

Beginning an SOA Initiative

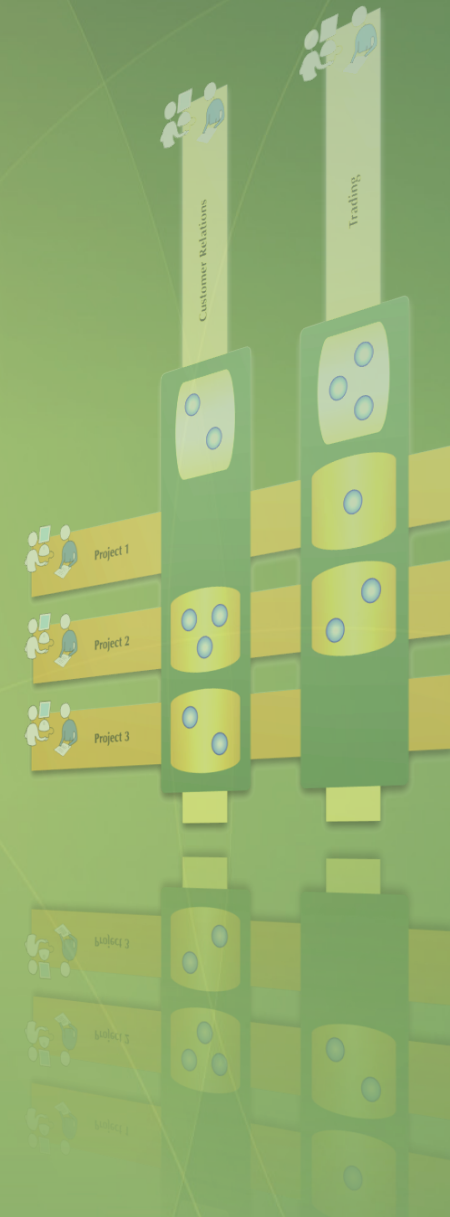
Ian Robinson, ThoughtWorks

<http://iansrobinson.com>
@iansrobinson
iansrobinson@gmail.com

ThoughtWorks®

Overview

- Where to Start?
- Stories and Capabilities
- Services and Contracts
- Delivery



Where to Start?

