BIAN
Business Capability Model
Statement of Alignment with the BIAN Service Landscape

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1 Introduction

This discussion paper summarizes the current alignment between the BIAN Business Capability Model (BCM) representation of an enterprise (as per business architecture as defined by the Business Architecture Guild) and the BIAN Service Landscape (BSL).

The BIAN Service Landscape and the BIAN Business Capability Model both provide a viewpoint and model of the financial services business. However, their perspectives and purposes are distinct and thus their usage and benefits vary. In the early days of BIAN, the Service Landscape was the only viewpoint of the business. As the practice of business architecture emerged and grew in popularity, the BIAN membership demanded a more business capability focused viewpoint that was aligned with the Business Architecture Body of Knowledge (BIZBOK); specifically, a business capability model and a set of relevant value streams.

Business Capabilities model the business based on a collection of business abilities in terms of what an organization does or wishes to be able to achieve. It does so without attempting to identify specifically who or what is responsible for subsequent delivery. In contrast the BIAN Business 'capacity' view models a business as a discrete set of assignable business functional responsibilities (service centers) that can be assembled to perform any desired business function, without being directly concerned about the business justification. The combination of both provides the opportunity to merge the business strategic insights and drivers from BCM with the assignable implementation responsibility from the BIAN Service Landscape.

The primary purpose and value of the Business Capability and Value Stream viewpoints is in strategic planning; aligning change initiatives with business value. In other words, business architecture aims to answer the questions of what makes it a viable business; and where to make critical investments by focusing on "what" and "why" a bank needs to be able to do something. More specifically, business capabilities define the "what", and value stream define the "why".

The BIAN Service Landscape is first and foremost a definition of a set of discrete, unique and fully encapsulated, autonomous business operational functions uniquely assignable to a responsible organizational entity. The primary purpose and value in the service landscape viewpoint is to define and implement a set of functional capacities. In other words; what resources and functions are needed. They are focused on "how" the business operates to provide the value.

The business architecture perspective supports an external assessment of the business; defining what it can do or aspires to achieve. The service domain perspective conversely supports an internal perspective; providing an inventory of the functioning elements the enterprise has available or requires in order to perform its various obligations.

Though the service domains (service landscape) and the business capability model provide different business perspectives it is reasonable and desirable to correlate these two viewpoints. In practice, this is not as simple as it sounds. In some cases, there is almost a one-to-one relationship of a business capability to a service domain, but in many cases this relationship is many-to-many. This paper proposes a way to relate these two viewpoints by correlating the BIAN scenarios with the value streams. By

using this approach, one can not only see how business capabilities are related to service domains but can also see how service domains contribute to business value.

2 The purpose and primary design principles underlying a Business Capability Model:

The approach and definition for a Business Capability Model is well established and widely leveraged by business strategists and planners. However, before diving into the details of Business Capabilities it is important to understand that Business Capabilities are just one, albeit very fundamental, part of a full business architecture viewpoint (as defined by BIZBOK).

According to Federation of Enterprise Architecture Professional Organizations (FEAPO), business architecture is defined as:

> *"Business architecture represents holistic, multidimensional business views of: capabilities, end-to-end value delivery, information, and organizational structure; and the relationships among these business views and strategies, products, policies, initiatives, and stakeholders".*

The primary purpose of business architecture is to provide a framework for understanding, informing, evaluating and translating business direction with the goal of ensuring alignment between strategy and the execution of that strategy.

Business architecture is framed around ten formally defined domains as shown in Figure 1 below. These ten domains form the basis for establishing, applying, and managing business architecture. There are four core domains, as illustrated in the center circle. These provide the foundation for a business architecture.

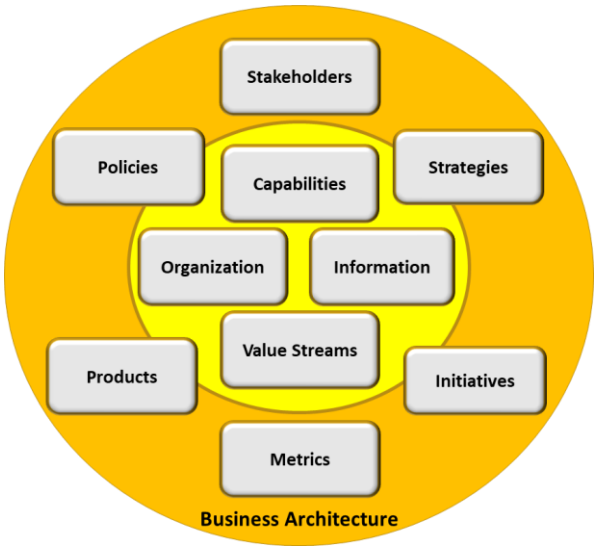


Figure 1: Business Architecture Core and Extended Domains [1]

[1] Business Architecture Guild®, A Guide to the Business Architecture Body of Knowledge®, v 11.0 (BIZBOK® Guide), 2022. Part 1, Section 1

This paper will refer to the two primary and most often used core business architecture domains; namely Capabilities and Value Streams.

Business Capabilities define what a business needs or wants to be able to do. According to BIZBOK[2], a Business Capability is defined as a particular ability that a business may possess or exchange to achieve a specific purpose or outcome.

An enterprise Business Capability Model has the following primary characteristics:

- It defines a layered decomposition hierarchy of individual discrete business capabilities. In this context a business capability defines what an enterprise is able to do, or wishes to be able to do, articulated in terms of the desired outcome (i.e. the ability to realize some result).
- Business capabilities are based on (or are constrained by) a relatively small set of high-level primary business objects such as customer, product, channel, brand.
- A business capability can be thought of as “the ability to” do some action on a business object
- Any and all business activity can be defined in terms of business capabilities
- A business capability definition is not concerned with “how” the capability is delivered or the specifics of how the business capability might be implemented in practice
- A business capability is not product or business unit specific
- The Business Capability Model along with other business architecture models is used to help define the strategic direction, business value proposition, purpose, goals, objectives and the coverage/scope/segmentation of activity for a business enterprise

Though each business capability has an outcome and provides value, the ultimate business value in a given business context is achieved through a set of business capabilities. Value Streams relate Business Capabilities in a given context to fully define value creation. According to BIZBOK, a value stream shows how an organization creates the value being exchanged between itself and various stakeholders. More specifically, the value stream is defined as “a visual depiction of how an organization achieves value for a given stakeholder or stakeholders within the context of a given set of business activities”[3].

Value streams are cross-mapped to enabling capabilities, illustrating how an organization orchestrates capabilities in order to create stakeholder value. Cross-mapping between value stream and capabilities is a key component of business architecture. The figure below shows a value stream and the key enabling business

[2] Business Architecture Guild®, A Guide to the Business Architecture Body of Knowledge®, v 11.0 (BIZBOK® Guide), 2022.

[3] Business Architecture Guild®, A Guide to the Business Architecture Body of Knowledge®, v 11.0 (BIZBOK® Guide), 2022. Part 2, Section 2.4 Page #140

capabilities and illustrates the relationship of capabilities to delivering business value. See appendix for full definition of this value stream.

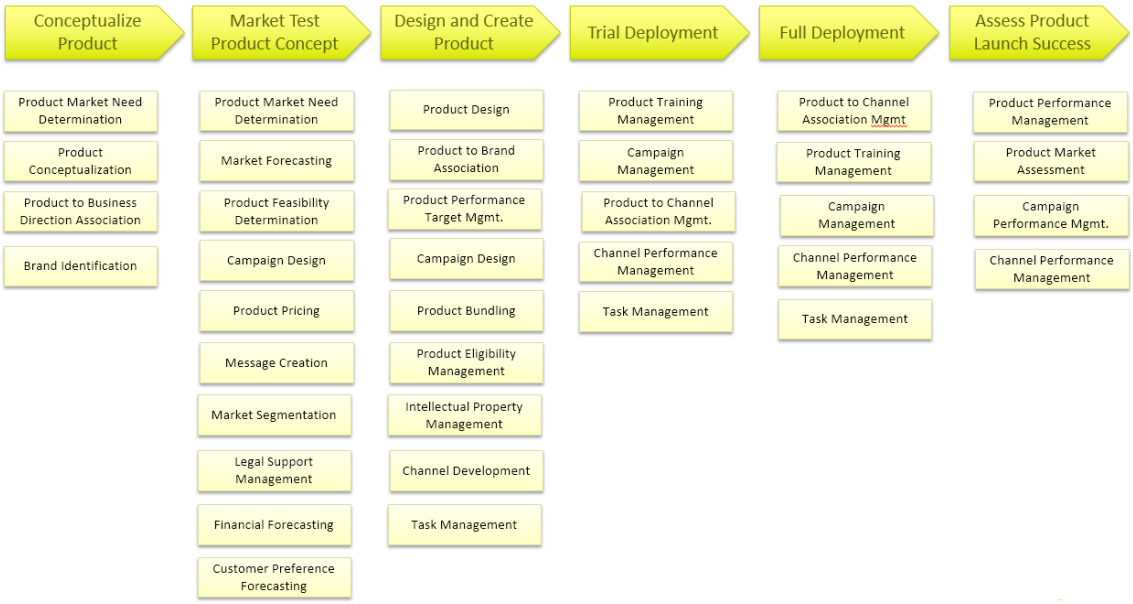


Figure 2: Develop and Launch Product Value Stream and Key Enabling Business Capabilities

3 The Purpose and design principles underlying the BIAN Standard Service Landscape

BIAN uses a novel business model representation to specify the BIAN Standard. It defines operational business functional partitions – the BIAN Service Domains – that can be used to lay out an enterprise business blueprint with the following characteristics:

- Each Service Domain represents a discrete, unique and fully encapsulated/autonomous business operational function.
- The Service Domain is defined at the limit of granularity where responsibility for the completion of its business function is uniquely assignable to a specific organizational entity (i.e. any further break down would scope out 'utility' activities that may be executed independently by many different organizational roles)
- All possible business activity can be represented with a suitable selection of one or more collaborating Service Domains
- The function performed by a Service Domain (by design) is intended to support the definition of an application design blueprint for a fully containerized, service-based systems architecture (SOA)

In order to distinguish between standard business capabilities and the business perspective represented by the BIAN Service Domains – the BIAN partitions are sometimes referred to as ***"business capacities"***.

