



“OUTCOME IS KING!”

– OR HOW TO RETHINK MODELING A VALUE STREAM –

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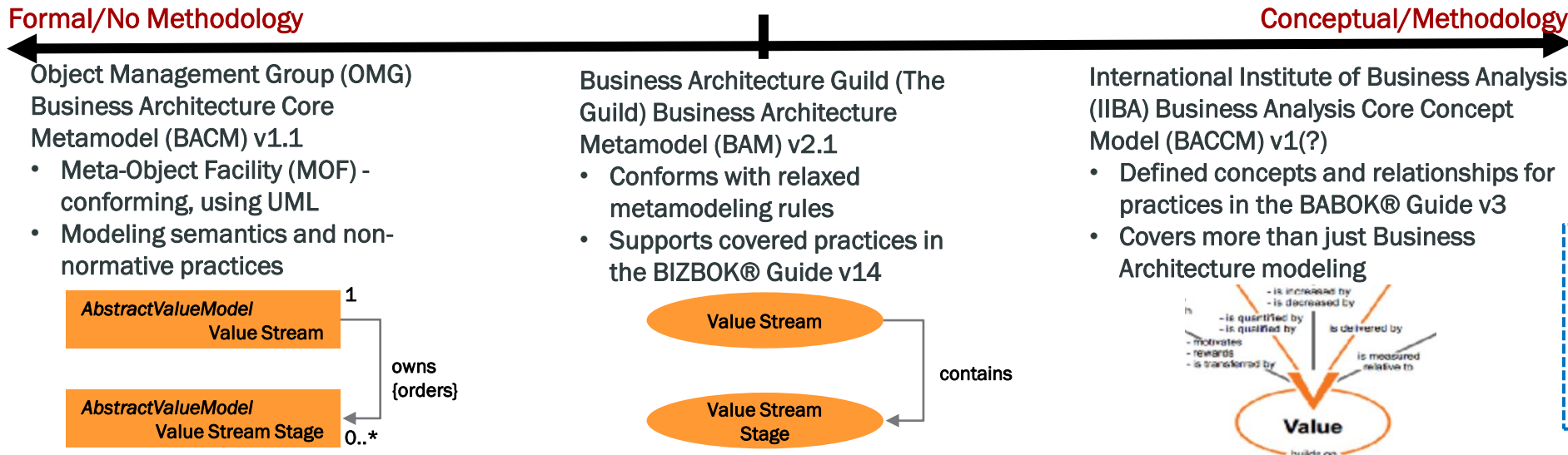
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BACKGROUND & KEY TAKEAWAYS

Background:

- Business Architects have at least 3 sources for Business Architecture practitioner guidance (including Capability- vs. Process/Activity-centricity)



NOTE: As Business Architecture has increasingly separated out from Business Analysis, more and more distinct guidance on the former has been emerging

- IIBA and The Guild practitioner collaborations are infrequent but are seminal – see The Guild whitepapers of Business Architecture and BPM: Differentiation and Reconciliation and Value Streams and Business Processes: The Business Architecture Perspective
- Value Stream modeling semantics vary from still under-defined to not defined at all, so am looking to fill in that void for both practitioner communities (and maybe supply a future master class on this underserved modeling topic)

Key Takeaways:

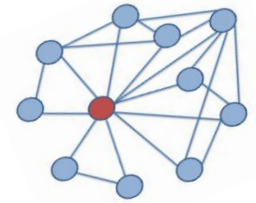
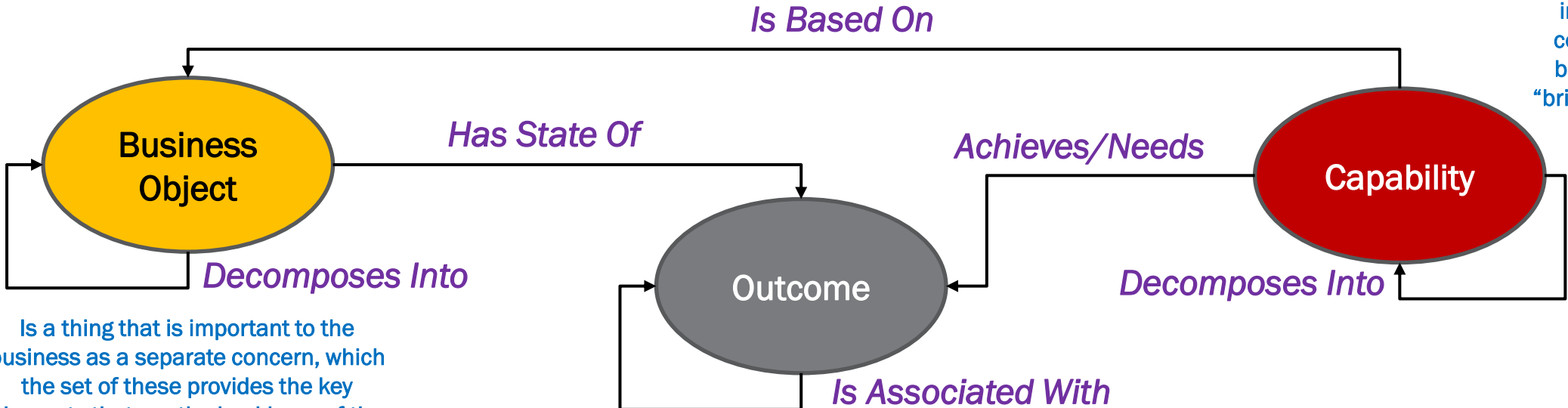
- Primer on Business Architecture Essentials as preparation for advanced treatment of Value Streams
- Detailed but practical guidance on proposed semantics+methodology for completeness/consistency when doing Value Stream modeling

BUSINESS ARCHITECTURE ESSENTIALS – THE HOLY TRIAD

Business Object, Outcome, and Capability *

*Definitions paraphrased from the BIZBOK® Guide

Is a particular ability or capacity of the business to achieve an intended result, which as a central statement about the business serves as the core “brick” for building the Business Architecture model

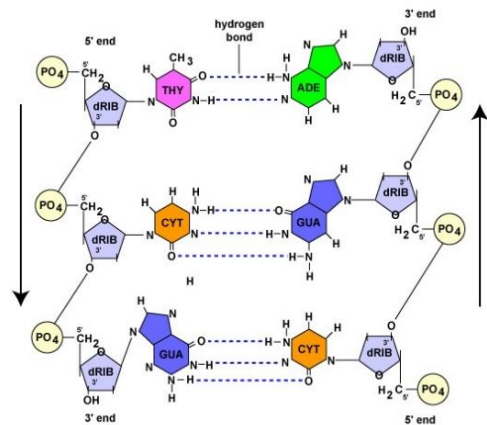


Is a thing that is important to the business as a separate concern, which the set of these provides the key elements that are the backbone of the Business Architecture model