Motivation

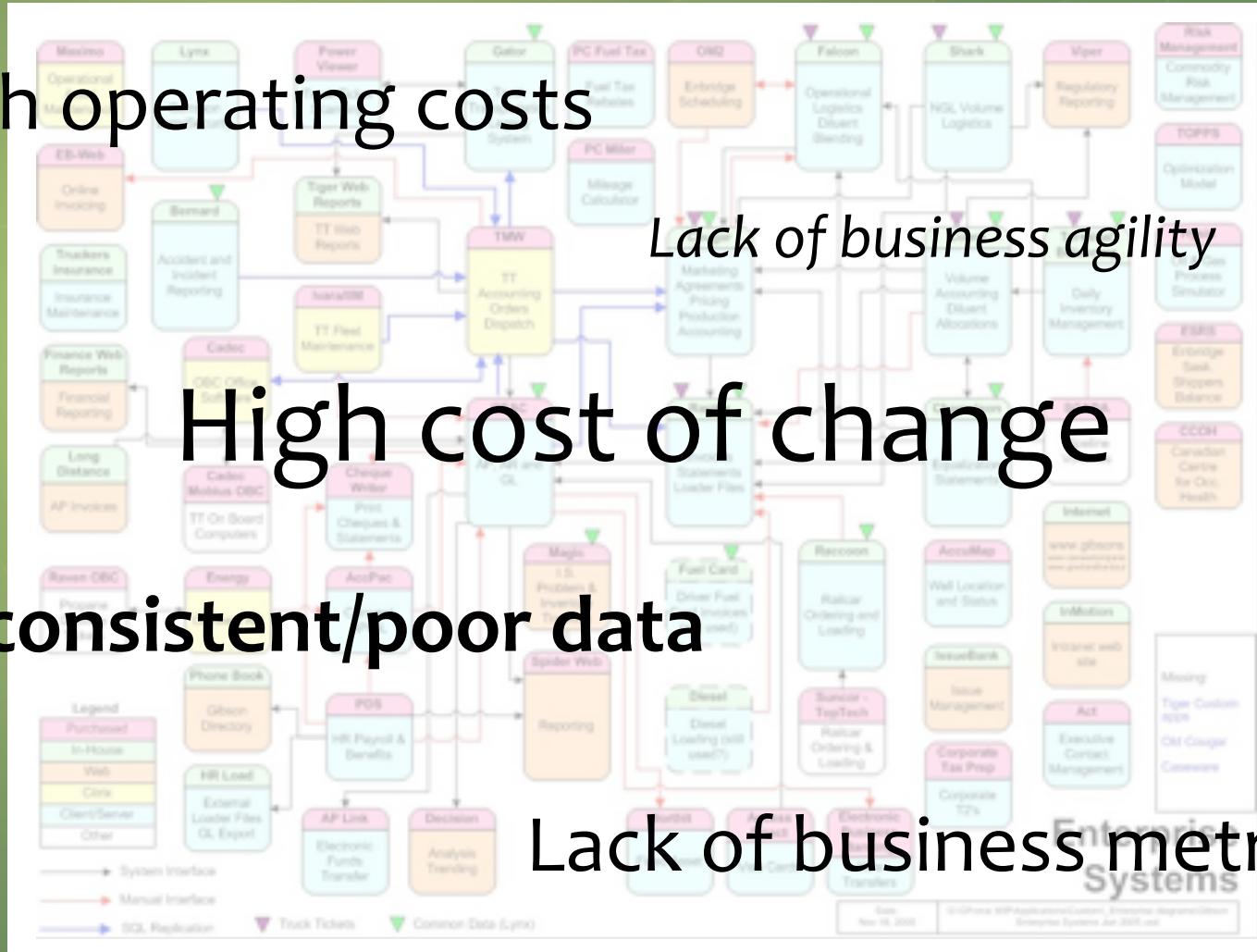
High operating costs

Lack of business agility

High cost of change

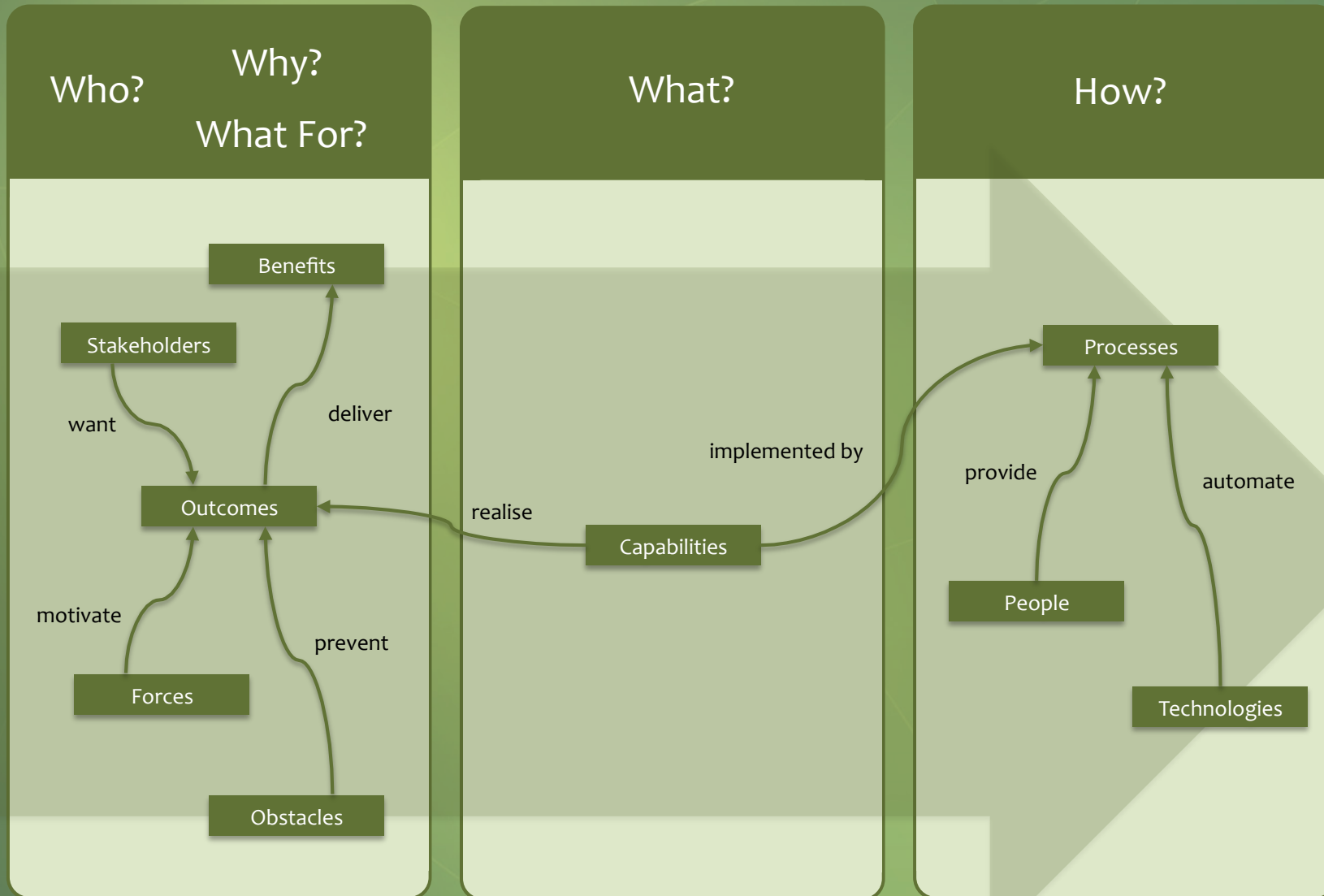
Inconsistent/poor data

Lack of business metrics



Client: Midstream oil and gas

Mind map



Stories, capabilities, services and contracts

What

Stories

Describe goals
& outcomes

Capabilities

Resources to
realise
outcomes

Contracts

Assert
interactions
between
services

Services

Host
capabilities

How

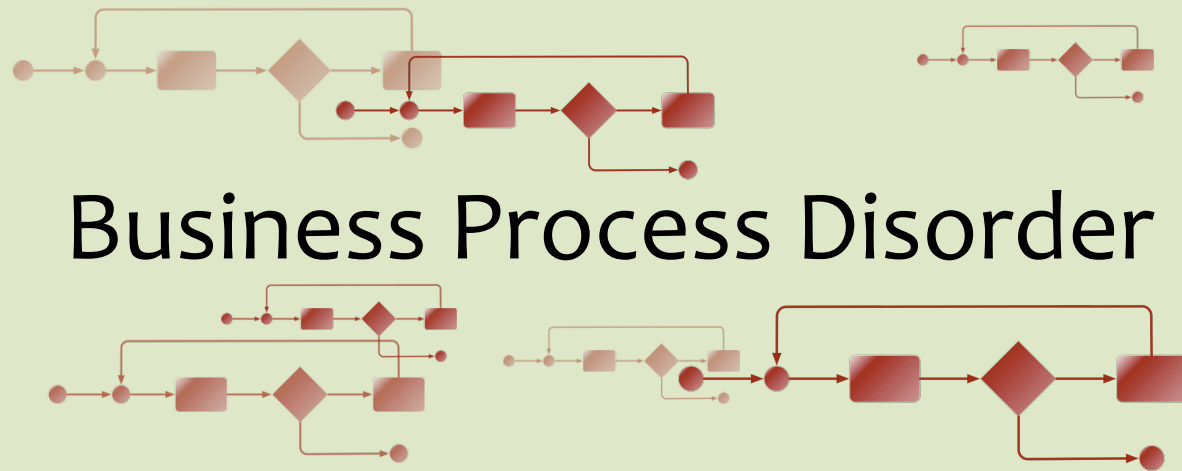
Stories and Capabilities

Communication barriers

Business



IT



People change, processes change, technologies change...

What

Source
spare parts

How



Questions, questions...

How (well) do you **implement** this capability today?

Is it **core** to your business?

Does it **differentiate** you from
your competitors?

Who's **responsible** for its
execution when systems fail?

