Business Process Framework R8.0

Certification Report

Tribold
Enterprise Product Management (EPM), Release 5

August 2011

Table of Contents

Table of Contents **2**

List of Tables **3**

List of Figures **3**

1 Introduction **4**
- 1.1 Executive Summary 4
- 1.2 Representation of Tribold EPM Functionality/Capability 4
- 1.3 Mapping Technique Employed 7

2 Assessment Scope **8**
- 2.1 Business Process Framework Level 2 Scope 8
- 2.2 Product Scope 9

3 Self-Assessment – Process Mapping Descriptions **10**
- 3.1 Strategy, Infrastructure & Product: - Marketing & Offer Management [1.2.1] 10
  - 3.1.1 Market Strategy & Policy [1.2.1.1] 10
  - 3.1.2 Product & Offer Portfolio Planning [1.2.1.2] 14
  - 3.1.3 Product & Offer Capability Delivery [1.2.1.3] 18
  - 3.1.4 Product & Offer Development & Retirement [1.2.1.5] 20
- 3.2 Strategy, Infrastructure & Product - Service Development & Management [1.2.2] 32
  - 3.2.1 Service Strategy & Planning [1.2.2.1] 32
  - 3.2.2 Service Development & Retirement [1.2.2.3] 34
- 3.3 Strategy, Infrastructure & Product - Resource Development & Management [1.2.3] 39
  - 3.3.1 Resource Strategy & Planning [1.2.3.1] 39
  - 3.3.2 Resource Development & Retirement [1.2.3.3] 41

4 Process Conformance **44**
- 4.1 Business Process Framework – Process Conformance Summary 44
- 4.2 Business Process Framework – Process Conformance Detailed 45

List of Tables

Table 4.1 Tribold EPM Product – Detailed Conformance Result 45

List of Figures

Figure 1.1 Tribold Enterprise Product Management 5
Figure 1.2 Tribold EPM™ 5
Figure 1.3 Tribold PLM Process Model 6
Figure 2.1 Business Process Framework Level 2 Scope 8
Figure 2.2 Tribold EPM– Product Scope 9
Figure 4.1 Tribold EPM Product – Conformance Result Summary 44

1 Introduction

1.1 Executive Summary

This document provides details of Tribold's self-assessment and TM Forum's certification of Tribold's Enterprise Product Management (EPM), Release 5 including the methodology approach to product modelling and Product Lifecycle Management (PLM) against the TM Forum's Business Process Framework Release 8.0.

1.2 Representation of Tribold EPM Functionality/Capability

Tribold is the world's leading provider[1] of Enterprise Product Management (EPM) software specifically developed for Communication Service Providers (CSPs). Tribold EPM™ is a single, integrated suite of Enterprise Product Management applications that empowers CSPs to put products at the heart of their business.

Tribold EPM™ is based on a Centralized Product and Service Catalog (CPC) and a Product and Service Lifecycle Management (PLM) solution. Dramatic improvements in product management performance enable CSPs to drive increased profit by reducing time-to-market, decreased cost-to- market, increased quality of the product management process and increased ability to support product and service innovation.

Tribold EPM Application Overview

Critical to the success of a Communication Service Provider's (CSP) ability to operate profitably in an increasingly competitive and convergent marketplace is the ability to introduce and manage effectively a portfolio of products that are relevant to its customers, released at the most opportune time and done so at a low cost.

The Tribold solution is designed specifically to manage the end-to-end processes and product data relevant to a CSP's product development, launch and in-life management activities. In doing so, Tribold enables true product management transformation for CSPs.

Tribold provides CSPs with the essential components of a full Product Lifecycle Management (PLM) framework and Product Data Management (PDM) capability. Tribold is an automated, packaged solution that asserts centralized business control over the product management process by becoming the Product Management platform central to the CSP's enterprise.

The heart of Tribold EPM™ is the central product and service catalog, which brings together into a single master all of the commercial and technical elements that define the reusable product and service building blocks and resulting customer offers.

The Tribold user interface provides a single point of entry and single point of access to the master product and service data, through which users can perform all of the Product Lifecycle Management (PLM) processes necessary to centrally manage namely create, modify, delete, launch, maintain and retire) the full catalog of product offerings and underlying services and devices.

The open, standards and SOA based Tribold Integration Services Framework (ISF) provides the necessary Product Data Integration (PDI) infrastructure to interface product and service data to the BSS and OSS applications for example CRM, Billing, Order Management, SDP, Provisioning, Online Portals) in a structured, automated and efficient fashion.

[1] Gartner, Product and Service Catalog Report, October 2010

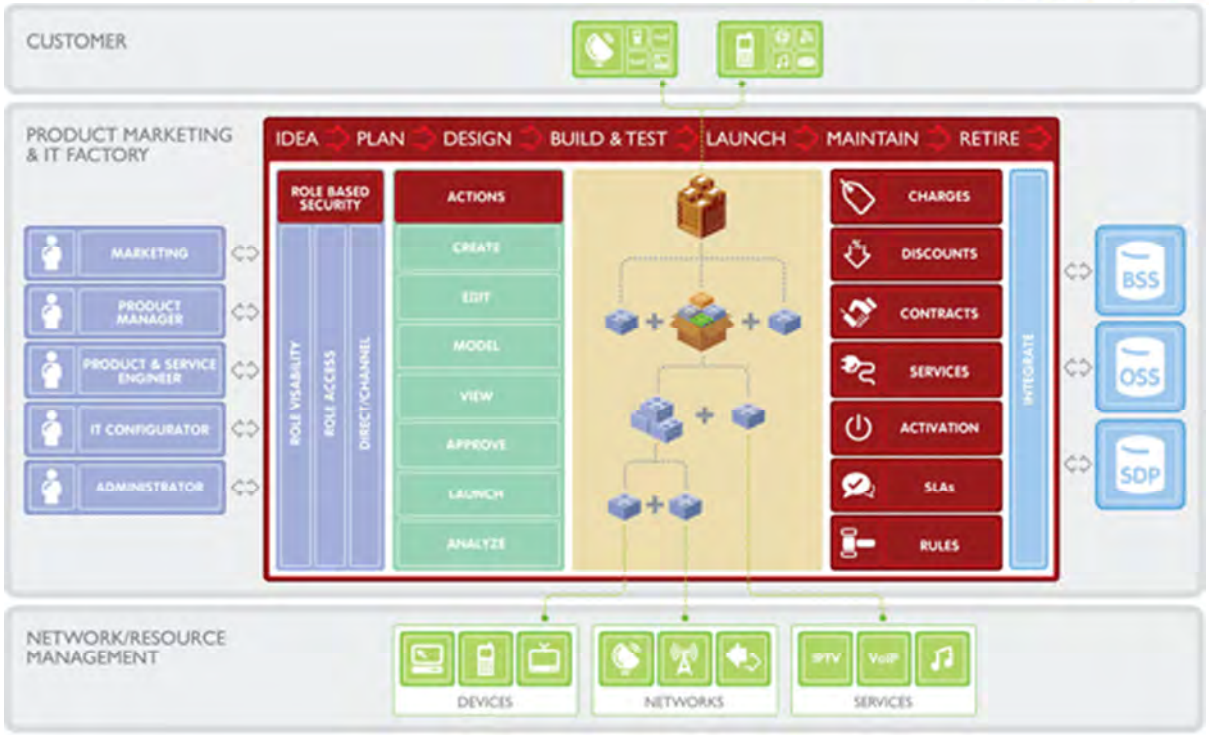

Figure 1.1 Tribold Enterprise Product Management

Tribold EPM™ components:

- Tribold Product Portfolio Manager™ (PPM)
- Tribold Design Time Catalog™ (DTC)
- Tribold Catalog Control Center™ (CCC)
- Tribold Integration Services Framework™ (ISF)
- Tribold Connector Sets

Figure 1.2 Tribold EPM™

Tribold can accelerate your revenues, reduce costs and improve CSPs product profitability through Enterprise Product Management. Tribold synchronizes the product management process and corresponding data into a single, automated, error-resilient stream through:

- **Centralized product and service catalog**. The master data management (MDM) for products and services, controlled and reusable throughout their lifecycle.
- **Best-practice product lifecycle management**. Products and services are managed through a defined, repeatable and measurable process.
- **Seamless, automated integration.** Tribold knows the product ecosystem across the applications and has an open, standards and SOA based integration framework, making it interoperable with different platforms and applications.
- **Sophisticated reporting**. Tribold provides the reporting mechanism for reviewing and tracking products and services throughout their lifecycles.
- **360° view and one single truth for product.** Tribold is the global system of record for all product information, reducing inconsistencies across the enterprise.
- **Multi-purpose configuration and build capability.** Tribold supplies the workspaces and tools necessary to perform both core component build in the "factory" (IT / Engineering) and product packaging and offer creation by Marketing (product managers / business users)

Tribold PLM Process Framework

Product Lifecycle Management (PLM) is a controlled framework for managing and tracking the development, launch and in-life management of products. It combines people, projects, workflows, technology and data into a strategic business approach for developing and managing products across an enterprise.

With enterprise-wide PLM, significant benefits can be seen throughout the enterprise, benefits that translate into revenue through lower customer churn, a wider competitive product range, increased Average Revenue per User and higher customer satisfaction. A dependable PLM framework allows CSPs to launch the best products to market at the best time. Using Tribold's PLM framework, CSPs can optimize their PLM processes into industry leading practices.

