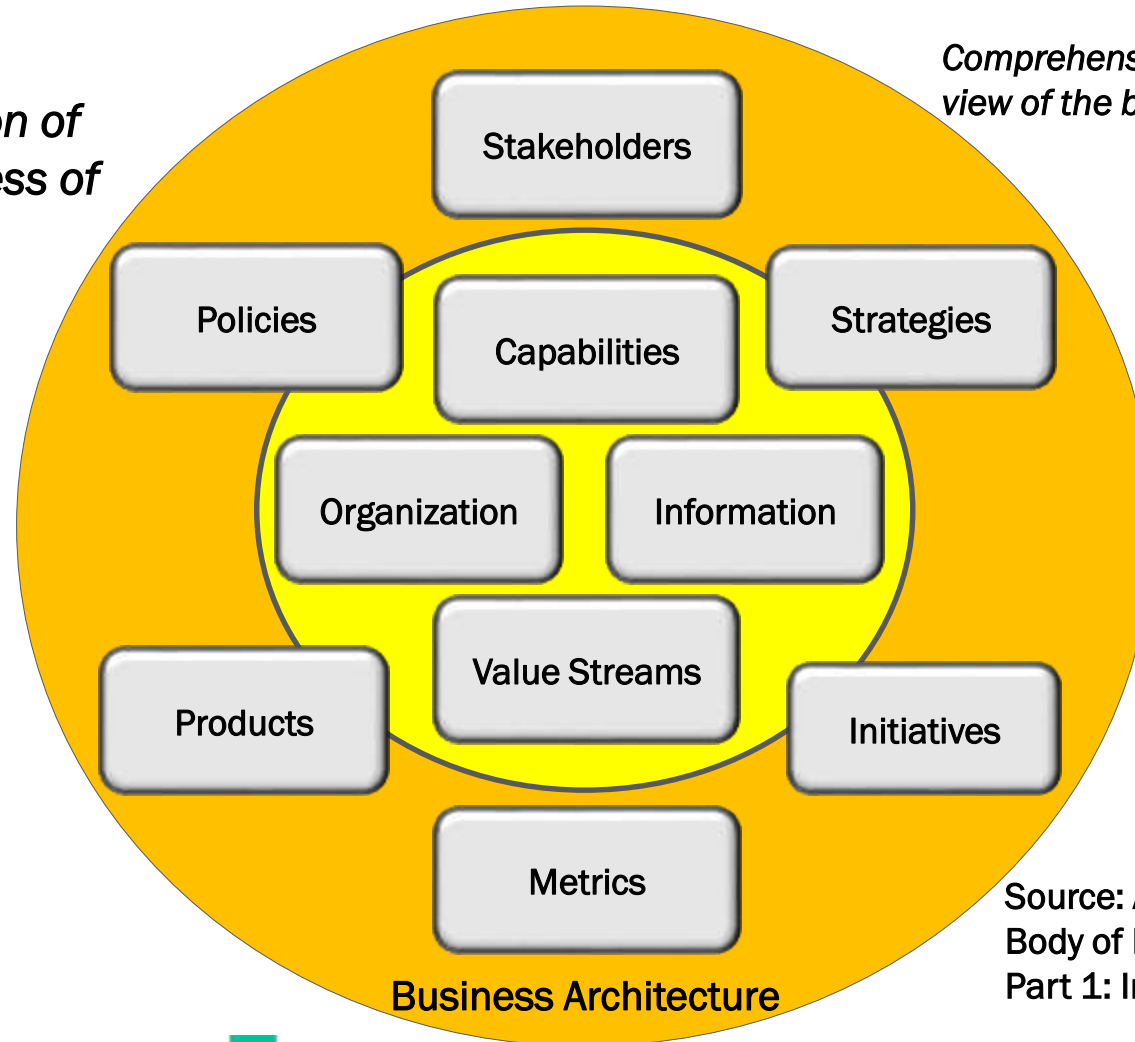


- Insurance Industry
- Financial Services Industry
- Healthcare (Provider) Industry
- Manufacturing Industry
- Transportation Industry
- Government – *workshop focus*
- Common Reference Model
 - Incorporates strategic and supporting capabilities common across industry vertical
 - Incorporates value streams not specifically linked to a single industry sector

BUSINESS ARCHITECTURE: DOMAIN OVERVIEW



Comprehensive representation of business ecosystem, regardless of industry sector

