

Extending Essence for Business and Service Engineering - with Symphonical (someone.io) Tool Support

Arne J. Berre@sinetef.no

"Essence in practice"

Berlin, June 18th, 2015

Abstract

- The Essence kernel is a suitable foundation not only for software engineering, but also for business and service engineering. This presentation shows how popular business engineering practices like business model canvassing and service engineering practices like service journey mapping can be supported by an extension to the Essence kernel. The presentation will also illustrate how the dynamic enactment of Essence practices can be supported by the "SomeOne" team collaboration tool provided by the Symphonical team collaboration platform.

Special thanks to my collaborators

Dr. Shihong Huang

Associate Professor

Florida Atlantic University (FAU)

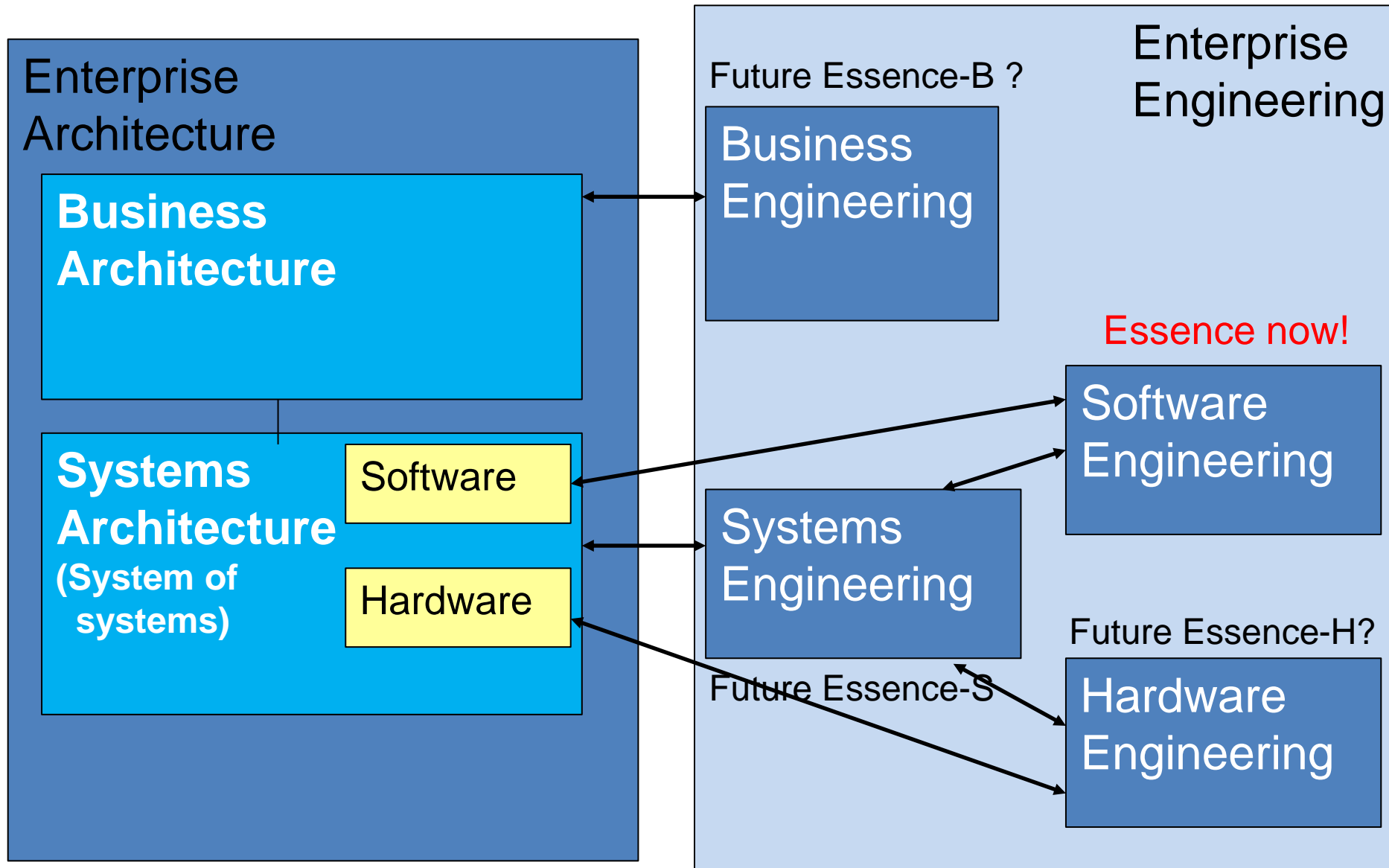
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Brian Elvesæter

Research Scientist

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Enterprise Architecture and Enterprise Engineering



Value Delivery Modeling Language (VDML OMG standard)

Date: April 2015

Value Delivery Modeling Language

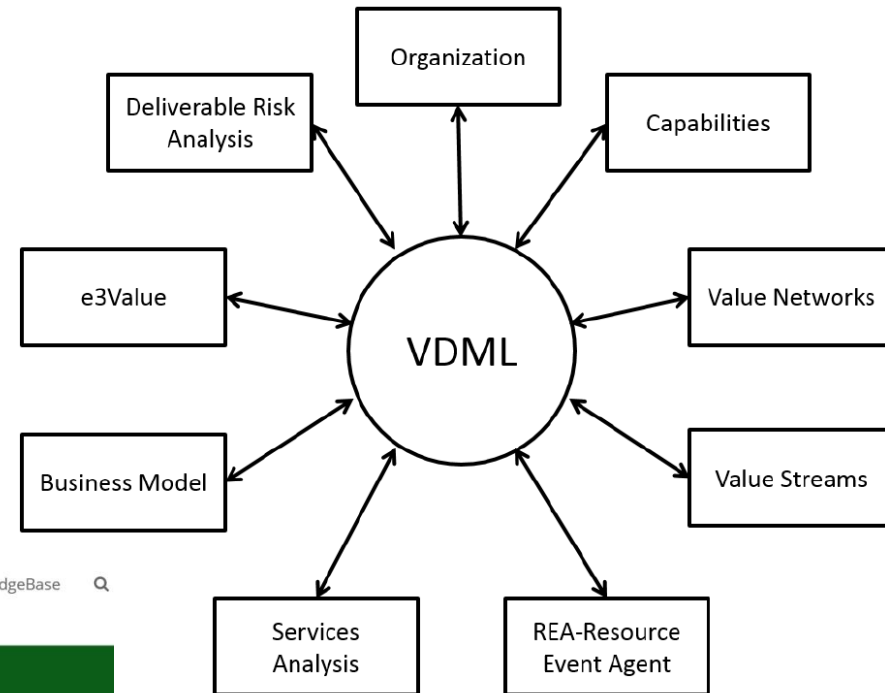
Version 1.0

OMG Document Number: dtc/2015-03-10

Normative reference: <http://www.omg.org/spec/VDML/1.0>

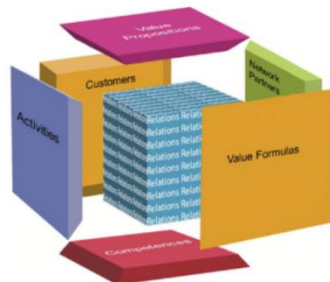
Machine Consumable file:

Normative: <http://www.omg.org/spec/VDML/20150201/vdml.xmi>



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VDMbee Value Delivery Manager