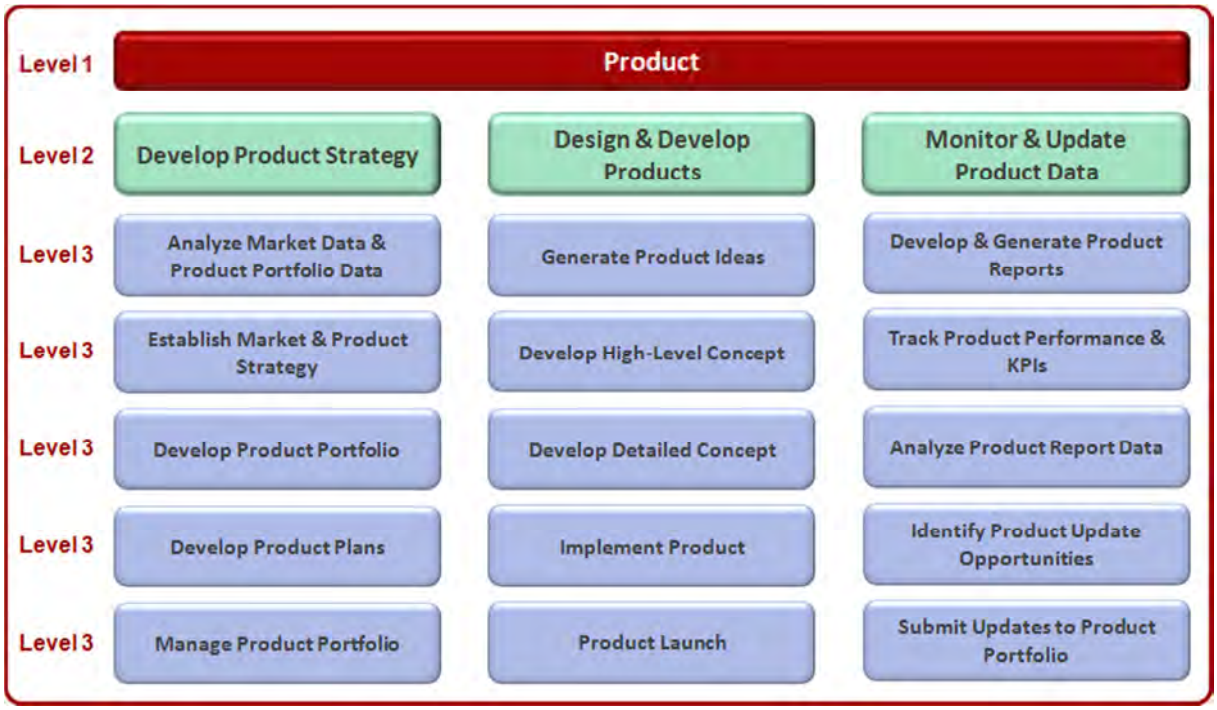

Figure 1.3 Tribold PLM Process Model

The Level 1 to Level 3 Tribold PLM processes are depicted above.

1.3 Mapping Technique Employed

Business Process Framework L3 descriptions are analyzed by looking for implied tasks. (This is similar to how process decomposition can use Semantic Analysis). Each eTOM process is supported by descriptive text. In many cases, each process is aligned and mapped to appropriate company documentation references solution, methodology or modelling material.

The eTOM L3 descriptions are analyzed by looking for implied tasks. Color coded text as highlighted below is used as part of the process mapping whereby highlighted text indicates the level of support for a Level 3 process implied task:

- GREEN is used to highlight key words or key statements that are fully supported
- YELLOW is used to highlight key words/key statements that are partially supported
- GREY is used to highlight key words/key statements that are not supported
- No highlighting is used for words/statements that are irrelevant, just for reference or needed to complete the sentence.

Manual and Automated Support

It is important to determine whether the implied task is supported by manual steps, automated steps, or a combination of both. In this document, “A”, “M”, or “AM” is used for each task to indicate that the step or steps is/are automated (A), manual (M), or both (AM).

Note: For the assessment, Tribold illustrates the support of the Enterprise Product Catalogue Software Solution and Methodology, this explains why numerous manual activities trigger or is triggered by the solution.

2 Assessment Scope

2.1 Business Process Framework Level 2 Scope

Figure 2.1 represents Business Process Framework Level 2 processes (blue background) that were presented in scope for the assessment, and the textual callouts represent the framework and component solution of the Tribold EPM Product that were assessed and support the corresponding eTOM processes.

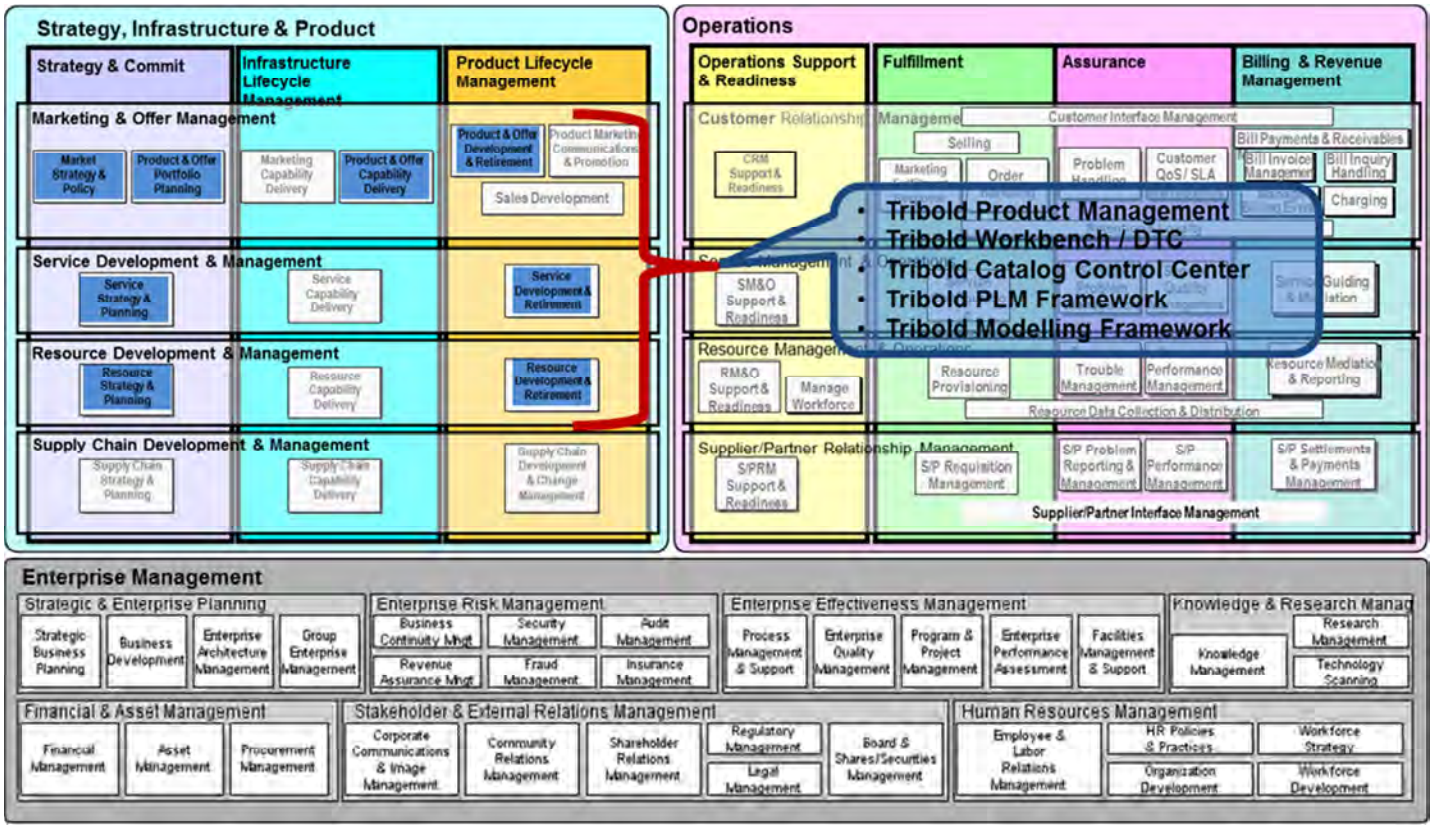

Figure 2.1 Business Process Framework Level 2 Scope

2.2 Product Scope

Figure 2-2

Figure 2.1represents the Tribold EPM™, Release 5 underpinned by the PLM (Product Lifecycle Management) and product modelling methodologies. The Tribold solution that is presented in scope is shown with a blue border. The textual callout represent the TM Forum Business Process Framework Level 2 processes that were assessed and that are supported by Tribold according to the Conformance Results in Chapter 4.