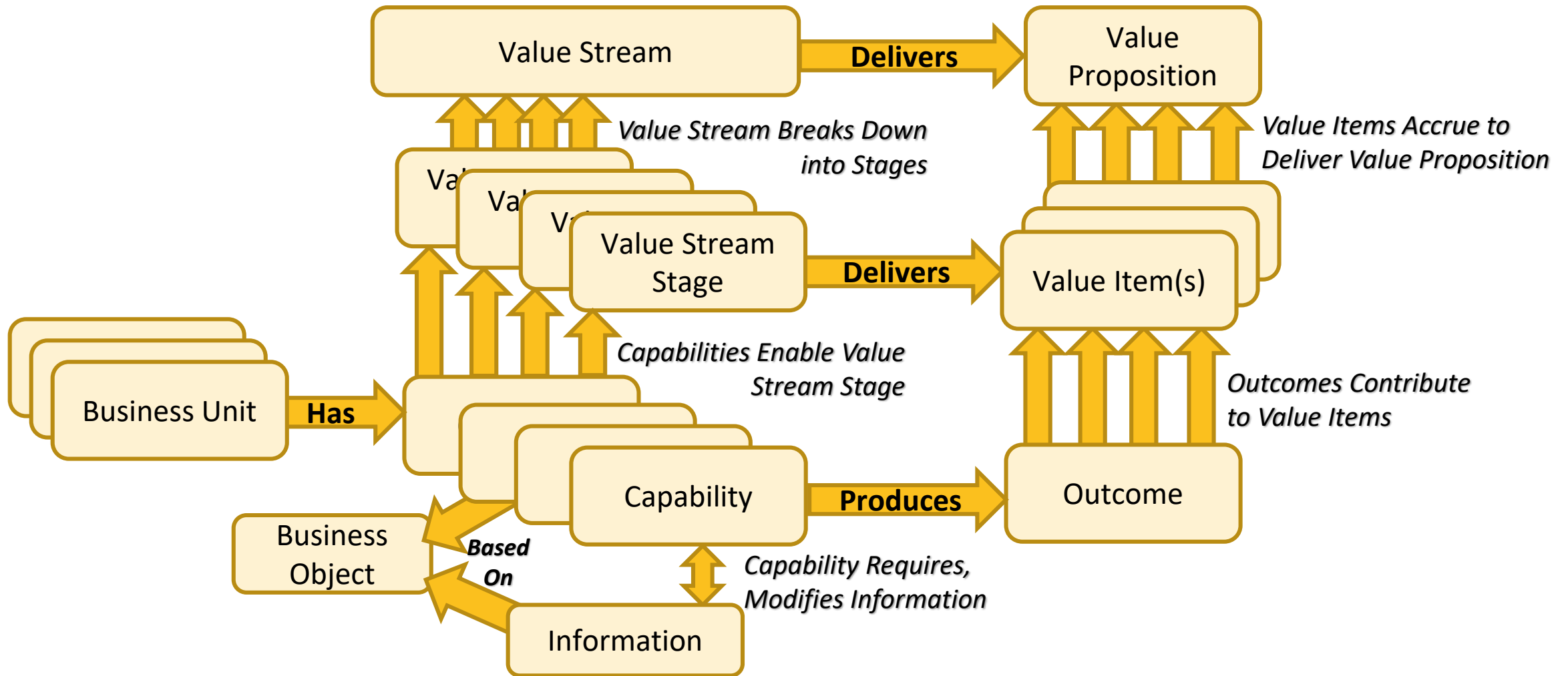


Comprehensive, transparent view of the business ecosystem

Source: A Guide to the Business Architecture Body of Knowledge® (BIZBOK® Guide), v7.0, Part 1: Introduction

BUSINESS ARCHITECTURE CORE DOMAIN

RELATIONSHIP SUMMARY



VALUE STREAMS & VALUE MAPPING PERSPECTIVES



- **Defining value stream in business architecture context**
 - Value Stream: “An end-to-end collection of activities that create a result for a customer, who may be the ultimate customer or an internal end-user of the value stream”*
 - The value stream has a clear goal: to satisfy or to delight the customer**
 - When we say value chain, we mean the Porter “value chain”***
 - Value streams in this context are not Lean Six Sigma or “lean value streams”, nor do we mean agile value streams

- **Capability vs. Value Stream:**
 - Capability views a business “at rest”, value stream views a business “in motion”

* “A Guide to the Business Architecture Body of Knowledge®” (BIZBOK® Guide), Source: Business Architecture Guild (also see Glossary of Terms at www.businessarchitectureguild.org – public resources page) 2011-2017

** As cited in “The Great Transition”, by James Martin, 1995

*** Competitive Advantage, Michael Porter, 1985

VALUE STREAM, VALUE FOCUSED FOCAL POINTS



Value streams represent non-linear, incremental value accrual for a stakeholder or stakeholders until the end-state value proposition is achieved

Value

- *“The benefit that is derived by an organization’s stakeholder while interacting with that organization”**

Value proposition

- *“An innovation, service, or feature intended to make a company, product, or service attractive to customers or related stakeholders”**

Value item

- *“The judgment of worth, made by an individual or organization, attached to something tangible or intangible and attained in the course of a particular interaction with one or more other parties”**

