Working With Business Processes –
Process Change in Agile Timeframes

Presented for IVO Rechtspraak by
Adept Events & Clariteq Systems Consulting Ltd.

Alec Sharp

Consultant
Clariteq Systems Consulting Ltd.
West Vancouver, BC, Canada
asharp@clariteq.com
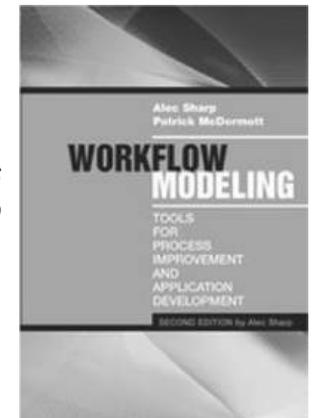www.clariteq.com

Developer/instructor background…

Alec Sharp, Clariteq Systems Consulting – *asharp@clariteq.com*

- 40+ years experience as an independent consultant:
  - *Business Process Change* – discover, model, analyse, and design/redesign processes
  - Concept Modelling (Business-friendly Data Modelling)
  - Application Requirements Specification
    +
  - Facilitation & Organisational Change
  - Project Recovery
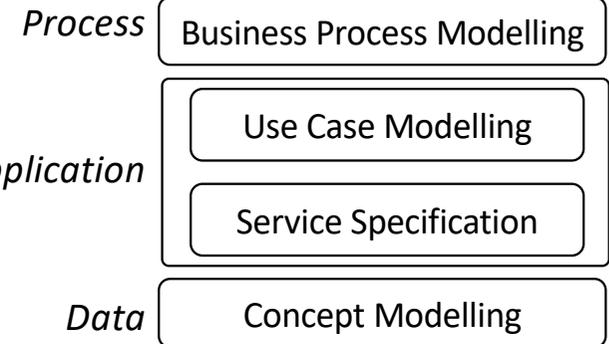
- Consulting, teaching, speaking globally

- Awarded DAMA's global Professional Achievement Award for contributions to "human-friendly" data modelling

- Author of "Workflow Modeling"
  - best-selling book on process modelling & improvement
  - second edition – 2009 (sole author, complete re-write)

Process | Business Process Modelling

Application | Use Case Modelling
Service Specification

Data | Concept Modelling

Check out the nice reviews on Amazon - http://amzn.to/dHun1o

Overview and logistics

> **Section 1 –**
> **Fundamentals**

- Five things you need to know about *business process*s

- How *Business Process* fits into a framework for *Business Analysis:* Process – Application – Data

- A three-phase methodology for *Business Process Change*

> **Sections 2 to 5 –**
> **Techniques**

2. Identify true, end-to-end, cross-functional *Business Processes*
3. Clarify *as-is* issues & *to-be* goals
4. Model the *as-is process* in a *relevant* way
5. Assess the as-is process plus tips to design the *to-be process,* including a *feature-based* approach

Schedule (CET)

- 09:00 -   start
- 09:00 - 10:30   *class*
- 10:30 - 10:40   break
- 10:40 - 11:55   *class*
- 11:55 - 13:00   lunch
- 13:00 - 15:00   *class*
- 14:50 - 15:00   break
- 15:00 - 17:00   *class*
- 17:00   end

Finally…**you**:

- Name (how should I address you?)
- Brief description of your work
- Is there a topic you are especially interested in?
- *Please try to keep your introduction to one minute or less*

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Five things you need to know about Business Processes

1. It's essential to have clarity on what a *business process* really is

2. Existing performance measures are often *functionally aligned* and work *against* business processes

3. Enterprise system implementations *must* include a *business process* perspective

4. Success with business processes depends on taking a *holistic view* in which six *enablers* are considered

5. Business processes can't be great at everything – a single *differentiator* or *strategic discipline* should be chosen

1. Confusion – what **is** a "business process?"

1. It is essential to have clarity on what a *business process* really is

2. Performance measures may be *functionally aligned* - work *against* business processes

3. Enterprise system implementations must include a business process perspective

4. Success with business processes requires a *holistic view* in which *six enablers* are considered

5. A business process can't be great at everything – a single *differentiator* must be chosen

In the early 1990s, Michael Hammer popularised the focus on *business process*
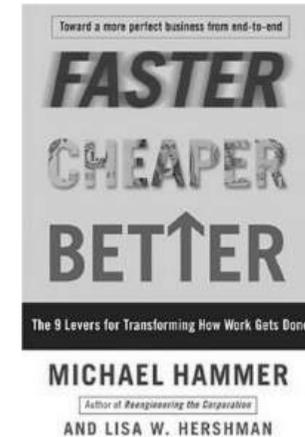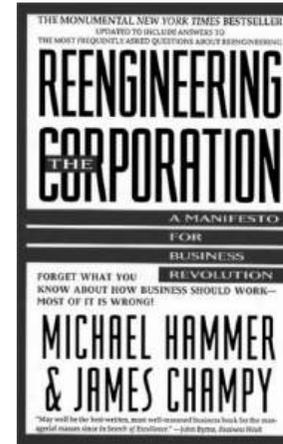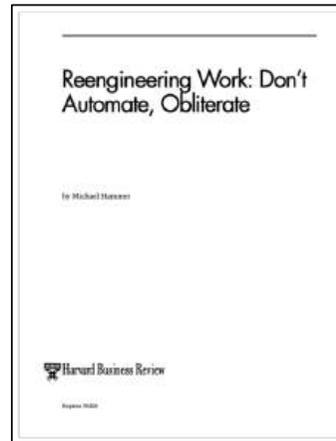
Introduced core terminology:

• end-to-end, cross-functional, functional silo, ...

• even *business process*

Still, people and organisations miss the point...

Lesson #1 – Never assume everyone agrees what a "process" is

We need some help with our *Product Lifecycle Management* <u>process</u>.