In this document the main focus is on comparing and contrasting BIAN Service Domains with Business Capabilities. A second artifact used by BIAN – the Business Scenario can also be compared and contrasted with Value Streams. Unlike the BIAN Service Domain, the BIAN Business Scenario is not a formal element of the standard. A Business Scenario is not prescriptive, but instead represents an archetypal example of how Service Domains might interact in response to some business need or event. As noted later in this paper, despite the informal nature of Business Scenarios, they can be an effective mechanism to associate Business Capabilities and Service Domains

4 Comparing and contrasting the two model views

The Business Capability Model and BIAN Service Landscape both present business architectural views of an enterprise. However, they serve fundamentally different purposes. The Business Capability Model (BCM) is a representation that is intended to help define the strategy, goals, business model and to help understand, focus and measure where business value is or can be created. The BIAN Service Landscape (BSL) identifies the discrete business 'functional capacities' that represent an inventory of all the operational facilities an enterprise/bank needs to have in order to function.

Business Capabilities

Business Capabilities represent a business-focused set of discrete conceptual abilities or competencies that a business has or needs to achieve a business outcome. These, along with other business architecture components provide an analytical framework for translating strategy into actionable initiatives.

Service Domains

Service Domains represent a set of discrete, elemental (unique/non-overlapping) business operational functions that constitute the functional building blocks that make up any bank. They are used to provide a business functional framework for solution development.

The BCM can be considered as an external perspective. It does not attempt to reconcile *'what needs to be done to create value*' with '*what is needed in terms of the specific internal functional capacities*' (put another way: a BCM defines 'what', not 'how'). The BSL conversely is more of an internal perspective that defines all of the essential functional capacities that are required to support any of the intended business activities. But in contrast, the BSL does not formally associate the use of its identified functional capacities with any specific business value creating context.

> *An aside – to clarify the granularity of the BSL: The BSL defines functional requirements but does so only to a conceptual level of detail – defining discrete design partitions. These BSL semantic specifications are intended to include sufficient detail of the mainstream activities to define the business functions performed and the main business information exchanged unambiguously – they do not claim to be exhaustive definitions. Furthermore, these high-level conceptual designs need to be filtered and possibly duplicated in order to specify the specific operational and organization blueprint or 'logical' design of any particular enterprise. The 'logical' design will also need to add significantly more design detail to be comprehensive. Yet more design detail will be required to finally translate these logical specifications into the physical design and development of actual production software*

In summary, the BCM model view does not associate a business capability with the supporting functional capacities. Conversely the BSL model view does not associate its functional capacities with any specific business value generating context. But if successfully combined, the two models can define an application blueprint that relates the value generating potential of an enterprise to a full inventory of its required operational facilities.

4.1 Growing Emphasis on Component Architectures

An additional consideration for the use of the combined model views is the increasing interest businesses and solution providers place on the finance industry's migration towards a component based or composable business architecture. A composable business architecture seeks to improve operational flexibility and business effectiveness by enabling a business to source and assemble its desired capabilities from disparate and specialized sources while conforming to a common/shared business ecosystem blueprint. The drivers towards composability include competitive business practices, rapid changes in the market place and perhaps most obviously attempts to leverage the broad range of advanced highly distributed, container-based technologies that have followed on from the global adoption of the Internet

The business capability mapped BIAN Service Domains can be readily aligned with such a component model view of business as the Service Domains are specifically defined to represent discrete, fully encapsulated and canonical business partitions. Indeed, as the two models focus on the business architecture in a manner that can readily be interpreted to organize the underlying systems design, the combination provides a unique and highly differentiated path to the adoption of composable business practices.

5 Mapping between the different model views

Extensive analysis has been undertaken by the BCM Working Group to compare business objects associated with general business capabilities and the information governed by BIAN Service Domains as represented by their associated 'control records'. (A Service Domain's control record is a specific type of 'artifact' used to govern the execution of its particular functional pattern/behavior). Unfortunately, in practice the control record content can have a complex mapping to selective views of multiple business objects. As a result, it has been difficult to identify a clear relationship between the two model views based on common business object usage.

At this stage the most practical bridge between the two model views can be achieved by mapping Value Streams with BIAN Business Scenarios. The business value assessment of the Value Stream can be associated directly with the goal/purpose for the realization of the BIAN Business Scenario.

The value stream to business scenario mapping provides a useful practical bridge between the two model views. Shown below is a sample Value Stream mapped to the relevant BIAN Business Scenarios to demonstrate the bridge between them.

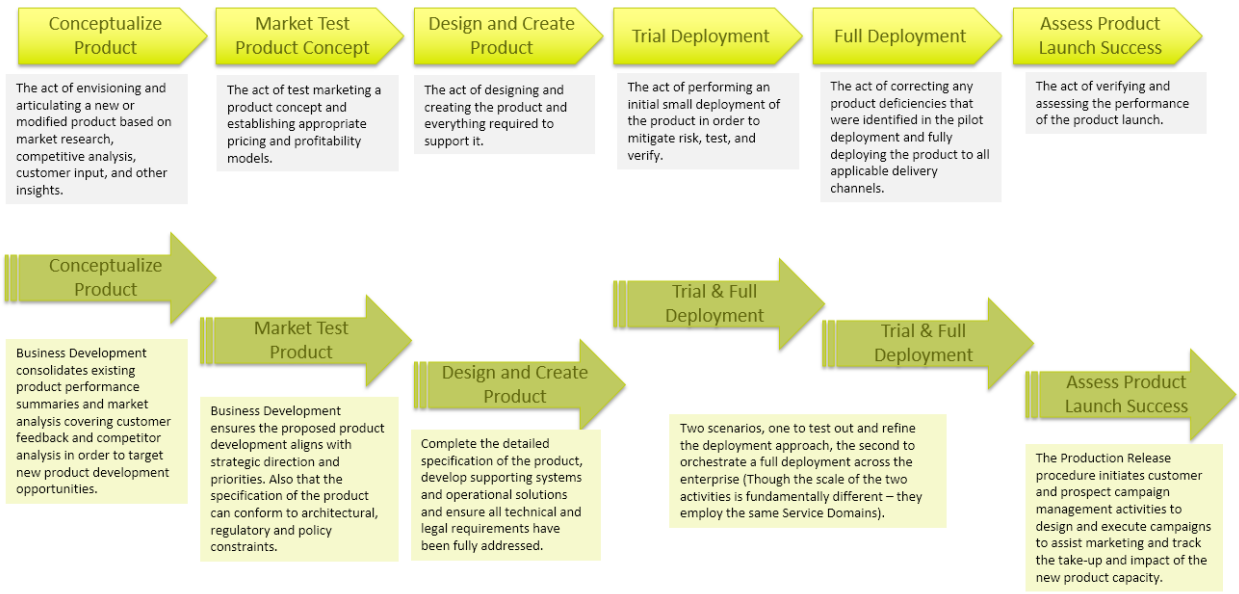


Figure 3: Develop and Launch Product Value Stream and Associated Business Scenarios

When viewed this way, the affinities between many business capabilities and the supporting Service Domain are readily apparent. By focusing on one stage, we can view the key business capabilities and key service domains and start to understand the relationship of business capabilities to service domains.

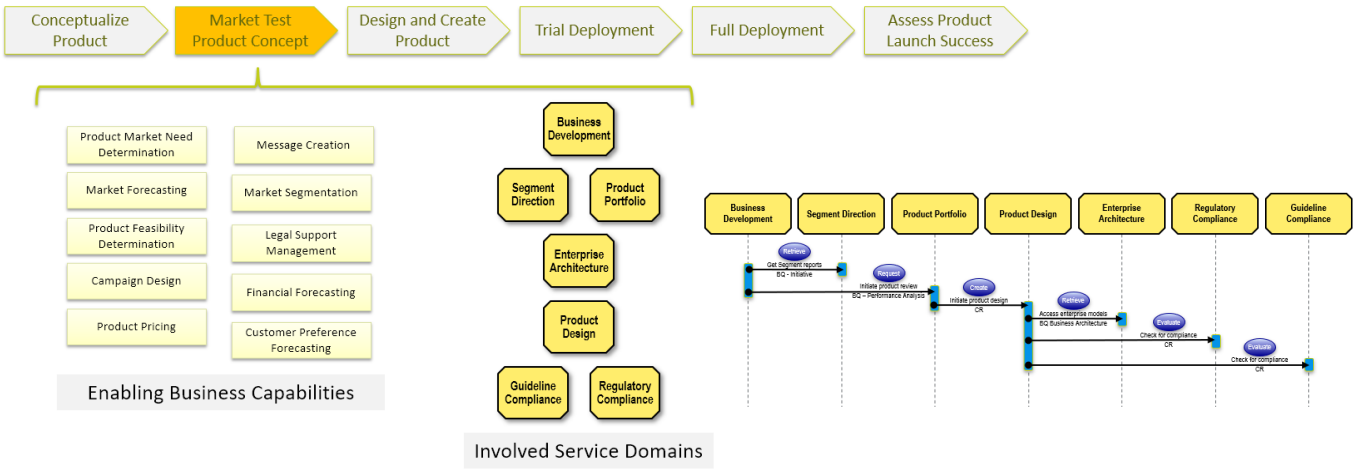


Figure 4: Exploded Stage View Relating Key Enabling Capabilities and Involved Service Domains

As explained in more detail below – this association is not always a simple one-to-one mapping when considered for the enterprise overall. But in the context of a specific value stream and its equivalent business scenario the linkages can be fairly precise.

Appendix A provides more detail of this value stream, related business scenarios, business capabilities and service domains.

6 The difference between a BIAN business capacity and a general business capability

The combined value stream and business scenario view shows that in some cases the mapping between a business capability and an associated service domain can be quite direct. It is however important to note that this is not always the case. If we consider the different design approaches briefly, the reason for this can be better explained

A BIAN Service Domain defines the application of a specific pattern of operational control to instances of a specific type of production asset and it does so for the complete life-cycle (from start to end, and as often as needed). This design property intentionally results in business capacities that are discrete and highly encapsulated. The Service Domains are also defined at one specific level of detail such that all Service Domains are 'peers' (i.e. one Service Domain is not a combination of smaller Service Domains). The level of granularity is pitched so that the functionality provided by each Service Domains is 'elemental' – meaning a bank either needs one or doesn't but does not need only part of a Service Domain. This property is necessary for the standard to be canonical. The BIAN design rationale is fully described elsewhere.

Business Capabilities are also defined to be discrete – but unlike Service Domains that form a peer collection, Business Capabilities are more often organized in a decomposition hierarchy where each level defines a mutually exclusive and collectively exhaustive (MECE) collection of capabilities at ever finer levels of detail. At a certain level of decomposition (typically level 2 or 3) the granularity of the Business Capabilities aligns quite well with that of the BIAN Service Domains. But as already noted, the way they bound their responsibilities varies. Where the Service Domain defines the capacity to execute some operational function, the Business Capability specifies the ability to achieve some goal or realize some need to support value creation without attempting to define what it needs to be able do so.