Business Model Cube

Home > VDMbee Value Delivery Manager

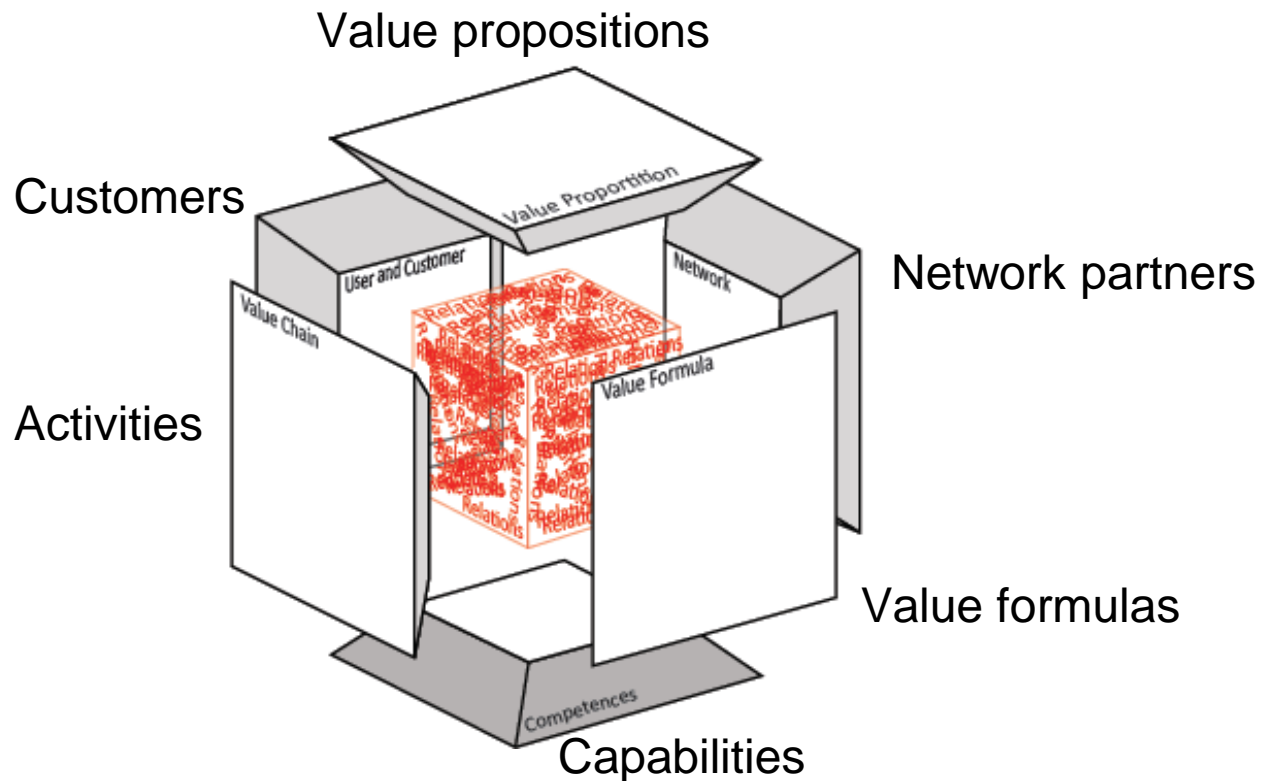
Search... Q

Recent Posts

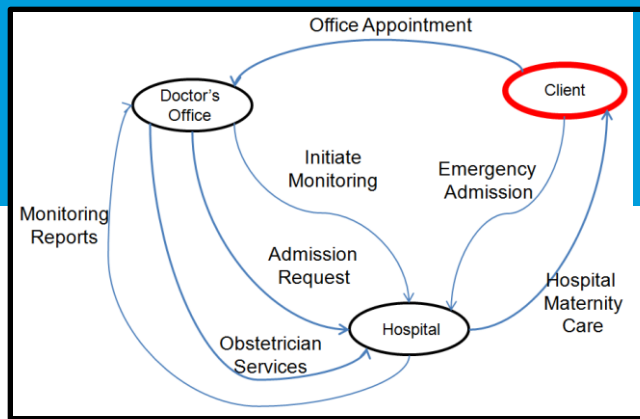
- > Purpose of VDML
- > Exploring VDML with Spreadsheets
- > Big Data, Internet of Things and Sensing Business Models

www.vdmbee.com

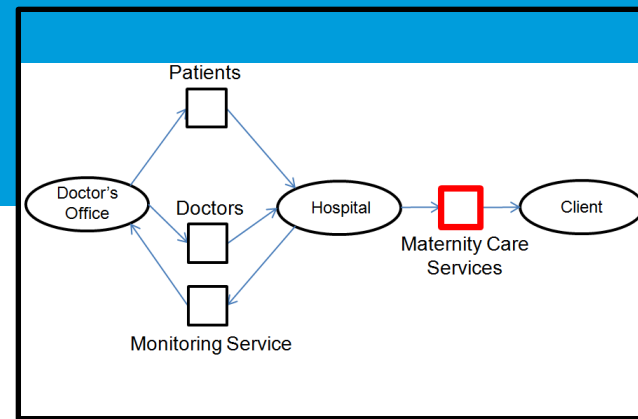
BMI Cube (AAU)



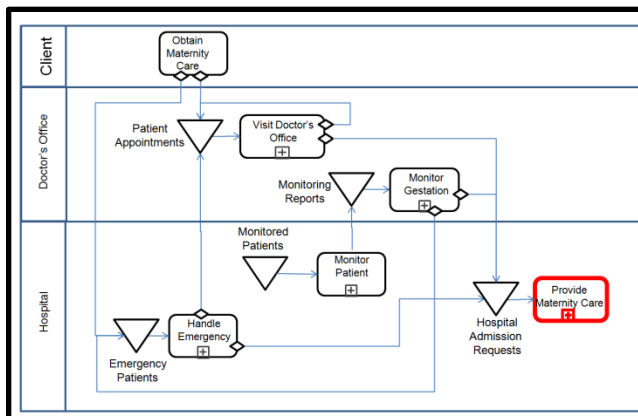
Similar to but simpler than Osterwalder (source: Peter Lindgren, NEFFICS)



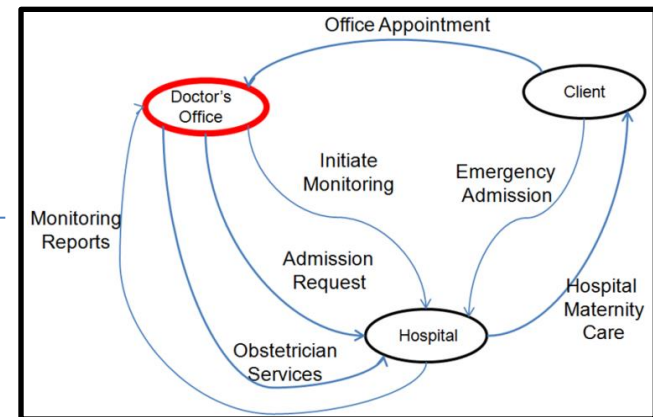
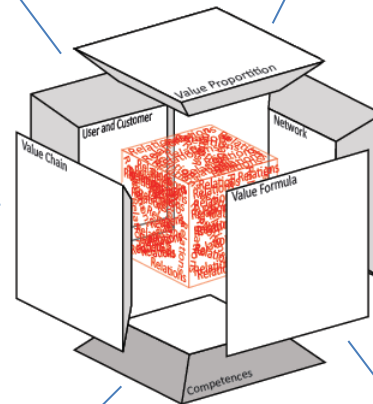
Role Collaboration (Customers)



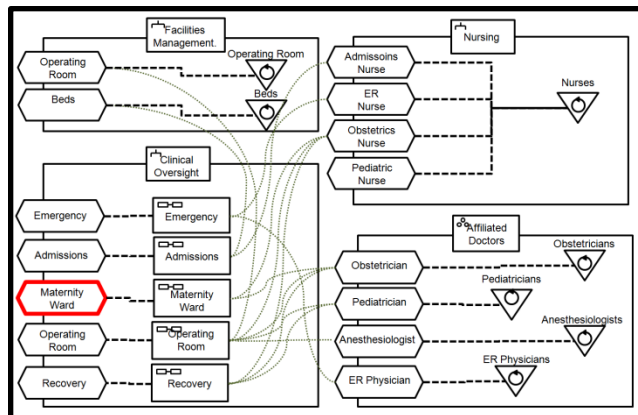
Value Proposition Exchange



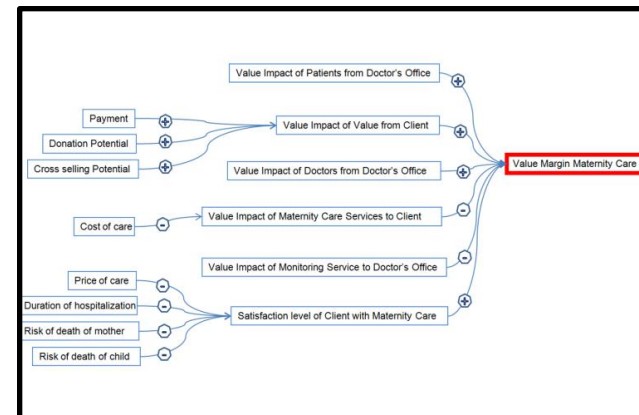
Activity Network (Activities)



Role Collaboration (Network Partners)



Capability Management (Capabilities)



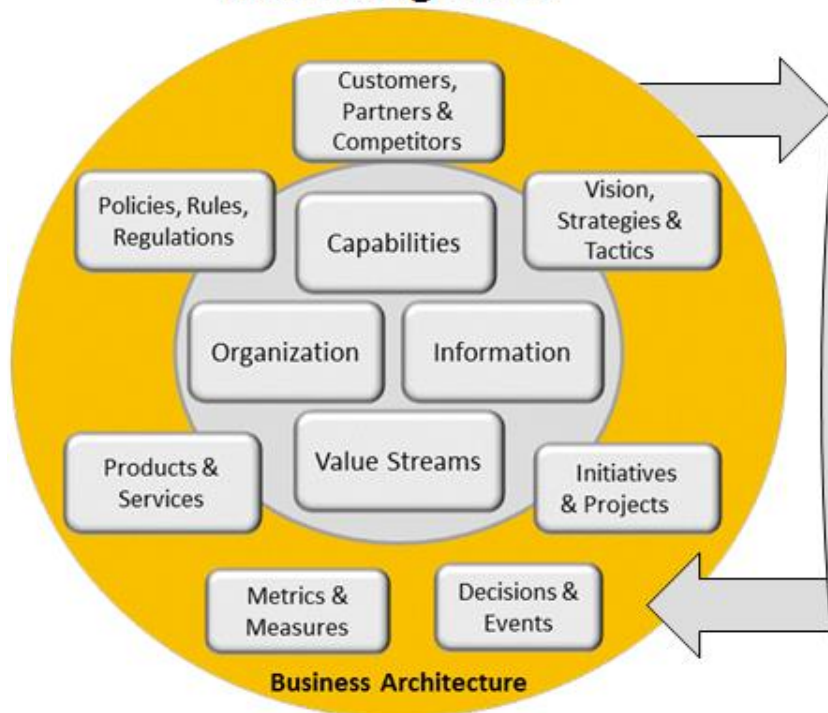
Measurement Dependency (Value Formula)