I spend all day writing business processes, like the <u>process</u> to *Revise Product Brochure Image.*

Not a single process – it's a *family* of multiple business processes (a *process area* or *process domain*)

A whole *spectrum* of interpretations of *process.*

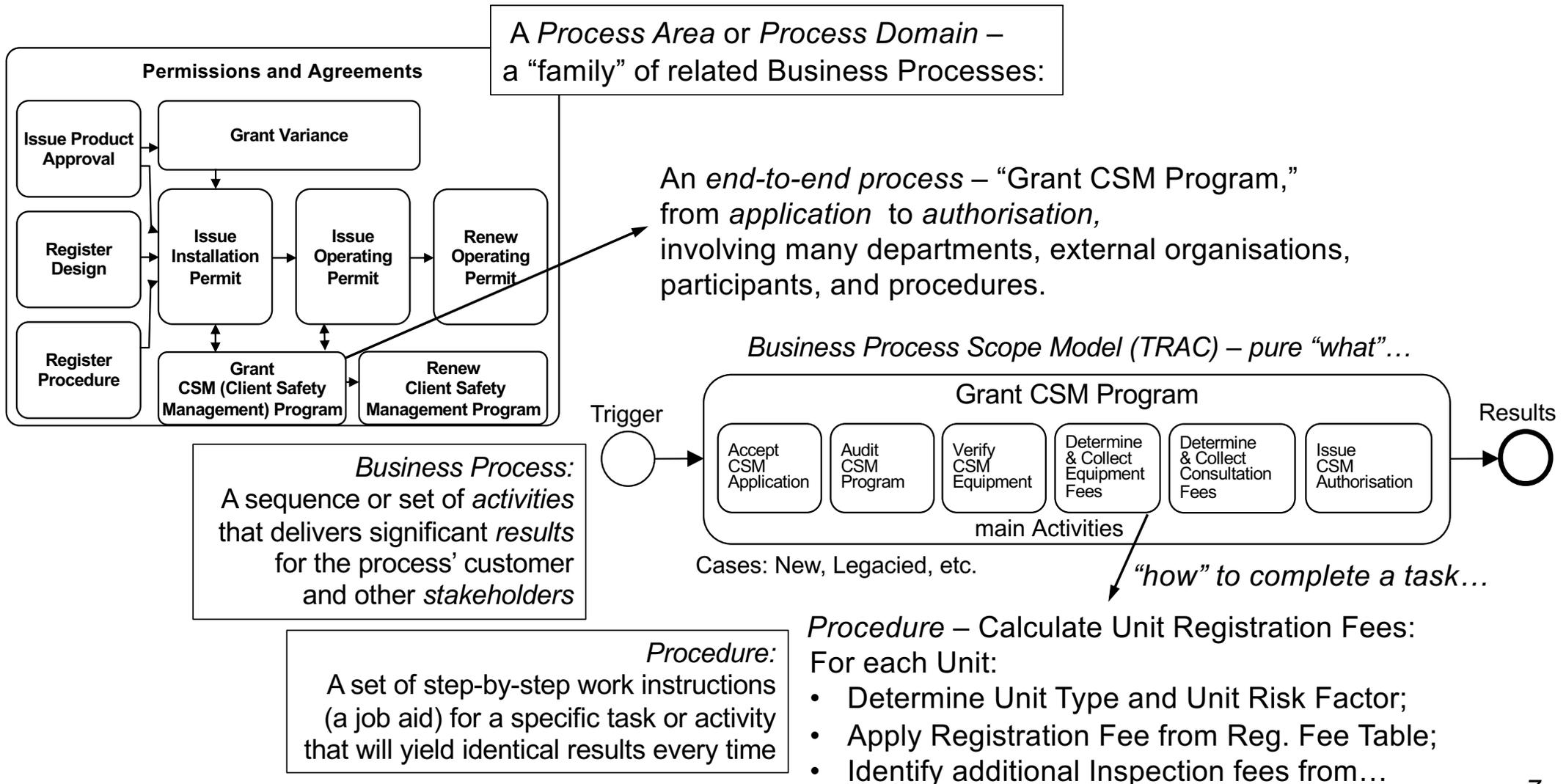***Not*** an entire process – it's a *procedure* providing instructions for a single task (SWI – standard work instructions)

Seek balance – a "business process" lies between the extremes

Most people hear *process* and think *procedure!*

The key issues – granularity and orientation

Taxonomy: a collection of processes vs. a process vs. a procedure

Permissions and Agreements

Issue Product Approval

Grant Variance

Register Design

Issue Installation Permit

Issue Operating Permit

Renew Operating Permit

Register Procedure

Grant CSM (Client Safety Management) Program

Renew Client Safety Management Program

A *Process Area* or *Process Domain* –
a "family" of related Business Processes:

An *end-to-end process* – "Grant CSM Program,"
from *application* to *authorisation,*
involving many departments, external organisations,
participants, and procedures.

Business Process Scope Model (TRAC) – pure "what"…

Trigger

Grant CSM Program

Accept CSM Application

Audit CSM Program

Verify CSM Equipment

Determine & Collect Equipment Fees

Determine & Collect Consultation Fees

Issue CSM Authorisation

main Activities

Results

Cases: New, Legacied, etc.

Business Process:
A sequence or set of *activities*
that delivers significant *results*
for the process' customer
and other *stakeholders*

"how" to complete a task…

Procedure – Calculate Unit Registration Fees:
For each Unit:
- Determine Unit Type and Unit Risk Factor;
- Apply Registration Fee from Reg. Fee Table;
- Identify additional Inspection fees from…

Procedure:
A set of step-by-step work instructions
(a job aid) for a specific task or activity
that will yield identical results every time

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For reference – Process vs. Procedure

Process:

(or "end to end, cross-functional, Business Process")
A sequence or set of *activities* that delivers significant *results* for the process' customer and other *stakeholders*

- involves multiple participants (actors or roles) and multiple organisation units / functions

- may or may not have a defined workflow

- initially break a *process* into five to seven *major activities* (*subprocesses*, *phases*, or *milestones*)
  each made up of more granular *activities* or *tasks*
  each of which might contain one or more documented *procedures*