The impact of the different partitioning approaches used for a BIAN business capacity and for a general business capability can be highlighted by considering the ways they might map to each other. Four main patterns are defined:

1. ***One to One*** - they are equivalent. For example - 'the Product Design business capability ' maps directly to the individual Service Domain – "Product Design". (In this case the business capability to design products matches the capacity to do the same)
2. **Many to One** – the service domain covers a set of separate business capabilities. For example – the service domain of Recruitment covers the business capabilities of Candidate Sourcing Management and Candidate Suitability Determination. This can be seen, for example, in the recruitment stage of the onboard human resource value stream.
3. ***One to Many*** - the business capability requires a collection of supporting Service Domains. For example – the Service Domains of Advanced Voice Services Management, Branch Location Management, Branch Network Management, Contact Center Management and E-Branch Management all relate to the business capability of Channel Management. (As with the previous pattern, this

is mostly a scope mismatch. In this case the Business Capability, which is not type specific covers the related Service Domains)

4. ***One Interpreted by Many (distributed theme)*** - the business capability impacts many Service Domains, but each in a different manner. For example – many of the business capabilities related to Policy Management are distributed through many Service Domains as they incorporate the conformance to policy compliance. This is a requirements 'theme' that needs to be matched, interpreted and applied across many of the Service Domains independently. In the business capability model these cross-object capabilities are more granularly represented by ‘matching’ or ‘association’ capabilities.

The different perspectives of the Business Capability model to the Service Domain model is precisely why it is difficult to establish a formal/consistent linkage mechanism between individual business capabilities and the Service Domains. Currently it appears that the value stream-to-BIAN business scenario alignment offers the best practical linkage.

7 Conclusion

In conclusion, the BCM Working Group notes that the two model views – Business Capability Models (combined with Value Stream Analysis) and the BIAN Service Domains (combined with its Business Scenarios) can be used very effectively to expose different aspects of an enterprise architecture. They are not competing views, indeed they both define highly valuable and sometimes synergistic perspectives. But due to fundamental differences, mapping the two perspectives to each other is not always a simple exercise. When the focus can be narrowed to a specific business activity that can be represented using both a value stream and business scenario perspectives the associations between contained business capabilities and service domains can be fairly explicit.

Furthermore, when the intent of the enterprise’s business and systems architecture is to adopt a more component oriented operating model, the two views can both be related to common business component partitions. In this situation the combination of the insights provided by each architectural perspective promises to offer unique and highly differentiating opportunities for business and systems development.

8 Appendix

8.1 Develop and Launch Product Value Stream

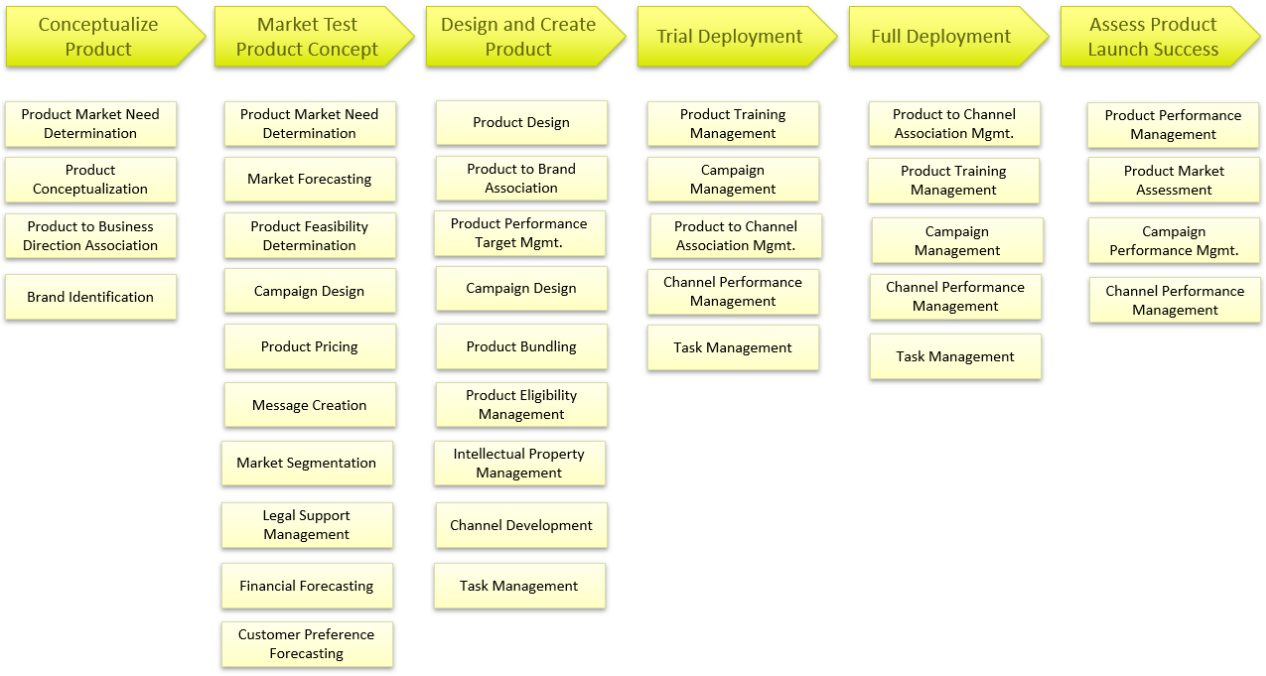
Below is a depiction of the full value stream definition for Develop and Launch Product.

Description:
The end-to-end set of activities necessary to introduce a new product/ service or modify an existing product/ service. This covers product/ service conceptualization through to full deployment with all necessary approvals.

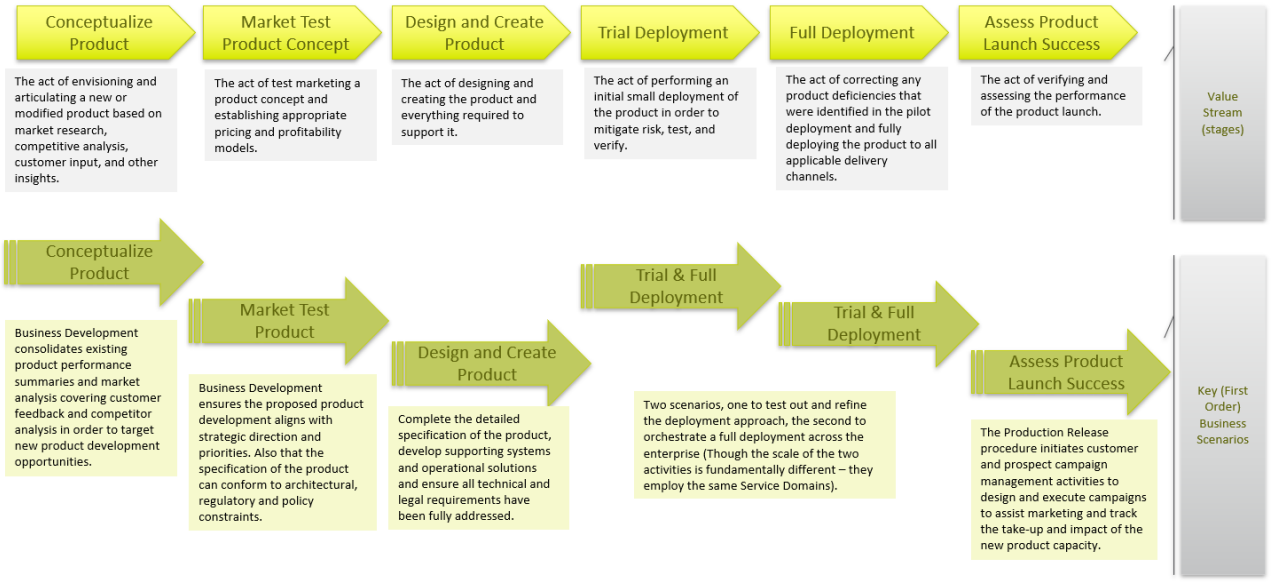
Value Proposition:
New or modified product introduced to market.

Value Stream Stage	Description	Entrance Criteria	Exit Criteria (State Change)	Value Item	Stakeholder(s)
Conceptualize Product	The act of envisioning and articulating a new or modified product based on market research, competitive analysis, customer input, and other insights.	Business strategy or plan with an expressed need or idea for a product	Product concept defined in accordance with business strategy	Product concept ready for test marketing.	Product Manager, Product Owner, Customer
Market Test Product Concept	The act of test marketing a product concept and establishing appropriate pricing and profitability models.	Product concept defined	Decision to proceed with product launch	Product concept is viable and profitable.	Product Manager, Delivery Channel Owner(s), Project/Program Manager, Marketing Manager, Financial Controller
Design and Create Product	The act of designing and creating the product and everything required to support it.	Decision to proceed with product launch	Product ready for launch	Product created and ready for deployment.	Product Manager, Delivery Channel Owner(s), Project/Program Manager, Marketing Manager
Pilot Product	The act of performing an initial small deployment of the product in order to mitigate risk, test, and verify.	A product ready for launch	"Piloted" product with a decision to proceed to full deployment	Product and product distribution tested and verified.	Product Manager, Delivery Channel Owner, Project/Program Manager, Marketing Manager, Financial Controller
Deploy Product	The act of correcting any product deficiencies that were identified in the pilot deployment and fully deploying the product to all applicable delivery channels.	"Piloted" product with a decision to proceed to full deployment	A successful, fully launched product	Product fully deployed.	Product Manager, Delivery Channel Owner, Project/Program Manager, Marketing Manager
Assess Product Launch Success	The act of verifying and assessing the performance of the product launch.	Successful, fully launched product	Qualitative and quantitative product metrics	Quality of product launch rating	Product Manager, Delivery Channel Owner, Project/Program Manager, Marketing Manager, Financial Controller