OMG Business Architecture

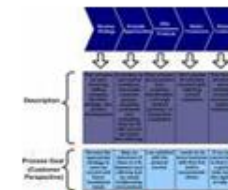
Practices

Blueprints Built on Common Foundation

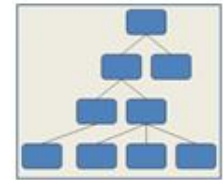
Business Architecture "Knowledgebase"



Organization Models



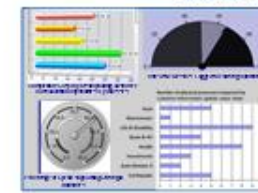
Value Chain Models



Process / Value Stream Aggregation & Decomposition



Operational Models



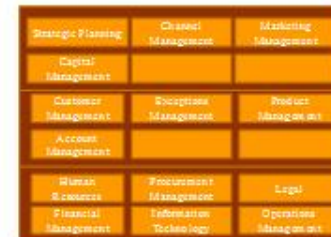
Dashboards



Balanced Scorecard



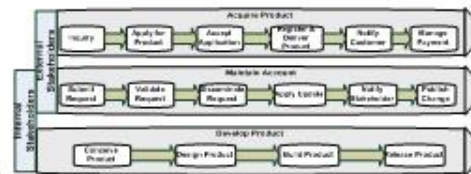
Supply Chain Models



Capability Map



Business /Domain Mappings



Value Streams



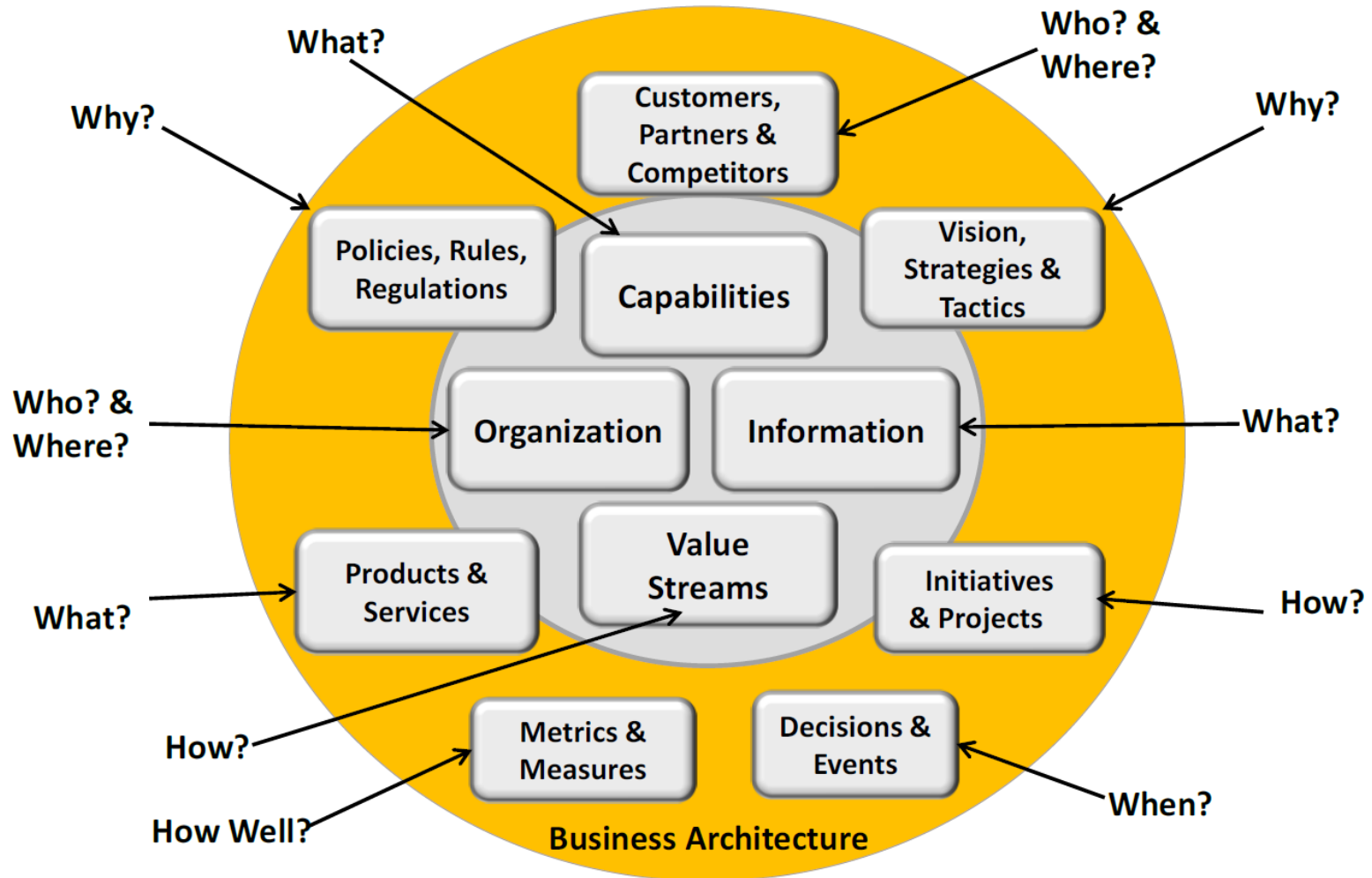
Information Map

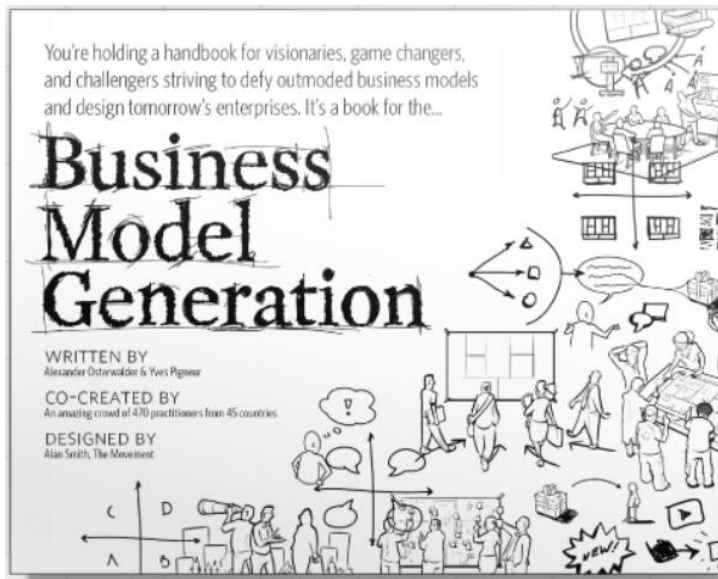


Business Model canvas

Many different existing practices also for business engineering

OMG Business Architecture



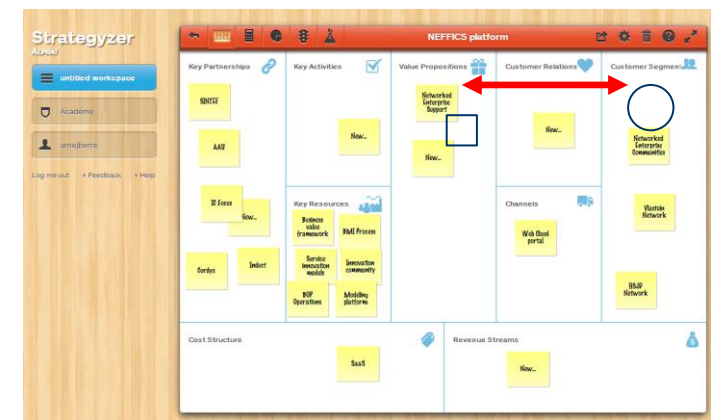
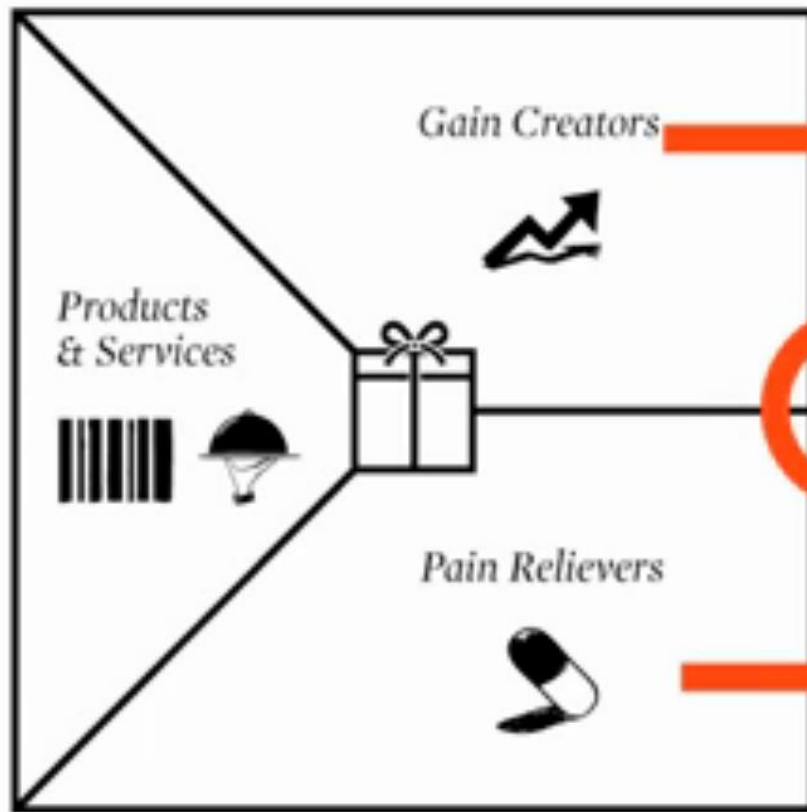