Is a result of an event/action or a series of same, which is the mortar holding elements in the Business Architecture model together directly or via its many derivatives



- Suggested Naming Conventions:**
- Business Object = Noun (e.g., *Trip*) / Qualified Noun Phrase (e.g., *Trip Inquiry*)
 - Capability = Noun / Qualified Noun Phrase as Form of Verb that includes the associated Business Object (e.g., *Trip Management*)
 - Outcome = Adjective for Condition as Form of Past Tense Verb (e.g., *Managed*)



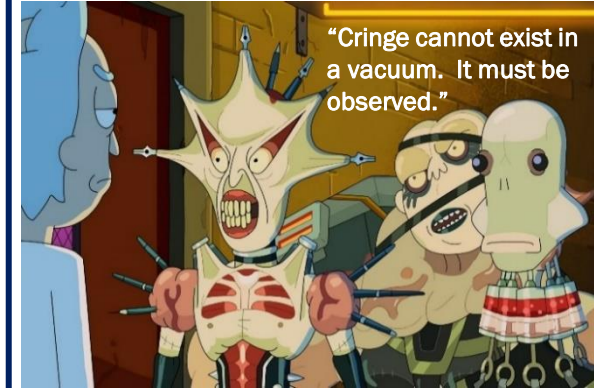
BUSINESS ARCHITECTURE ESSENTIALS – OUTCOME IS KING!

Capability is in some sense a potentiality resident in the business, like the potential energy that is resident in the ball at rest

(Needed) Outcome is in some sense a causal actuality occurring in the business, like the *observed push* experienced here that applies force to get the ball rolling down

(Achieved) Outcome is in some sense an effected actuality occurring in the business, like the *observed result* experienced here as the kinetic energy released as the ball rolls to a stop, leaving the **Business Object** in a kind of “*homeostasis*” balance until changed by another **Capability**

Business Object is in some sense the topography on which its associated **Outcome** conveys its state based on the effect of a corresponding **Capability**



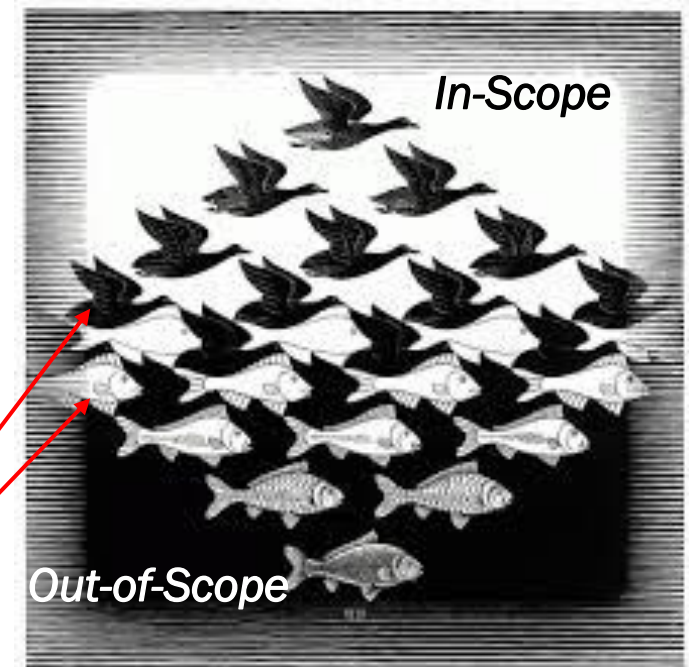
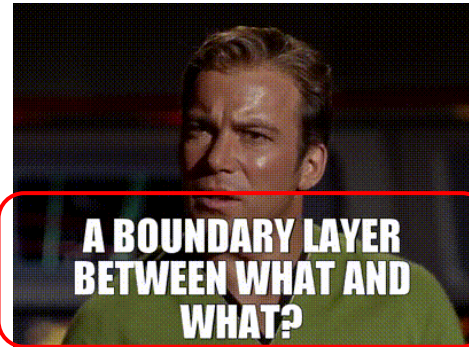
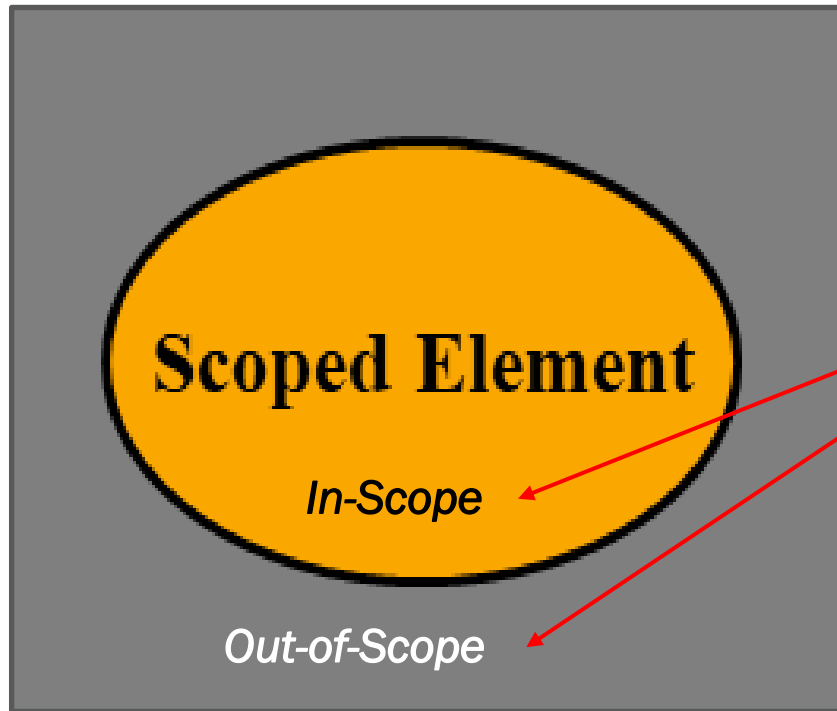
To misquote Rick & Morty:
“*Capability cannot exist in a vacuum. It must be observed (via Outcome).*”

BUSINESS ARCHITECTURE ESSENTIALS – SCOPE MODELING*

Has a definable boundary layer that determines things in-scope vs out-of-scope...

...Which is often autological and a bit circular in nature...