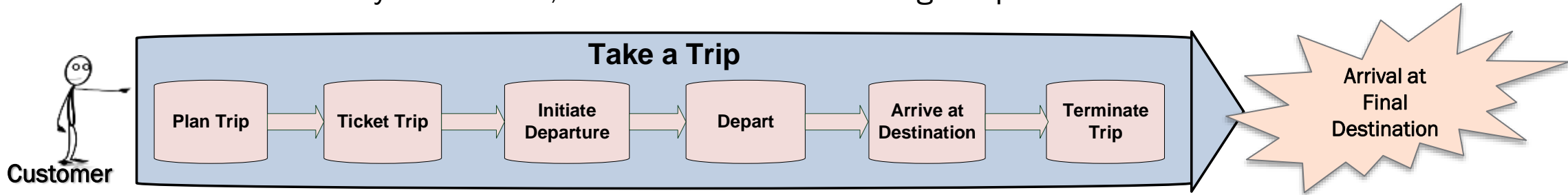
Value aggregation is focused on achieving the value proposition with no regard to the pathway towards achieving that value proposition

VALUE STREAMS: EXPANSIVE ECOSYSTEM PERSPECTIVES

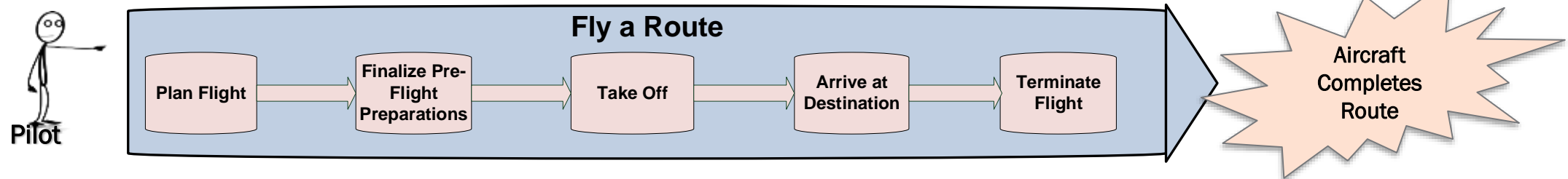


Value stream is “an end-to-end view of how value is achieved for a given stakeholder”

- Stakeholders may be external, such as a customer taking a trip on an airline:



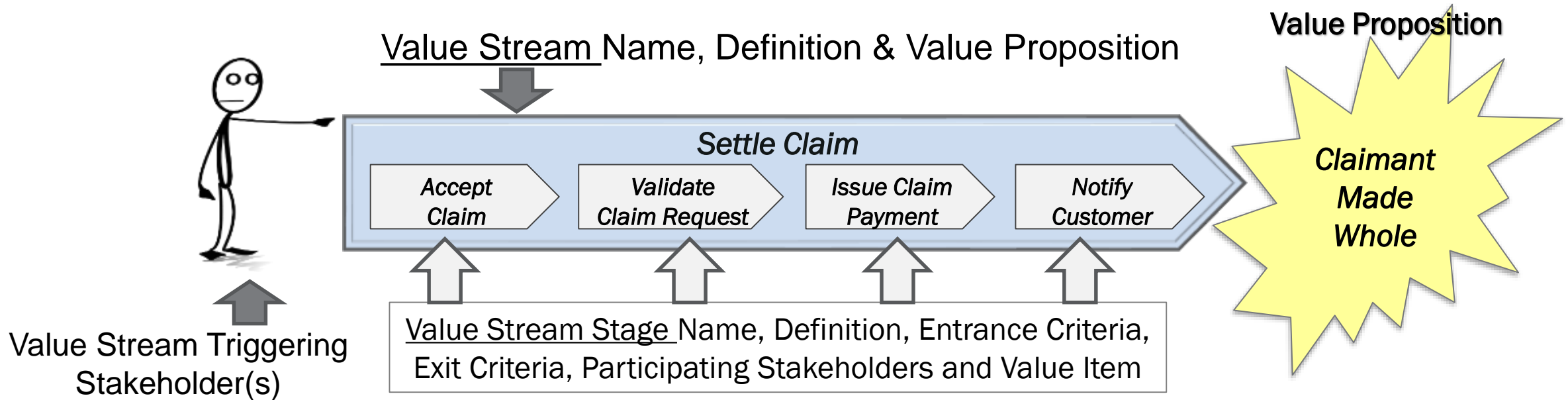
- Or stakeholders may be internal, such as a scheduler initiating a plane to fly to a destination:



- Value streams strive to achieve value proposition stated in its name for the “triggering” stakeholder

Above two value streams are unique and independent of one another

ANATOMY OF A VALUE STREAM



VALUE STREAM MAPPING TEMPLATE: FACILITATES VALUE STREAM ARTICULATION



Value Stream	Value Stream Stage	Description	Value Proposition	Entrance Criteria	Exit Criteria	Value Item	Stakeholder(s)