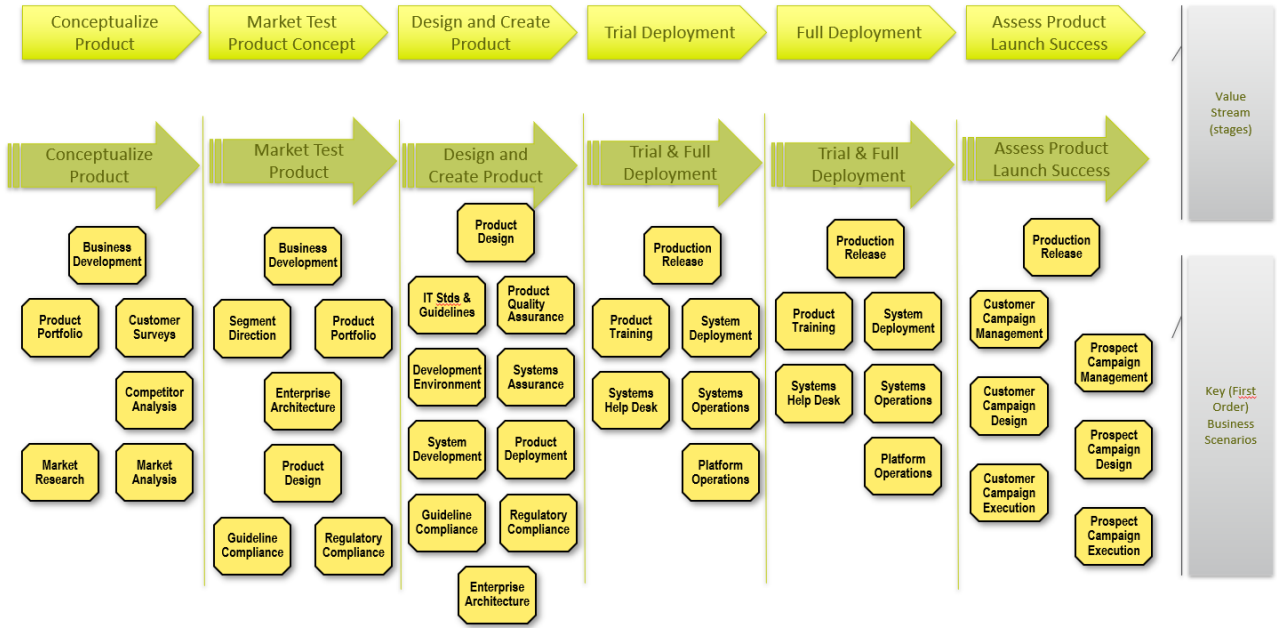
This diagram below shows the Key enabling business capabilities per stage of the value stream.



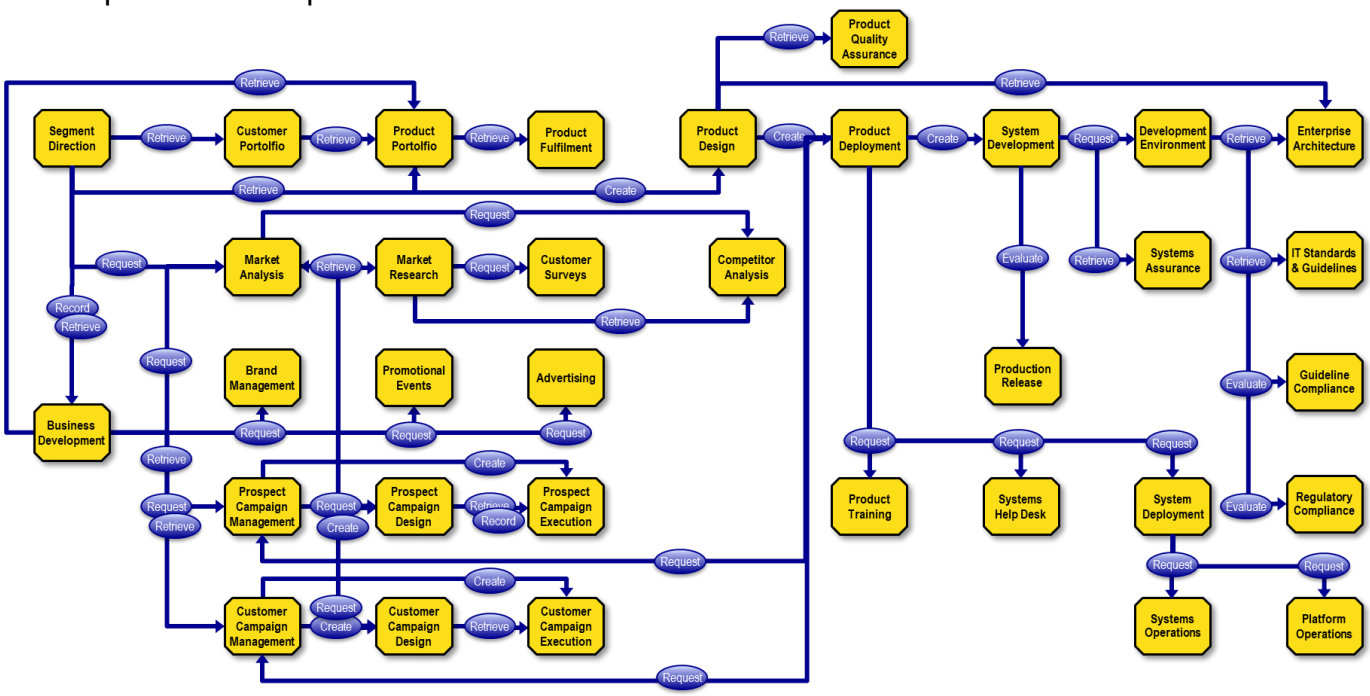
This diagram illustrates the business scenarios that relate to each of the value stream stages.



This diagram illustrates the service domains involved in each of the value stream stages.



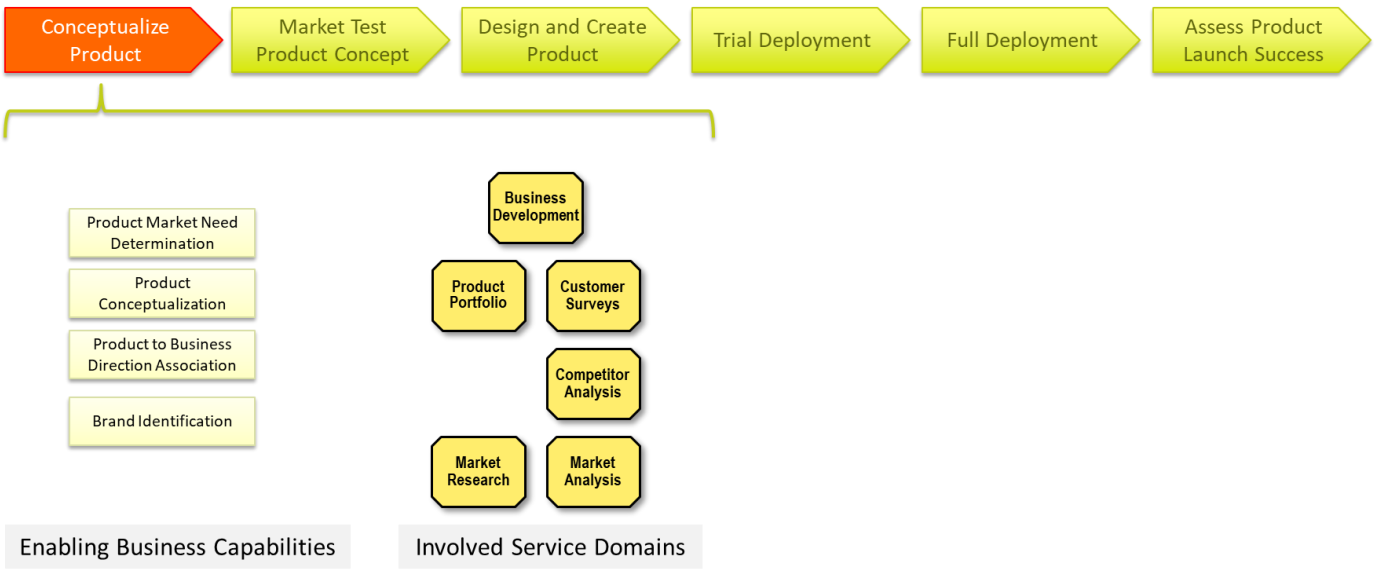
The below diagram depicts the overall wireframe of involved service domains in the Develop and Launch product Value Stream



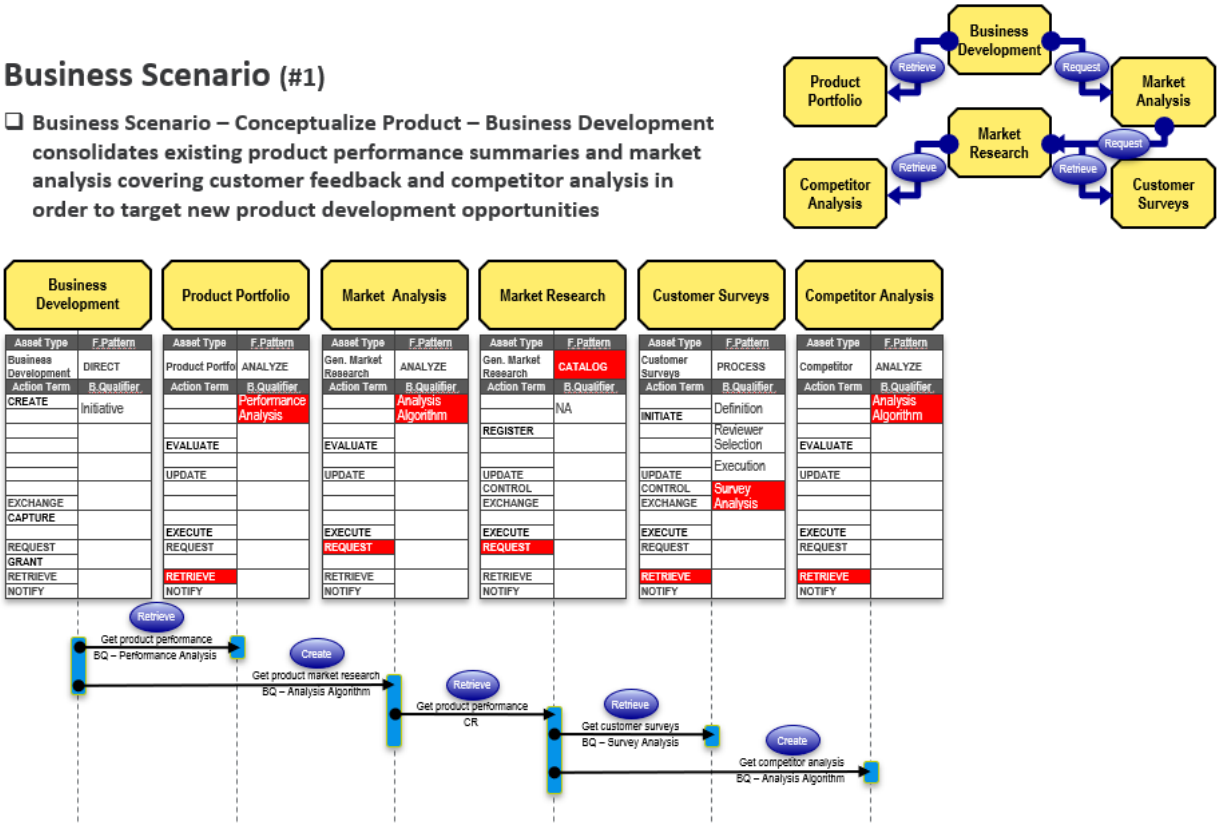
8.2 Stage Detail

For each stage there are 3 illustrations. The first shows the Key Enabling Business Capabilities and the associated Service Domains