...Requiring methodology, technique, and judgement to disambiguate/clarify



* BABOK® Guide explicitly describes Scope Modeling, while BIZBOK® Guide directly requires it in many places

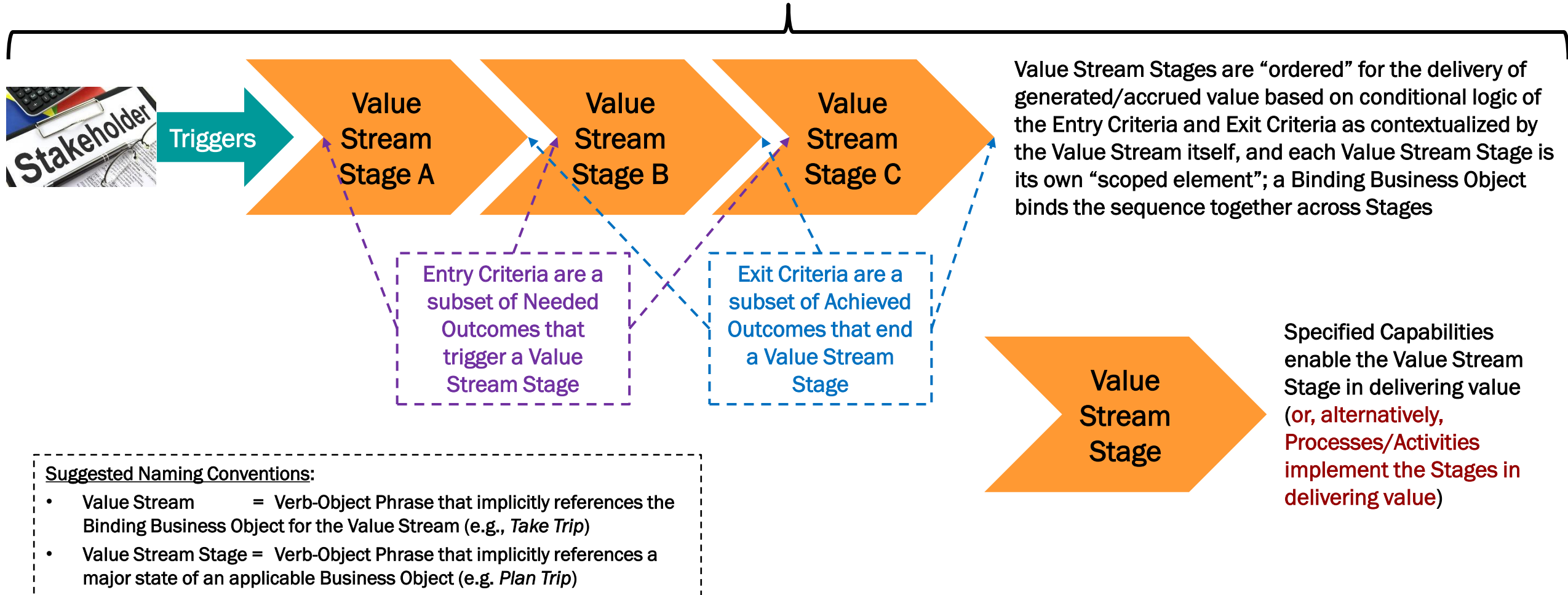
Some Example Techniques:

- Content decomposition
- Separation by roles/actors
- Distinctive state transitions

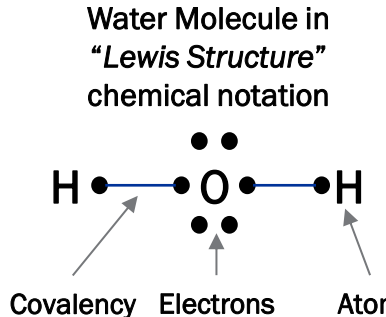
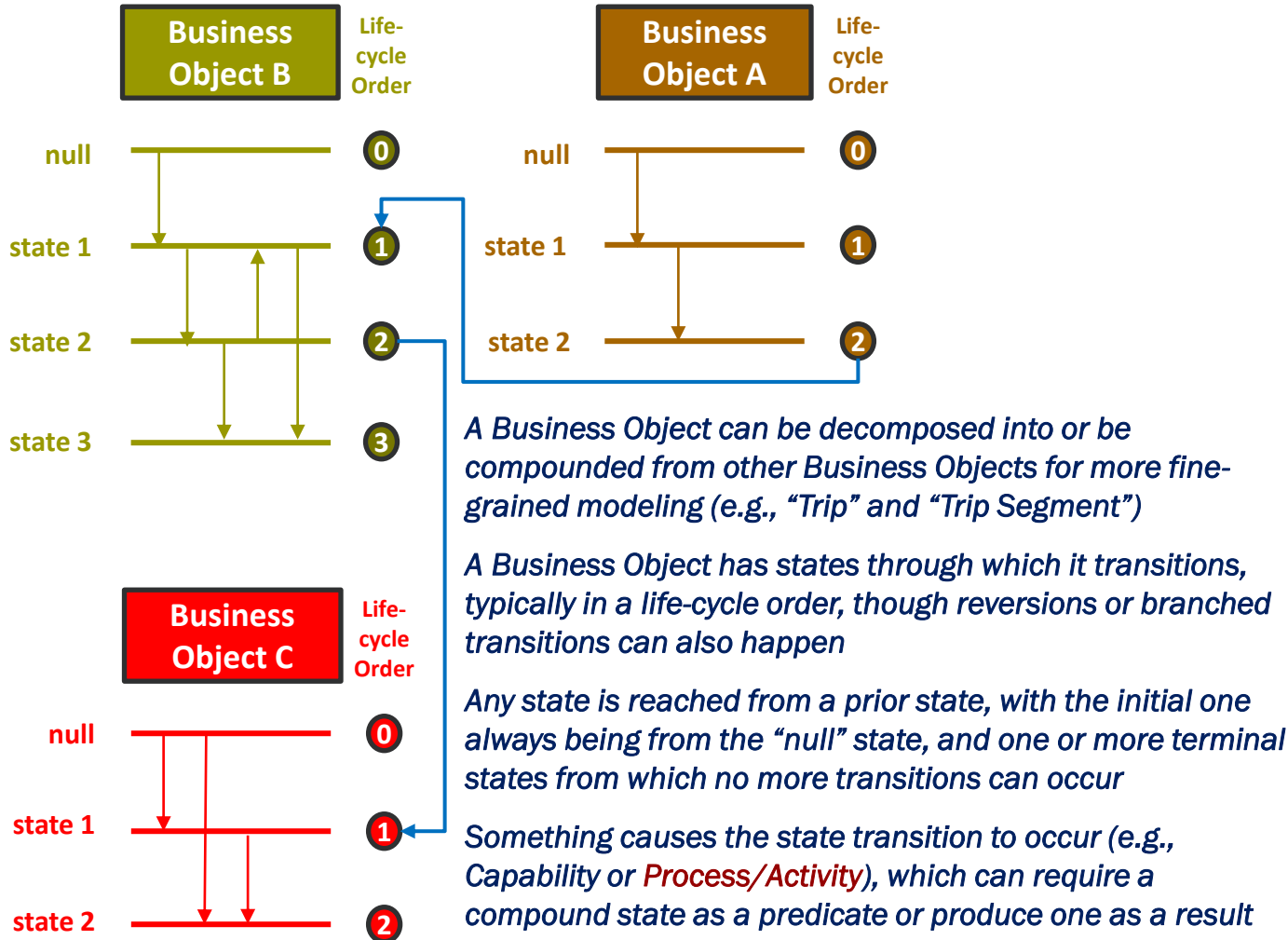
Why Outcome Is King!