Templates enable mapping teams to articulate a value stream and related stages

In this template, value stream is listed on first row, with value stream stages listed below

Where information is not applicable, it is blocked out

For example, value streams have value propositions but not value items, and vice versa

Stakeholder column represents triggering stakeholder(s) for the value stream and participating stakeholders for value stream stages

VALUE STREAM MAPPING EXAMPLE: ESTABLISHING A FINANCIAL ACCOUNT



Value Stream	Value Stream Stage	Description	Value Proposition	Entrance Criteria	Exit Criteria	Value Item	Stakeholder(s)
Establish Financial Account		The end-to-end perspectives involved in establishing a customer account	Financial Account Established				Customer
	Receive Application	The act of receiving an application for a new customer account		Application Initiated	Application Received	Application in Progress	Customer, Help Desk
	Validate Application	Verification that the individual establishing the account is qualified to have an account		Completed Application	Application Validated	Credit Check Completed	Customer, Reviewer
	Activate Financial Account	The activation of an account for a fixed period of time		Validated Application	Account Activated	Account Ready to Use	Customer, Approver
	Notify Customer	The act of notifying the individual applying for an account that the account has been established or denied		Activated Account	All Parties Notified	Customer Notification Received	Customer, Approver

COMMON REFERENCE MODEL VALUE STREAMS – MAY BE INCORPORATED INTO ANY REFERENCE MODEL



Acquire Asset



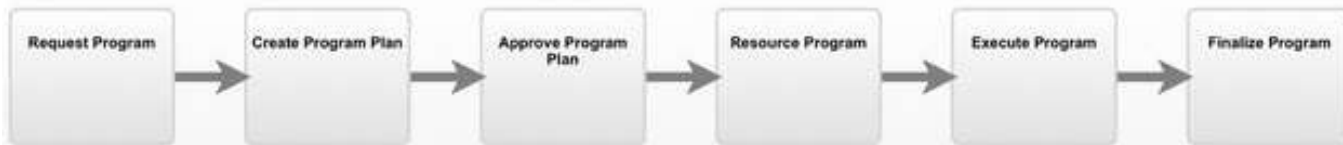
Conduct Audit



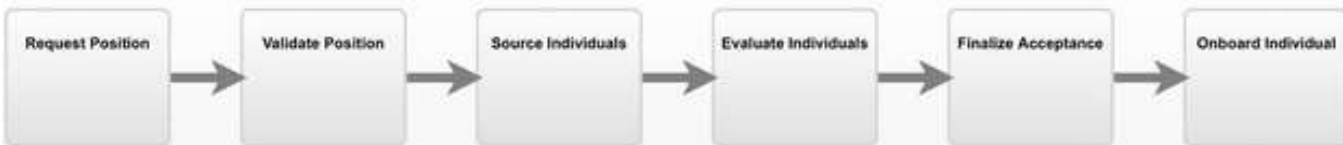
Ensure Compliance



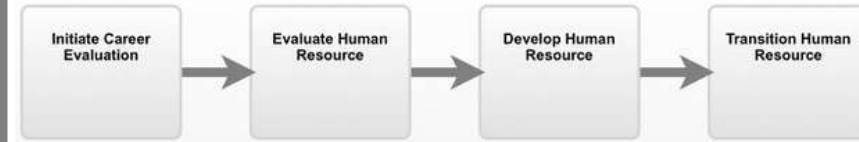
Deliver Program



Onboard Human Resource



Develop Human Resource Career



Disseminate Information



Execute Campaign



Optimize Investments



Report Financials



CAPABILITY MAPPING SUMMARY OF PRINCIPLES



- Capabilities define *what*, not *how*
- Capabilities represent unique, non-redundant views of the business
- Capabilities are not defined haphazardly or on demand by a given program or business unit, but are foundational and persisted across programs, projects and organization changes
- Capability maps only contain capabilities
- Every capability has a definition
- A business will have one capability map for its business ecosystem
- **Capabilities are based on business objects** that create concise, unambiguous, and clearly delineated business perspectives – all child capabilities are bounded by the parent object
- Capabilities live within the context of an overall business architecture with relationships to value streams, information, organization, products, policies and initiatives