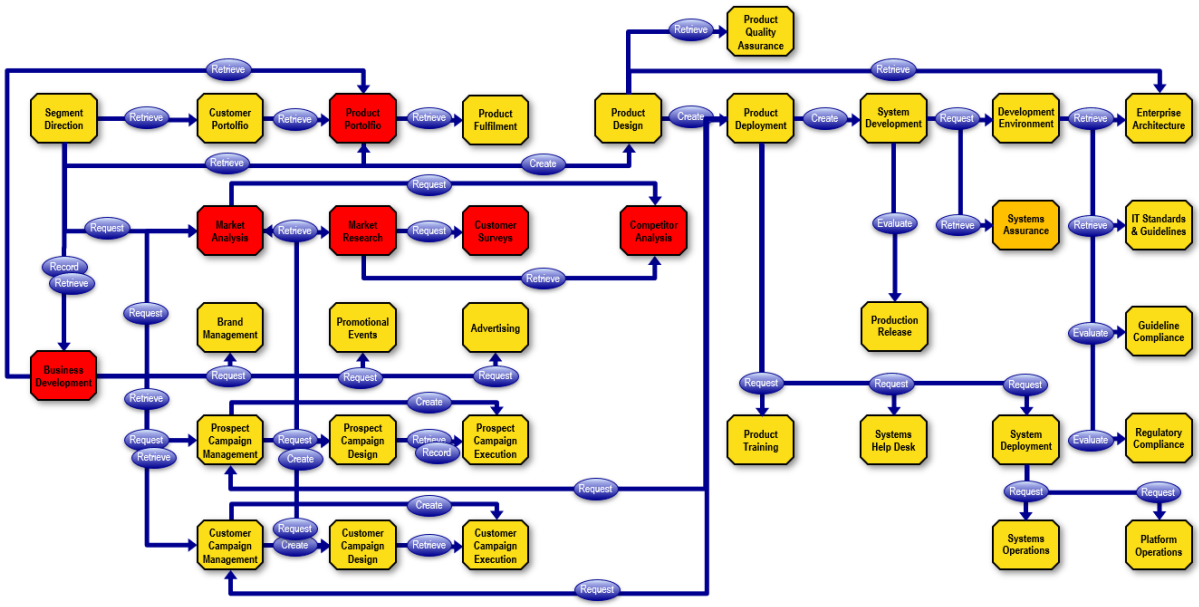
8.2.1 Stage 1: Conceptualize Product Stage of the Develop and Launch Product Value Stream



Stage 1: Key Enabling Business Capabilities and Associated Service Domains

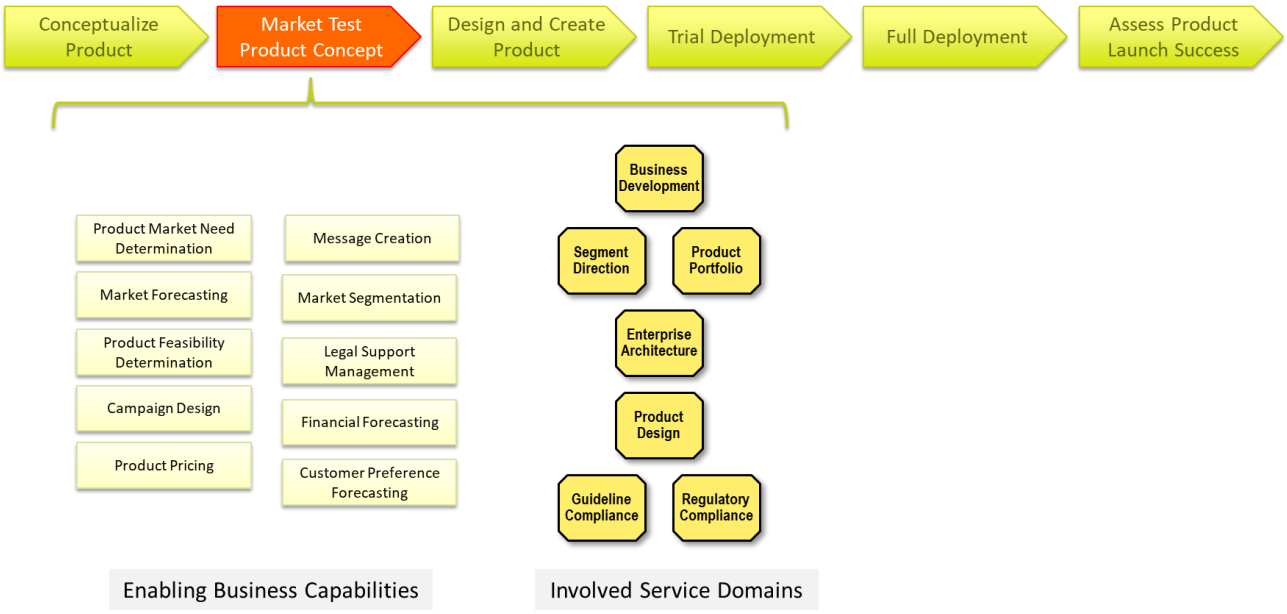


Stage 1: Business Scenario Detail



Stage 1: Service Domains in relation to Wireframe

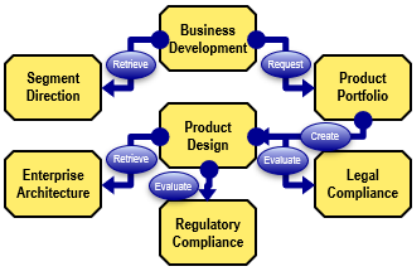
8.2.2 Stage 2: Market Test Product Concept Stage of the Develop and Launch Product Value Stream

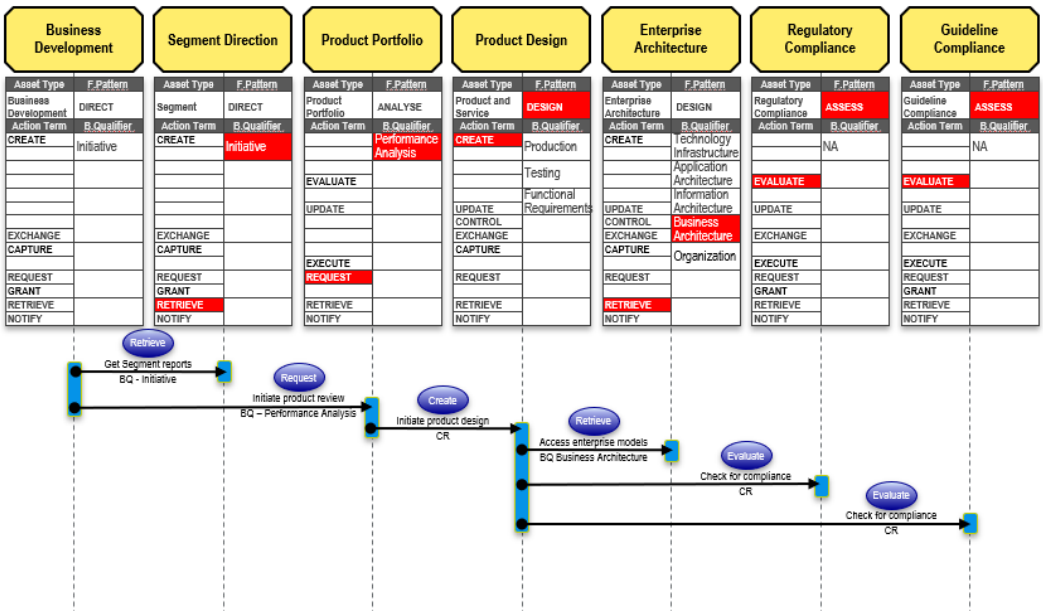


Stage 2: Key Enabling Business Capabilities and Associated Service Domains

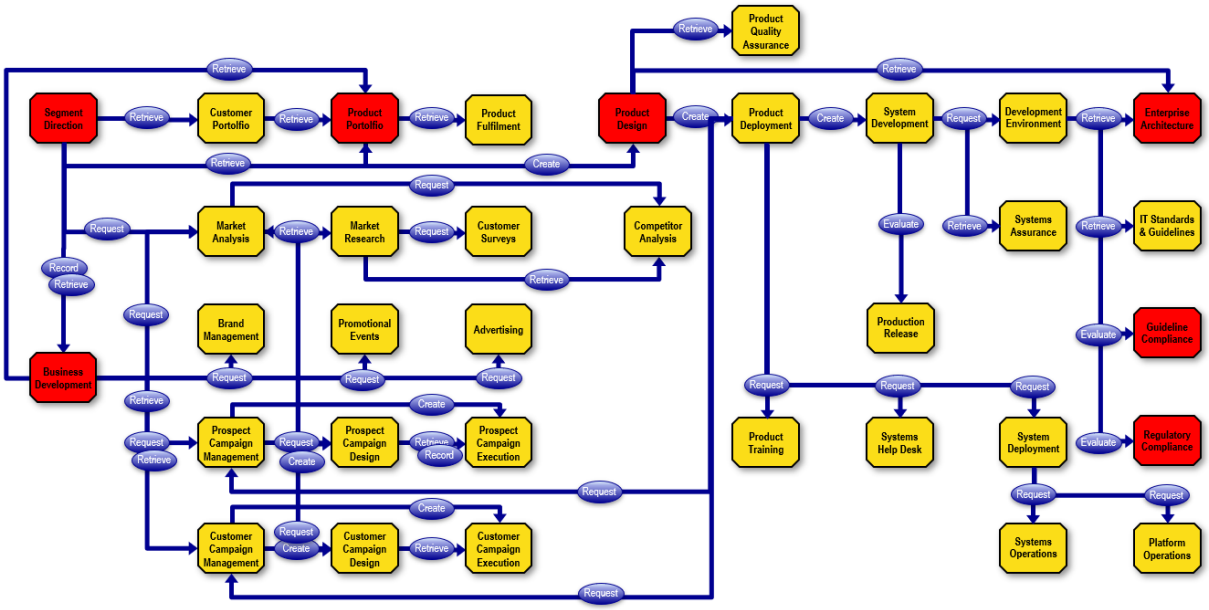
Business Scenario (#2)