BUSINESS ARCHITECTURE ESSENTIALS - VALUE STREAM MODELING

Value Stream Modeling (Across Modeling Stages 0-3)



BUSINESS ARCHITECTURE ESSENTIALS – BUSINESS OBJECT ALCHEMY

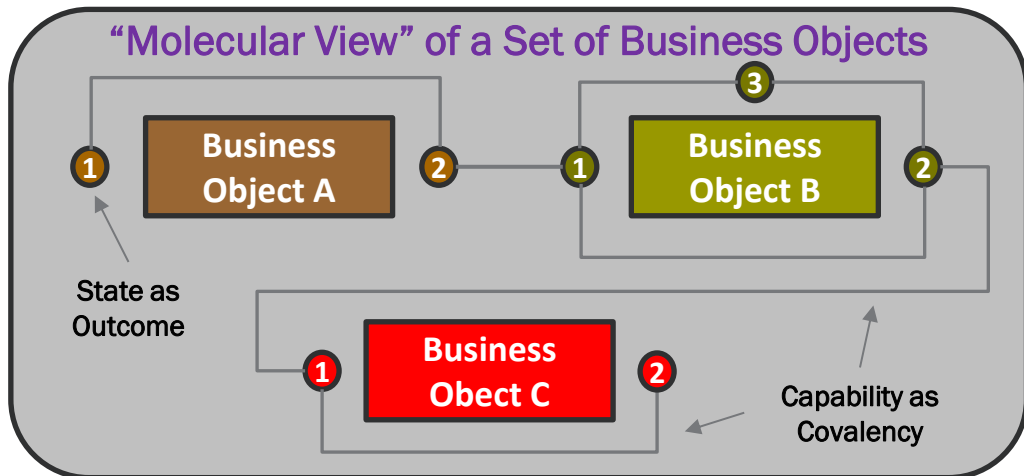


Think of Business Object as an atom and a set of Business Objects linked together via Capabilities as a molecule

A Capability can link two Outcomes for different Business Objects in a kind of "covalency" relationship between them

A Capability can link two Outcomes for the same Business Object in a kind of "covalency" relationship within itself

A Business Object can be considered more "reactive" the more states it has, esp if these are reversions or branched



BUSINESS ARCHITECTURE ESSENTIALS – MODELING EQUIVALENCES

(Overtly) Simplistic Example of Approximate Capability vs. Process/Activity Equivalences

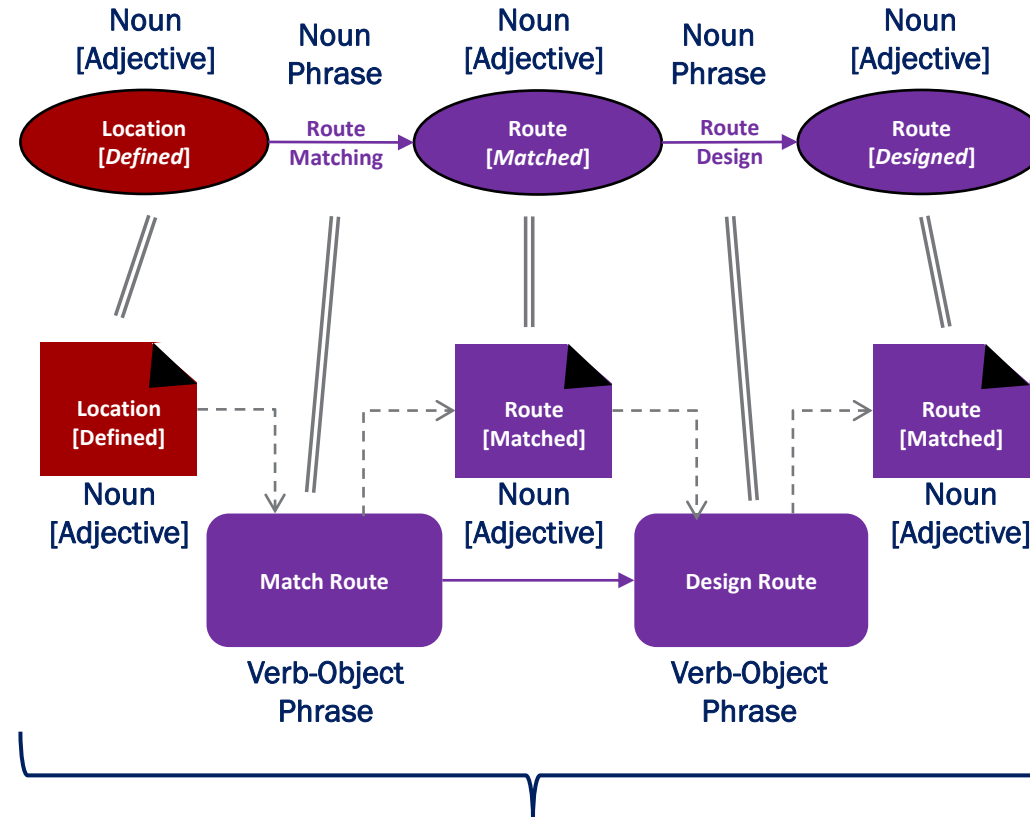
Capability-Centric View

Business Objects: Location, Route

Outcomes: Defined (Location), Matched (Route), Designed (Route)

Capabilities: Route Matching, Route Design

Capability-Centric View focuses on the descriptive “what” of operational behaviors as elements to be ordered in a network