> 1 million copies sold

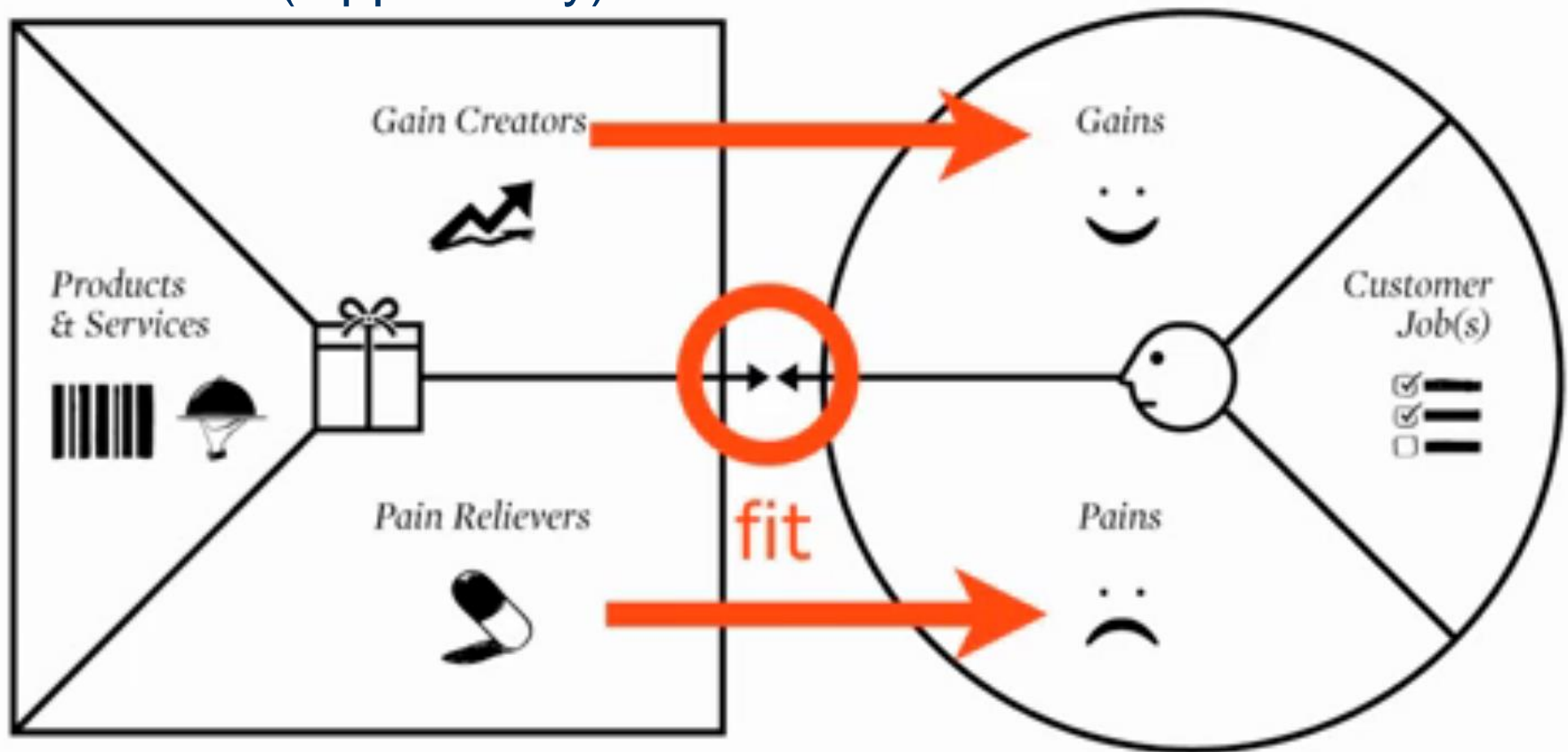


Business Model and Value Proposition Canvas

Value offer
(Opportunity)



Value needs (Requirements)





Authors:
Marc Stickdorn,
Jakob Schneider

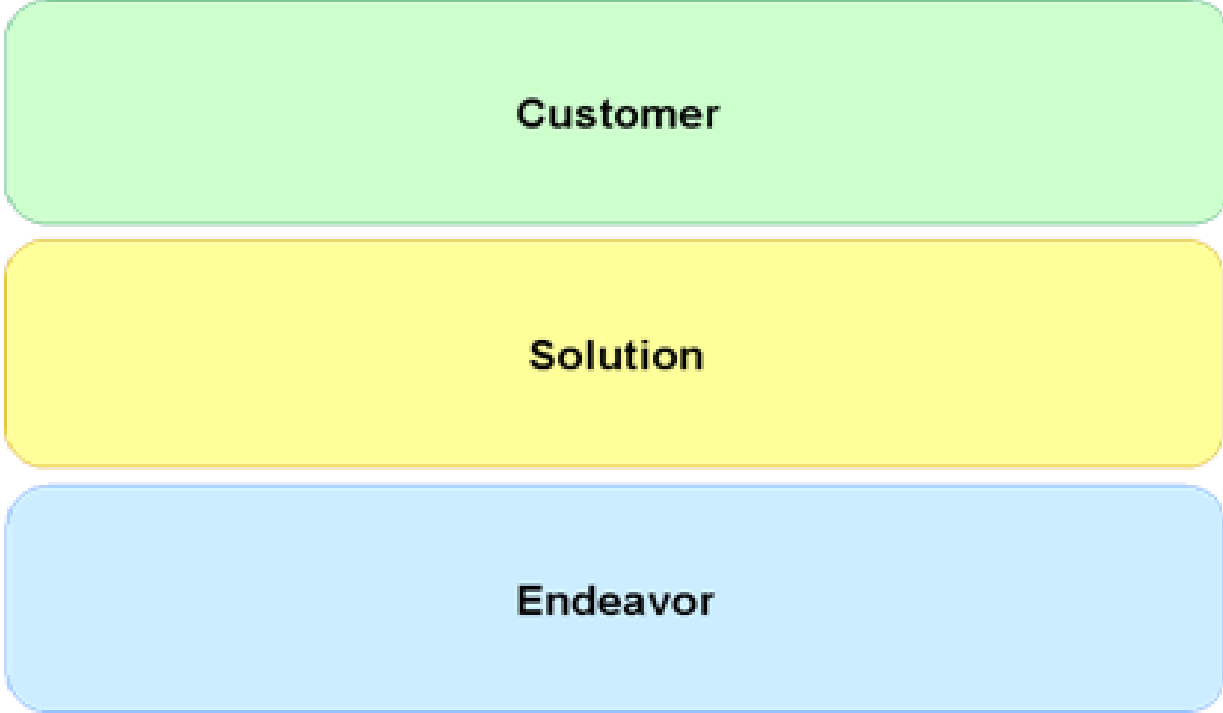
Many different service design & engineering practices

<u>Stakeholder Maps</u>
<u>Service Safaris</u>
<u>Shadowing</u>
<u>Customer Journey Maps</u>
<u>Contextual Interviews</u>
<u>The Five Whys</u>
<u>Cultural Probes</u>
<u>Mobile Ethnography</u>
<u>A Day in the Life</u>
<u>Expectation Maps</u>

<u>Personas</u>
<u>Idea Generation</u>
<u>What if ...</u>
<u>Design Scenarios</u>
<u>Storyboards</u>
<u>Desktop Walkthrough</u>
<u>Service Prototypes</u>
<u>Service Staging</u>
<u>Agile Development</u>
<u>Co-Creation</u>
<u>Storytelling</u>
<u>Service Blueprints</u>
<u>Service Roleplay</u>
<u>Customer Lifecycle Maps</u>