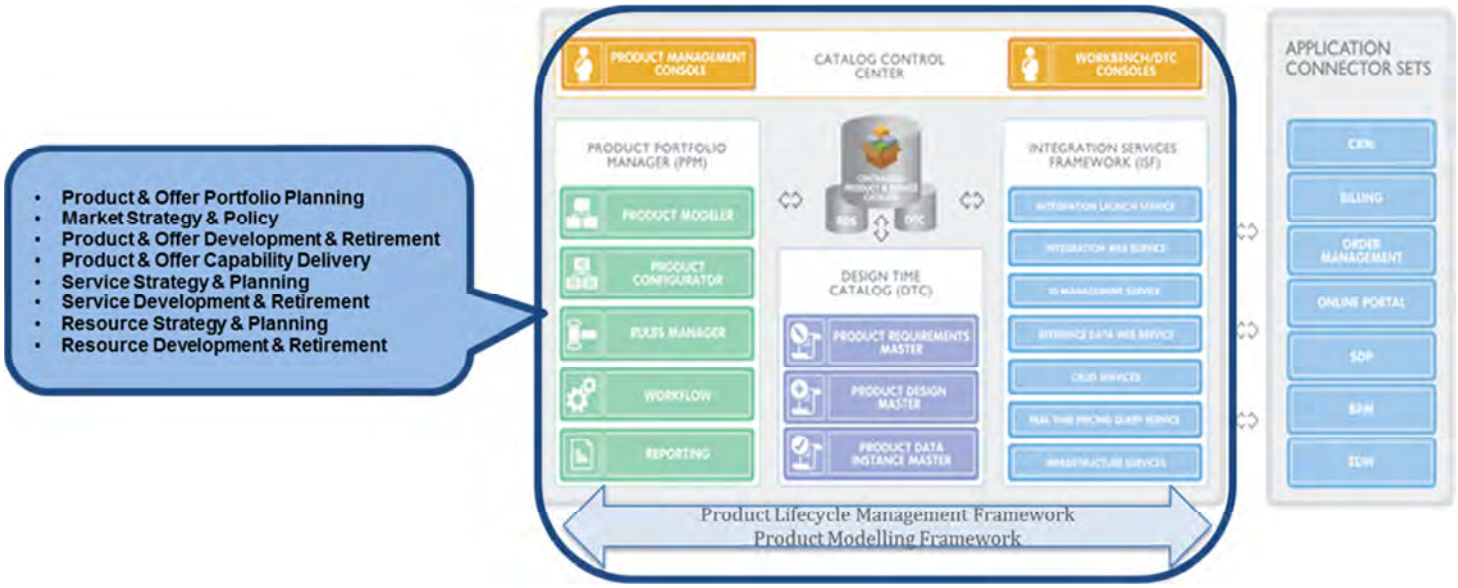

Figure 2.2 Tribold EPM– Product Scope

3 Self-Assessment – Process Mapping Descriptions

3.1 Strategy, Infrastructure & Product: - Marketing & Offer Management [1.2.1]

3.1.1 Market Strategy & Policy [1.2.1.1]

eTOM process element	Software Vendor Mapping	
Market Strategy & Policy	**Alignment**	**Mapping Comment**
1.2.1.1.1 Gather & Analyze Market Information	Tribold PLM Level 3 Process: "Analyze Market Data & Product Portfolio Data"	**Brief Description** ***Research market information and develop market forecasts*** **(AM)** The research of internal and external market information/sources is supported manually through the Tribold PLM methodology under L3 process "Analyze Market Data & Product Portfolio Data". This L3 process is part of L2 process "Develop Product Strategy". The automated support can be developed through the use of the template and generic entity configuration that in turn would display this information in forecasting form. Also refer to reports, (refer to the Tribold EPM Product Description, section 4.6 Tribold PPM Reporting). (refer to the Tribold EPM Product Description, section 4.7 Templates and Views that can be used to configure market information - pre configured as required for forecasting). (refer to the Tribold EPM Product Description, section 4.7 Generic Entity used to display forecasting information). (refer to the Tribold EPM Product Description, section 4.6 Reporting that can be used to deliver comprehensive reporting functionality as required for forecasting). **Extended Description** ***Gather & Analyze Market Information processes develop enterprise and business views of the market, based on the analysis of external and internal information sources*** **(AM)** The Tribold PLM "Analyze Market Data & Product Portfolio Data" process allows for users to utilize a modeling concept "Generic Entity" to automatically create artifacts for deliverables of this process, such as a market analysis document, market forecasts document or enterprise forecasting view. Reporting functionality in turn could be delivered in any preferred format.

eTOM process element	Software Vendor Mapping	
Market Strategy & Policy	**Alignment**	**Mapping Comment**
		(refer to the Tribold EPM Product Description, section 4.6 Tribold PPM Reporting) ***These processes include the establishment and management of relationships with external providers of market information, and the management of internal resources used for providing market information. (AM)*** Marketing Information would be provided by a number of internal user communities, and the platform would support capture of this data as it was available. (refer to the Tribold EPM Introduction.ppt, slides 12) – which highlights the management of Product and IT managers who would input information into the Tribold solution. ***Methodologies used for developing market forecasts, as well as the development of forecasts, are managed within these processes.*** **(AM)** The "Generic Entity" concept is utilized to capture automated forecasts, with use of the reporting functionality. (refer to the Tribold EPM Product Description, section 4.7 Generic Entity that can be used to store analysis information - pre configured as required for forecasting).
1.2.1.1.3 Establish Market Segments	Tribold PLM Level 3 Process: "Establish Market & Product Strategy"	**Brief Description** ***Establish the market segmentation to be used across the enterprise*** **(AM)** Establishing the market segmentation is supported through the Tribold modelling methodology and through the "Target Market / Market Segment / Customer Segmentation" construct (refer to the TDM – Product Construct Guide.doc, section 6.2). The Tribold solution allows users to automatically store this market segment analysis and findings into the Enterprise Product Catalog, through the use of the template configuration that in turn, through the Tribold client solution, would capture actual segmentation values. (refer to the Tribold EPM Product Description, section 4.7 Templates and Views that can be used to configure market information - pre configured

eTOM process element	Software Vendor Mapping	
Market Strategy & Policy	**Alignment**	**Mapping Comment**
		as required for forecasting). (refer to the Tribold EPM Product Description, section 4.1 Tribold PPM Product Management Client). **Extended Description** ***Establish Market Segments processes identify the market segmentation which will be used across the enterprise*. (AM)** For the manual modelling methodology approach (refer to the Tribold EPM Introduction.ppt, slides 10 - 15), for the automated capture of market segmentation (refer to the Tribold EPM Product Description, section 4.1 Tribold PPM Product Management Client). For associated constructs to identify market segmentation (refer to the TDM – Product Construct Guide.doc, sections 2.2, 2.3, 2.5, 2.8, 2.9, 3.2, 3.7, 6.1, 6.2, 6.3, 6.6, 10.2, 10.3, 10.4). ***These processes identify the areas within the organization responsible for the management of market segment outcomes, as well as identifying and managing reporting processes for specific market segments.* (AM)** Management of market segments and reporting would be identified through PLM and automatically captured through the solution and reporting functionality (refer to the Tribold Introduction to PLM.ppt, Level 3 processes "Establish Market & Product Strategy" and "Develop & Generate Product Reports".
1.2.1.1.4 Link Market Segments and Products	Tribold PLM Level 3 Process: "Establish Market & Product Strategy"	**Brief Description** ***Analyze the basic consumption profiles of market segments and associate these with the product families available* (AM)** Establishing the market segmentation profiles is manually supported through the Tribold modelling methodology and through the "Target Market / Market Segment / Customer Segmentation" construct (refer to the TDM – Product Construct Guide.doc, section 6.2). The Tribold solution automatically allows users to store this market segment analysis and findings into the Enterprise Product Catalog.

eTOM process element	Software Vendor Mapping	
Market Strategy & Policy	**Alignment**	**Mapping Comment**
		Extended Description ***The Link Market Segment and Product processes analyze the basic consumption profiles of market segments and associate these with the product families available, as well as identify potential new product families for the market segments.*** **(AM)** For the manual modelling methodology approach, (refer to the Tribold EPM Introduction.ppt, slides 10 - 15). For associated constructs to identify market segmentation (refer to the TDM – Product Construct Guide.doc, sections 2.2, 2.3, 2.5, 2.8, 2.9, 3.2, 3.7, 6.1, 6.2, 6.3, 6.6, 10.2, 10.3, 10.4). The Tribold solution automatically allows users to link and associate market segments with product families into the Enterprise Product Catalog. **The processes analyze segment purchase and decision issues, and their geographic locations. (AM)** The manual modelling methodology approach will ensure product data capture and/or service segment purchasing and decision-making including if necessary the behaviors of competitors and geographic location. The Tribold solution is then used to automatically capture this information and used to present back the data in a structured form. (refer to the TDM – Product Construct Guide.doc, section 6.2 "Target Market / Market Segment / Customer Segmentation").

3.1.2 Product & Offer Portfolio Planning [1.2.1.2]

eTOM process element	Software Vendor Mapping	
Product & Offer Portfolio Planning	**Alignment**	**Mapping Comment**
1.2.1.2.1 Gather & Analyze Product Information	Tribold Level 3 Process: "Analyze Market Data & Product Portfolio Data" & "Identify Product Update Opportunities"	**Brief Description** ***Research information relating to product ideas and opportunities and identify product opportunities*. (AM)** The research of internal and external product information/sources and identification of product opportunities are covered within the Tribold PLM Methodology under L3 process Analyze Market Data & Product Portfolio Data. This L3 process is part of L2 process Develop Product Strategy. This is further covered within the L3 process "Identify Product Update Opportunities" as part of L2 process Monitor & Update Product Data that deals with existing products already configured within the Tribold solution. Researching of internal and external data is manually performed. The Tribold platform supports users by utilizing both an automated browsing i.e. physically researching product data and automatic reporting capability to identify product opportunities that currently exist within the Tribold solution. (refer to the Tribold Introduction to PLM.ppt slides 3 & 4). **Extended Description** ***Gather & Analyze Product Information processes research information relating to product ideas and opportunities and identify product opportunities based on the analysis of external and internal information sources.* (AM)** Gathering & Analyzing product information is supported manually through the Tribold methodology. The methodology and its process allow users to automatically store findings of this research into the Tribold solution by utilizing the concept of Generic Entity. A feature of this concept is to allow users to link the information stored within the Product Catalog to the enterprise's document management system where the analysis sources and findings would be stored. Additionally automated solution opportunities can be identified by reusing building blocks already configured and identified by the "Impact Analysis" capability or by reports that can also enable identification of new ideas/update to existing products. (refer to The Tribold EPM Introduction.ppt – slide 15 that highlights the product modelling analysis approach).