User stories

Outside-in

Outcomes

As a <role>
I want <feature>
So that <benefit>

Value

External
behaviour

Features join outcomes and capabilities

Story

Role

Value

Feature



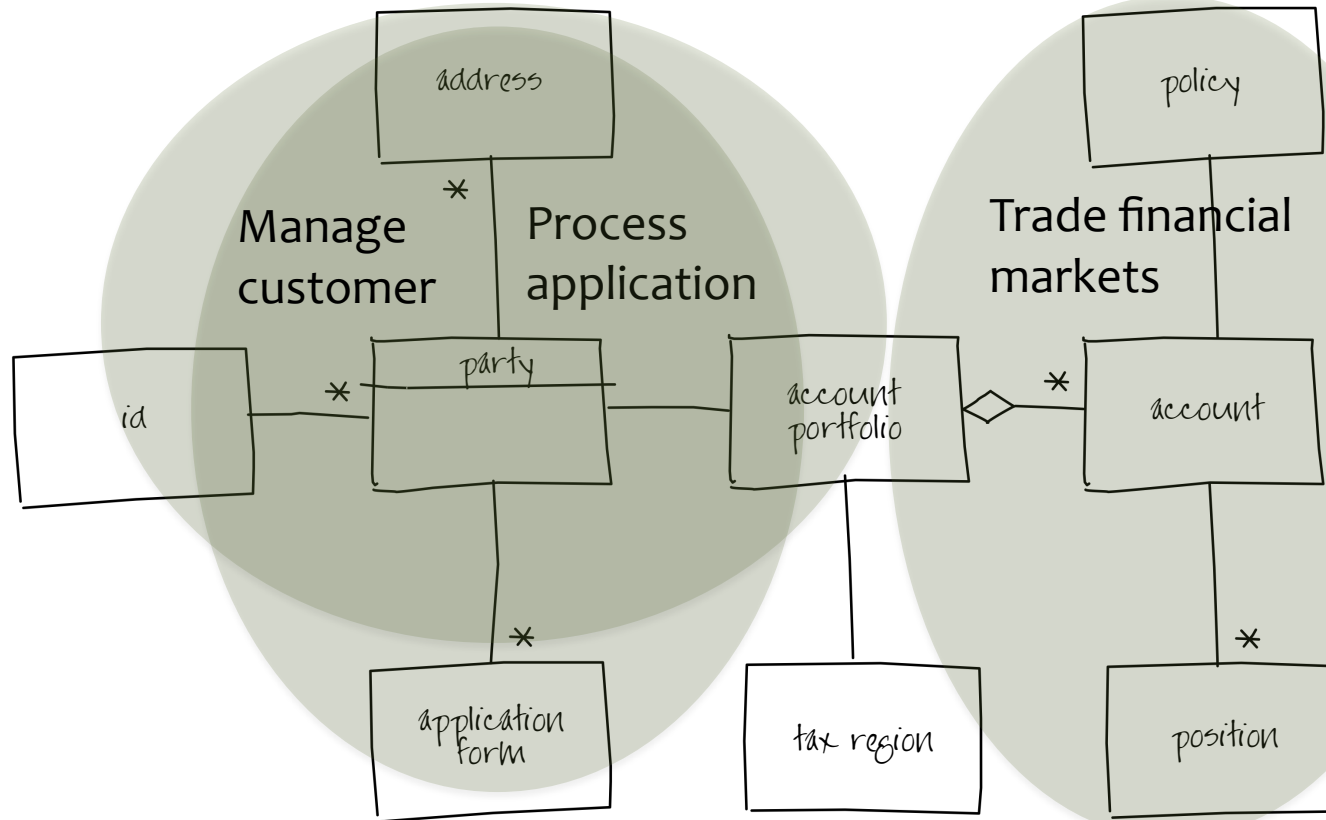
Outcome-focused stories

As a <role>
I want <outcome>
So that <benefit>

Responsibility-focused stories

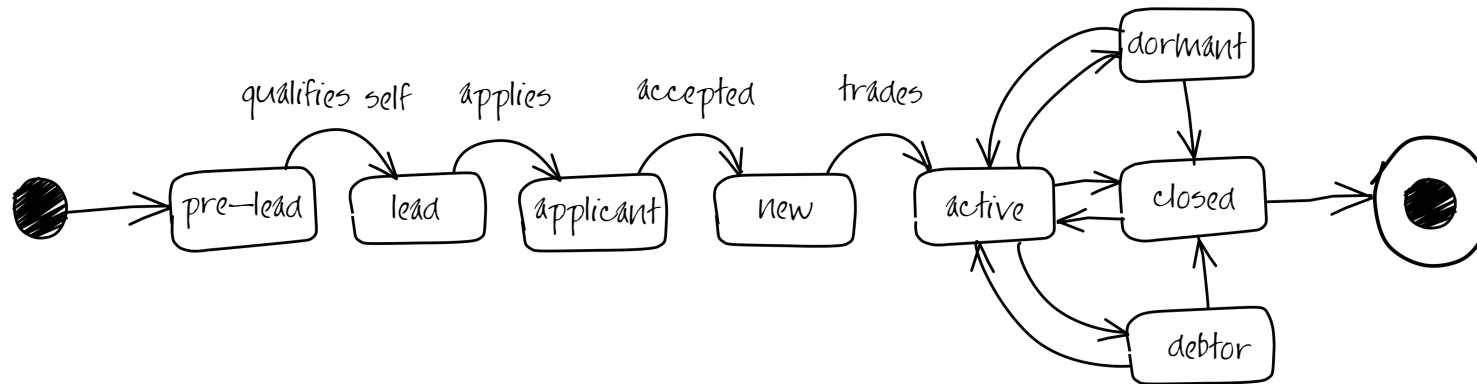
As *<role>*
I am responsible for
***<outcome>*,**
Which delivers *<benefit>*

Business resource models and bounded contexts



Client: Financial services

Resource lifecycles



Client: Financial services

Capability map

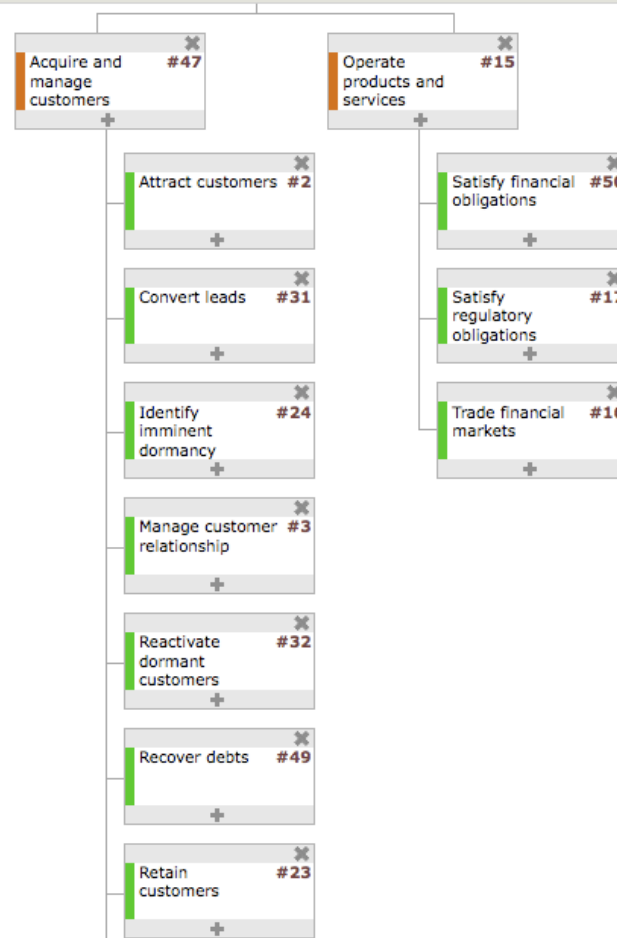
Select tree: **Capabilities** ▾

View as: List Hierarchy Grid **Tree**

Configure current tree Manage trees

View tree configuration Link to this page

< > Reset



Capability map: sub-capabilities

Select tree: **Capabilities** ▾

View as: List Hierarchy Grid **Tree**

Configure current tree Manage trees

View tree configuration Link to this page

```
graph TD; A["Retain customers #23"] --- B["Allocate campaign targets #41"]; A --- C["Assess campaign effectiveness #43"]; A --- D["Correlate contact with campaign result #42"]; A --- E["Incentivize trading activities #29"]; A --- F["View customer details #26"]; F --- G["Calculate cash position #36"]; F --- H["Segment customer #34"];
```

Capabilities and stories

Select tree: **Capabilities** ▾

View as: List Hierarchy Grid **Tree**

Configure current tree Manage trees

[View tree configuration](#) [Link to this page](#)