A Business Engineering Kernel – for Creating Business Engineering Practices

Three areas of concern for Business Engineering



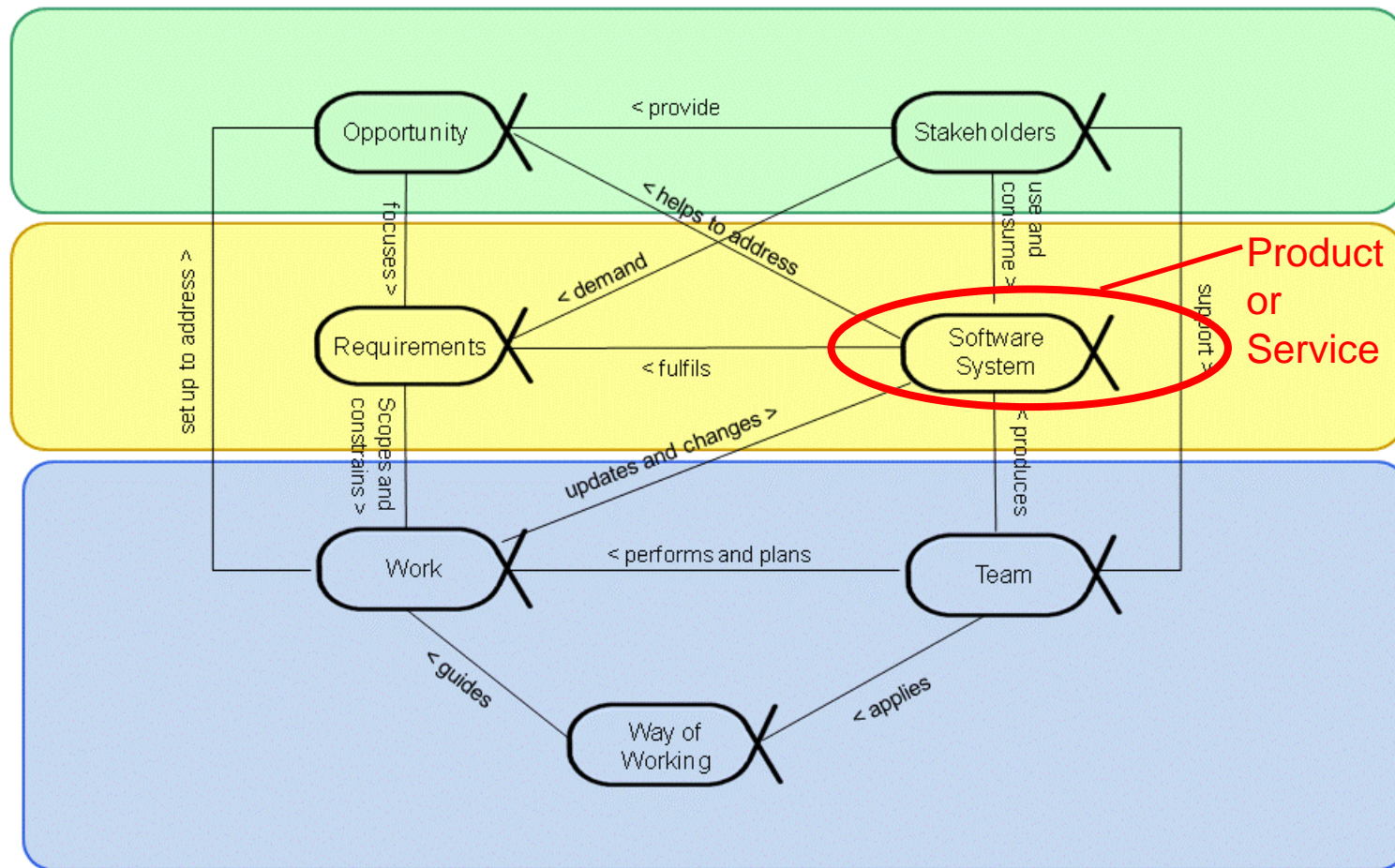
Customer

Solution

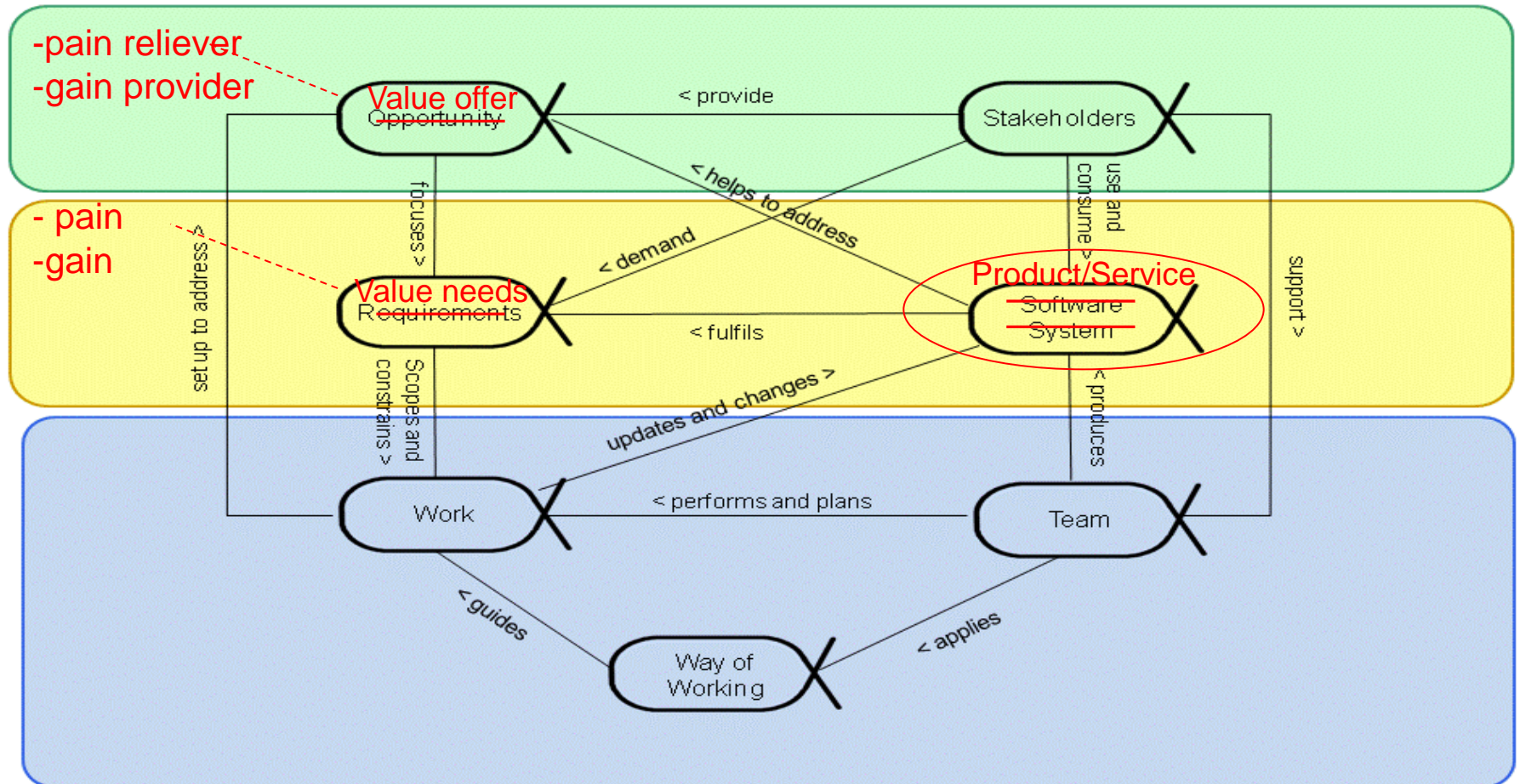
Endeavor

No changes !

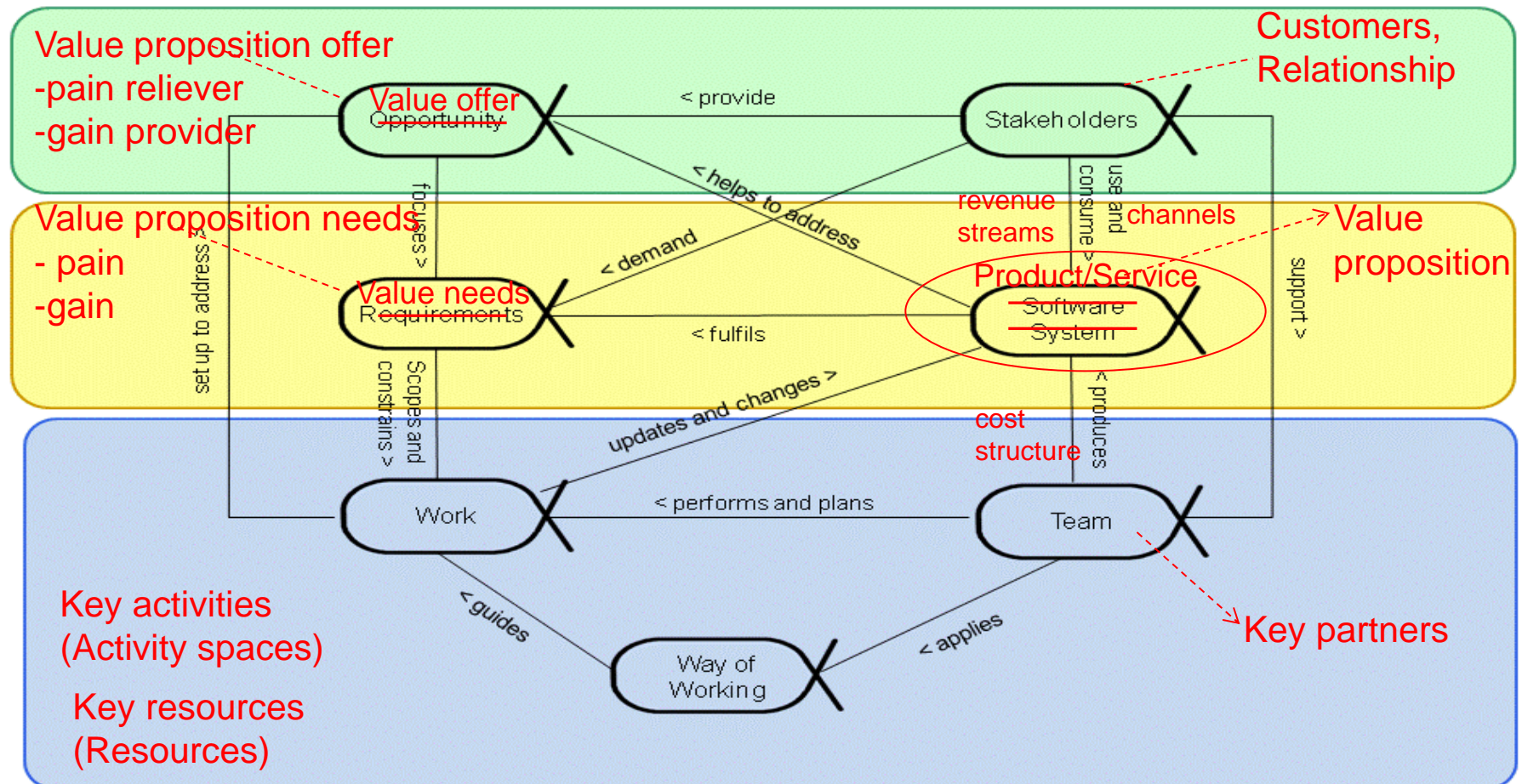
The Kernel Alphas for Software Engineering -> Business Engineering (key difference: NOT software system focus)