eTOM process element	Software Vendor Mapping	
Product & Offer Portfolio Planning	**Alignment**	**Mapping Comment**
		(refer to the Tribold EPM Product Description, section 4.6.4 Impact Analysis in order to identify impact to product changes/updates). (refer to the Tribold EPM Product Description, section 4.7 Generic Entity that can be used to store analysis information - pre configured as per the solution). ***These processes encompass analysis to identify new products as well as reviewing existing products*** **(AM).** The Identify Product Update Opportunities L3 process includes manual activities for discovering new products and changing/updating existing ones. This as mentioned above can be support by auto-populating reports or manually browsing through the catalogue using the concept of reusing existing product building block components. (refer to the Tribold EPM Product Description, section 4.6 Tribold EPM Reporting for reporting capability - pre configured as per the solution). (refer to customer Visio material, "Q PLM Framework 20", Tab "FS_Product Ideation" for identifying new products and updated existing ones. ***They also include the establishment and management of relationships with external providers of product information and the management of internal resources used for providing product information*****. (AM)** Establishment and management of relationships with external providers of product information are handled manually outside of the Tribold solution but form part of the methodology for capturing product data. (refer to "Tribold Introduction to PLM".ppt, slide 4 - Level 3 process "Manage Product Portfolio". Part of managing the portfolio entails managing relationships of product data. Product Information would be provided by a number of internal user communities, and the platform would support capture of this data as it was available. (refer to the Tribold EPM Introduction.ppt, slides 12) – that highlights the management of Product and IT managers who would input information into the Tribold solution.

eTOM process element	Software Vendor Mapping	
Product & Offer Portfolio Planning	**Alignment**	**Mapping Comment**
		The Tribold solution can support automated links/reference to external resources of product information or be used to pre-load data via DTC. (refer to the Tribold EPM Product Description, section 3.3 Tribold Design Time Catalog DTC) **Customer Reference** New product development processes can be found within the "Ideation" phase that also overlaps with the "Idea Analysis & Assessment" phase. (refer to section 3.1 of the PLM Process Flow Description Document_FINAL.doc).
1.2.1.2.2 Establish Product Portfolio Strategy	Tribold Level 3 Process: "Develop Product Portfolio"	**Brief Description** ***Define and agree the product and offer portfolio structure to be used within the enterprise*** **(AM)** The manual modelling methodology approach and process will ensure the product and offer portfolio structure has been defined and agreed upon. The solution would capture this agreement using the hierarchy configuration that is automatically displayed within the Tribold Client. (refer to the Tribold EPM Product Description, section 4.7 Hierarchy). (refer to the TDM – Product Construct Guide.doc, section 2.2 "Product Classification / Product Line"). **Extended Description** ***The Establish Product Portfolio Strategy processes define the overall structure of the product portfolios to be used across the enterprise, or between or within business units.*** **(AM)** As well as the manual Tribold modelling methodology approach, the establishment of the Product Portfolio Strategy is supported by the Tribold PLM methodology under L3 process "Develop Product Portfolio". This L3 process is part of L2 process "Develop Product Strategy". The configuration and overall structure is automatically supported within the Tribold solution. (refer to the Tribold Introduction to PLM.ppt, process "Develop Product

eTOM process element	Software Vendor Mapping	
Product & Offer Portfolio Planning	**Alignment**	**Mapping Comment**
		Portfolio"). (refer to the TDM – Product Construct Guide.doc, section 2.2 "Product Classification / Product Line"). (refer to the Tribold EPM Product Description, section 4.7 Hierarchy). ***These products and product portfolios form the basis of offers made to customers. It includes the agreement on and implementation of cross-portfolio and cross-product co-ordination and management functions.*** **(AM)** (refer to the TDM – Product Construct Guide.doc, section 2.2 and 2.3). Implementation of cross portfolio and cross product co-ordination and management can be developed and automatically configured through the Tribold Workbench solution using Hierarchy Configuration and Hierarchy Generator tool. (refer to the Tribold EPM Product Configuration Guide.pdf, section 4.1 - Configuration of the Hierarchy).

3.1.3 Product & Offer Capability Delivery [1.2.1.3]

eTOM process element	Software Vendor Mapping	
Product & Offer Capability Delivery	**Alignment**	**Mapping Comment**
1.2.1.3.1 Define Product Capability Requirements	Tribold Level 3 Process: "Manage Product Portfolio" and "Develop Product Plans"	**Brief Description** ***Define and obtain agreement to the detailed infrastructure requirements to support the product portfolio and individual product plans*** **(AM)** The manual gathering and agreement of detailed infrastructure requirements would provide an input to the PLM and modelling methodology approach and would not be required to great levels of detail in order to support the product portfolio. The PLM process (refer to the Tribold Introduction to PLM.ppt, process "Develop Product Plans") addresses a strategy to develop an implementation plan including effort, timeline and resources, all of which can be automatically supported by the Tribold solution and configured using the Generic Entity concept. (refer to the Tribold EPM Product Description, section 4.7 Generic Entity). **Extended Description** ***The Define Product Capability Requirements processes define and obtain agreement to the detailed infrastructure requirements to support the product portfolio and individual product plans.*** **(AM)** High level infrastructure requirements would be captured as part of the manual modelling methodology approach that in turn supports the automation into the Tribold solution. (refer to the Tribold EPM Introduction.ppt, slides 10 - 15). (refer to the TDM – Product Construct Guide.doc, sections 4.1, 4.2, 4.8). ***Product infrastructure requirements to support new product initiatives in the PLM vertical are captured in this process, as well as any product infrastructure requirements needed to support the specific offers being made to customers through the sales channels.*** **(M)** High level infrastructure requirements would be captured as part of the modelling methodology approach. (refer to the Tribold EPM Introduction.ppt, slides 10 - 15).

eTOM process element	Software Vendor Mapping	
Product & Offer Capability Delivery	**Alignment**	**Mapping Comment**
		(refer to the TDM – Product Construct Guide.doc, sections 4.1, 4.2, 4.8). ***These processes also identify the service infrastructure capabilities required to deliver the product infrastructure. The processes include any cross-enterprise coordination and management functions to ensure that the requirements capture the needs of all stakeholders***. **(M)** High level infrastructure requirements would be captured as part of the modelling methodology approach. (refer to the Tribold EPM Introduction.ppt, slides 10 - 15). (refer to the TDM – Product Construct Guide.doc, sections 4.1, 4.2, 4.8). ***These processes provide input to the requirements capture processes in the Service and Supply Chain, and potentially the Resource, horizontal process groupings.*** **(M)** High level service and resource requirements would be captured as part of the modelling methodology approach. (refer to the Tribold EPM Introduction.ppt, slides 10 - 15). (refer to the TDM – Product Construct Guide.doc, sections 4.1, 4.2, 4.8).

3.1.4 Product & Offer Development & Retirement [1.2.1.5]

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
1.2.1.5.1 Gather & Analyze New Product Ideas	Tribold Level 3 Process: "Analyze Market Data & Product Portfolio Data" & "Identify Product Update Opportunities"	**Brief Description** ***Research and analyze demographic, customer, technology and marketing information to identify new product and offer opportunities*. (AM)** The research of information/sources and identification of new product and offer opportunities are covered within the Tribold PLM Methodology under L3 process Analyze Market Data & Product Portfolio Data. This L3 process is part of L2 process Develop Product Strategy. This is further covered within the L3 process "Identify Product Update Opportunities" as part of L2 process Monitor & Update Product Data that deals with existing products already configured within the Tribold solution. Research and analyses of demographic, customer, technology and marketing information is manually performed, the Tribold platform supports users by utilizing both an automated browsing i.e. physically researching product data and automatic reporting capability to identify product opportunities that currently exist within the Tribold solution. (refer to the Tribold Introduction to PLM.ppt slides 3 & 4). **Extended Description** ***These processes undertake the necessary analysis to identify potential opportunities, compare current capabilities with the identified opportunities, and as a result of the analysis develop new opportunity concepts*. (AM)** The Identify Product Update Opportunities L3 process includes manual process activities for discovering new products and changing/updating existing ones. This can be supported by the Tribold solution that can auto populate reports or allow a user to browse through the catalogue for opportunities and comparisons. The Tribold solution would then support this new development. (refer to The Tribold EPM Introduction.ppt – slide 15 that highlights the product modelling analysis approach). (refer to the Tribold EPM Product Description, section 4.6 Tribold EPM Reporting for reporting capability – pre-configured as per the solution).

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		Requirements from the sales organization relating to enhancements to support their desired offers are also captured by these processes. The concepts include an analysis of the customer value proposition. **(AM)** All analysis is supported through the manual product modelling process but supported automatically by the Tribold solution when configuring, implementing and capturing the detailed change. (refer to The Tribold EPM Introduction.ppt – slide 15 that highlights the product modelling analysis approach).
1.2.1.5.3 Develop New Product Business Proposal	Tribold Level 3 Process: "Generate Product Ideas"	**Brief Description** ***Develop and document business proposals for the identified new product concept.*** **(AM)** The business proposal can be developed and documented using the Tribold solution "Generic Entity" concept. This could apply to all artifacts required to support the new product concept. (refer to the Tribold EPM Product Description, section 4.7 Generic Entity used to display all kinds of information). **Extended Description** ***The business proposal (or business case) identifies the new product requirements, including the specific service components which constitute the product.*** **(A)** The Tribold platform using the Product Portfolio Manager and Tribold Workbench Console application modules provides an environment for users to develop and then document detailed product requirements. The platform would provide an automated interface that identifies requirements including service and resource components. (refer to section 4.1, 4.2 & 4.3 of the Tribold EPM Product Description.pdf, Product Portfolio Manager). (refer to section 7 of the Tribold EPM Product Description.pdf, Tribold Workbench).