Process/Activity-Centric View

Process/Activity Data Objects: Location, Route

Data Object States as I/O: Defined (Location), Matched (Route), Designed (Route)

Processes/Activities: Match Route, Design Route

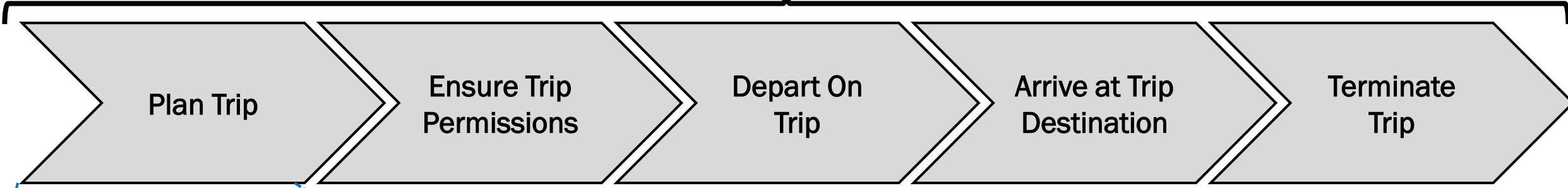
Process/Activity-Centric View focuses on the procedural “how” of operational behaviors as elements to be sequenced in a flow

NOTE: The 1-to-1 equivalence shown here is contrived, and thus is not really prescribed (being the result of a specific modeling style being applied), but equivalences must always be worked out in a way that reconciles differences in granularity (e.g., maybe it is 1-to-M, M-to-1, or even M-to-M) and in scope (e.g., inclusive Process vs. specific Activity vs. Capability level)

VALUE STREAM MODELING – S0 CONSTRUCTION (BASIC)

Take Trip (Value Stream)

Q: What is S0 missing for S1 to provide?



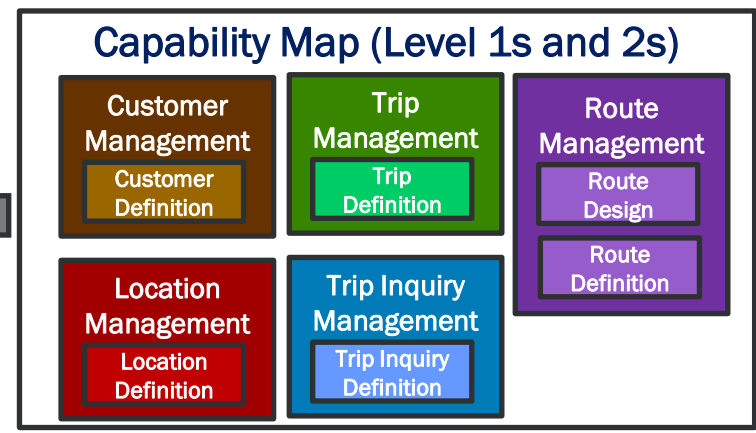
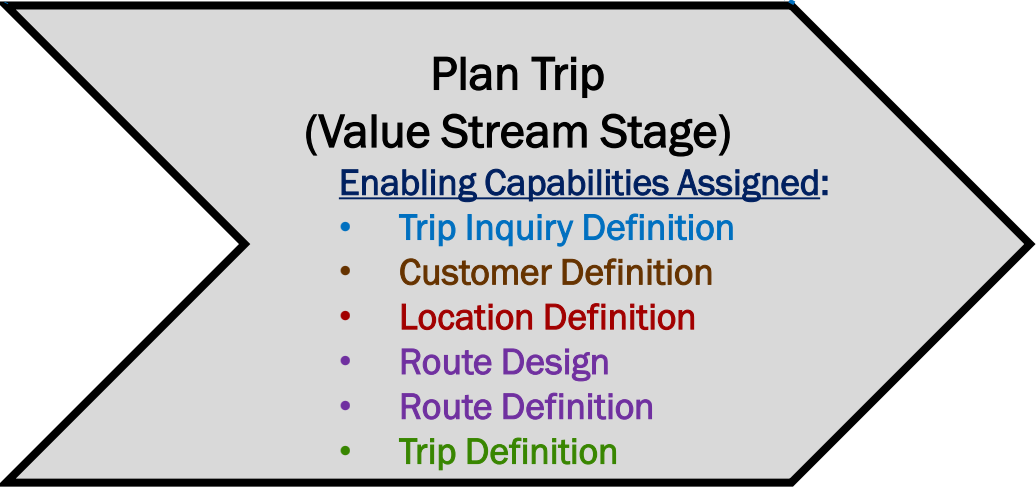
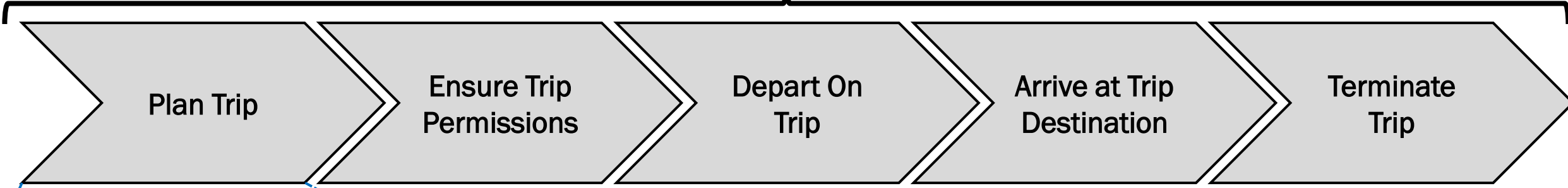
- Each Value Stream Stage conveys a scoped set of operational behaviors that generate/accrete value, but Stage boundaries not defined
- **Scoped set of operational behaviors can only be narratively described since there is no internal structure at this level**
- Applicable semantics for modeling a Value Stream Stage are few and simple (as well as obvious) to apply, and notation is modeler's choice
- **Communicative power of Stage 0 is its simplicity and the straightforward decomposition of the Value Stream**
- Ideal for use in presentation to CXOs and other senior leadership not interested in (or up to receiving) additional detail
- **Immaterial at this level of description whether one sees using Capability or Process/Activity to implicitly provide that structure**

VALUE STREAM MODELING – S1 CONSTRUCTION (CAPABILITY)

A: Capabilities as internal structure in S1

Take Trip (Value Stream)