Retain customers #23

Alloc cam target

Asse effec

Corr with resu

Incent trading activities

View customer details #26

Calculate cash position #36

Segment customer #34

#23 Refresh Close

Retain customers

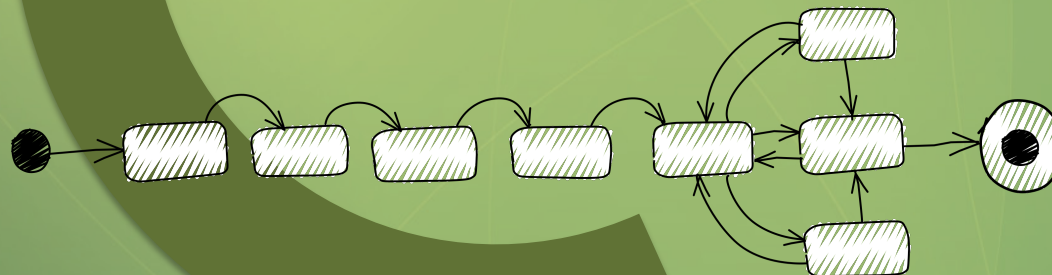
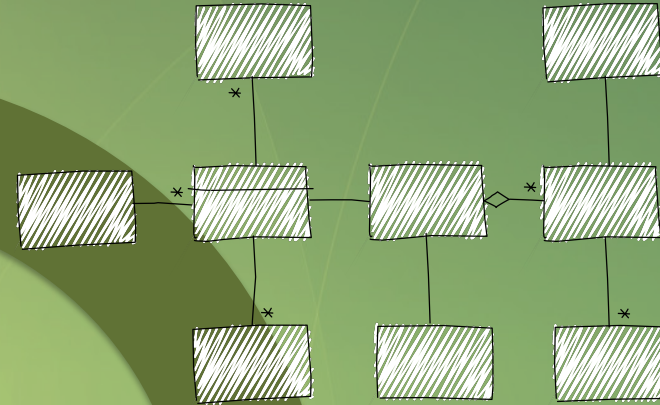
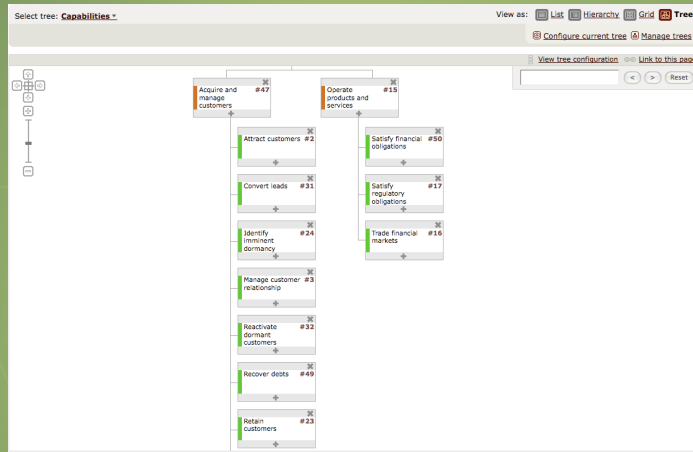
As customer services I want to retain active customers So that we continue to generate revenue from trading activities and grow our client base through custo...

Type:Level 2 Proficiency:Poor

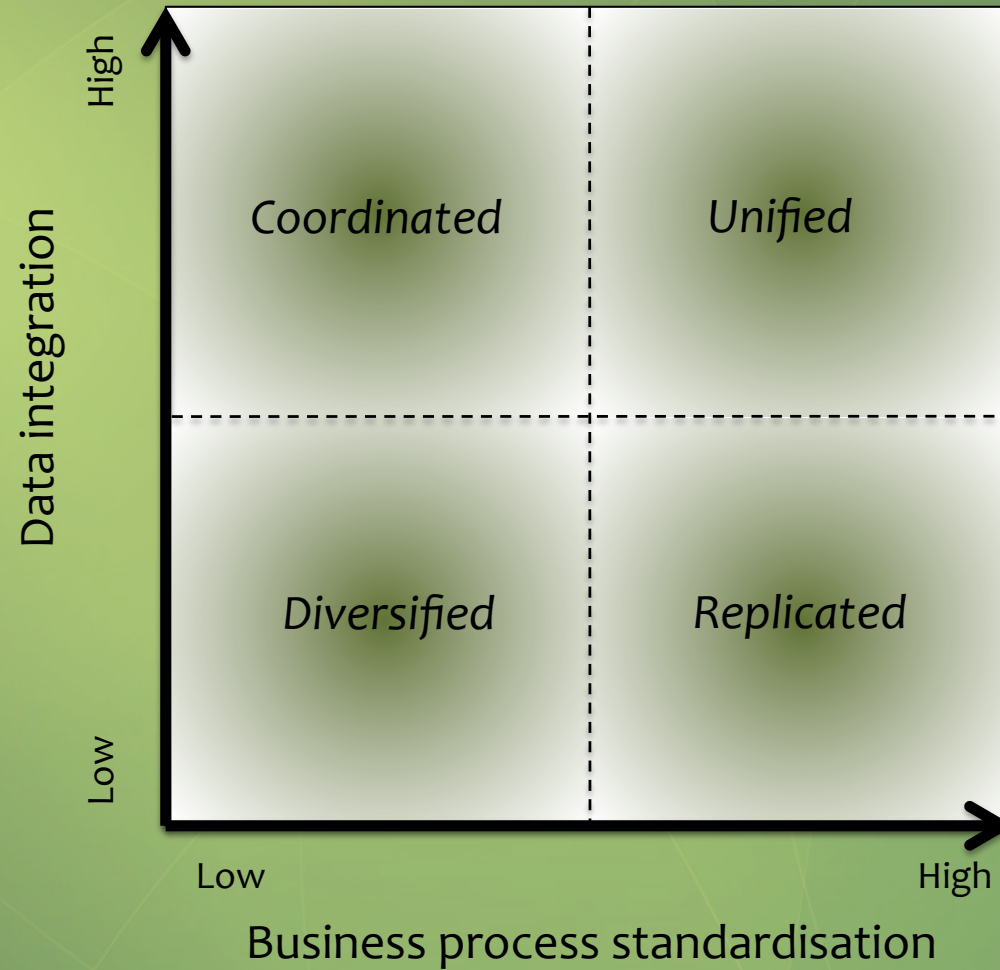
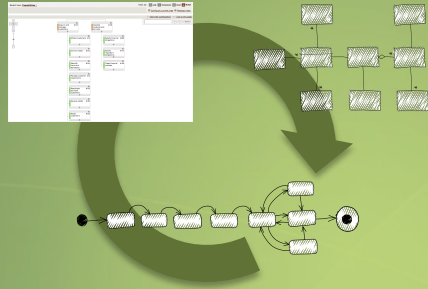
Capabilities Capabilities - Root:#14 Capabilities Capabilities - Level 1:#47 Acquire and manage customers