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		The business proposal also identifies the development costs and anticipated benefits, including forecast demand, revenue gains, productivity gains, performance improvements and/or operational cost improvements. **(AM)** The information would need to be manually updated within the platform which then allows the generic entity concept to capture all proposal related information including costs, forecasts revenue gain and so forth. (refer to the Tribold EPM Product Description, section 4.7 Generic Entity). ***In addition, these processes define the attributes of the product which form the basis for product advertising and sales. The business proposal also includes an assessment of the risks and the competitive positioning of the product proposal. As a part of the business proposal development a feasibility assessment can be produced.*** ***(A)*** Attributes stored within the generic entity would capture all product related data including advertising, sales, positioning of the product, and so forth, that would form an input into any further studies as required. The Tribold platform supports configuration and data capture of any type of product data. (refer to the Tribold EPM Product Description, section 4.7 Generic Entity). ***Potential suppliers/partners who can assist in the development of the product are also identified. As a part of the process, the business proposal is appropriately approved, and as a result of the approval, necessary resources are made available.*** **(AM)** All sources of data are manually identified during the modelling approach. The Tribold platform using internal workflow statuses and approvals allows an automated mechanism to sign-off any documentation. This would result in the manual interpretation of providing adequate resources. (refer to the Tribold EPM Introduction.ppt, slides 10 - 15). (refer to the Tribold EPM Product Description, section 4.5 Tribold PPM

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		Workflow).
1.2.1.5.4 Develop Product Commercialization Strategy	Tribold Level 3 Process: "Generate Product Ideas" & "Develop High Level Concept"	**Brief Description** ***Ensure that product-specific pricing, sales channel support and regulatory approvals are identified and agreed.*** **(AM)** Establishing the product pricing and sales channel is manually supported through the Tribold modelling methodology and through the "Pricing and Charging", "Price / Rate" and "Channel / Promotional Outlet" construct (refer to the TDM – Product Construct Guide.doc, section 3.1, 3.2, 3.3, 6.3). Regulatory approvals are also identified through the modelling approach and can be captured as data within the product alongside pricing and sales channel. The Tribold solution allows users to automatically store this information in the Enterprise Product Catalog. (refer to the Tribold EPM Product Description, section 4.1 Tribold PPM Product Management Client). **Extended Description** ***These processes ensure that all commercialization aspects of the product development process associated with selling the product to the market, including pricing, rating, identification of sales support and sales channels features, are developed and agreed.*** **(AM)** Manually supported through the Tribold modelling methodology, all aspects of product would have been considered and captured as part of the model. (refer to The Tribold EPM Introduction.ppt – slide 15 that highlights the product modelling analysis approach). (refer to the TDM – Product Construct Guide.doc, Overview). ***Additionally these processes manage the enterprise cross-product pricing approval processes.*** **(A)** The Tribold platform automatically, using internal workflow and approvals, allows pricing across products to be managed. (refer to the Tribold EPM Product Description, section 4.5 & 4.5.1 Tribold PPM Workflow).

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
1.2.1.5.5 Develop Detailed Product Specifications	Tribold Level 3 Process: "Develop Detailed Concept"	**Brief Description** ***Develop and document the detailed product-related technical, performance and operational specifications, and customer manuals.*** **(AM)** The Tribold platform using the Product Portfolio Manager and Tribold Workbench Console application modules provides an environment for users to develop and then document detailed Product Specifications. The software facilitates and provides general support to create all specification types including technical, performance and operational information. During actual implementation, the platform is capable of handling a mix of auto/manual processes depending on how you use the platform and the customer requirements. The Tribold Central Product Catalog acts as an enterprise repository for Product Specifications. **Extended Description** ***The Develop Detailed Product Specifications processes develop and document the detailed product-related technical, performance and operational specifications, and customer manuals.*** **(AM)** **Customer Reference** A CSP wished to use Tribold's PLM process framework in conjunction with their existing process to enhance and allow their own product development "Ideation phase" to incorporate a set of processes, one of which deals with developing and documenting the product specification using Tribold capabilities. (refer to section 3.1, process step 1.4 of the PLM Process Flow Description Document_FINAL.doc. Also refer to section 6 & 8 of the PIM_Modeling_Guidelines.doc for further support on the solution capabilities). The Tribold automated solution supports a human operator who develops these specifications which in turn are manually updated to form the documentation. **Tribold Steps**

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		1. Create/Develop template Specifications (eTOM description – develop detailed product, performance and operational specifications) – This is a Tribold Workbench capability where the Template Manager tool is used to create the specification template – (refer to section 4.2 of the Tribold EPM Product User Guide.pdf, Templates and Views). 2. The template can be configured to capture and document any type of data configuration (eTOM description – develop detailed product, performance and operational specifications) – refer to section 4.2 of the Tribold EPM Product Configuration Guide.pdf, Configuring the Product Model. 3. Create an Instance of the product specification using an existing developed template (eTOM description – document specification) - refer to section 5.1 of the Tribold EPM Product User Guide.pdf, Products. 4. Update product specification instance manually to document and capture further details (eTOM description – document specification) - refer to section 5.1.4 of the Tribold EPM Product User Guide.pdf, Create a Package. Note: Templates can be configured to capture all specification types, and customer manuals would typically be created outside of Tribold templates and therefore outside of the product catalogue. ***These processes develop and document the required product features, the specific service and resource requirements and selections, the specific performance and operational requirements and support activities, any product-specific data required for the systems and network infrastructure.*** **(AM)** Developing and documenting the features, specific service and resource requirements and selection within Tribold will be handled by the Tribold's Product Portfolio Manager. (refer to section 4.1, 4.2 & 4.3 of the Tribold EPM Product Description.pdf). (refer to section 7 of the Tribold EPM Product Description.pdf , Tribold Workbench).

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		The Tribold Data Structure Generator tool allows a human operator to create additional data structures to capture any required information related to Product-Service-Resource Specifications, such as the specific performance and operational requirements and support activities or any product- specific data required for the systems and network infrastructure. (refer to section 4.2 & figure 37 & 44 of the Tribold EPM Product Configuration Guide.pdf, Configuring the Product Model) . **Customer Reference** The product features, the specific service and resource requirements and selections are further supported within the PIM_Modeling_Guidelines.doc see sections 6.4, 6.5, 6.7, 6.8 and 8. ***The processes ensure that all detailed specifications are produced and appropriately documented.*** **(AM)** The Tribold Workbench Console and Tribold Client as highlighted above (Tribold Steps) map to templates and views (eTOM description – detailed specification produced) which in turn are used to create an instance of the specification (eTOM description – appropriately documented). (refer to section 4.3 & figure 61 of the Tribold EPM Product Configuration Guide.pdf, Configuring Templates). (refer to section 5.4 of the Tribold EPM Product Configuration Guide.pdf, Configuring Views). ***Additionally the processes ensure that the documentation is captured in an appropriate enterprise repository.*** **(AM)** The Tribold platform acts as an enterprise master data repository for Product Specifications and can capture documentation in the same way using templates and view as above or as part of the Generic Entity capability. (refer to section 4.7, bullet point “Generic Entity” of the Tribold EPM Product Description.pdf, Tribold PPM Central Product & Service Catalog). User manual documentation is typically created manually outside of the Tribold solution, however specifications may contain links (URLs) for example, to Microsoft SharePoint, where this documentation is stored as the

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		customer prefers.
1.2.1.5.6 Manage Product Development	Tribold Level 3 Process: "Implement Products"	**Brief Description** ***Ensure the co-coordinated delivery in line with the approved business case of all required product capabilities for that business case across the enterprise.*** ***(AM)*** The coordination of delivery is supported manually through the Tribold PLM methodology under L3 process "Implement Products". This L3 process is part of L2 process "Design and Develop Products". The automated support can be developed through use of the "Project" generic entity configuration that in turn would track against the business case. (refer to section 4.7 of the Tribold EPM Product Description.pdf, Project). (refer to section 4.7 of the Tribold EPM Product Description.pdf, Generic Entity). **Extended Description** ***These processes use project management disciplines to deliver the necessary capabilities, including process development, specific systems & network infrastructure developments, specific channel developments, specific operational procedures etc required to support the new product.*** **(AM)** The platform supports configuring the generic entity concept to manage new product development through use of projects. A Project could include all management disciplines and be enhanced to capture any impacting requirements that support the build of new products. (refer to section 4.7 of the Tribold EPM Product Description.pdf, Generic Entity). ***It is predominantly a program/project management function, with the detailed management of individual capability delivery managed through separate processes in other horizontal process groupings.*** **(AM)**

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		(refer to section 4.7 of the Tribold EPM Product Description.pdf, Generic Entity).
1.2.1.5.7 Launch New Products	Tribold Level 3 Process: "Launch Products"	**Brief Description** ***Manage the initial introduction of new and enhanced products into the market and handover to operations for ongoing rollout.*** **(AM)** The Tribold platform enables the automated distribution of product data across CSP enterprise systems from the centralized product catalog. Although the handover to operations is automatically supported, the trigger being completion of the data transfer from Tribold, it is completely manual from that point onwards and depends on how operations decide how to perform ongoing rollout, (refer to section 6 of the Tribold EPM Product Description.pdf, Tribold ISF Features and Functions). **Extended Description** ***The initial introduction could be through commercial pilots or market trials, in which case the commercial negotiations for the pilot or trial are managed through these processes.*** **(AM)** Different status's within the Tribold workflow could allow the product data to be distributed to different environments in order to fulfill further pilots or trials. A Web service integration framework capability could distribute data in various workflow status's, such as all Draft Approved products to a pilot or trial environment through the platform. (refer to section 3 of the Tribold EPM Product Description.pdf, Tribold EPM Product Overview). (refer to section 3.4 of the Tribold EPM Product Description.pdf, Tribold Integration Services Framework). (refer to section 6 & 7 of the Tribold EPM Product Description.pdf, Web Services) ***These processes identify the shortcomings or issues, and manage the necessary improvements to the product to allow full rollout. At the***

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		conclusion of the pilots and/or trials, when the product passes its acceptance tests or defined acceptance criteria, these processes manage the handover to operations. **(AM)** Product data sent to a test environment allows additional external testing outside of the Tribold platform in order to validate any shortcomings or issues. Once successful, the Tribold platform can push along the workflow status and publish this information to a product environment through the automated Tribold Launch Manager. Handover to an operations team can then begin. ***Once accepted as a stable product offering, rollout and/or expanded of the product to subsequent customers is managed by the Operations Support & Readiness processes.*** **(M)** The operations support and readiness is supported both automatically and manually through the end-to-end PLM process. The Tribold centralized product catalogue does not support rollout to explicit customers or have any direct link or interaction with customers but instead makes product data available for customers to select.
1.2.1.5.8 Manage Product Exit	Tribold Level 3 Process: "Identify Product Revision, Grandfathering"	**Brief Description** ***Identify existing products which are unviable and manage the processes to exit the products from the market.*** **(AM)** Retiring products from the market place is supported manually through the Tribold PLM methodology under L3 process "Identify Product Revision, Grandfathering". This L3 process is part of L2 process "Design and Develop Products". The automated support can be developed through use of reports and user browsing. The Tribold platform supports the retirement by using the date management functionality that lives on every product. (refer to section 4.5.2 of the Tribold EPM Product Description.pdf, Tribold PPM Entity Retirement Management). **Extended Description**