Business Process – a concept that is better demonstrated than defined.
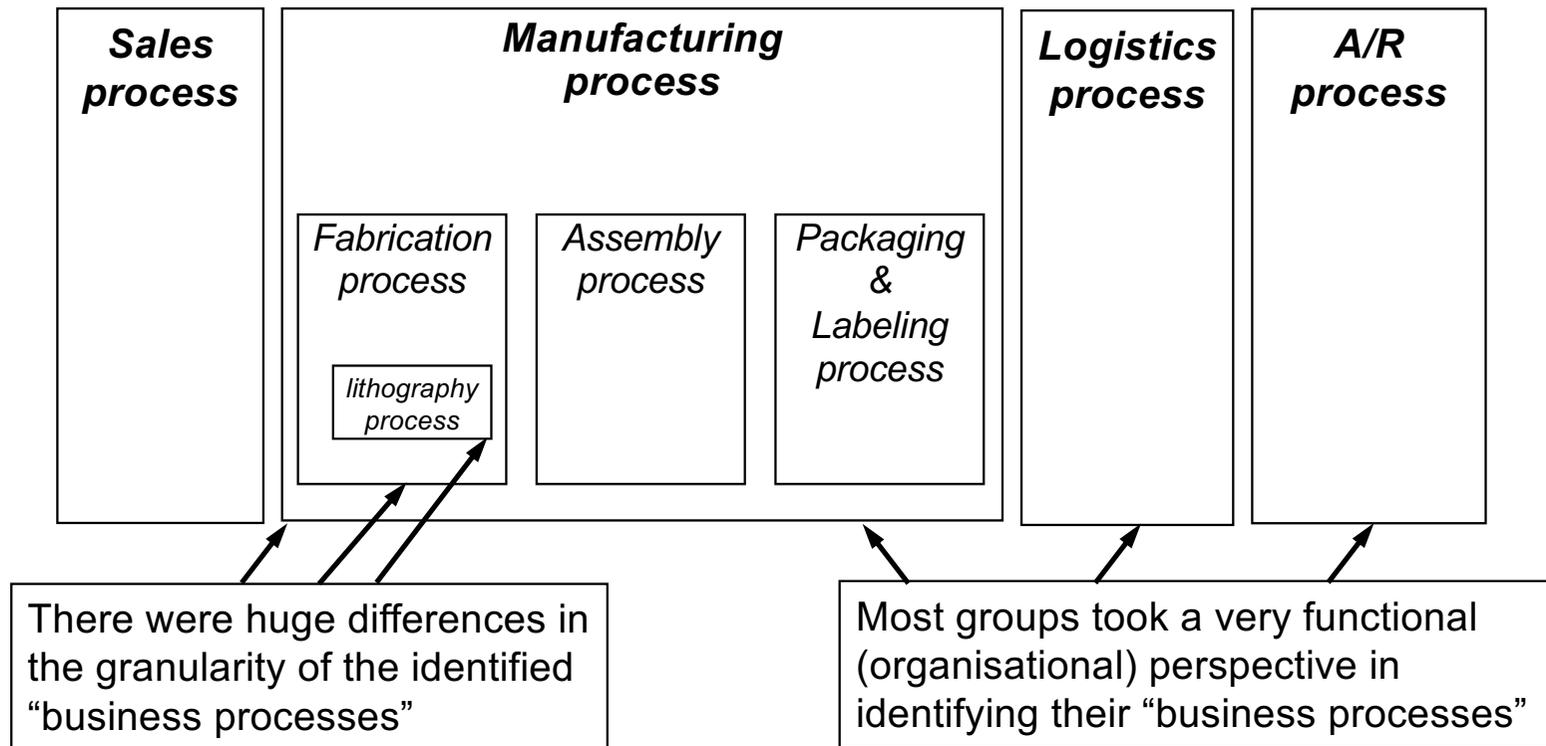
Procedure:

A set of work instructions – a *job aid* – for a specific task or activity that will yield identical results every time.

- Usually, one person or a small number of persons;

- Usually within a single function or organisational unit;

- a.k.a. Standard Work Instructions (SWI) or Standard Operating Procedure (SOP)
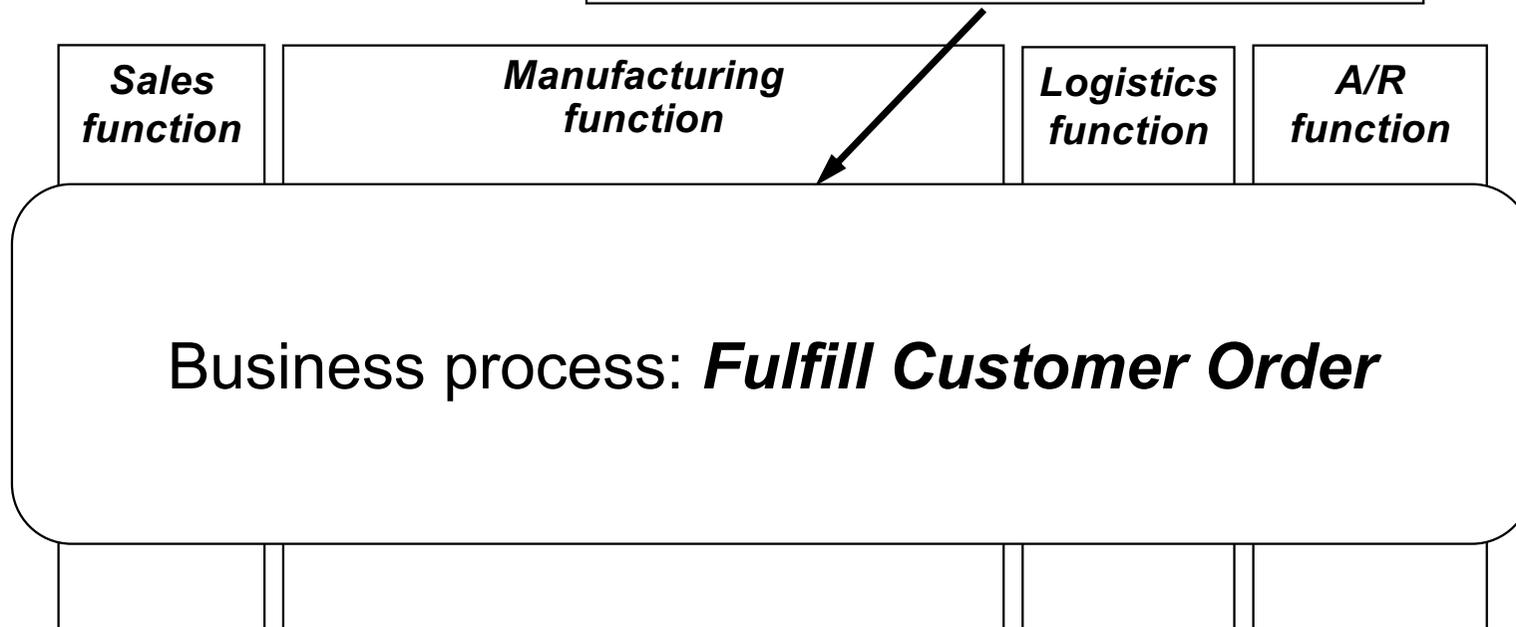
A real life (and expensive!) example

As part of a massive system implementation, a global manufacturer identified the *business processes* that were expected to improve:

| **Sales process** | **Manufacturing process** | | | **Logistics process** | **A/R process** |

Fabrication process

lithography process

Assembly process

Packaging & Labeling process

There were huge differences in the granularity of the identified "business processes"

Most groups took a very functional (organisational) perspective in identifying their "business processes"

The problem? *These aren't processes – they're functions!*

The "real" business processes were missed

Everyone confused "process" and "function."
None of the actual end-to-end processes
were correctly identified.