- **Business Scenario – Market Test Product – Business Development ensures the proposed product development aligns with strategic direction and priorities. Also that the specification of the product can conform to architectural, regulatory and policy constraints**



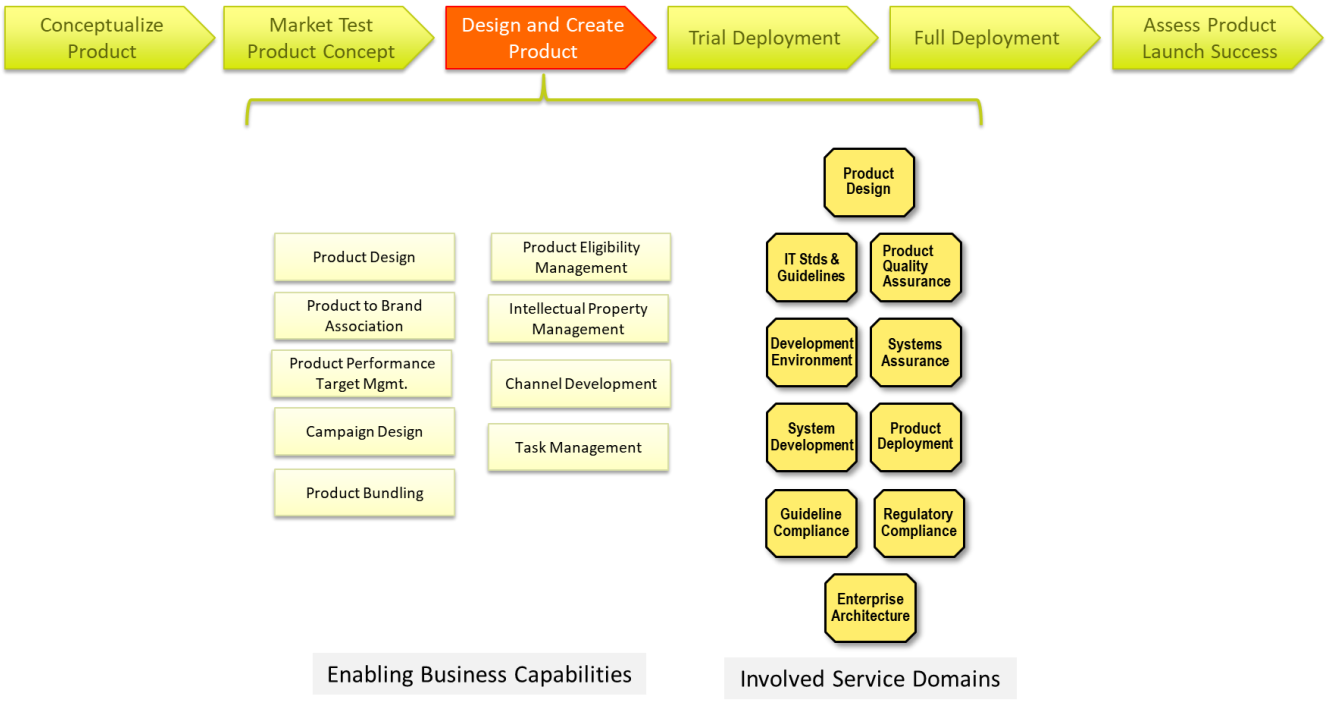


Stage 2: Business Scenario Detail



Stage 2: Service Domains in relation to Wireframe

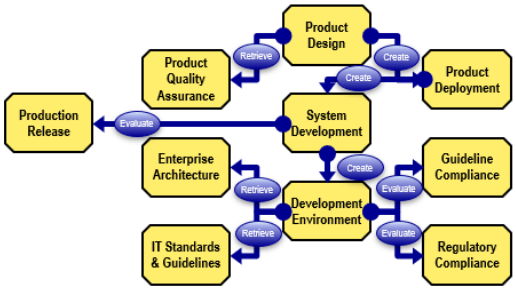
8.2.3 Stage 3: Design and Create Product Stage of the Develop and Launch Product Value Stream

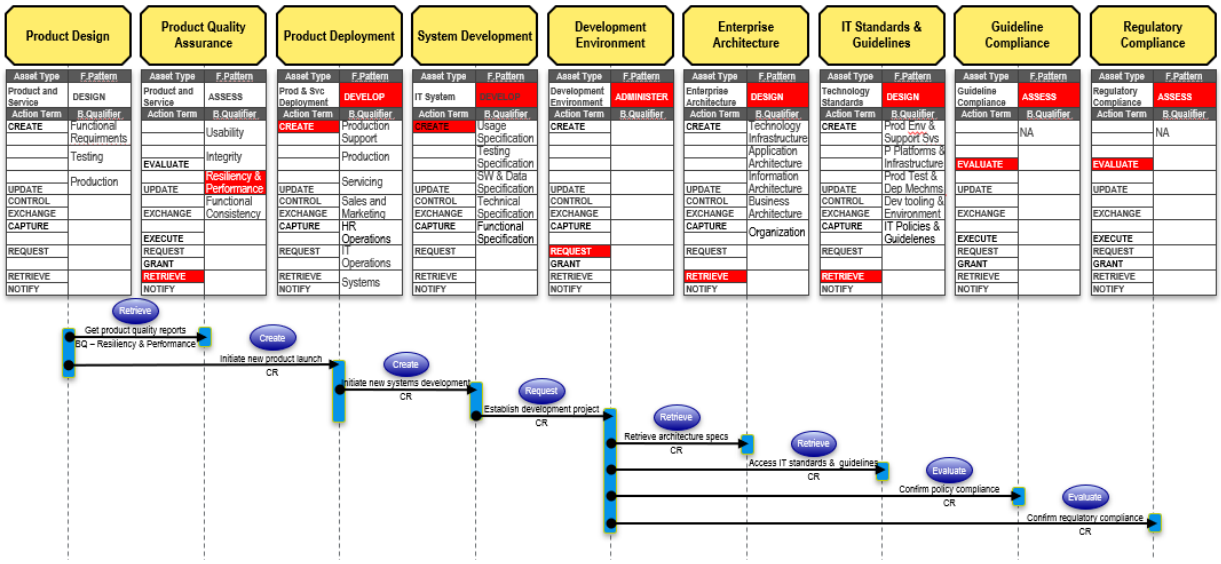


Stage 3: Key Enabling Business Capabilities and Associated Service Domains

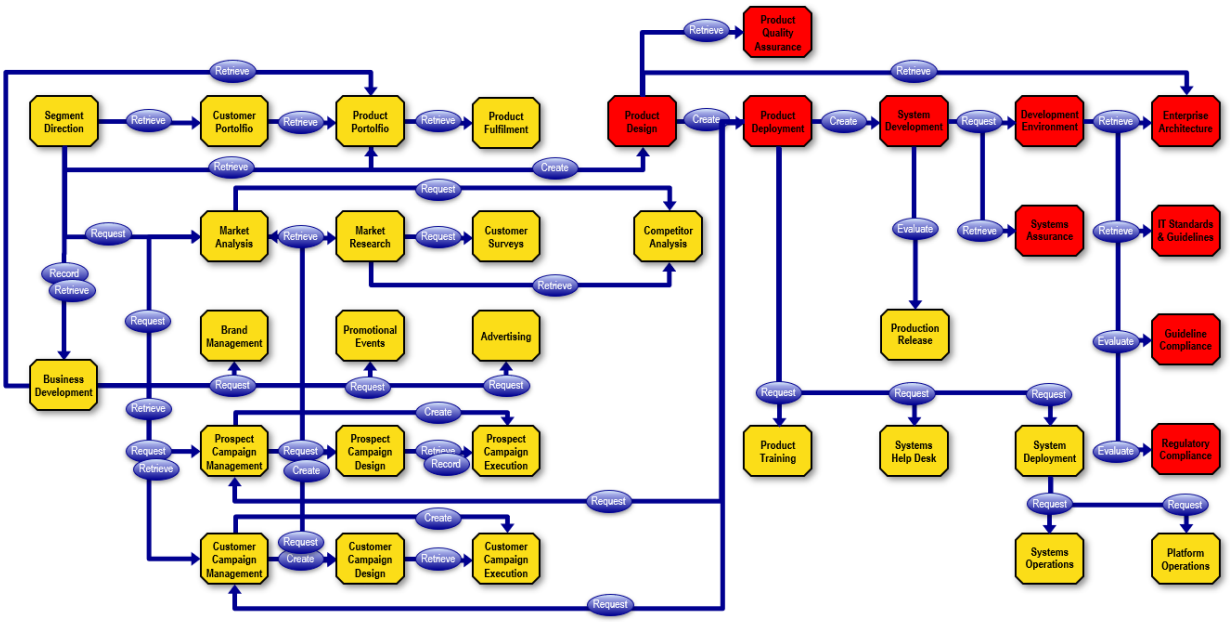
Business Scenario (#3)

- Business Scenario – Design and Create Product – Complete the detailed specification of the product, develop supporting systems and operational solutions and ensure all technical and legal requirements have been fully addressed