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		The processes analyze existing products & sales offers to identify economically or strategically unviable products, identify customers impacted by any exit, develop customer specific or market segment exit or migration strategies, develop infrastructure transition or replacement strategies, and manage the operational aspects of the exit process. **(AM)** The PLM process supports analyzing market information that represents for example actual product sales that will support whether product offerings that reside within the Tribold solution will need to be updated or removed. Much of this process as input would be managed manually, however these manual decisions would influence actual implementation and how the data would need to change, which is all performed within the platform. Dates support the timeframes during which the entity is in service and supported and timeframes during which the entity is actively available for sale. (refer to section 4.5.4.1 of the Tribold EPM Product Description.pdf, Date Management). (refer to section 4.5.2 of the Tribold EPM Product Description.pdf, Tribold PPM Entity Retirement Management). (refer to the TDM – Product Construct Guide.doc, section 5.5, Grandfathering / Retirement). ***A business proposal identifying the competitive threats, risks and costs may be required as part of developing the exit strategy. It includes any cross-enterprise coordination and management functions to ensure that the needs of all stakeholders are identified and managed.*** **(AM)** The Tribold solution developed through the use of the template and generic entity configuration would automatically support identifying any additional exit strategy information. The analysis, capture and population of this information would be manually performed. The cross co-ordination and management function would be concluded manually and communicated to stakeholders as required. (refer to the Tribold EPM Product Description, section 4.7 Templates and Views that can be used to configure market information - pre configured as required for forecasting). (refer to the Tribold EPM Product Description, section 4.7 Generic Entity used

eTOM process element	Software Vendor Mapping	
Product & Offer Development & Retirement	**Alignment**	**Mapping Comment**
		to display forecasting information).

3.2 Strategy, Infrastructure & Product - Service Development & Management [1.2.2]

3.2.1 Service Strategy & Planning [1.2.2.1]

eTOM process element	Software Vendor Mapping	
Service Strategy & Planning	**Alignment**	**Mapping Comment**
1.2.2.1.1 Gather & Analyze Service Information	Tribold PLM Level 3 Process: "Analyze Market Data & Product Portfolio Data"	**Brief Description** ***Research and analyze customer, technology, competitor and marketing information to identify new service directions and industry best practice, and potential enhancements to existing services.*** **(AM)** The research and analyze customer, technology, competitor and marketing information is supported manually through the Tribold PLM methodology under L3 process "Analyze Market Data & Product Portfolio Data". This L3 process is part of L2 process "Develop Product Strategy". The automated support can be developed through the platform through use of templates and generic entity configuration that would capture new service requirements and enhancements to existing services. (refer to the Tribold EPM Product Description, section 4.7 Templates and Views that can be used to configure service information). (refer to the Tribold EPM Product Description, section 4.7 Generic Entity used to capture service information). **Extended Description** ***These processes undertake the necessary analysis to identify potential opportunities, compare current capabilities with the identified opportunities, and as a result of the analysis develop new service requirements.*** ***(AM)*** The Tribold PLM "Analyze Market Data & Product Portfolio Data" process allows for users to manually perform analysis as required. The platform utilizes a modeling concept "Generic Entity" that can automatically create artifacts as deliverables of this process; for example, capturing new service requirements. In addition, the use of the platform's reporting capability could perform a variety of analysis tasks; for example, comparing current configured service capabilities. (refer to the Tribold EPM Product Description, section 4.6 Reporting that can be used to deliver comprehensive reporting functionality).

eTOM process element	Software Vendor Mapping	
Service Strategy & Planning	**Alignment**	**Mapping Comment**
		Included in this analysis are the capture and analysis of service growth driven by expansion of housing estates, building developments and building approvals forecasts. The new service requirements include an analysis of the customer value proposition. **(AM)** All analysis is manually performed, and the platform using the generic entity capability would capture service growth and new service requirements including the customer value proposition. ***These processes include the establishment and management of relationships with external providers of market information, and the management of internal resources used for providing market information. (AM)*** Marketing information would be provided by a number of internal user communities, this data would be captured through the Tribold modelling methodology with the Tribold platform automatically supporting the capture of this data as it was available. (refer to the Tribold EPM Introduction.ppt, slides 12, which highlights the management of Product and IT managers who would input information into the Tribold solution. ***A key source of input to this analysis is derived from the marketing and product strategy and planning processes.*** **(AM)** The Tribold PLM Level 2 Process: "Develop Product Strategy" handles manual analysis from all areas including market, product and planning. All of which is automatically documented as required within the platform.

3.2.2 Service Development & Retirement [1.2.2.3]

eTOM process element	Software Vendor Mapping	
Service Development & Retirement	**Alignment**	**Mapping Comment**
1.2.2.3.1 Gather & Analyze New Service Ideas	Tribold PLM Level 3 Process: "Analyze Market Data & Product Portfolio Data" and "Generate Product Ideas"	**Brief Description** ***Combine specific product requirements with demographic, customer, technology and marketing information to identify specific new service classes/components or enhancements to existing service classes/components.*** **(AM)** Gathering and analyzing new service ideas are performed manually, and the Tribold platform automates capture of service requirements and ideas using the Generic Entity capability. This is further supported by the platform's reporting capability that could combine requirements in order to identify new services or updates to existing services. (refer to the Tribold EPM Product Description, section 4.7 Generic Entity used to capture service information). (refer to the Tribold EPM Product Description, section 4.6 Reporting that can be used to deliver comprehensive reporting functionality). **Extended Description** ***These processes undertake the necessary analysis to identify potential service classes, compare current service classes with the identified required service classes, and as a result of the analysis develop new service class ideas.*** **(AM)** The analysis is performed manually, and the platform automates capturing service requirements, comparing current pre-configured service classes and components with use of reporting. (refer to the Tribold EPM Product Description, section 4.6 Reporting that can be used to deliver comprehensive reporting functionality). ***The new service class ideas include an analysis of the customer value proposition.*** **(AM)** All analysis is manually performed, and the platform using the automated generic entity capability would capture service requirements and ideas including the customer value proposition into a structured and presentable form.

eTOM process element	Software Vendor Mapping	
Service Development & Retirement	**Alignment**	**Mapping Comment**
1.2.2.3.3 Develop New Service Business Proposal		**Brief Description** ***Develop and document business proposals for the identified new or enhanced Service ideas***. **(AM)** The business proposal can be developed and documented using the Tribold solution "Generic Entity" concept. This could apply to all artifacts required to support the new service concept. (refer to the Tribold EPM Product Description, section 4.7 Generic Entity used to display all kinds of information). **Extended Description** ***The business proposal (or business case) identifies the new service requirements, including the specific resource components which underpin the service.*** **(AM)** The Tribold platform using the Product Portfolio Manager and Tribold Workbench Console application modules provide an environment for users to develop and then document detailed service requirements. The analysis that provides support to this documentation is manually performed through the Tribold modelling approach and methodology The platform would provide an automated interface that identified requirements, including product and resource components. (refer to section 4.1, 4.2 and 4.3 of the Tribold EPM Product Description.pdf, Product Portfolio Manager). (refer to section 7 of the Tribold EPM Product Description.pdf, Tribold Workbench). ***The business proposal also identifies the service development, management and operations costs and anticipated benefits, including forecast demand, performance gains, productivity gains and/or operational cost improvements.*** **(AM)** The information would need to be manually updated within the platform, which then allows the generic entity concept to capture all proposal-related information including costs, forecasts and revenue gain.

eTOM process element	Software Vendor Mapping	
Service Development & Retirement	**Alignment**	**Mapping Comment**
		(refer to the Tribold EPM Product Description, section 4.7 Generic Entity). ***The business proposal also includes an assessment of the risks and the competitive positioning of the service proposal. As a part of the business proposal development a feasibility assessment can be produced.*** **(AM)** The platform would provide an automated interface that captures the conclusion of a detailed assessment including risks, competitive positioning and feasibility. ***Potential suppliers/partners who can assist in the development of the service classes are also identified (note that commercial arrangements may already be in place with these potential suppliers/partners). As a part of the process, the business proposal is appropriately approved, and as a result of the approval, necessary staff and other resources are made available.*** **(AM)** All sources of data (suppliers/partners) are manually identified during the modelling approach. The Tribold platform using internal workflow statuses and approvals allows an automated mechanism to sign-off any documentation. Once approved, manual interpretation is required in order to determine the necessary staff and other resources that are required. (refer to the Tribold EPM Introduction.ppt, slides 10 - 15). (refer to the Tribold EPM Product Description, section 4.5 Tribold PPM Workflow).
1.2.2.3.4 Develop Detailed Service Specifications	Tribold PLM Level 3 Process: "Generate Product Ideas"	**Brief Description** ***Develop and document the detailed service-related technical and operational specifications, and customer manuals.*** **(AM)** The Tribold platform, using the Product Portfolio Manager and Tribold Workbench Console application modules, provides an environment for users to develop and then document detailed service specifications. The software facilitates and provides general support to create all specification types including technical, performance and operational information.