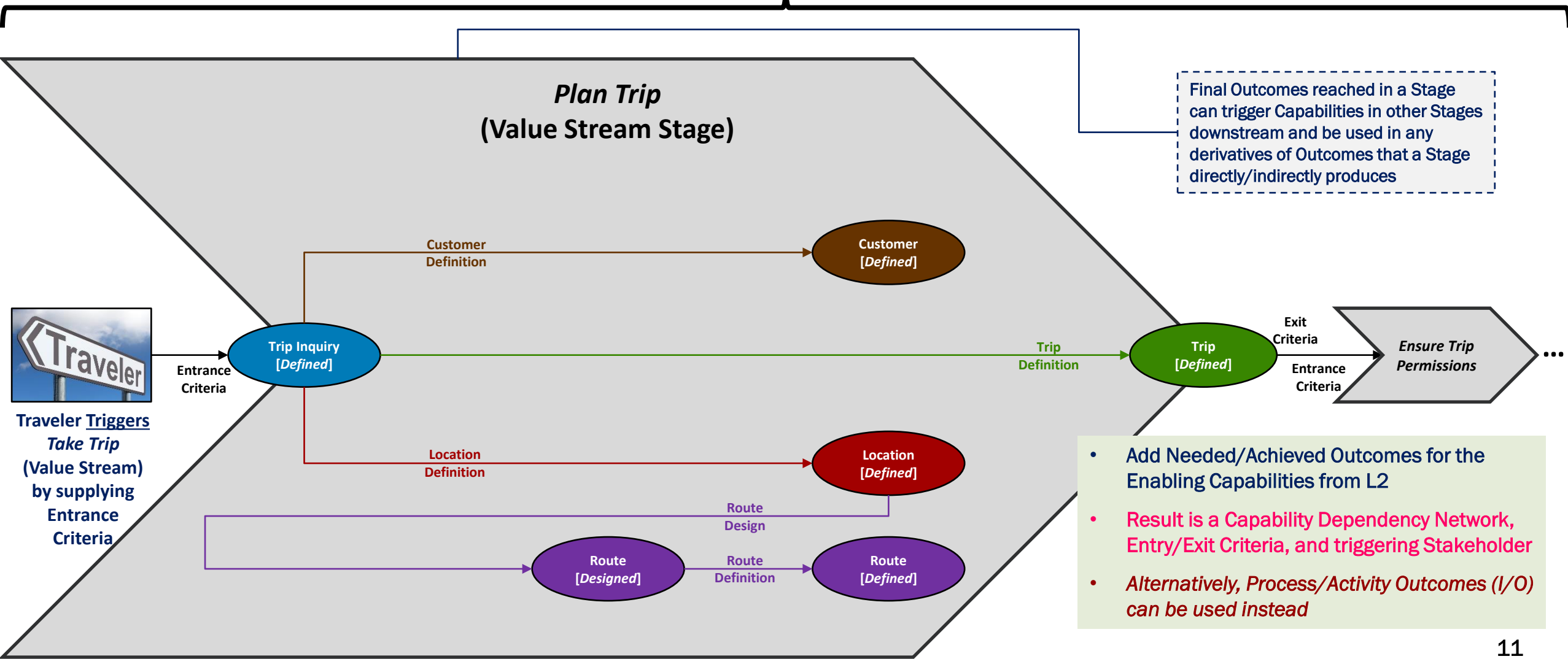
Q: What can Outcomes add to S1 in S2?



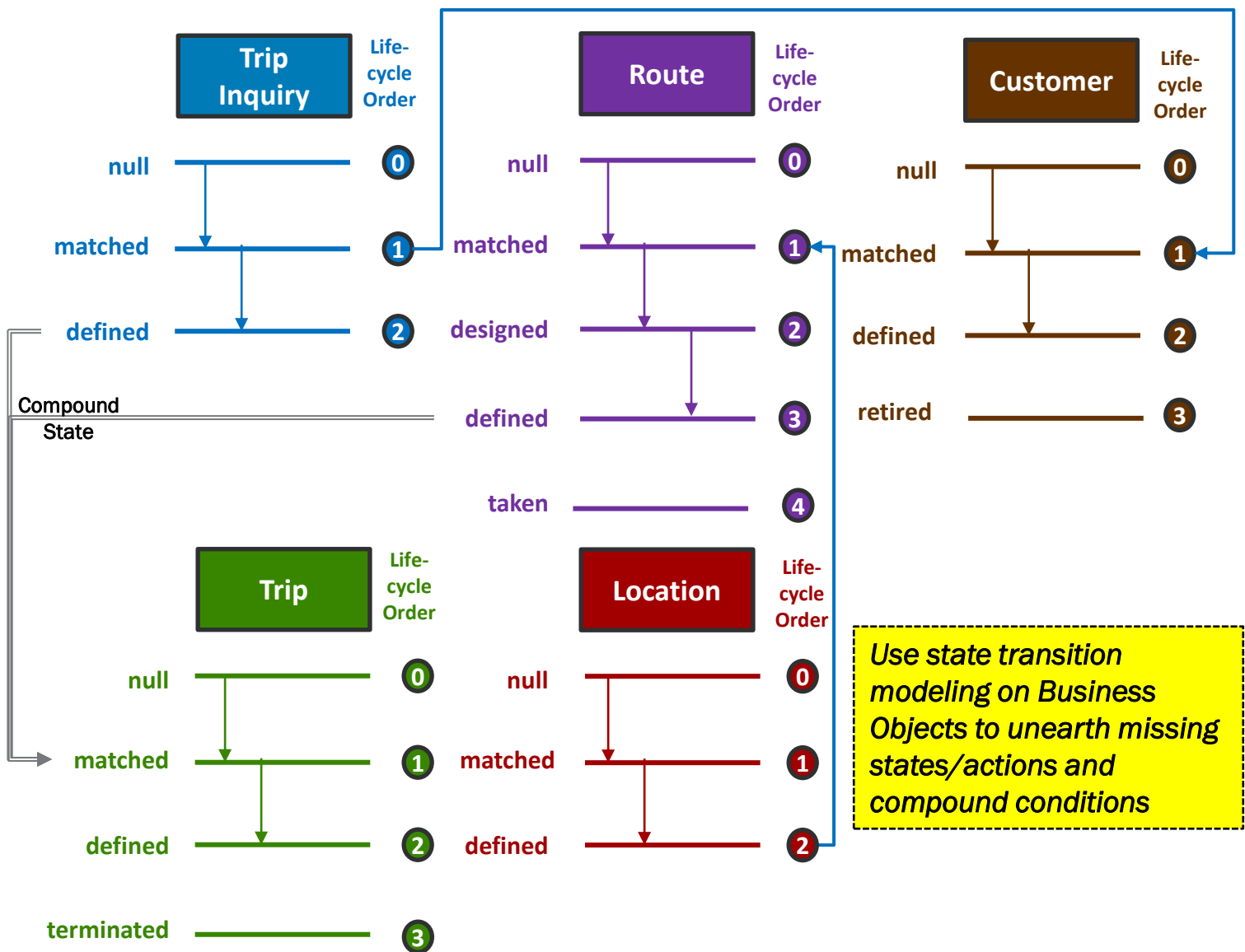
- Leverage a Capability Map through at least Level 1s and Level 2s
- Additional levels down may/may not be appropriate per the scope
- Stage boundaries are implied based on the Enabling Capabilities
- Assign Capabilities that enable the Value Stream Stage to occur
- Alternatively, can assign Processes/Activities that implement it