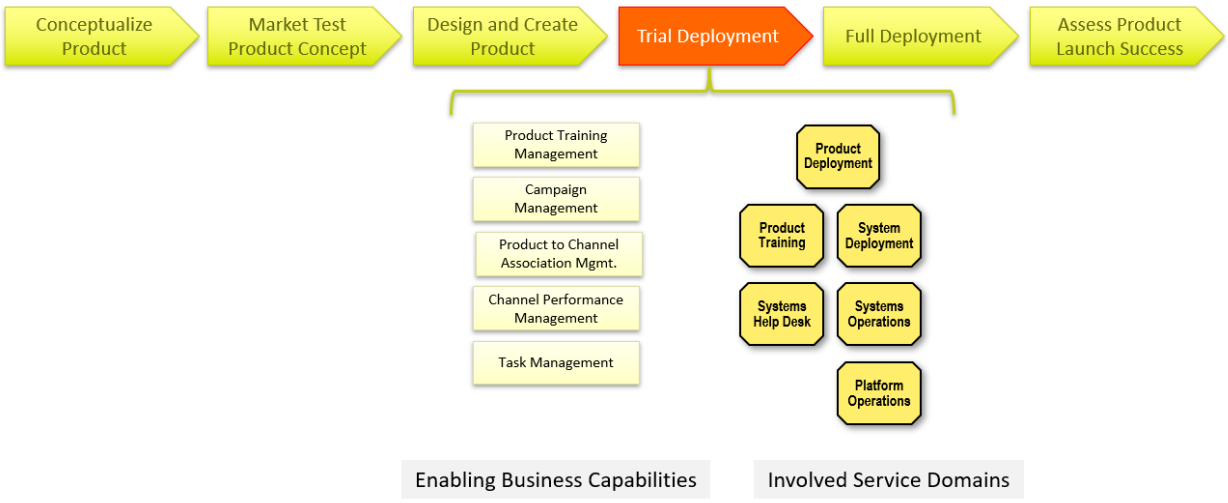


Stage 3: Business Scenario Detail



Stage 3: Service Domains in relation to Wireframe

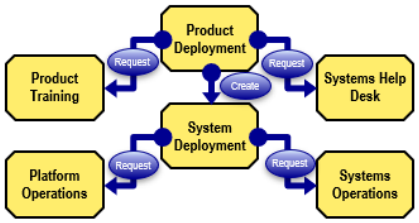
8.2.4 Stage 4: Trial Deployment Stage of the Develop and Launch Product Value Stream

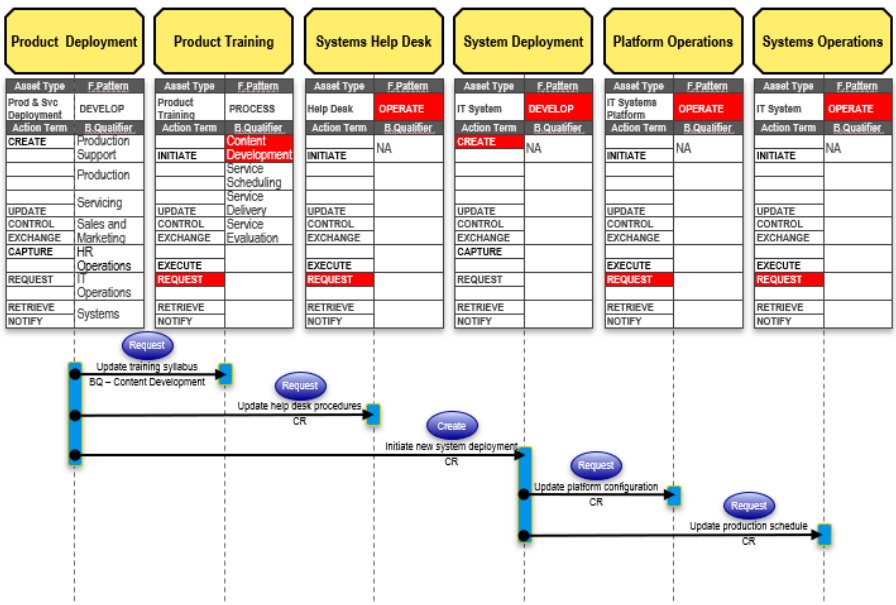


Stage 4: Key Enabling Business Capabilities and Associated Service Domains

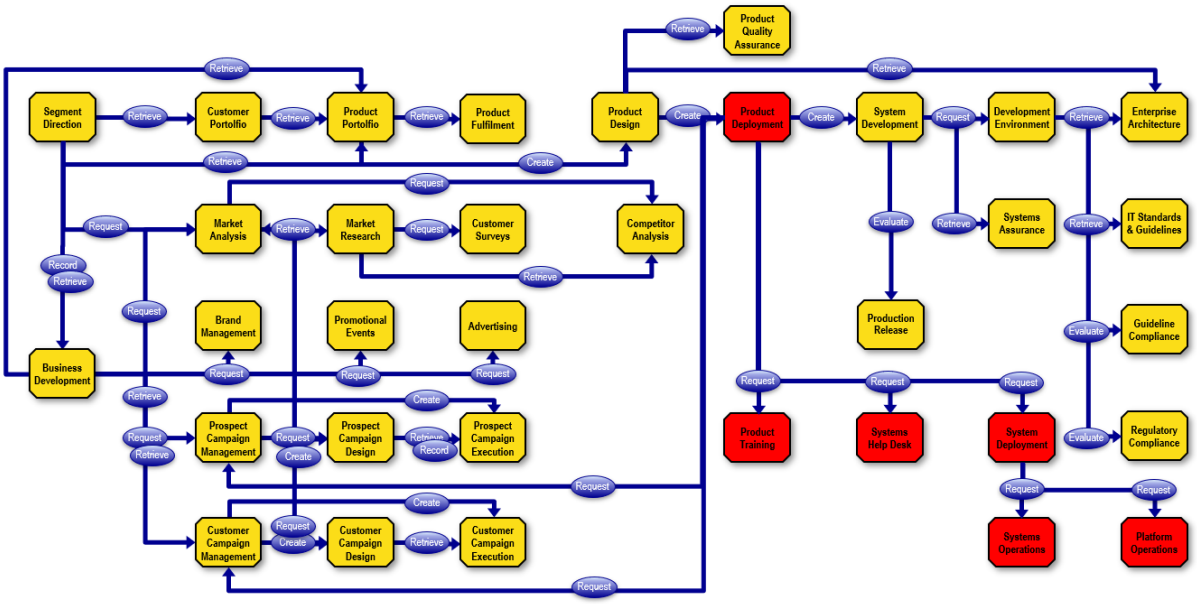
Business Scenario (#4)

- **Business Scenario – Trial Deployment – Two scenarios, one to test out and refine the deployment approach, the second to orchestrate a full deployment across the enterprise (Though the scale of the two activities is fundamentally different – they employ the same Service Domains)**



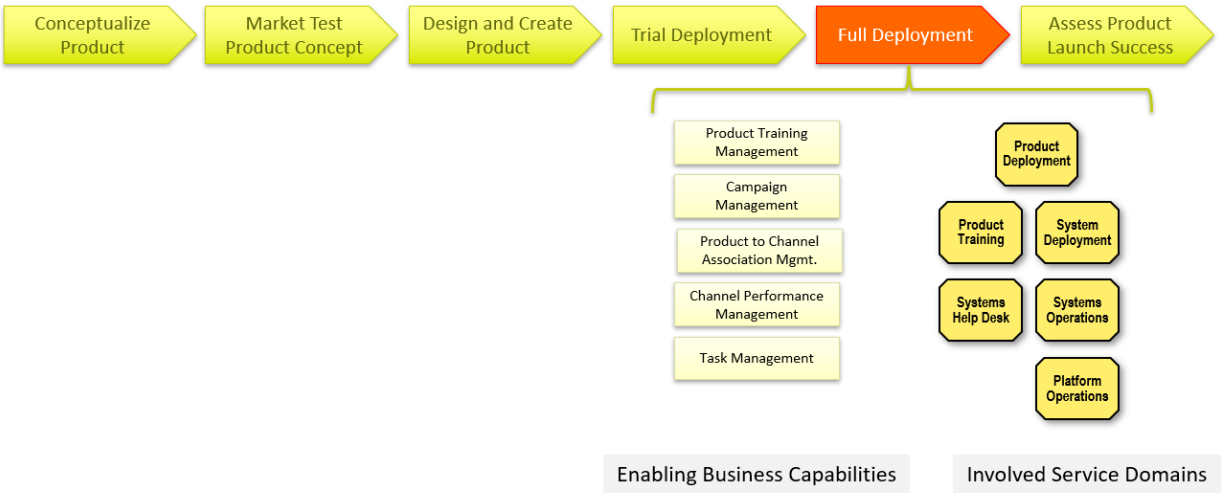


Stage 4: Business Scenario Detail



Stage 4: Service Domains in relation to Wireframe

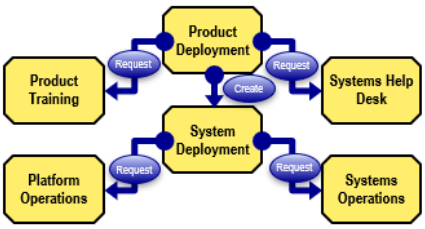
8.2.5 Stage 5: Full Deployment of the Develop and Launch Product Value Stream