Open

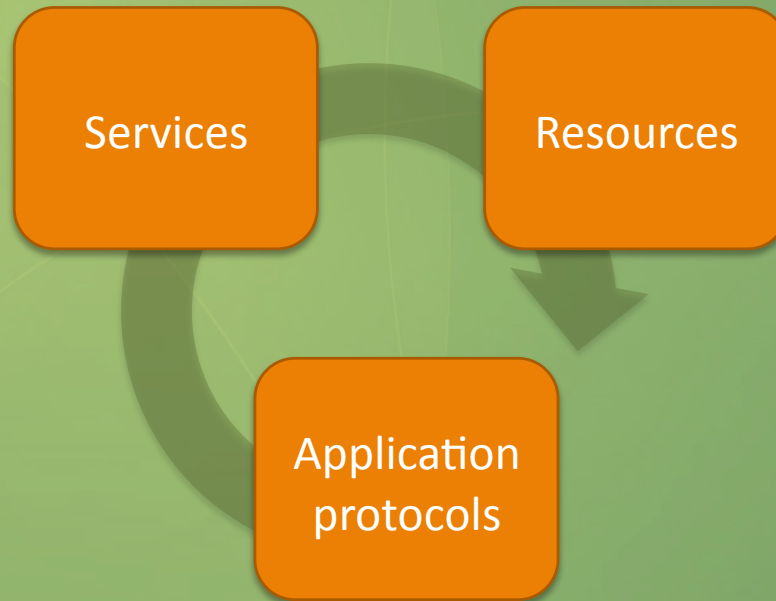
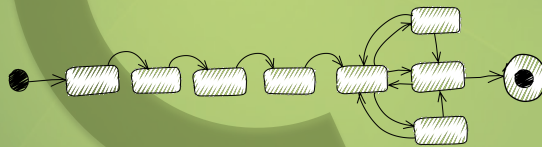
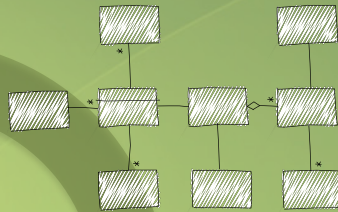
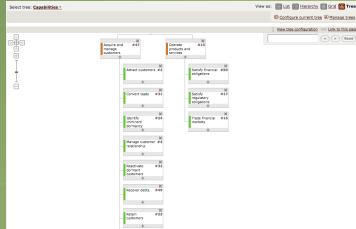
Capabilities control the resource lifecycle



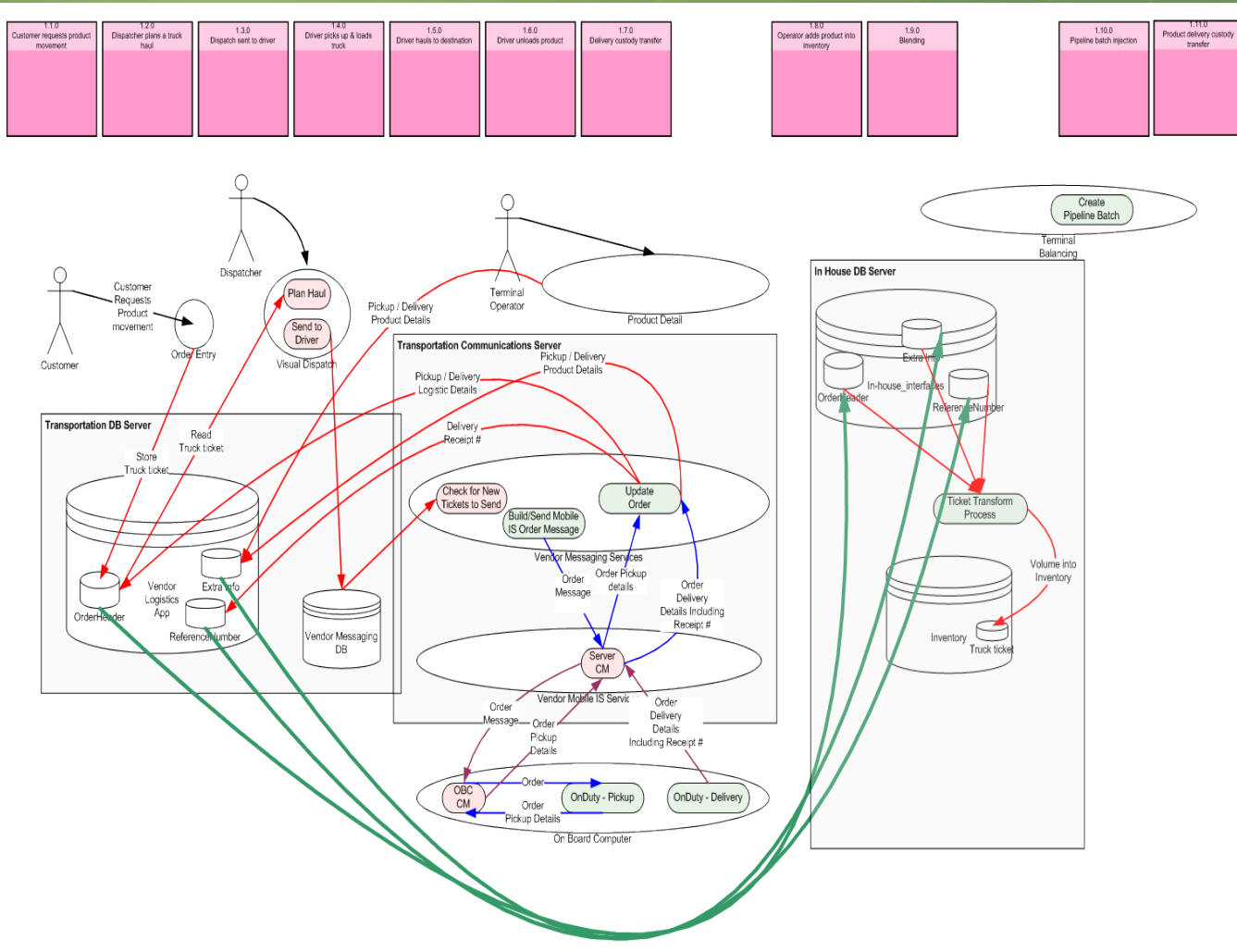
Operating models govern structural relations