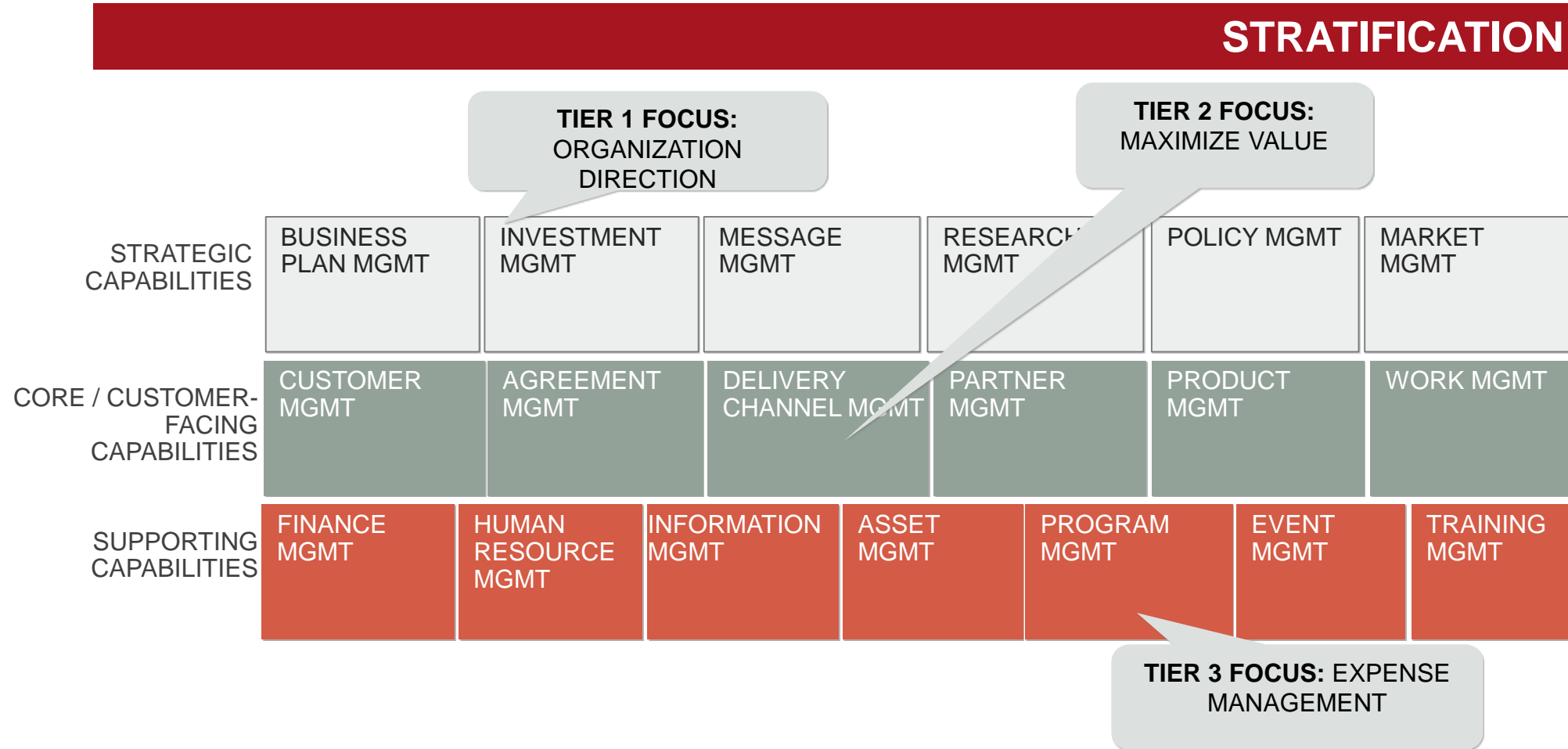
CUTTING THROUGH THE CONFUSION: DEFINING CAPABILITIES BASED ON BUSINESS OBJECTS



Business object: Abstract representation of a concrete actor within the business, either tangible or intangible

- 1. Identify and name the universe of objects – for example:**
 - Customer, Product, Partner, Agreement, Decision, Facility, Asset, Channel, Human Resource, Policy, Brand, etc.
- 2. Apply action verbs against those objects – for example:**
 - Customer Management, Product Management, Agreement Management, Brand Management, etc.
- 3. Decompose the actions performed to the degree of granularity required**
 - Agreement Structuring, Agreement Valuation, Agreement Risk Management, Agreement Access Management, etc.
- 4. Define the capability by defining the object and verb action applied to the object – for example:**
 - Customer Management: Ability to establish, predict, analyze, organize, present, and constrain information, preferences, experiences, and history related to an individual or legal entity that has, plans to have, or has had an agreement with the organization, or is otherwise a recipient or beneficiary of the organization's products and services.
- 5. Rationalize and Segregate – Repeat until map reaches maturity**