The Kernel Alphas - For Business Engineering



The Kernel Alphas - For Business Engineering - related to the Business Model/Value proposition Canvas elements



The states of **Product/Service**



approach

An architecture has been selected that addresses the key technical risks and any applicable organizational constraints.

product/service

An executable version of the system is available that demonstrates the architecture is fit for purpose and supports testing.

product/service

The system is usable and demonstrates all of the quality characteristics required of an operational system.

product/service

The system (as a whole) has been accepted for deployment in a live environment.

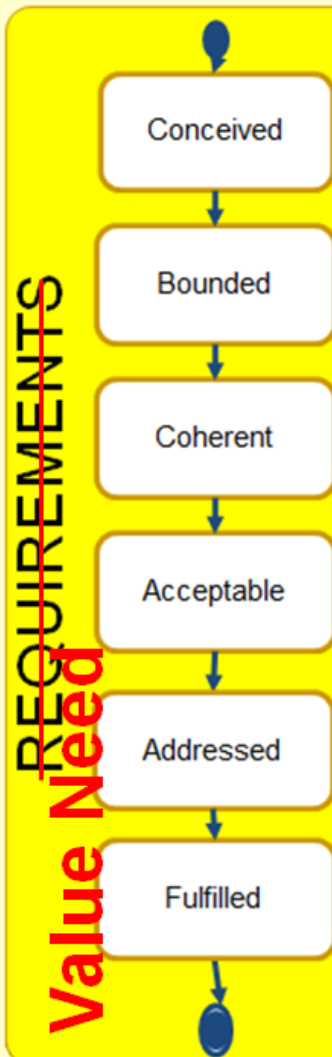
product/service

The system is in use in a live environment.

product/service

The system is no longer supported.

The states of the **Value Need**



product/service

The need for a ~~new system~~ has been agreed.

The purpose and theme of the new system are clear.

value need

The requirements provide a consistent description of the essential characteristics of the new system.

value need

The requirements describe a system that is acceptable to the stakeholders.

value need

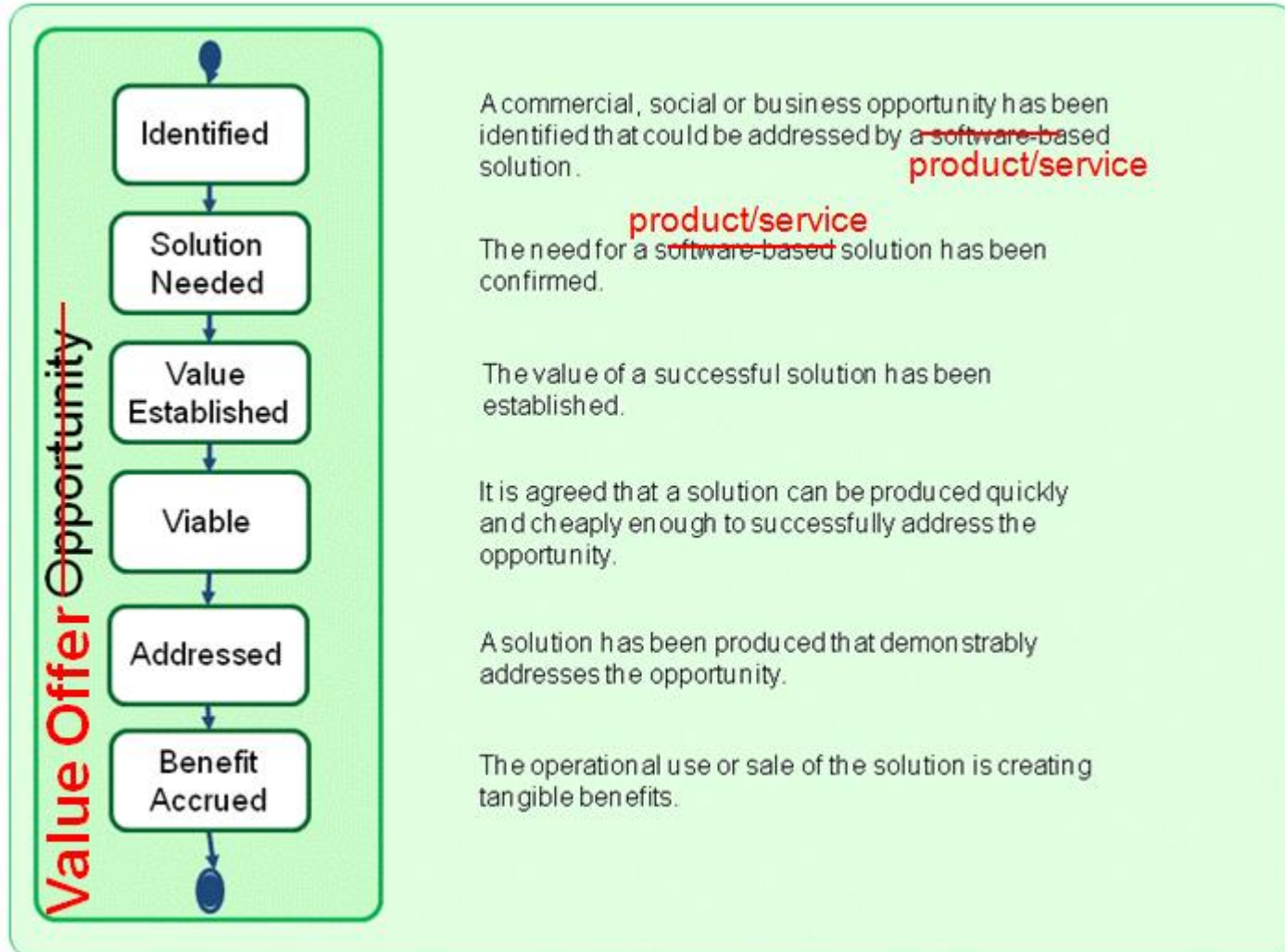
Enough of the requirements have been addressed to satisfy the need for a new system in a way that is acceptable to the stakeholders.

value need

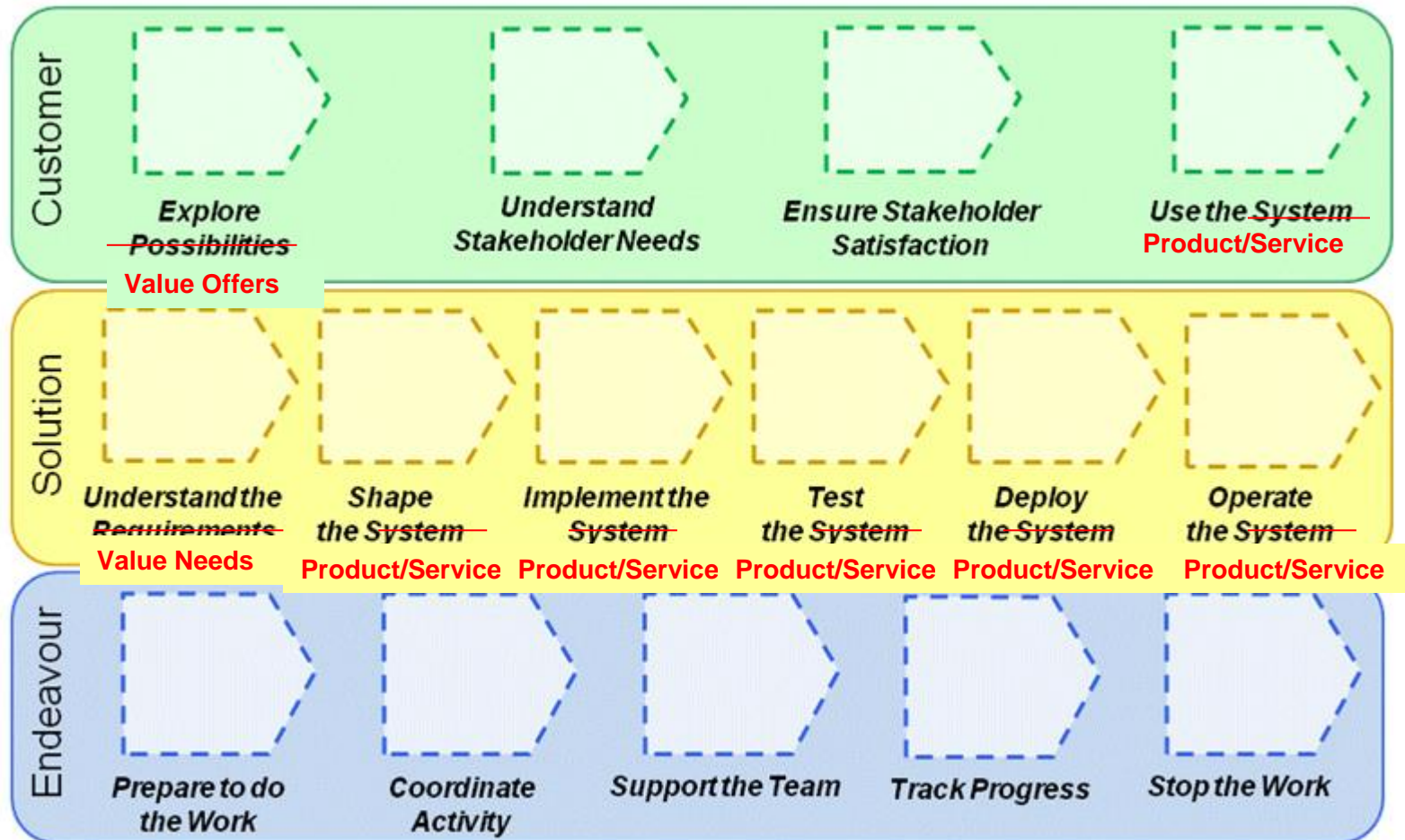
The requirements that have been addressed fully satisfy the need for a new system.