Sales function	Manufacturing function		Logistics function	A/R function

## Business process: *Fulfill Customer Order*

"Business Process" =
end-to-end, cross-functional, business process.
"Larger" than people think – from *initial* trigger to *final* results.

Discuss - what are the boundaries of the process?

e2e business process:
Fulfill Customer Order

Trigger

Result

What are the boundaries of the process?

e2e business process:
Fulfill Customer Order
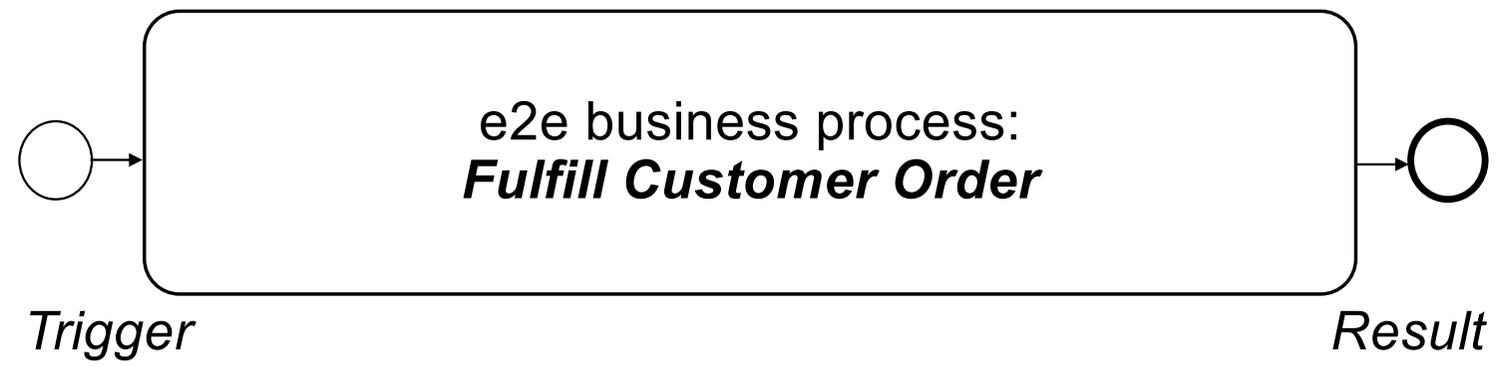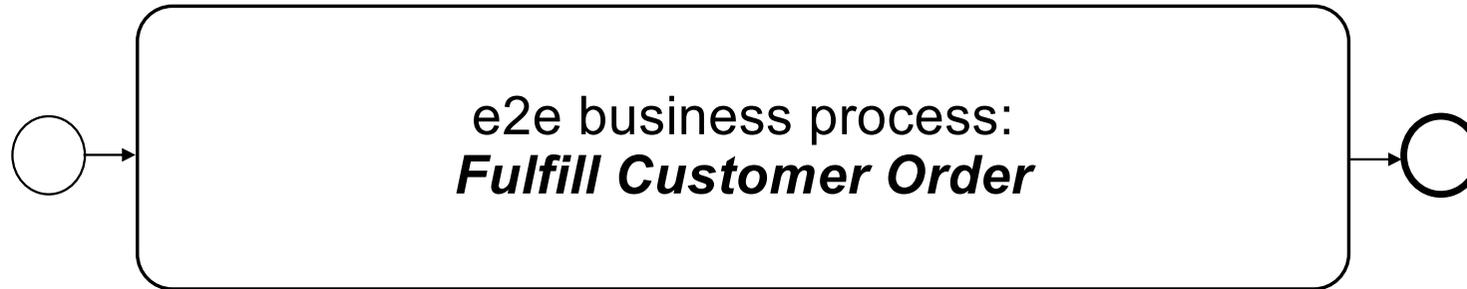
Trigger

Order received? *No.*

Before that…

- Contract is Finalised
- Price & Schedule are Negotiated
- Specifications are Confirmed

And before that…

- Demand is Signalled. *Yes.*

Result

Order is Shipped? *No.*

Order is Received? *No.*

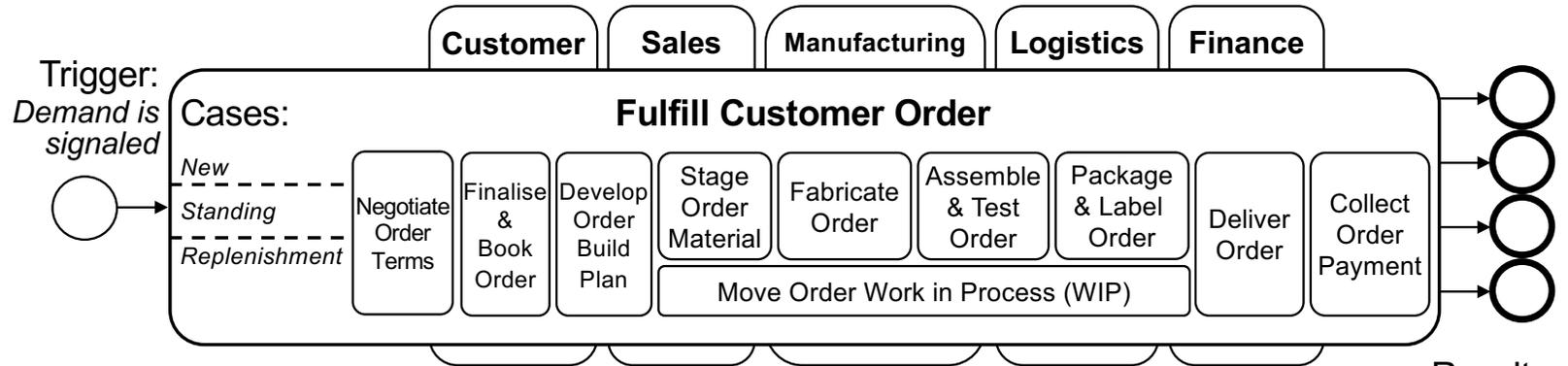Order is Received, Tested, and Accepted? *Yes.*

Any other results?
Yes, for other stakeholders.