A REVIEW OF CAPABILITY MAP BASICS – STRATIFICATION STRUCTURE



A REVIEW OF CAPABILITY MAP BASICS – LEVELING STRUCTURE



		LEVEL 1		LEVEL 2		LEVELS	
STRATEGIC CAPABILITIES	PLAN MGMT	INVESTMENT MGMT	MESSAGE MGMT	RESEARCH MGMT	POLICY MGMT	MARKET MGMT	
	Plan Optimization	Investment Identification	Message Definition	Research Definition	Policy Definition	Market Definition	
	Plan Definition	Investment Portfolio Mgmt	Message Validation	Research Identification	Policy Interpretation	Market Prioritization	
	Plan Dissemination	Investment Targeting	Message Structuring	Research Interpretation	Policy Dissemination	Market Targeting	
	Plan Validation	Investment Funding	Message Matching	Research Structuring	Policy Categorization	Market/Message Matching	
	Investment Reporting	Message Dissemination	Research Dissemination	Policy Information Mgmt			
CORE / CUSTOMER-FACING CAPABILITIES	CUSTOMER MGMT	AGREEMENT MGMT	DELIVERY CHANNEL MGMT	PARTNER MGMT	PRODUCT MGMT	WORK MGMT	
	Customer Definition	Agreement Definition	Delivery Channel Definition	Partner Definition	Product Conceptualization	Submission Mgmt	
	Customer Incentive Mgmt.	Agreement Offering	Delivery Channel Analysis	Partner-to-Partner Matching	Product Design	Work Item Mgmt	
	Customer Information Management	Agreement Structuring	Delivery Channel Matching	Partner Information Mgmt	Product Creation	Work Queue Mgmt	
	Customer Analysis	Agreement Matching			Product Deployment	Work Routing	
	Agreement Information Management			Product Lifecycle Mgmt	Time Mgmt		
SUPPORTING CAPABILITIES	FINANCE MGMT	HUMAN RESOURCE MGMT	INFORMATION MGMT	ASSET MGMT	PROGRAM MGMT	EVENT MGMT	TRAINING MGMT
	Financial Account Management	HR Competency Mgmt	Information Definition	Asset Definition	Program Definition	Event Definition	Training Definition
	Currency Mgmt	HR Compensation Mgmt	Information Organization	Asset Matching	Program / Schedule Matching	Event/Schedule Matching	Training Development
	Financial Transaction Mgmt	HR Hierarchy Mgmt	Information Aggregation	Asset Inventory Mgmt	Program / Human Resource Matching	Event/Asset Matching	Training Packaging
	Financial Information Mgmt	HR Information Mgmt	Analytics Management	Asset Design	Program Information Mgmt	Event/Location Matching	Training Dissemination
	HR Supply/Demand Mgmt	Information Dissemination	Asset Creation				
		Information Packaging					

Source: Business Architecture Associates, Inc.



CAPABILITY BEST PRACTICES – STANDARD PATTERNS



Best Practices for level 2 object definition and decomposition

Level 1: ____ Management (e.g., Customer Management)

Level 2: ____ Definition (e.g., Customer Definition)

Level 2: ____ Matching (e.g., Customer Matching)

Where certain objects defined by other capabilities are associated with the level 1 parent object

Level 3: ____ / ____ Matching (e.g., Customer/Product Matching)

Level 3: ____ / ____ Matching (e.g., Customer/Location Matching)

Level 3: ____ / ____ Matching (e.g., Customer/Customer Matching)

Level 2: ____ Information Management (e.g., Customer Information Management)

Level 3: ____ Profile Management (e.g., Customer Profile Management)

Level 3: ____ Type Management

Level 3: ____ State Management

Level 3: ____ History Management

Level 3: ____ Analytics Management (for selected level 1 capabilities)

In the matching example, Customer is the controlling object to which other objects are matched

Source: BIZBOK® Guide, Business Architecture Guild

CAPABILITY BEST PRACTICES – STANDARD PATTERNS



Best Practices for level 2 object definition and decomposition

Various level 1 capabilities would also incorporate standard level 2 capabilities, as determined on a case-by-case basis

Level 2: ____ Access Management (e.g., Product Access Management, Agreement Access Management)

Note that Access is viewed as a constraining or allowing capability that addresses security

Level 2: ____ Risk Rating (e.g., Customer Risk Rating, Facility Risk Rating, Location Risk Rating)

Note that Risk is typically associated with specific business objects

Level 2: ____ Preference Management (e.g., Customer Preference Management) *(Where preferences are formal structures)*

Level 3: ____ Preference Definition (e.g., Customer Preference Definition)

Level 3: ____ Preference Interpretation

Level 3: ____ Preference Enforcement

Additional level 2 capabilities vary depending on the object – here are some examples:

For Product Management: Product Conceptualization, Design, Validation, etc.

For Asset Management: Asset Definition, Design, Evolution, etc.