Identifying IT artefacts

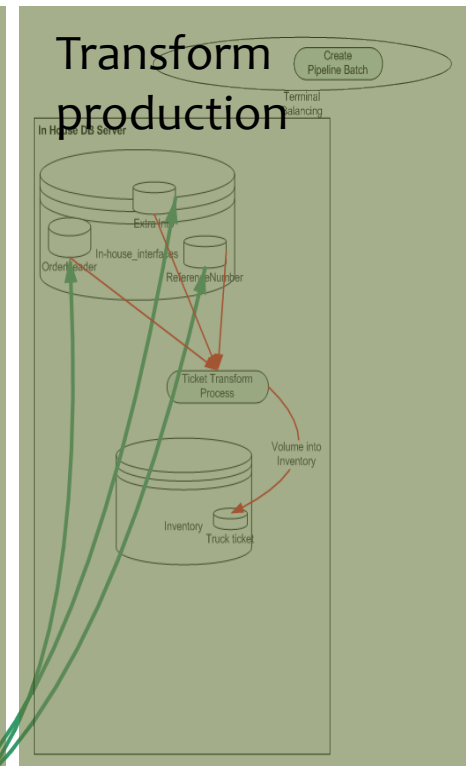
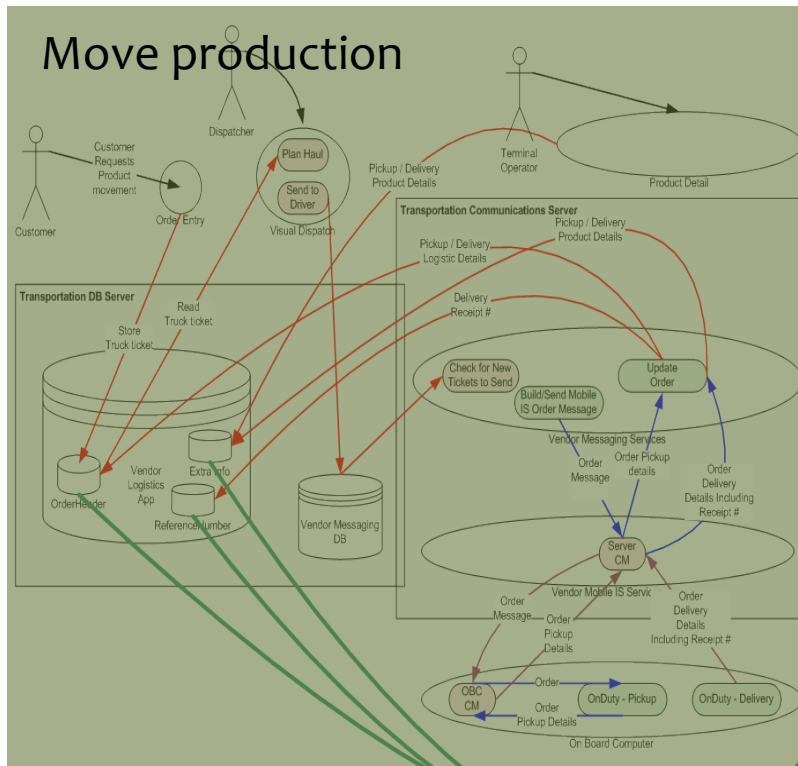
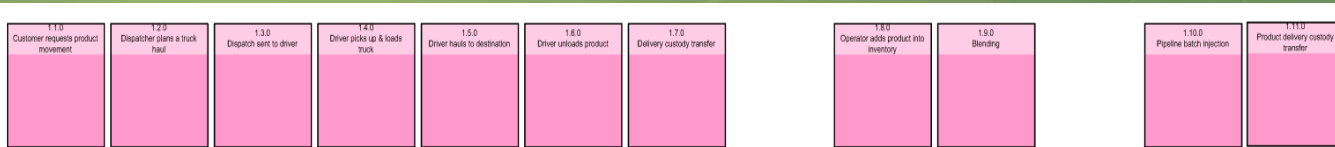


Ground-up capability analysis



Client: Midstream oil and gas

A moment of recognition



Crude connected to terminal
 Diluent connected to terminal
 Lab analysis complete

Client: Midstream oil and gas

Services and Contracts

Three-layered application architecture

Presentation

Business

Data

And now at distributed proportions!



Process

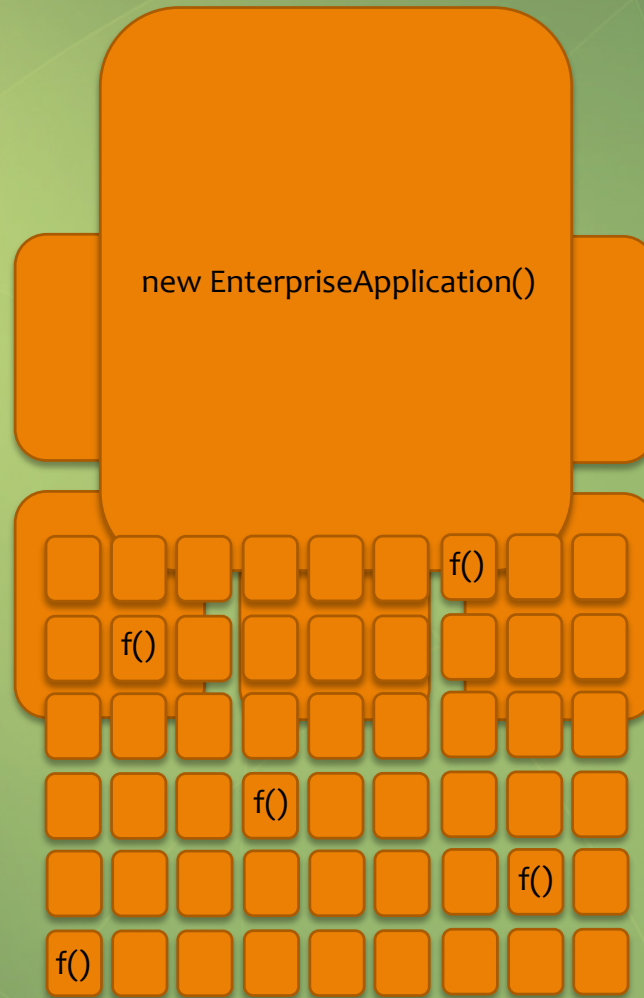
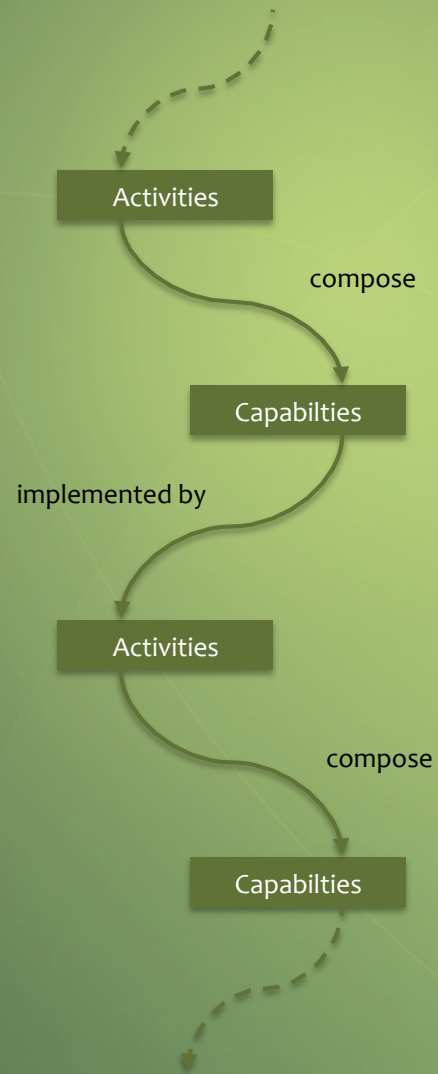