Always trace to the *earliest* trigger,
and to the *final* results for *each* stakeholder.

Process Scope Model – "what" first, "who and how" later

I build a
Process Scope Model & a
Process Summary Chart on
~100% of *Project Recovery*
assignments -

Customer | **Sales** | **Manufacturing** | **Logistics** | **Finance**

Trigger:
*Demand is
signaled*

Cases:

New

Standing

Replenishment

Fulfill Customer Order

Negotiate Order Terms | Finalise & Book Order | Develop Order Build Plan | Stage Order Material | Fabricate Order | Assemble & Test Order | Package & Label Order | Deliver Order | Collect Order Payment

Move Order Work in Process (WIP)

"TRAC" –
1 – **T**riggering event or events
2 – **R**esults: final outputs
  • result(s) received by the process' primary customer
  • result(s) for other stakeholders
    (performers, owner, supplier, regulator, …)
3 – **A**ctivities: 7 +/- 2 phases, milestones, or sub-processes
  • a phase achieves a significant intermediate result
  • simply ask the participants for ~5 to 7 milestones within the process
4 – **C**ases
  • main variations, e.g. "*new* order" vs. "*standing* order"
  • verb – *qualifier* – noun

essence of the process *("what")*

5 – Functions or Organisation Units
6 – Actors and responsibilities
7 – Systems, data sources, other mechanisms

as-is elements of the process,
for clarification *("who and how")*
(6 and 7 not shown)

Results:

Customer:
Goods received,
tested, & accepted

Owner:
Payment received

Performer:
Commission credited

Industry Association:
Order stats reported

Always construct a
Process Scope Model & a
Process Summary Chart before
diving into Workflow Modelling /
Swimlane Diagramming

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The essential framework

Business Process:
- a sequence (or set) of *activities* (steps and decisions,)
- initiated in response to a *triggering event*,
- that achieves a defined *result* for each process stakeholder

Input – Process – Output

Triggering Event

A **business process** –
a sequence (or set) of activities
(steps and decisions)

Final Results

End…

…to end.
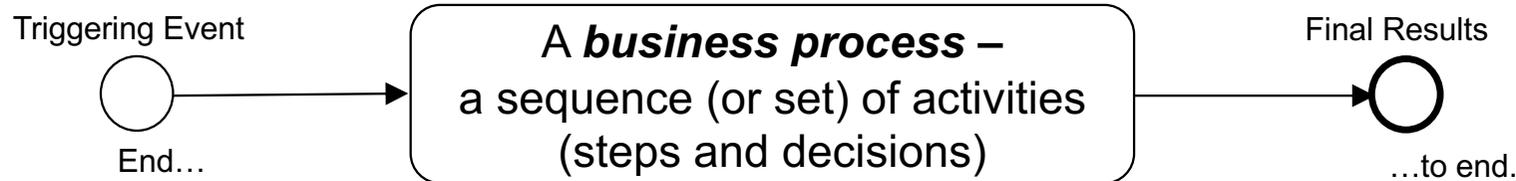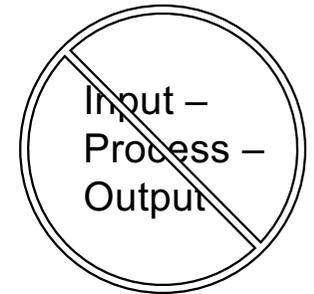
- Three types of events:
  - Decision-based (action)
  - Time-based (temporal)
  - Data-based (conditional)
- The *earliest* triggering event

- Important processes are virtually always cross-functional
  and involve multiple actors / roles
- May be a defined *sequence*,
  or a more ad hoc *set* of activities
- First, identify *"what"* it includes –
  Trigger, Results, Activities, Cases ("TRAC")
- Later, we add *"who and how,"*
  then map the process flow, if there is one

- Three types of results:
  - A service
  - A good
  - Information
- The *final* result

"What" before diving into the "who and how"

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Another Business Process example

A regional telecommunications provider (the "Telco") thought they had three main Business Processes, and efforts to improve them were failing:

| **Sell Offering** | **Implement Offering** | **Collect Payment for Offering** |
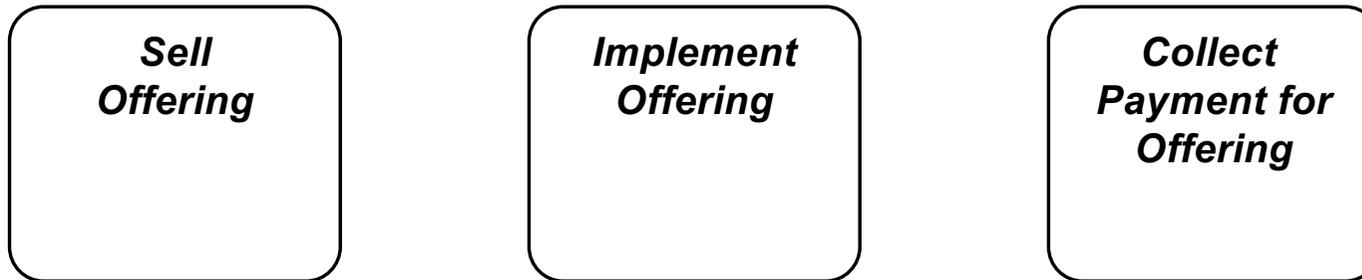
The outcome…
conflict between functional areas!