Source: BIZBOK® Guide, Business Architecture Guild

BASIC CAPABILITY MAPPING SPREADSHEET TEMPLATE



Tier	Level	Capability	Definition

- **Tier**
 - 1=Strategic, 2=Core, 3=Supporting
- **Level**
 - 1, 2, 3, 4, 5, 6
- **Capability Name**
- **Definition of Capability**

Source: BIZBOK® Guide, Business
Architecture Guild

SAMPLE COMMON REFERENCE MODEL CAPABILITY CONTENT



Strategic Tier 1 – Level 1 Capabilities from Common Reference Model

Tier	Level	Capability	Definition
1	1	Brand Management	Ability to establish, organize, analyze, administer, and report on all aspects of a category of product or offerings under a particular name, unique symbol, mark, or logo that distinguishes it from other products in the market.
1	1	Business Management	Ability to set strategic direction, generally govern, manage operational execution, and measure performance against plan for the legal entity and its ecosystem.
1	1	Intellectual Property Management	Ability to define, establish, validate, value, obtain, or dispose of inventions, patents, trademarks, trade secrets, copyrights, and know how as a basis for furthering the overall mission of the enterprise.
1	1	Investment Management	Ability to identify, develop, analyze, value, exchange, acquire, dispose of, and report on any type of monetary asset purchased with the idea that the asset will provide income in the future or will be sold at a higher price for a profit.
1	1	Market Management	Ability to identify, name, analyze, frame, and cater to an actual, virtual, or otherwise nominal place where forces of demand and supply operate, and where buyers and sellers interact — directly or through intermediaries — to exchange products and services for monetary or non-monetary value.
1	1	Message Management	Ability to define, craft, frame, vet, disseminate, and track a structured conveyance of information, including missives, notifications, alerts, and other internally or externally targeted communication about the company's mission, products, plans, activities, and other focal points.
1	1	Plan Management	Ability to develop, communicate, and coordinate an articulated direction, related work items, and priorities to further business development, organizational priorities, and enterprise goals and objectives across business units and entities within or outside the organization.
1	1	Policy Management	Ability to establish, maintain, comply with, and administer a set of statutes, legislation, rules, procedures, regulations, treaties, and principles driven by internal business directives and external organizations, governments, or related third-party actors.
1	1	Research Management	Ability to conduct systematic investigation into materials and sources in order to establish facts and reach conclusions that comprise a result.
1	1	Strategy Management	Ability to define and disseminate mission, vision, goals, objectives, action items, and key performance indicators for the business, products, or other interest as required.

SAMPLE REFERENCE MODEL CAPABILITY CONTENT



Supporting Tier 3 – Level 1 Capabilities from Common Reference Model

Tier	Level	Capability	Definition
3	1	Asset Management	Ability to acquire, create, track, report on, and dispose of, tangible or intangible property with intrinsic value.
3	1	Event Management	Ability to establish, use, sustain, disseminate, and analyze an occurrence or happening at a determinable time and place, including physical and virtual meetings, conferences, or related gatherings of two or more persons.
3	1	Finance Management	Ability to plan, direct, monitor, organize, control, and report on the monetary aspects and resources of the business.
3	1	Human Resource Management	Ability to assess, mentor, compensate, terminate, and otherwise coordinate individuals that are or have been incorporated under a legal agreement that includes compensation and other benefits, on a temporary or permanent basis.
3	1	Information Management	Ability to define, organize, structure, secure, protect, and disseminate facts, statistics, attributes, and other types of data about a business' set of business objects.
3	1	Job Management	Ability to identify, define, assign, and manage accountabilities whether remunerative or non-remunerative, assigned, specific, and accountable business duty, role, or function that can be executed by a human or non-human resource.
3	1	Legal Proceeding Management	Ability to direct, administer, oversee, respond to, and generally administer all aspects of work related to a litigation filing, including trials, appeals, or related actions.
3	1	Location Management	Ability to define, calculate, articulate, determine, disseminate, or otherwise track a position or site of any given entity (person, organization, equipment, product, etc.).
3	1	Program Management	Ability to organize, plan, direct, and communicate progress against milestones to deliver outcomes within defined resources, time, quality, and scope constraints.
3	1	Training Management	Ability to define, conceptualize, create, and convey structured content and knowledge in consumable format, associated with a curriculum a course, workshop, seminar, or related content.
3	1	Work Management	Ability to capture, organize, prioritize, route, interpret, disseminate, and administer communications, tasks, and related decisions.

SELECTED INFORMATION MAPPING PRINCIPLES



- Information is a strategic business asset
- Information is a foundation for other business views
- Common, shared business vocabulary streamlines collaboration, communication, and automation
- Information is based on business objects
- Information is categorized into types
- Information has states
- Information has relationships to other information
- Capabilities modify information
- Capabilities use information to deliver outcomes

INFORMATION MAPPING TEMPLATE & CATEGORY SUMMARIES



Information Concept Definition & Dependency Mapping

Information Concept	Information Concept Category	Information Concept Definition	Information Concept Types	Related Information Concepts	Information Concept States

Information Concept: The information concept realizes or makes explicit a business object, which would be derived from the capability map.