VALUE STREAM MODELING – S2 CONSTRUCTION (OUTCOME)

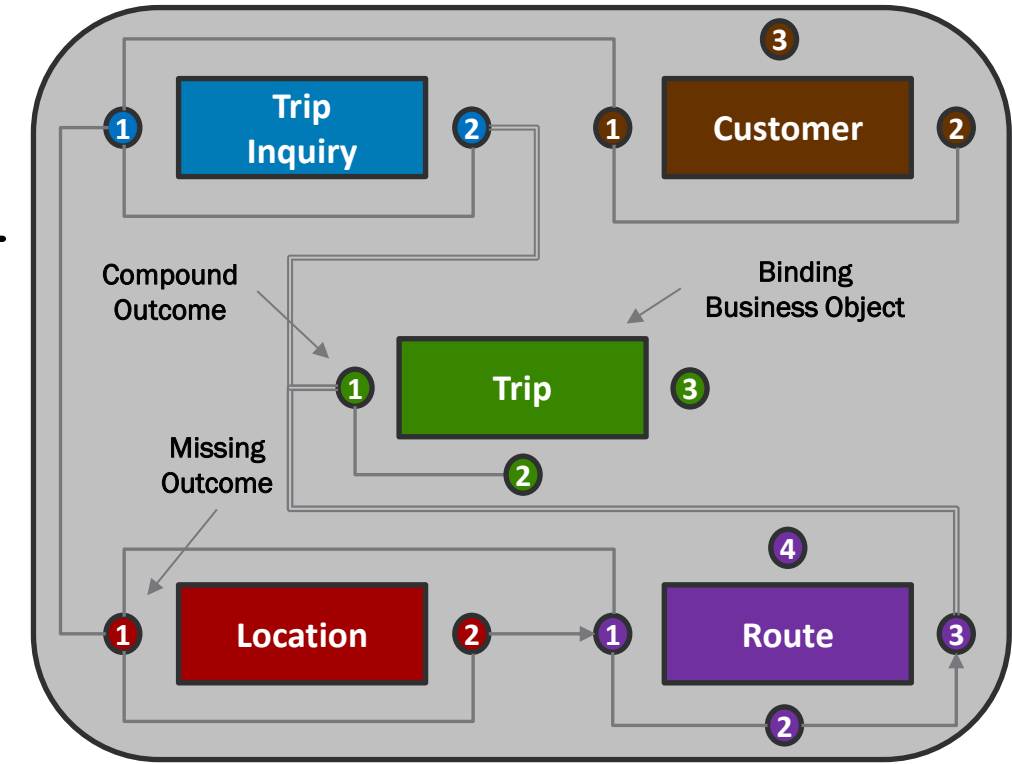
A: Outcomes scope Capabilities & Boundaries in S2 *Take Trip (Value Stream)* **Q: Is anything missing in S2 for S3?**



VALUE STREAM MODELING – S3 CONSTRUCTION (BUSINESS OBJECT – I)



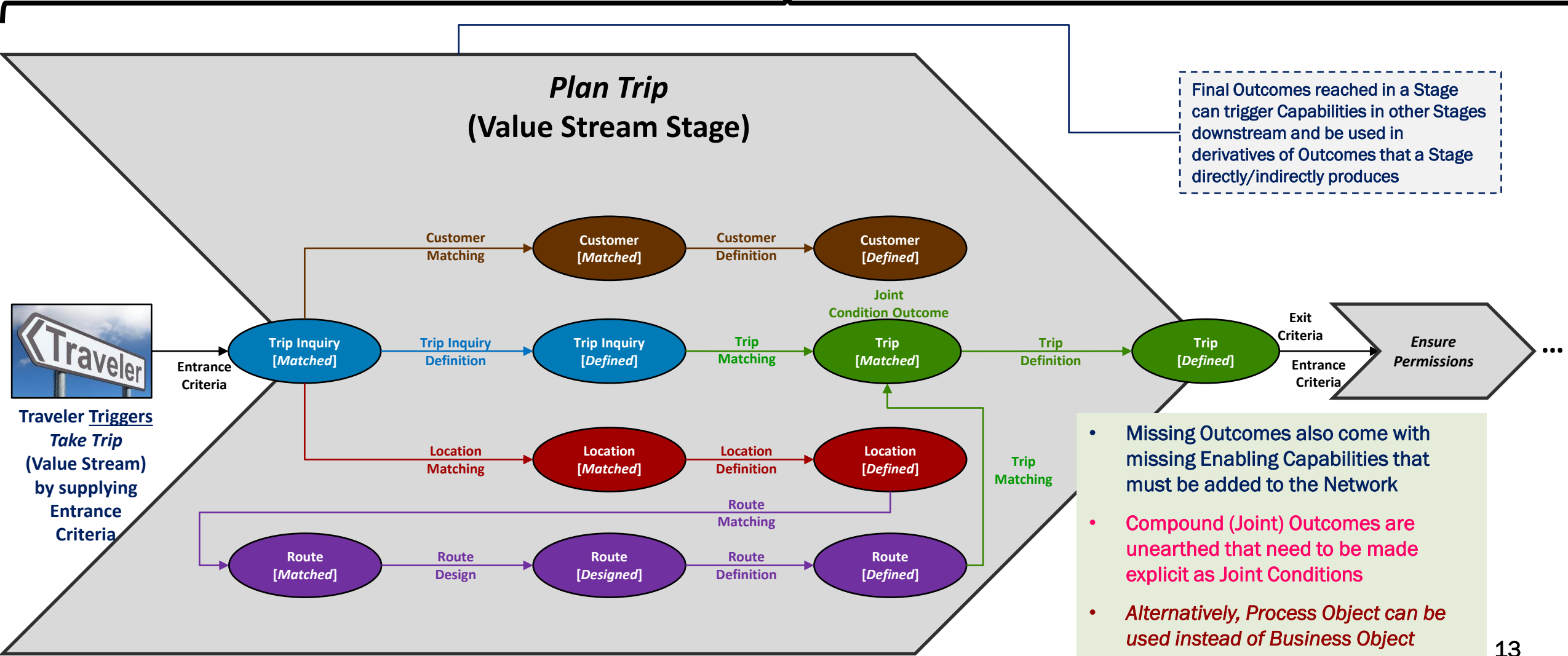
- Rationalize use of Outcomes by modeling life-cycle state transitions for Business Objects to see if something is amiss
- Binding Business Object that anchors the Value Stream becomes evidence-based instead of asserted (e.g., "Trip")