eTOM process element	Software Vendor Mapping	
Service Development & Retirement	**Alignment**	**Mapping Comment**
		During actual implementation the platform is capable of handling a mix of auto/manual processes dependant on how you use the platform and the customer requirements. The Tribold Central Product Catalog acts as an enterprise repository for Product/Service/Resource specifications. **Extended Description** ***These processes develop and document the required service features, the specific underpinning resource requirements and selections, the specific operational, and quality requirements and support activities, any service specific data required for the systems and network infrastructure as agreed through the Develop New Service Business Proposal processes.*** **(AM)** Developing and documenting the features, specific service requirements and selection within Tribold will be handled by both the Tribold's Product Portfolio Manager. (refer to section 4.1, 4.2 & 4.3 of the Tribold EPM Product Description.pdf). (refer to section 7 of the Tribold EPM Product Description.pdf , Tribold Workbench). The Tribold Data Structure Generator tool allows a human operator to create additional data structures to capture any required information related to Product-Service-Resource specifications, such as the specific performance and operational requirements and support activities or any product-specific data required for the systems and network infrastructure. (refer to section 4.2 & figure 37 & 44 of the Tribold EPM Product Configuration Guide.pdf, Configuring the Product Model). ***The Develop Detailed Product Specifications processes provide input to these specifications. The processes ensure that all detailed specifications are produced and appropriately documented.*** **(AM)** The Tribold Workbench Console and Tribold Client maps to templates and views that in turn are used to create an instance of the specification

eTOM process element	Software Vendor Mapping	
Service Development & Retirement	**Alignment**	**Mapping Comment**
		with appropriate detail. (refer to section 4.3 & figure 61 of the Tribold EPM Product Configuration Guide.pdf, Configuring Templates). (refer to section 5.4 of the Tribold EPM Product Configuration Guide.pdf, Configuring Views). ***Additionally the processes ensure that the documentation is captured in an appropriate enterprise repository.*** **(AM)** The Tribold platform acts as an enterprise master data repository for service specifications and can capture documentation in the same way using templates and view as above or as part of the Generic Entity capability. (refer to section 4.7, bullet point "Generic Entity" of the Tribold EPM Product Description.pdf, Tribold PPM Central Product & Service Catalog). User documentation is typically created manually outside of the Tribold solution, however specifications may contain links (URLs) for example to Microsoft SharePoint where this documentation is stored as the customer prefers.

3.3 Strategy, Infrastructure & Product - Resource Development & Management [1.2.3]

3.3.1 Resource Strategy & Planning [1.2.3.1]

eTOM process element	Software Vendor Mapping	
Resource Strategy & Planning	**Alignment**	**Mapping Comment**
1.2.3.1.1 Gather & Analyze Resource Information	Tribold PLM Level 3 Process: "Analyze Market Data & Product Portfolio Data"	**Brief Description** ***Research and analyze customer, technology, competitor and marketing information to identify new resource requirements and industry resource capabilities and availability***. **(AM)** Gathering and Analyzing new resource requirements are performed manually, and the Tribold platform automates capture of service requirements and ideas using the Generic Entity capability. This is further supported by the platform's reporting capability that could combine requirements in order to identify new resources or updates to existing resources. (refer to the Tribold EPM Product Description, section 4.7 Generic Entity used to capture resource information). (refer to the Tribold EPM Product Description, section 4.6 Reporting that can be used to deliver comprehensive reporting functionality). **Extended Description** ***These processes undertake the necessary analysis to identify potential opportunities, compare current capabilities with the identified opportunities, and as a result of the analysis develop new resource requirements or enhancements to existing requirements.*** **(AM)** The analysis is performed manually, and the platform automates capturing resource requirements, comparing current pre-configured resource classes and components with use of reporting. (refer to the Tribold EPM Product Description, section 4.6 Reporting that can be used to deliver comprehensive reporting functionality). ***The new or enhanced resource requirements include an analysis of the customer value proposition.*** **(AM)** All analysis is manually performed, and the platform using the generic entity capability would capture resource requirements and ideas including the customer value proposition. ***These processes include the establishment and management of***

eTOM process element	Software Vendor Mapping	
Resource Strategy & Planning	**Alignment**	**Mapping Comment**
		relationships with external providers of resource information and the management of internal groups used for providing market information. (AM) Marketing Information would be provided by a number of internal user communities, and the platform would support capture of this data as it was available. (refer to the Tribold EPM Introduction.ppt, slides 12, which highlights the management of Product and IT managers who would input information to the Tribold solution. ***A key source of input to this analysis is derived from the business, marketing, service and product strategy and planning processes*. (AM)** The Tribold PLM Level 2 Process: "Develop Product Strategy" handles manual analysis from all areas including business, market, service, product and planning, all of which is automatically documented as required within the platform.

3.3.2 Resource Development & Retirement [1.2.3.3]

eTOM process element	Software Vendor Mapping	
Resource Development & Retirement	**Alignment**	**Mapping Comment**
1.2.3.3.1 Gather & Analyze Resource Information	Tribold PLM Level 3 Process: "Analyze Market Data & Product Portfolio Data" and "Generate Product Ideas"	**Brief Description** ***Combine specific product & service class requirements with demographic, customer, technology and marketing information to identify specific new resource classes/components, or enhancements to existing resource classes/components.*** **(AM)** Gathering and Analyzing new resource ideas are performed manually, and the Tribold platform automates capture of resource requirements and ideas using the Generic Entity capability. This is further supported by the platform's reporting capability that could combine requirements in order to identify new resources or updates to existing resources. (refer to the Tribold EPM Product Description, section 4.7 Generic Entity used to capture resource information). (refer to the Tribold EPM Product Description, section 4.6 Reporting that can be used to deliver comprehensive reporting functionality). **Extended Description** ***These processes undertake the necessary analysis to identify potential resource classes, compare current resource classes with the identified required resource classes, and as a result of the analysis develop new resource class ideas.*** **(AM)** The Tribold PLM "Analyze Market Data & Product Portfolio Data" process allows for users to manually perform analysis as required. The platform utilizes a modeling concept "Generic Entity" that can automatically create artifacts as deliverables of this process; for example, capturing new resource requirements. In addition, the use of the platform's reporting capability could perform all kinds of analysis, such as comparing current configured resource capabilities. (refer to the Tribold EPM Product Description, section 4.6 Reporting that can be used to deliver comprehensive reporting functionality).
1.2.3.3.4 Develop Detailed Resource	Tribold PLM Level 3 Process: "Generate	**Brief Description**

eTOM process element	Software Vendor Mapping	
Resource Development & Retirement	**Alignment**	**Mapping Comment**
Specifications	Product Ideas"	***Develop and document the detailed resource-related technical, performance and operational specifications, and manuals.*** **(AM)** The Tribold platform using the Product Portfolio Manager and Tribold Workbench Console application modules provides an environment for users to develop and then document detailed resource specifications. The software facilitates and provides general support to create all specification types including technical, performance and operational information. During actual implementation the platform is capable of handling a mix of auto/manual processes dependent on how you use the platform and the customer requirements. The Tribold Central Product Catalog acts as an enterprise repository for Product/Service/Resource specifications. **Extended Description** ***These processes develop and document the required resource features, the specific technology requirements and selections, the specific operational, performance and quality requirements and support activities, any resource specific data required for the systems and network infrastructure.*** **(AM)** Developing and documenting the features, specific resource requirements and selection within Tribold will be handled by Tribold's Product Portfolio Manager. (refer to section 4.1, 4.2 & 4.3 of the Tribold EPM Product Description.pdf). (refer to section 7 of the Tribold EPM Product Description.pdf , Tribold Workbench). The Tribold Data Structure Generator tool allows a human operator to create additional data structures to capture any required information related to Product-Service-Resource specifications, such as the specific performance and operational requirements and support activities or any product specific data required for the systems and network infrastructure. (refer to section 4.2 & figure 37 & 44 of the Tribold EPM Product

eTOM process element	Software Vendor Mapping	
Resource Development & Retirement	**Alignment**	**Mapping Comment**
		Configuration Guide.pdf, Configuring the Product Model). ***The Develop Detailed Service Specifications processes provide input to these specifications. The processes ensure that all detailed specifications are produced and appropriately documented.*** **(AM)** The Tribold Workbench Console and Tribold Client map to templates and views that in turn are used to create an instance of the specification with appropriate detail. (refer to section 4.3 & figure 61 of the Tribold EPM Product Configuration Guide.pdf, Configuring Templates). (refer to section 5.4 of the Tribold EPM Product Configuration Guide.pdf, Configuring Views). ***Additionally the processes ensure that the documentation is captured in an appropriate enterprise repository.*** **(A)** The Tribold platform acts as an enterprise master data repository for resource specifications and can capture documentation in the same way using templates and views as above or as part of the Generic Entity capability. (refer to section 4.7, bullet point "Generic Entity" of the Tribold EPM Product Description.pdf, Tribold PPM Central Product & Service Catalog). User manual documentation is typically created manually outside of the Tribold solution; however specifications may contain links (URLs) for example, to Microsoft SharePoint, where this documentation is stored as the customer prefers.