Activity



Entity

Services host capabilities



Process integrity

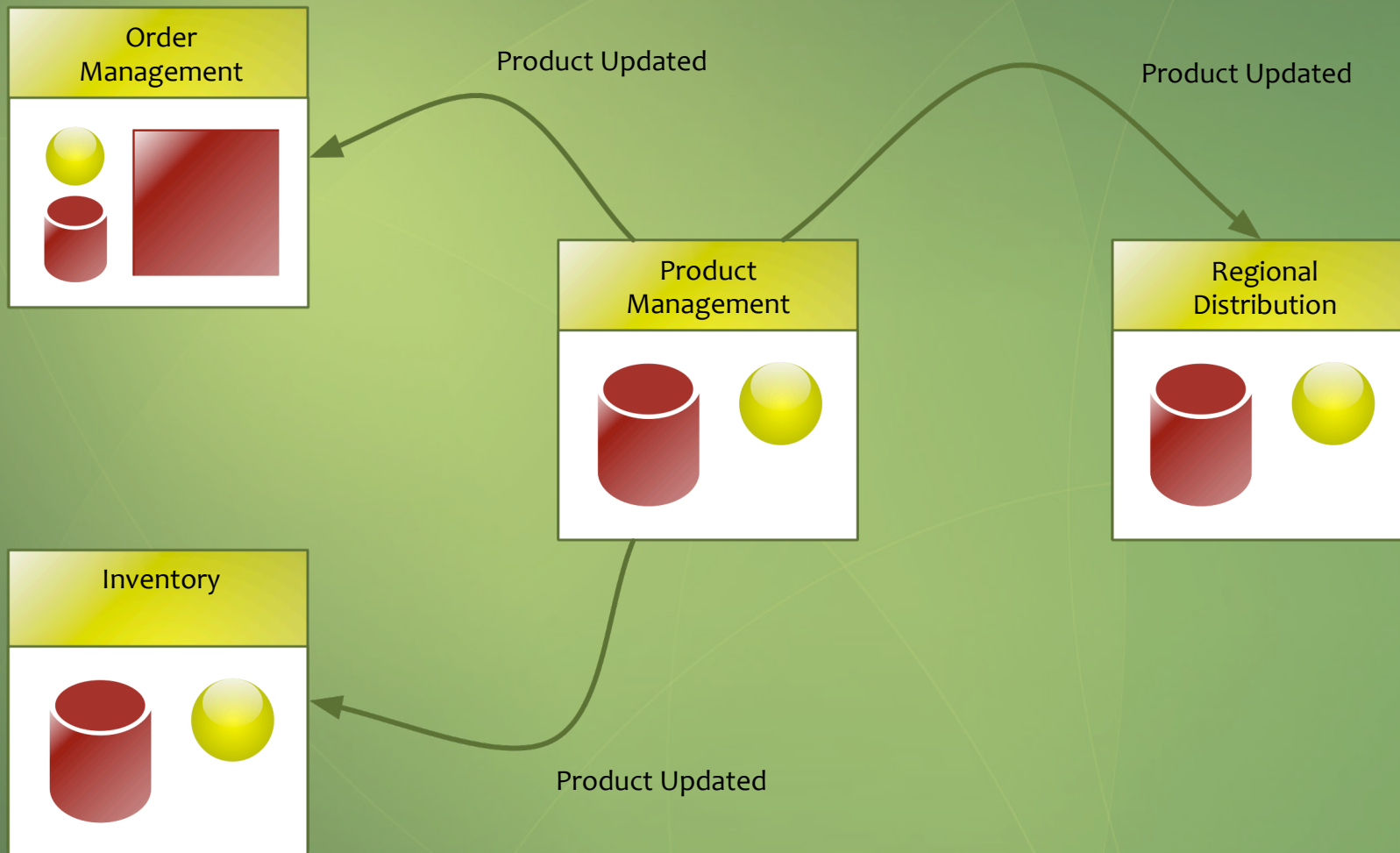


Process composability

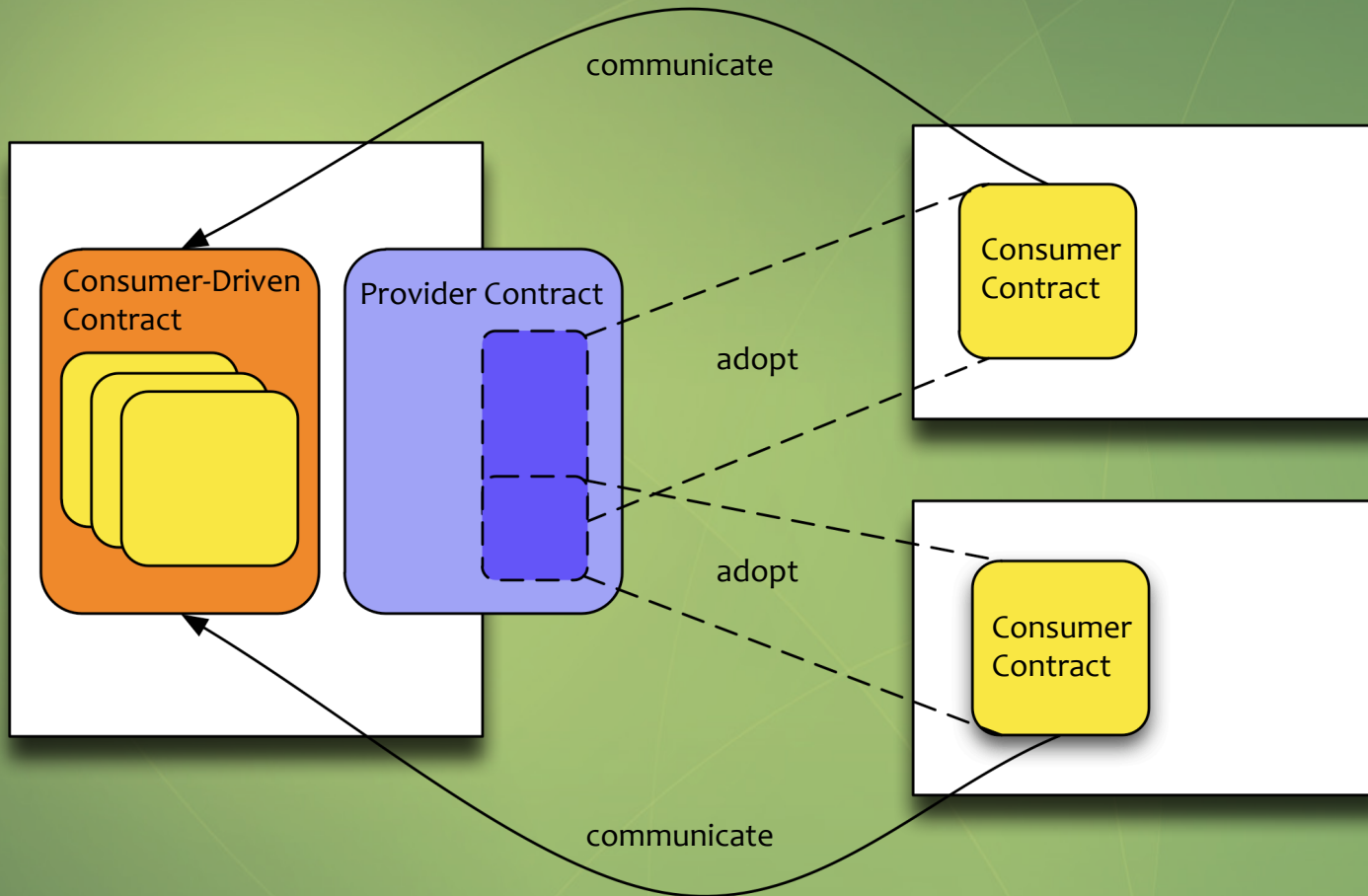
Treat services as consumers

*As order management
I want to know when a
product has changed
So that I can fulfill orders
based on current offerings*