VALUE STREAM MODELING – S3 CONSTRUCTION (BUSINESS OBJECT – II)

A: Yes – add in matching at intake before definition in S3

Take Trip (Value Stream)



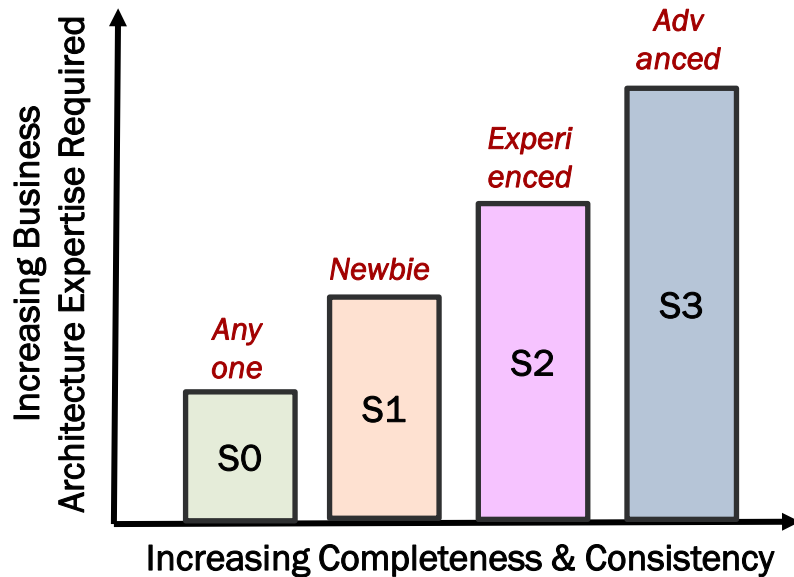
- Missing Outcomes also come with missing Enabling Capabilities that must be added to the Network
- Compound (Joint) Outcomes are unearthed that need to be made explicit as Joint Conditions
- Alternatively, Process Object can be used instead of Business Object

VALUE STREAM MODELING – SUMMARY OF MODELING STAGES

Modeling Stage Table

Stage	Scope Definition & Structure	Enabling Capabilities *	Outcomes	Life-Cycle Rationalized
0	Yes, via Narrative	No	No	No
1	Yes, via Capabilities	Yes	No	No
2	Yes, via Entry/Exit Criteria	Yes	Yes + Entry/Exit Criteria	No
3	Yes, via Binding Business Object	Yes	Yes + Entry/Exit Criteria	Yes

Modeling Stage Chart



“All models are wrong, some are useful”
 – George Box
 (famous statistician)

Fit for Purpose – Utility of Value Stream Mapping Stages:

- S0 Value Stream is only good for CXOs, etc. for conveying essential Business Architecture model concepts
- S1 Value Stream is needed as a minimum structure to make the Business Architecture model actionable in use
- S2 Value Stream ensures that the Business Architecture model has consistent scope boundaries missed in S1
- S3 Value Stream checks completeness of S2, ensuring nothing was missed in the Business Architecture model

APPENDIX – NOTIONAL DESCRIPTIONS OF KEY MODELED ELEMENTS *

Item	Name	Description
Value Stream	Take Trip	E2E perspective of traveler(s) taking a trip by appropriate conveyance(s)
Value Stream Stage	Plan Trip	Act of evaluating options and making determinations for a trip based on preferences
Enabling Capability	Customer Matching	Ability to associate a customer with other business objects
	Customer Definition	Ability to establish and identify a customer
	Trip Inquiry Definition	Ability to establish and identify a trip inquiry
	Trip Definition	Ability to establish and identify a trip
	Location Matching	Ability to associate a location with other business objects
	Location Definition	Ability to establish and identify a location
	Route Matching	Ability to associate a route with other business objects
	Route Design	Ability to conceptualize, specify, and model features that a route must have
	Route Definition	Ability to establish and identify a route

* CAVEAT: Point here is not to create the best “Take Trip” Value Stream. but rather a good enough one to illustrate the topics being discussed

Note: The Value Stream model used here is (loosely) based on the Transportation Reference Model available from The Guild

SPEAKER BIO & ACKNOWLEDGEMENTS



Speaker Bio – Lloyd Dugan

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Lloyd Dugan is the Chief Architect for Serco-NA’s long-term contract with the Centers for Medicare & Medicaid Services to provide Eligibility Support (CMS-ES) processing under the Affordable Care Act, bringing to bear nearly 40 years of modeling and design experience. He was the National Pulse Award winner for Serco, NA and the Global Pulse Award winner for Serco, Global for his design of a decision logic-driven system for optimizing task assignments under multiple and overlapping SLAs as an automated job-shop scheduling solution. This reached across multiple call centers, with several thousand workers processing tens of thousands of tasks a day. He was awarded another National Pulse Award as one of the leads that moved the IT assets for the CMS-ES Program from on-prem to the AWS Commercial Cloud. He received two Excellence Awards – one for Robotic Process Automation (RPA) advisory services at Serco’s Australian subsidiary and one for designing a “headless” case management system for CMS-ES that leveraged Intelligent Data Processing (IDP), Sapiens Decision, Agentic-AI, and AWS Cloud-Native services to automatically process eligibility verification issues without any user mediation.

He has spoken at national and international conferences and been published on many topics over the decades (including at the Business Architecture Guild’s Business Architecture Summits), specializing in the disciplines and use of BPM, the OMG’s BPM+ modeling languages of BPMN/CMMN/DMN, and Business Architecture. He has taught BPMN to hundreds of students, primarily staff and contractors at the DoD under his own company, LAB Derivations. He is a long-term Contributing Member of the Guild, and serves as its voting representative on the OMG’s Business Architecture Core Metamodel (BACM) Task Force. He is the principal co-author of the Guild’s first and seminal white paper on BPM-Business Architecture Alignment, and was a reviewer on the follow-up paper. He is a long-standing member of the Guild’s Metamodel Collaboration Team.

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QUESTIONS & ANSWERS