| | **Engineering** | |
| **Sales** | | **Finance** |

Process Scope Model showed ONE process not THREE

TRAC
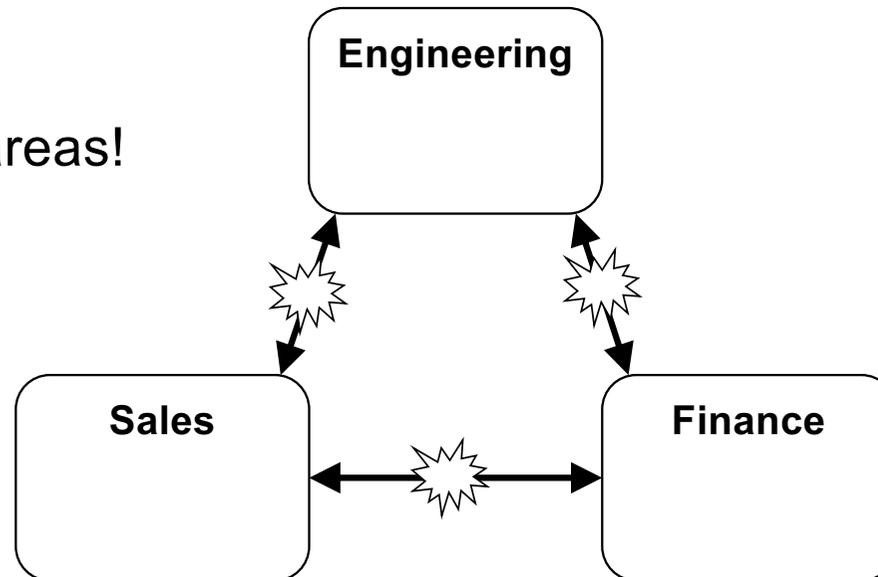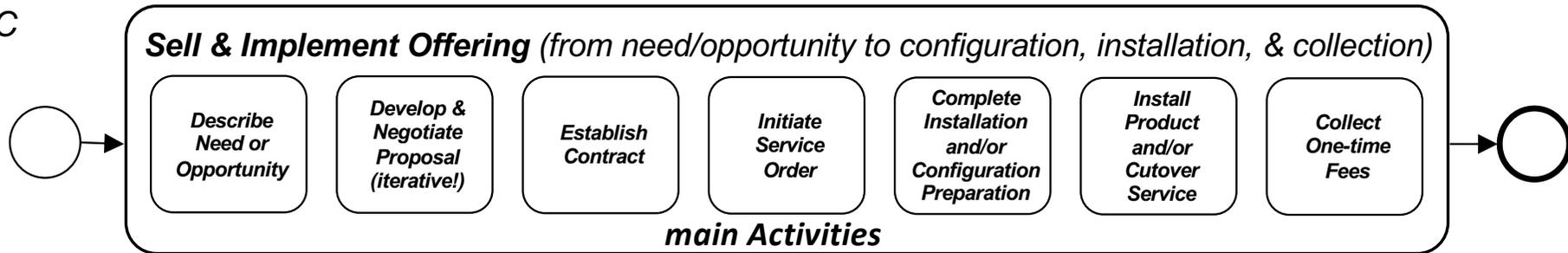
Sell & Implement Offering *(from need/opportunity to configuration, installation, & collection)*

Describe Need or Opportunity	Develop & Negotiate Proposal (iterative!)	Establish Contract	Initiate Service Order	Complete Installation and/or Configuration Preparation	Install Product and/or Cutover Service	Collect One-time Fees

main Activities

Triggering Event:
- *Prospect / Customer* expresses *need*
- *Telco (Inside Sales, Marketing, Sales Rep, …)* recognizes *opportunity*

Cases:
- BU with or without Telco Internet, no cabling *(our focus)*
- initial installation
- service only
- product only
- mixed

Other factors:
- TBD

Results:
Customer:
Product / Service is *installed and operational* per original or amended contract terms
Telco:
- Ongoing source of *revenue* in place
- One-time *fees* collected
Employee:
- Commission or *referral credit*
Agent:
- Commission

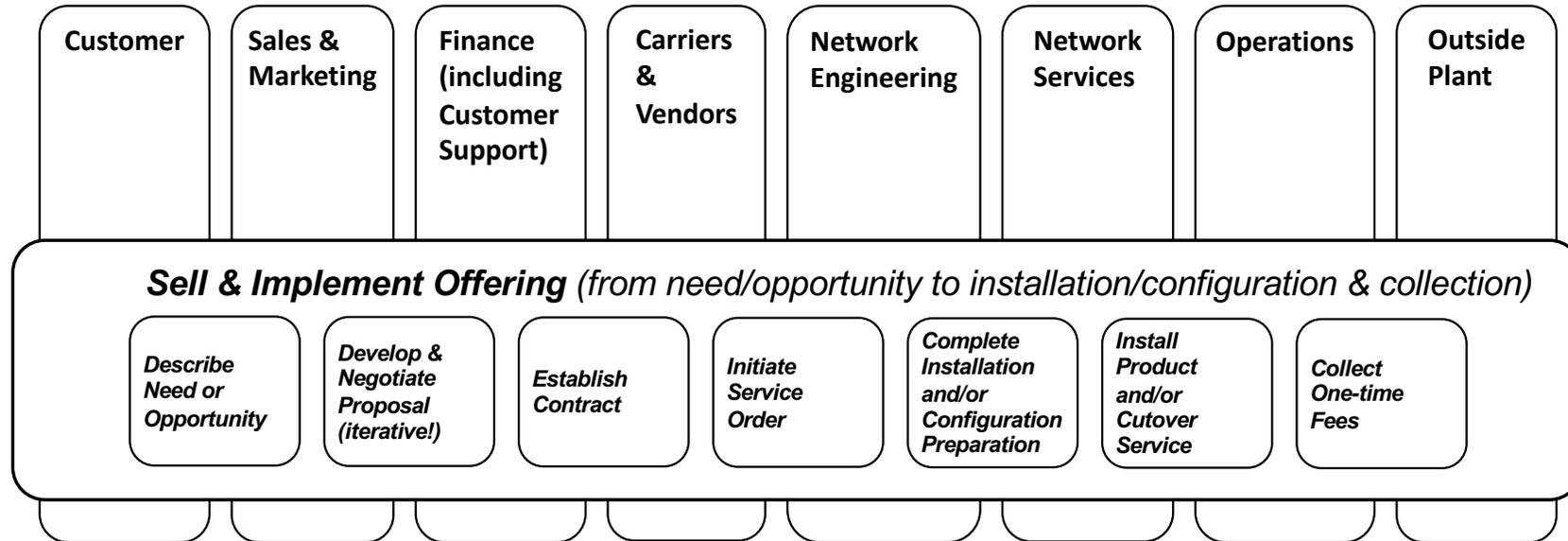The "token," a Service Order, is changing state from *need/opportunity* to *configured, installed, & collected*.

The Business Process could be named "Fulfill Service Order" but the client wanted to name it "Sell & Implement Offering."

- President reports *culture change*. "We're all in this together!"

- An end-to-end, cross-functional Business Process is a great lens to view *organisation conflict and disfunction!*

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Process Summary Chart – my favourite diagram!