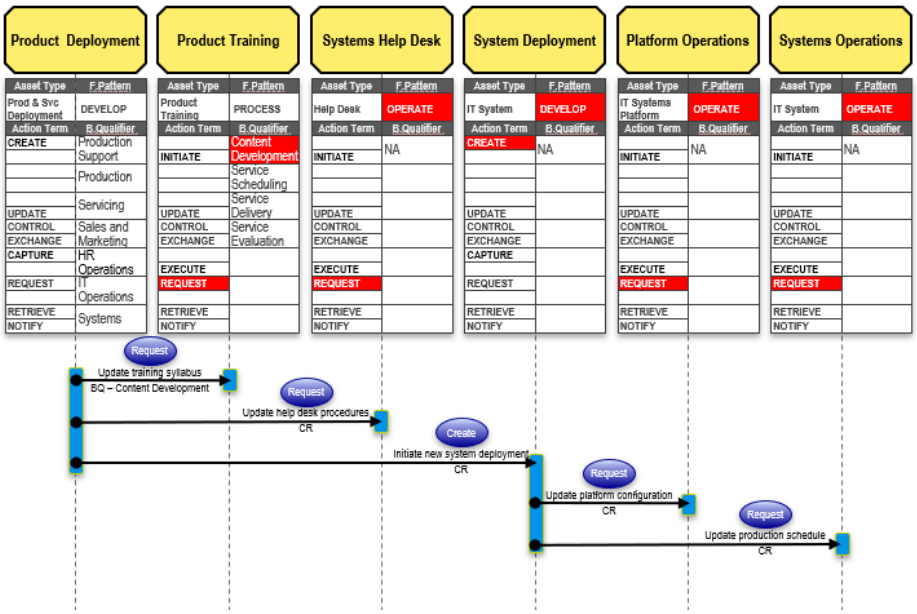


Stage 5: Key Enabling Business Capabilities and Associated Service Domains

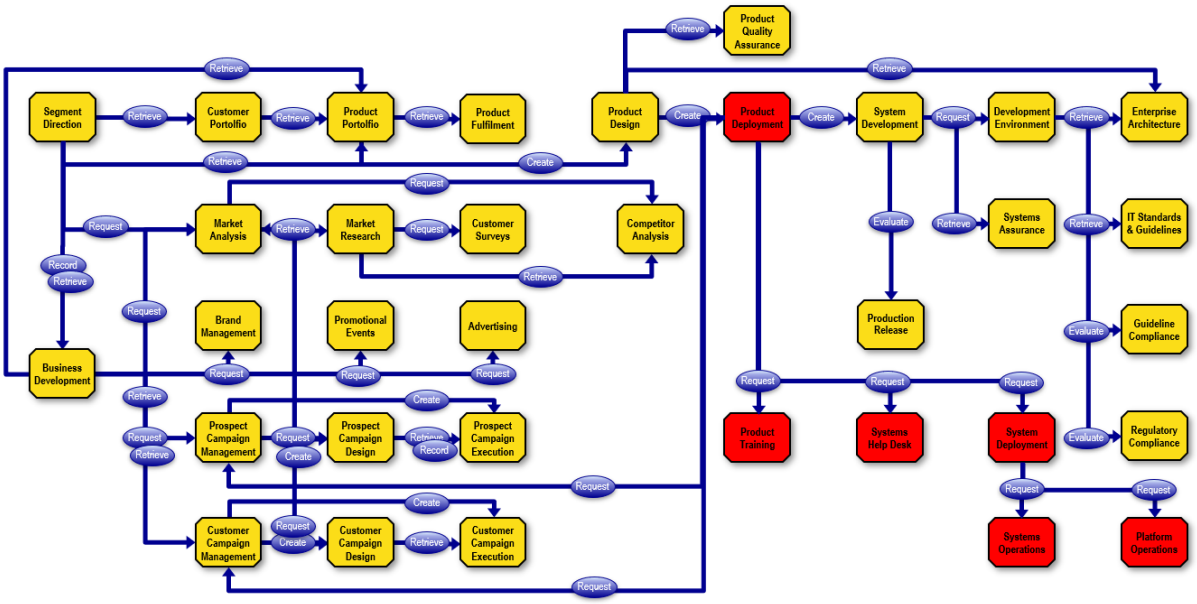
Business Scenario (#5)

- Business Scenario – Full Deployment – Two scenarios, one to test out and refine the deployment approach, the second to orchestrate a full deployment across the enterprise (Though the scale of the two activities is fundamentally different – they employ the same Service Domains)



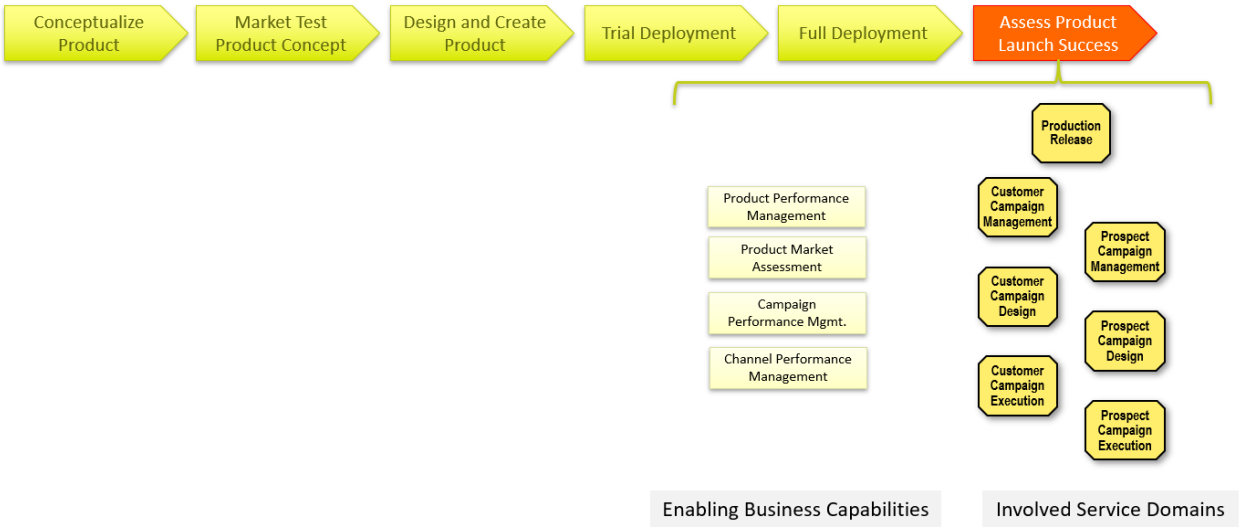


Stage 5: Business Scenario Detail

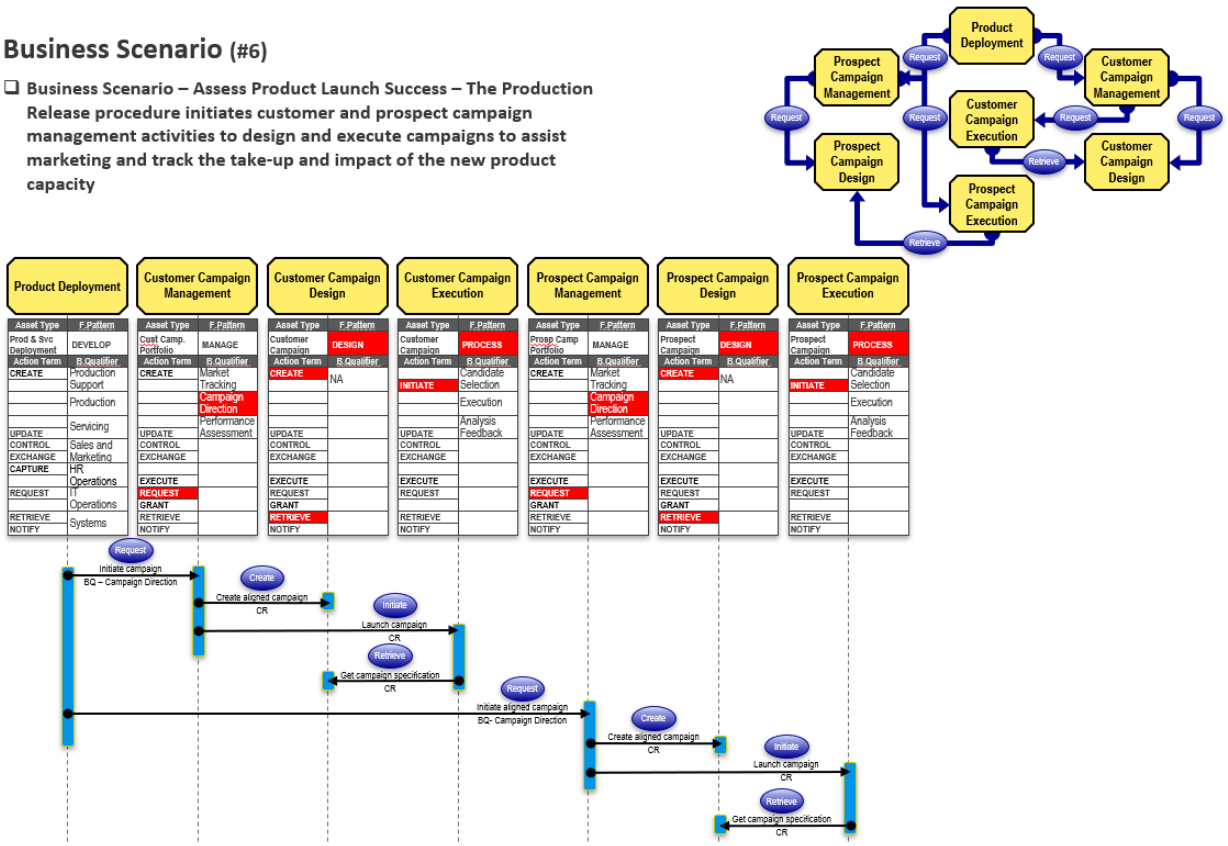


Stage 5: Service Domains in relation to Wireframe

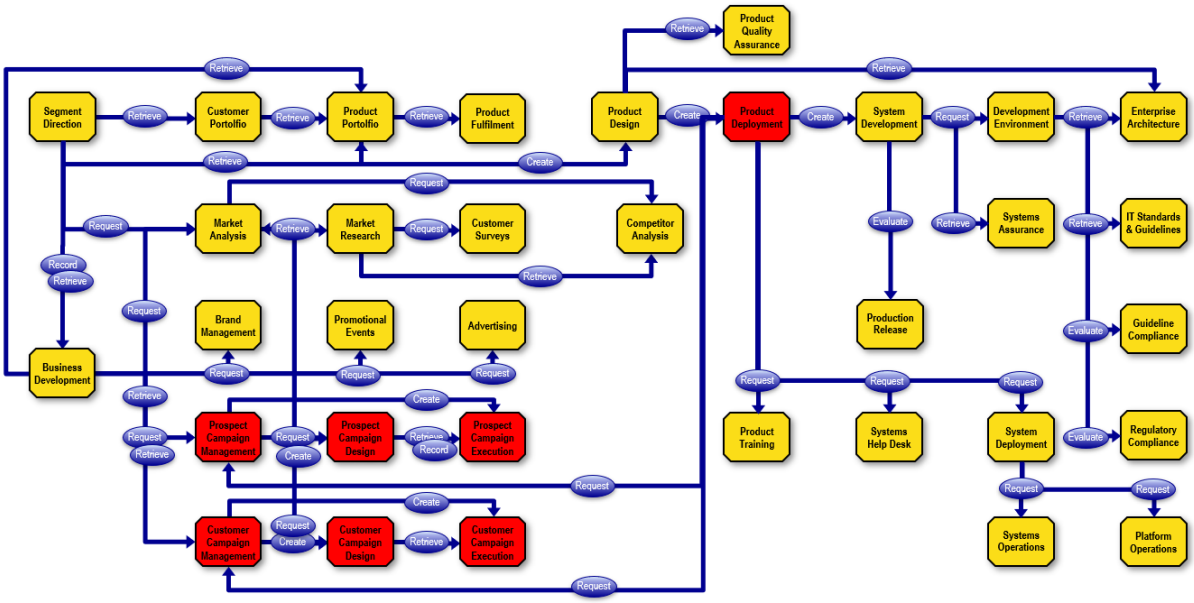
8.2.6 Stage 6: Assess Product Launch of the Develop and Launch Product Value Stream



Stage 6: Key Enabling Business Capabilities and Associated Service Domains



Stage 6: Business Scenario Detail



Stage 6: Service Domains in relation to Wireframe