product/service

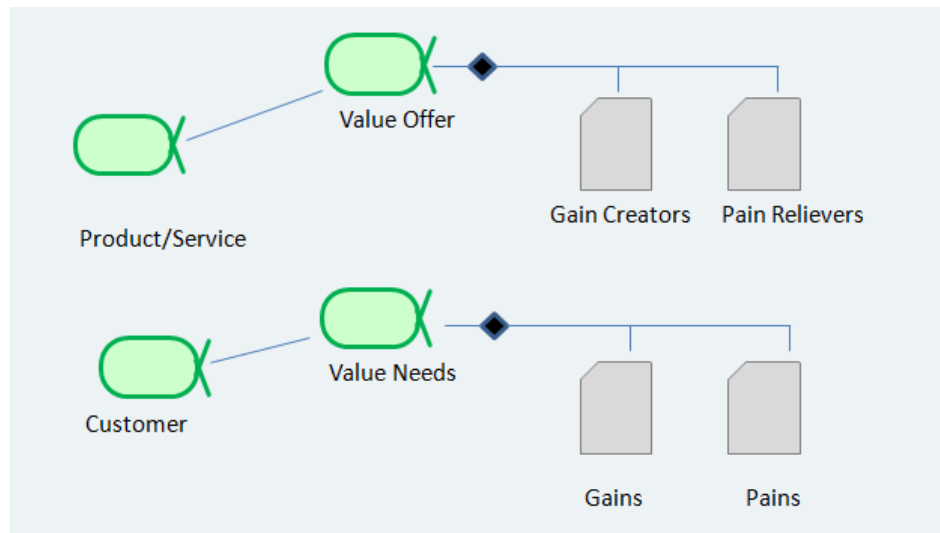
The states of the Value Offer



The Kernel Activity Spaces for Business Engineering

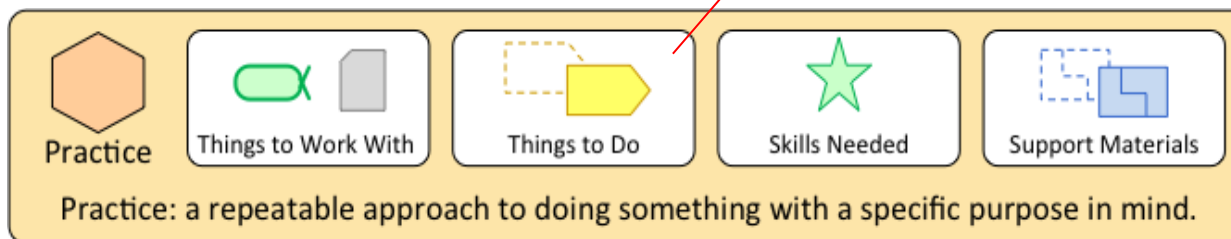
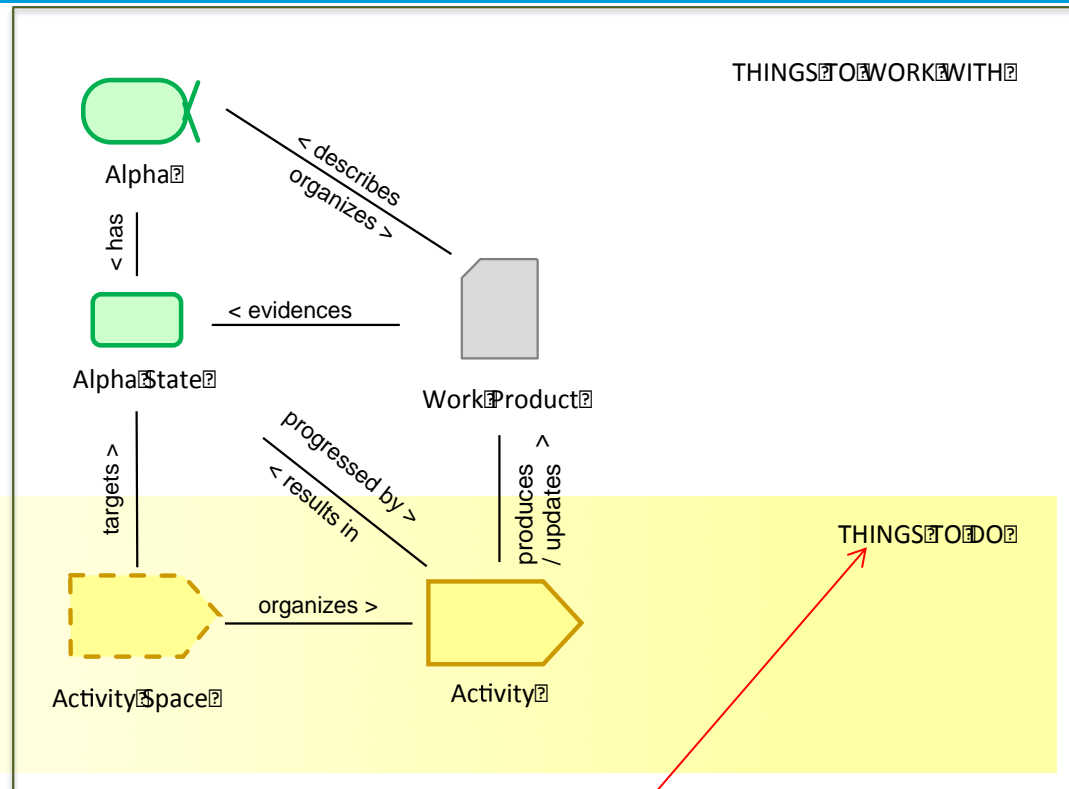