Customer	Sales & Marketing	Finance (including Customer Support)	Carriers & Vendors	Network Engineering	Network Services	Operations	Outside Plant

Sell & Implement Offering *(from need/opportunity to installation/configuration & collection)*

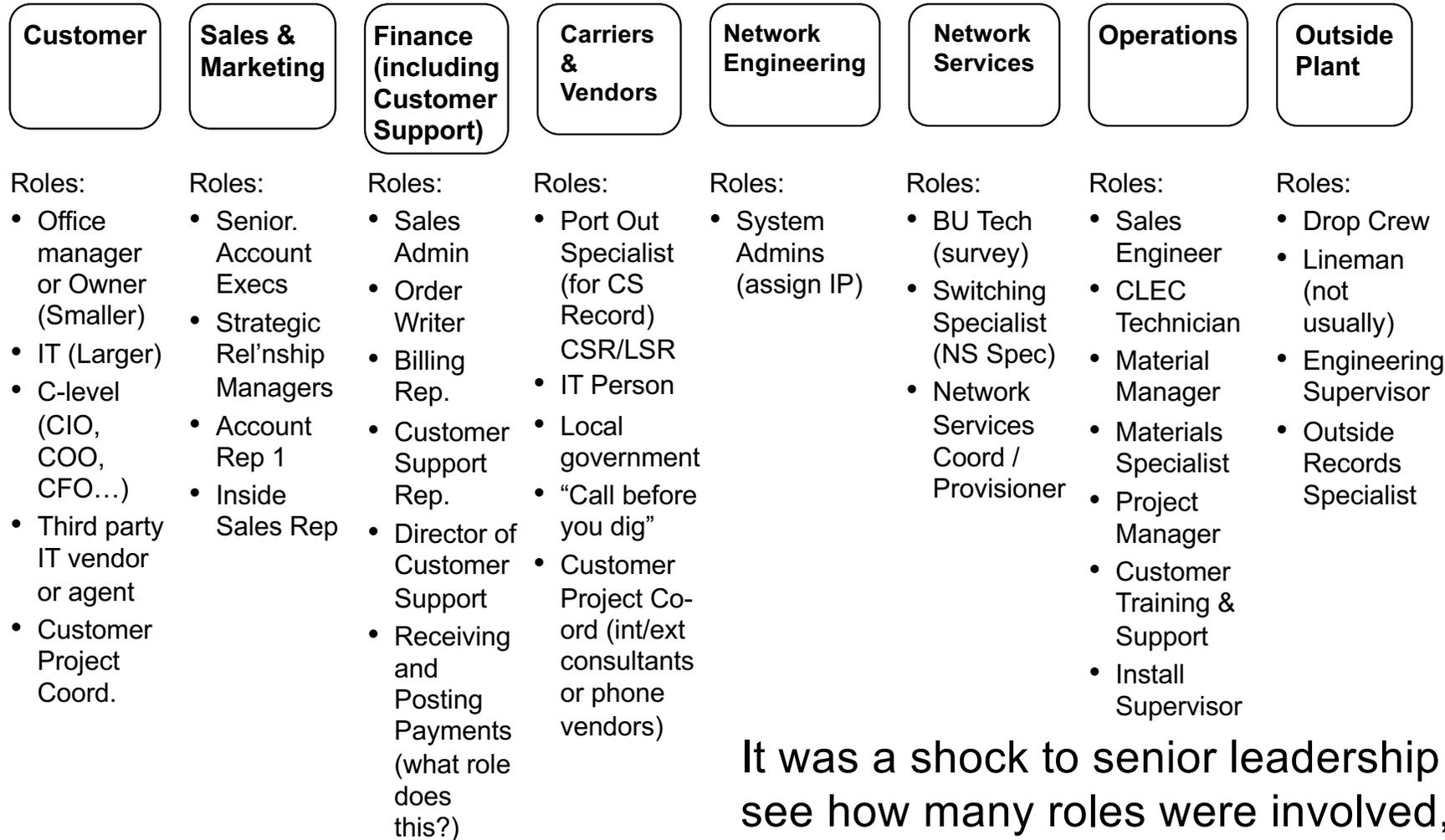| *Describe Need or Opportunity*	*Develop & Negotiate Proposal (iterative!)*	*Establish Contract*	*Initiate Service Order*	*Complete Installation and/or Configuration Preparation*	*Install Product and/or Cutover Service*	*Collect One-time Fees*

Process Summary Chart (a.k.a. "Process vs. Function Chart") adds "who" at the organisational unit or functional level.

Nothing else clarifies "Process" vs. "Function/Organisation" as well.

Great for putting details of Activities or Functions in context, e.g. …

# *Multiple roles by organisation for "Sell & Implement Offering"*

Customer	**Sales & Marketing**	**Finance (including Customer Support)**	**Carriers & Vendors**	**Network Engineering**	**Network Services**	**Operations**	**Outside Plant**

Roles:
- Office manager or Owner (Smaller)
- IT (Larger)
- C-level (CIO, COO, CFO…)
- Third party IT vendor or agent
- Customer Project Coord.

Roles:
- Senior. Account Execs
- Strategic Rel'nship Managers
- Account Rep 1
- Inside Sales Rep

Roles:
- Sales Admin
- Order Writer
- Billing Rep.
- Customer Support Rep.
- Director of Customer Support
- Receiving and Posting Payments (what role does this?)

Roles:
- Port Out Specialist (for CS Record) CSR/LSR
- IT Person
- Local government
- "Call before you dig"
- Customer Project Co-ord (int/ext consultants or phone vendors)

Roles:
- System Admins (assign IP)

Roles:
- BU Tech (survey)
- Switching Specialist (NS Spec)
- Network Services Coord / Provisioner

Roles:
- Sales Engineer
- CLEC Technician
- Material Manager
- Materials Specialist
- Project Manager
- Customer Training & Support
- Install Supervisor

Roles:
- Drop Crew
- Lineman (not usually)
- Engineering Supervisor
- Outside Records Specialist

It was a shock to senior leadership to see how many roles were involved, often overlapping or unnecessarily