4 Process Conformance

4.1 Business Process Framework – Process Conformance Summary

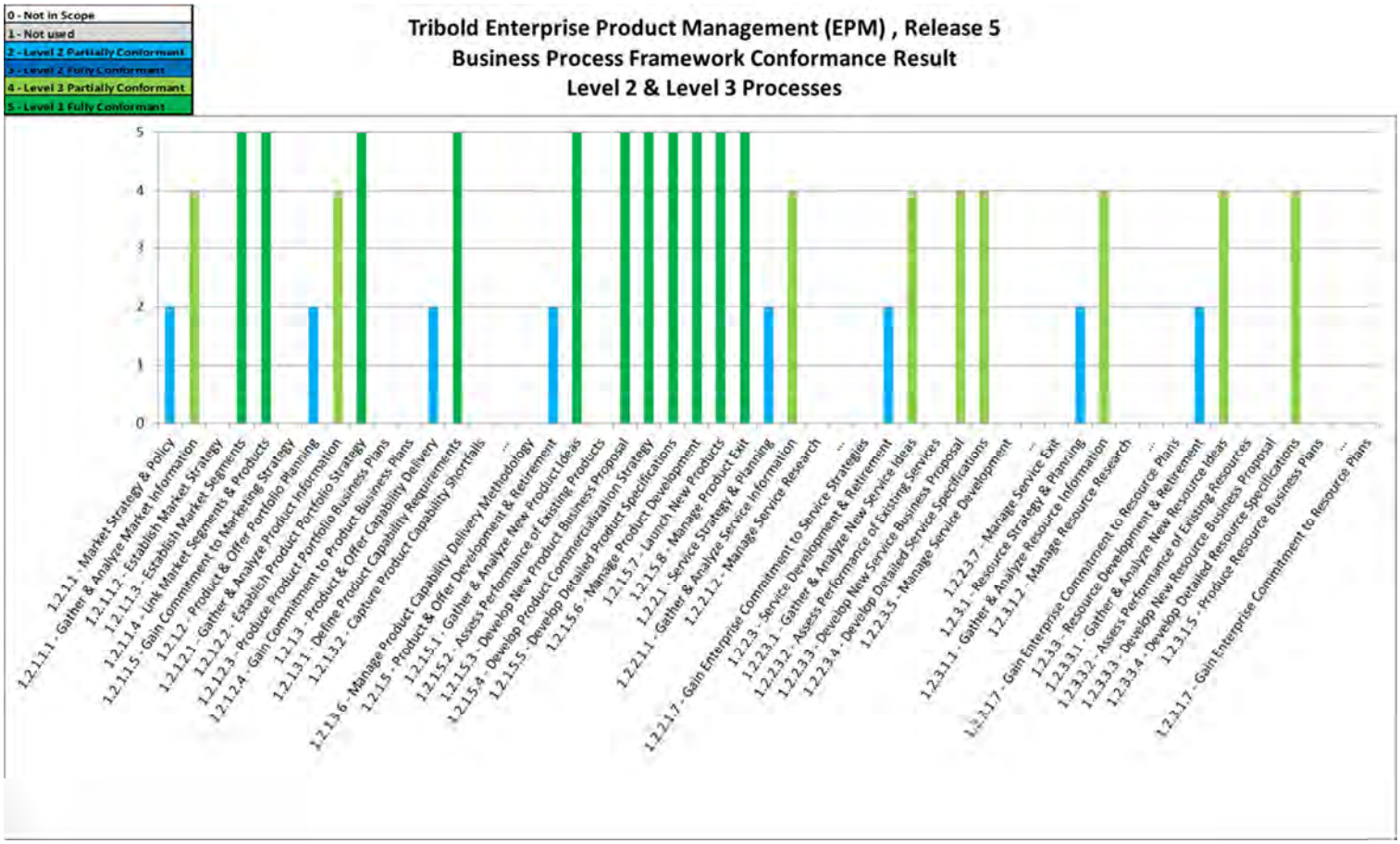

Figure 4.1 Tribold EPM Product – Conformance Result Summary

4.2 Business Process Framework – Process Conformance Detailed

Table 4.1 Tribold EPM Product – Detailed Conformance Result

Assessed eTOM Conformance			
eTOM process element	**Assessed Domain**	**Conformance Level**	**Comment**
Within Level 1: 1.2.1 - Marketing & Offer Management	Product	*N/A* *(Level 1 Processes are not assessed)*	The following Level 2 process elements were assessed for this Level 1 process: **1.2.1.1 - Market Strategy & Policy** **1.2.1.2 - Product & Offer Portfolio Planning** **1.2.1.3 - Product & Offer Capability Delivery** **1.2.1.5 - Product & Offer Development & Retirement**
Within Level 2: 1.2.1.1 - Market Strategy & Policy	Product	**Scope Partially Conformant (2)**	**Partially Conformant** Three level 3 eTOM process elements have been assessed here for conformance, these are: **1.2.1.1.1 - Gather & Analyze Market Information** **1.2.1.1.3 - Establish Market Segments** **1.2.1.1.4 - Link Market Segments & Products** These process elements have some detailed requirements that are not supported (see for each below). Not all contained Level 3 process elements are in scope for the assessment. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.1.1 - Gather & Analyze Market Information	Product	**Scope Partially Conformant (4)**	**Partially Conformant** Some detailed requirements are not supported. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.1.3 - Establish Market Segments	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.1.4 - Link Market Segments & Products	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.2 - Product & Offer Portfolio	Product	**Scope Partially Conformant**	**Partially Conformant** Two level 3 eTOM processes have been assessed here for

Assessed eTOM Conformance			
eTOM process element	**Assessed Domain**	**Conformance Level**	**Comment**
Planning		**(2)**	conformance, these are: **1.2.1.2.1 - Gather & Analyze Product Information** **1.2.1.2.2 - Establish Product Portfolio Strategy** These process elements have some detailed requirements that are not supported (see for each below). Not all contained Level 3 process elements are in scope for the assessment. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.2.1 - Gather & Analyze Product Information	Product	**Scope Partially Conformant (4)**	**Partially Conformant** Some detailed requirements are not supported. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.2.2 - Establish Product Portfolio Strategy	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
Within Level 2: 1.2.1.3 - Product & Offer Capability Delivery	Product	**Scope Partially Conformant (2)**	**Partially Conformant** One level 3 eTOM process element has been assessed here for conformance, this is: **1.2.1.3.1 - Define Product Capability Requirements** Not all contained Level 3 process elements are in scope for the assessment. Some potential interactions are not relevant. Note that the support provided can involve manual action facilitated by the automated support. S See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.3.1 - Define Product Capability Requirements	Product	**Scope Fully Conformant (5)**	**Conformant** Some potential interactions are not relevant. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
Within Level 2: 1.2.1.5 - Product & Offer Development & Retirement	Product	**Scope Partially Conformant (2)**	**Partially Conformant** Seven level 3 eTOM process elements have been assessed here for conformance, these are: **1.2.1.5.1 - Gather & Analyze New Product Ideas**

Assessed eTOM Conformance			
eTOM process element	Assessed Domain	Conformance Level	Comment
			1.2.1.5.3 - Develop New Product Business Proposal **1.2.1.5.4 - Develop Product Commercialization Strategy** **1.2.1.5.5 - Develop Detailed Product Specifications** **1.2.1.5.6 - Manage Product Development** **1.2.1.5.7 - Launch New Products** **1.2.1.5.8 - Manage Product Exit** Not all contained Level 3 process elements are in scope for the assessment. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.5.1 - Gather & Analyze New Product Ideas	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.5.3 - Develop New Product Business Proposal	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.5.4 - Develop Product Commercialization Strategy	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.5.5 - Develop Detailed Product Specifications	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.5.6 - Manage Product Development	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.1.5.7 - Launch New Products	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further

Assessed eTOM Conformance			
eTOM process element	**Assessed Domain**	**Conformance Level**	**Comment**
			details.
1.2.1.5.8 - Manage Product Exit	Product	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
Within Level 1: 1.2.2 Service Development & Management	Service	*N/A* *(Level 1 Processes are not assessed)*	**The following Level 2 process elements were assessed:** **1.2.2.1 - Service Strategy & Planning** **1.2.2.3 - Service Development & Retirement** **1.2.3.1 - Resource Strategy & Planning** **1.2.3.3 - Resource Development & Retirement**
Within Level 2: 1.2.2.1 - Service Strategy & Planning	Service	**Scope Partially Conformant (2)**	**Partially Conformant** One level 3 eTOM process element has been assessed here for conformance, this is: **1.2.1.5.1 - Gather & Analyze Service Information** Not all contained Level 3 process elements are in scope for the assessment. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.2.1.1 - Gather & Analyze Service Information	Service	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
Within Level 2: 1.2.2.3 - Service Development & Retirement	Service	**Scope Partially Conformant (2)**	**Partially Conformant** Three level 3 eTOM process elements have been assessed here for conformance, these are: **1.2.2.3.1 - Gather & Analyze New Service Ideas** **1.2.2.3.3 - Develop New Service Business Proposal** **1.2.2.3.4 - Develop Detailed Service Specifications** Not all contained Level 3 process elements are in scope for the assessment. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.2.3.1 - Gather & Analyze New Service Ideas	Service	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further

Assessed eTOM Conformance			
eTOM process element	**Assessed Domain**	**Conformance Level**	**Comment**
			details.
1.2.2.3.3 - Develop New Service Business Proposal	Service	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.2.3.4 - Develop Detailed Service Specifications	Service	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
Within Level 2: 1.2.3.1 - Resource Strategy & Planning	Resource	**Scope Partially Conformant (2)**	**Partially Conformant** One level 3 eTOM process elements has been assessed here for conformance, this is: **1.2.3.1.1 - Gather & Analyze Resource Information** Some detailed requirements are not supported. Not all contained Level 3 process elements are in scope for the assessment. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.3.1.1 - Gather & Analyze Resource Information	Resource	**Scope Partially Conformant (4)**	**Partially Conformant** Some detailed requirements are not supported. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
Within Level 2: 1.2.3.3 - Resource Development & Retirement	Resource	**Scope Partially Conformant (2)**	**Partially Conformant** Two level 3 eTOM process elements have been assessed here for conformance, these are: **1.2.3.3.1 - Gather & Analyze New Resource Ideas** **1.2.3.3.4 - Develop Detailed Resource Specifications** Not all contained Level 3 process elements are in scope for the assessment. Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.
1.2.3.3.1 - Gather & Analyze New Resource Ideas	Resource	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support.

Assessed eTOM Conformance			
eTOM process element	**Assessed Domain**	**Conformance Level**	**Comment**
			See the Process Mapping descriptions in Chapter 3 for further details.
1.2.3.3.4 - Develop Detailed Resource Specifications	Resource	**Scope Fully Conformant (5)**	**Conformant** Note that the support provided can involve manual action facilitated by the automated support. See the Process Mapping descriptions in Chapter 3 for further details.