Events satisfy consumer expectations

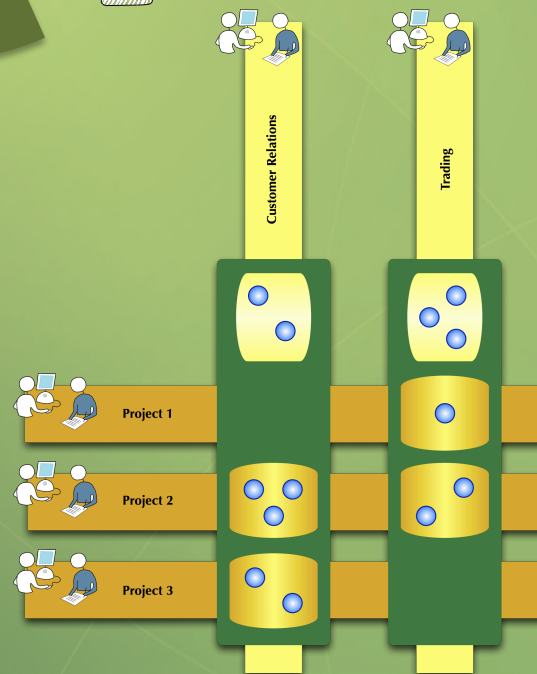
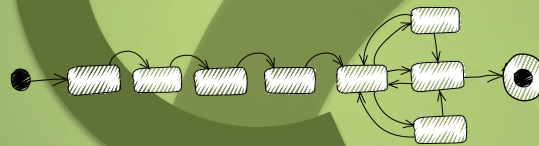
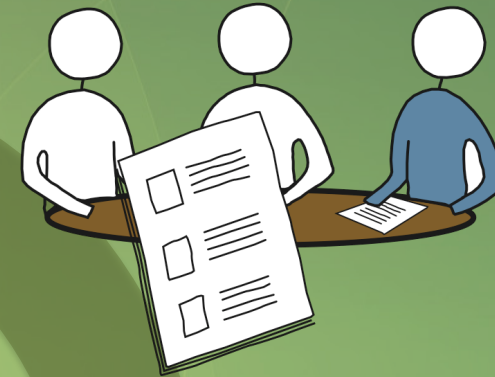
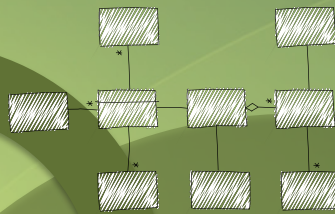
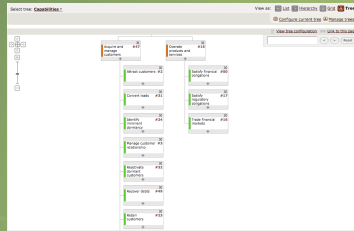


Communicate consumer contracts

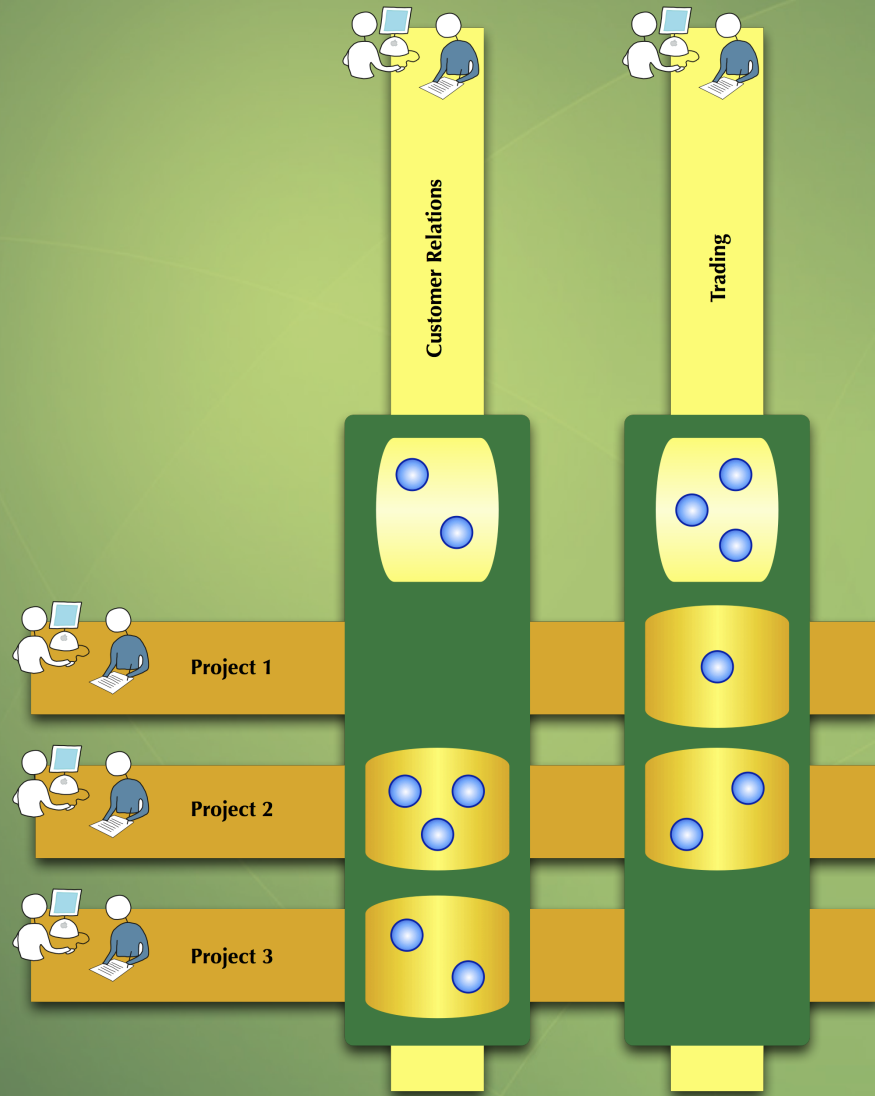


Delivery

Continuous planning



Capability delivery



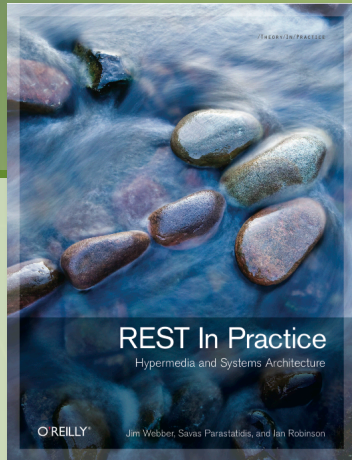
Long-lived capability delivery teams

Visiting projects contribute capital and resource

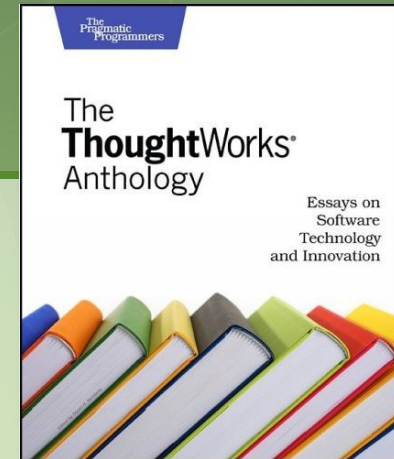
Multiple delivery streams



Client: Communications and entertainment



Thank you



<http://iansrobinson.com>
[@iansrobinson](#)
iansrobinson@gmail.com

ThoughtWorks®