Value Offer/Need – Alphas and Work products

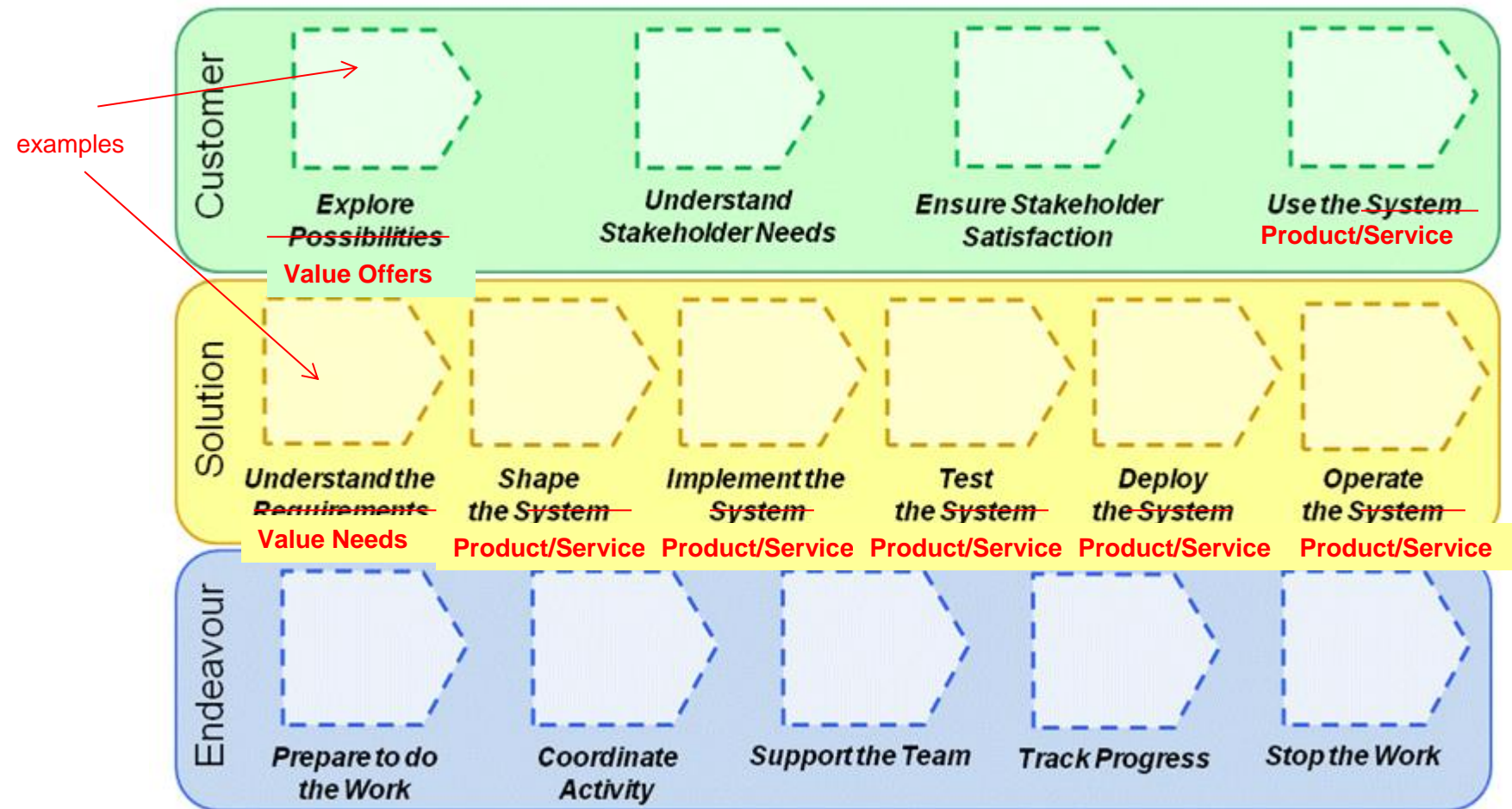


Thing to Work With	Alpha or Work Product?	Comments
Value Offer	Alpha	Value offer description
Gain providers	Work Product	Gains that the product/service will provide
Pain relievers	Work Product	Pains that the product/service will relieve
Value Need	Alpha	Value need description
Gains	Work Product	Gains that the customer would like to see
Pains	Work Product	Pains that the customer would like remove

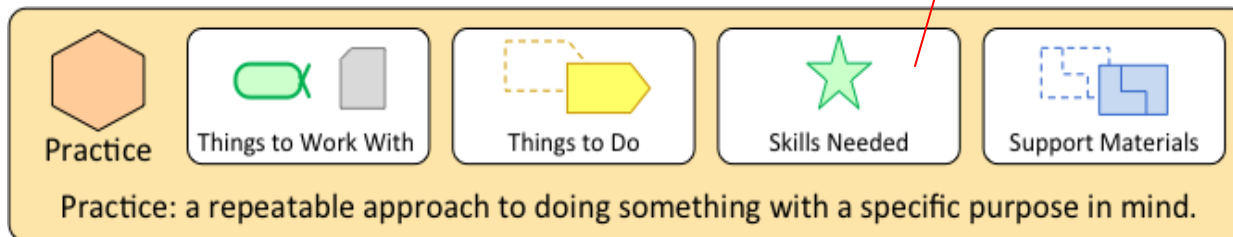
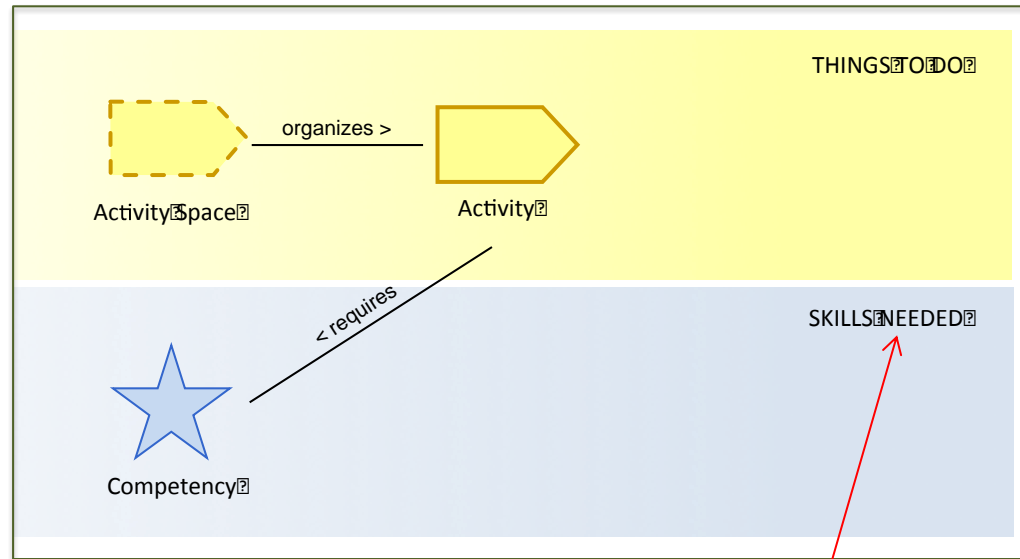
Things to Do



The Kernel Activity Spaces for Business Engineering



Competencies define the skills needed to undertake an activity



Reference model for Core Competencies – for business engineering and product/service development

The Essence Language provides a simple way to capture competencies and the Essence Kernel provides a reference model of the core competencies involved in software product/service development:

- **Stakeholder Representation:** This competency encapsulates the ability to gather, communicate, and balance the needs of other stakeholders, and accurately represent their views.
- **Analysis:** This competency encapsulates the ability to understand opportunities value offers and their related stakeholder needs, and transform them into an agreed and consistent set of requirements value needs.
- **Development:** This competency encapsulates the ability to design and realise product/service program effective software systems following the standards and norms agreed by the team.
- **Testing:** This competency encapsulates the ability to test a product/service system, verifying that it is usable and that it meets the requirements value needs.
- **Leadership:** This competency enables a person to inspire and motivate a group of people to achieve a successful conclusion to their work and to meet their objectives.
- **Management:** This competency encapsulates the ability to coordinate, plan and track the work done by a team.

Each competency has 5 levels: 1-Assists, 2-Applies, 3-Masters, 4-Adapts and 5 – Innovates, where level 1 is the lowest level of competency and 5 the highest.

Minimum Competency Needed to Perform the **Value Need Practice**

Competency	Identify Customer gains and pains	Formulate Customer Value need	Stakeholders agreement on Value need fit with value offer	Value need conflict and <u>prioritisation</u> resolution	Testable value need agreement	Acceptance that value needs will be met by value offers	Acceptance that value needs have been met by value offers
Stakeholder Representation	3	3			2	2	2
Analysis	3	3	2	2	3	2	
Development							
Testing					2		
Leadership							
Management				3			

www.someone.io - a state-based team collaboration tool



**“Wasn’t Someone supposed to
take care of that?”**

Someone is the simplest way to **get stuff done** and build
happy teams, *one task at a time.*

Email Address

Company Name

Sign up for Free

High priority

Low priority

+

To do

In Progress

Completed

+

How many T-Shirts do we need to order? And what colours?



🕒 in 2 days

Find a printing place, get a good price!



🕒 in a day

Finalize the design



✓ Completed, 27 minutes ago

Make the order!



🕒 in 6 days

Make a budget



✓ Completed, 15 minutes ago

Add card

Add card

Add card

Tool support for Essence - www.someone.io

The screenshot displays the 'Value Proposition practice' workspace in the 'someone.io' tool. The interface is divided into several sections:

- Top Bar:** Includes a 'New wall' button, a 'New note' button, and the title 'Value Proposition practice'.
- Left Sidebar:** Shows the workspace title 'Value Proposition practice' and the user 'Only you'.
- Main Workspace:** A grid with columns labeled 'state1', 'state2', and 'state3', and rows labeled 'value offer' and 'value need'.
 - In the 'value offer' row, 'state1' contains a yellow note titled 'Value offer (Identified)'.
 - In the 'value need' row, 'state2' contains a yellow note titled 'Value needs (Bounded)'.
- Right Sidebar:** Displays a list of notes:
 - 'Value offer (Identified)' with the action 'Created it!' and timestamp 'Just now'.
 - 'Value needs (Bounded)' with the action 'Put Arne Berre as responsible' and timestamp '7 minutes ago'.

Conclusions

- The Essence approach can be extended and adapted to be applied also for work, practices and projects where the objective is NOT software engineering
- In particular for business engineering - where the objective is to specify and create a new product/service
- The Essence extension for Business Engineering is useful also for pure business model and service design projects – without any software engineering realisation – but this works also well together with software engineering realisation.
- A discussion has started to solicitate interest for establishing a business engineering kernel – based on a number of business architecture and engineering frameworks and practices (in OMG and in other business architecture communities)
- Flexible and adaptive tool support for Essence is in progress through an adaption and extension of www.someone.io

References

- 1) Zachman Framework, http://en.wikipedia.org/wiki/Zachman_Framework
- 2) Business Architecture Guild, <http://www.businessarchitectureguild.org/>
- 3) Business Model Canvas, <http://www.businessmodelgeneration.com/>
- 4) Value Proposition Canvas, www.businessmodelgeneration.com/.../value_proposition_canvas.pdf
- 5) Essence OMG standard, <http://www.omg.org/spec/Essence>
- 6) Essence User Guide (www.semat.org), forthcoming
- 7) TOGAF 9, <http://www.opengroup.org/togaf/>
- 8) VDML - <http://www.omg.org/spec/VDML/1.0/Beta2/PDF/>
- 8) Symphonical Someone – www.someone.io