Information Concept Category: Primary information concept realizes a business object that is not dependent on another business object for its existence. All objects established by a level 1 capability fall into the primary category. For example, Agreement is established by a level 1 capability and therefore a primary information concept. A secondary information concept realizes a business object that is fully dependent on another business object for its existence. For example, Agreement Term is a secondary information concept as it is established by a level 3 capability under a parent capability and can only exist if there is an Agreement object.

Information Concept Definition: The definition of an information concept is derived from the object portion of the capability definition and omits the action portion of the definition.

Information Concept Type: Type represents the different variations of the information concept and can be multidimensional. For example, an Agreement may be a supplier or customer type of agreement and may also be an auto-renewing type of agreement.

Related Information Concepts: Relationships among information concepts reflect real world relationships among business objects. A relationship between information two concepts may be defined once from one concept to another with the understanding that relationship traceability is bidirectional.

Information Concept States: A list of possible information concept statuses or conditions.

SAMPLE COMMON REFERENCE MODEL MAPPING



Information Concept Definition & Dependency Mapping					
Information Concept	Information Concept Category	Information Concept Definition	Information Concept Types	Related Information Concepts	Information Concept States
Agreement	Primary	A Legally binding contract entered into between the organization and a legal entity or individual.	Reseller, Bank, Supplier, Landlord, Employee, Carrier Customer, Consumer, Enterprise Customer	Asset, Policy, Order, Partner, Agreement, Financial Account, Payment, Facility, Channel, Conveyor, Network, Tax, Customer	Pending, In Force, Terminated, Abandoned
Agreement Term	Secondary	A legally enforceable condition set forth within the bounds of an agreement.	Financial, Penalty, Partner Complying, Customer Impacting, Business Entity	Agreement, Agreement Term, Location	Separable, Inseparable
Asset	Primary	A tangible good, such as equipment, computer, furniture, tool, software system, and other objects of intrinsic value that are used in a business context or packaged as goods into products offered to customers.	Equipment, Software, Computer, Machine, Desk, Cable Wire, Lights	Asset, Location, Agreement, Partner, Channel, Facility	Deployed, Inactive, Retired
Brand	Primary	Named aspect of a product or offering, a category of products or offerings, or an organizational identity, representing it by a unique name, symbol, mark or logo, and value proposition, and cultural identity that distinguishes it from other products, offerings, or organizational identities in the market.	Global, Regional, Product, Company	Market, Product, Business Entity	Active, Inactive
Campaign	Primary	Outreach activity that targets a specific population, for example, customers, human resources, partners, and patients, to achieve a certain goal, such as marketing awareness, hiring activities, and health awareness.	Product, Brand Awareness, Employee, Social Good	Program, Product, Market, Location	Planned, Executed
Channel	Primary	Digital, analog, or physical conduit through which products, related services, or communications are delivered or received, including the Internet, phone, delivery service, satellite, radio, or physical means.	Digital, Partner, Direct	Partner, Policy, Product, Asset, Facility, Location	Active, Inactive
Customer	Primary	An individual or other legal entity that has, plans to have, or has had a legally binding agreement with the organization, or otherwise is a recipient or beneficiary of the organization's products and services.	Retail, Individual, Corporate, Preferred	Strategy, Plan, Program, Market, Product, Customer, Partner, Human Resource, Channel, Location	Pending, Current, Past, Indirect
Finance	Primary	Monetary aspects and resources of the organization.			
Financial Account	Secondary	A named container of monetary value that is organized into debits, credits, liabilities, equity, and related categories such as customer, savings, checking, payables, general ledger, budgetary, and receivables categories.	Customer, Partner, Budgetary, Savings, Receivables, Ledger	Agreement, Order, Customer, Partner	Open, Closed, Overdue
Financial Transaction	Secondary	A monetary event or related exchange across businesses, agreements, and financial accounts.	Buy, Sell, Payment	Financial Account	Pending, Completed

MAPPING TEAM FORMATION



- Room will organize into teams – one team per table
- Each team will take a related industry sector or subsector for the day
 - Sectors will be agreed to and assigned
 - Teams can organize at break
 - Work should take on content unique to a given sector
- **Team will map:**
 - 1-2 value streams
 - 4-5 level 1 capabilities
 - 4-5 information concept

ADDITIONAL MAPPING TEAM GUIDANCE



- **Value streams**
 - Identify two value streams
 - Articulate one value stream as follows:
 - Define value stream, identify triggering stakeholder(s) and value proposition
 - Map out and define each stage, identifying value items, stage entrance and exit criteria
- **Capabilities**
 - Identify 2-3 level 1 capabilities, defining each level 1
 - For one level 1 capability,
 - Identify level 2 capabilities, defining each level 2
 - For one level 2 capability, identify and define level 3 capabilities

Note: If picking finance capabilities, see workshop leaders for guidance
- **Information Concepts**
 - For each of the level 1 capabilities, and where any business objects were introduced below level 1, map out the corresponding information concepts

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