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Many benefits to starting with a Process Scope Model
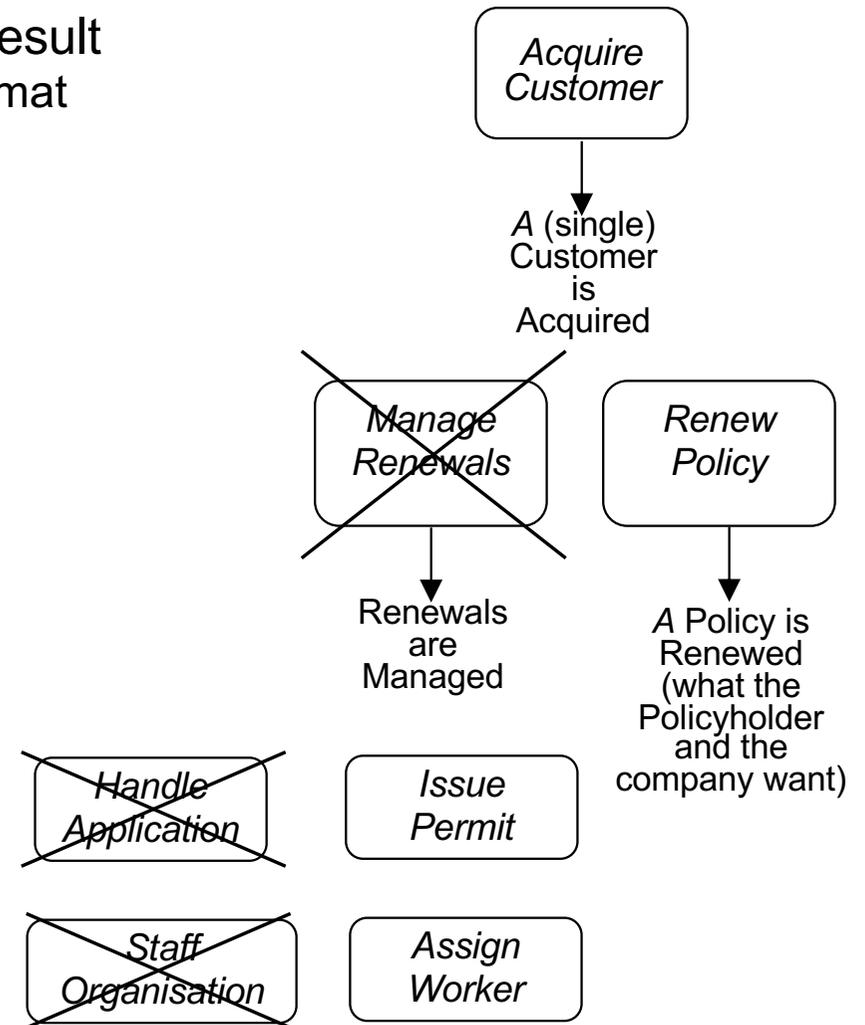
Why start with a *Process Scope Model?*

Then a *Process Summary Chart?*
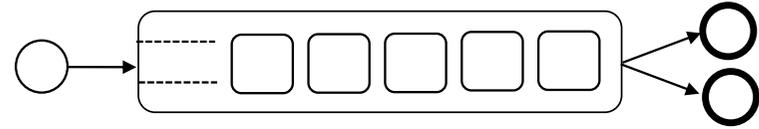
Function 1	Function 2	Function 3	Function 4
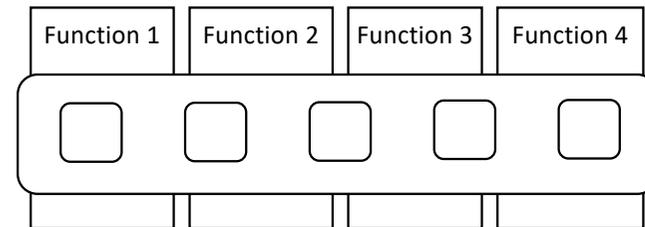
- People see themselves as part of something larger and more important than their own job, department, systems, …

- Without this, issues and objectives will be seen in functional (organisational) terms

- Actual client comments – The focus on w*hat*…

  - adds clarity and critical thinking.

  - highlights how far removed the "as-is" is from "what" we're trying to do.

  - avoids the tension that comes with "who and how," which is personal (it depersonalises in a good way
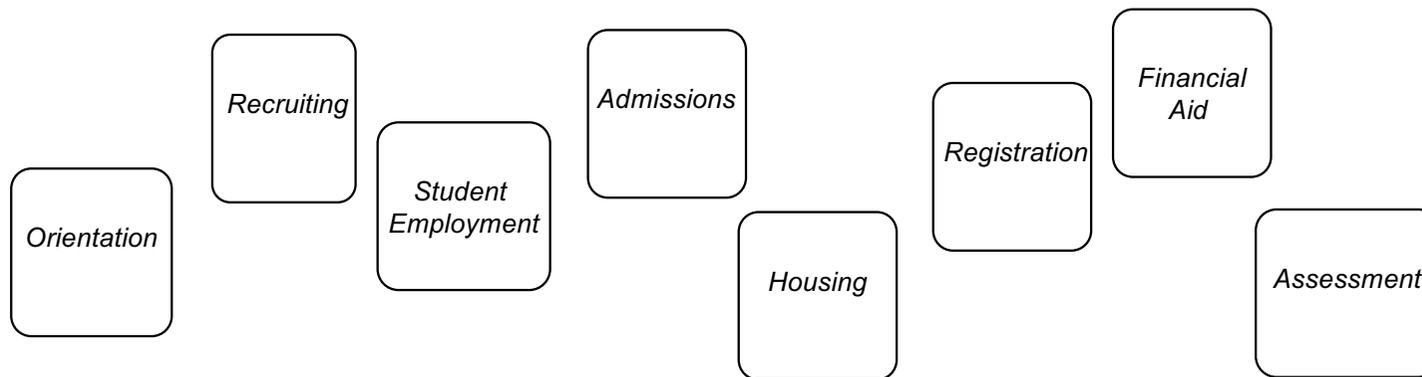
Naming conventions will make life easier

1. The process name ***must*** indicate the expected result
   - Name potential process in "active verb – noun" format
   - Restate that name as a result ("noun is verbed")
   - Ensure this is the intended result of the process: *discrete*, so results are *identifiable* & *countable*

   - ***No mushy verbs:*** manage, monitor, administer, handle, track, support, maintain, etc.
   - ***Active verbs only:*** *Evaluate* Prospect, *Acquire* Customer, *Fill* Customer Order, *Resolve* Customer Issue, …

   - Applies to business processes, phases (subprocesses,) activities, steps, …

2. Name process from customer's perspective (what do they want from the process?)

3. Name process in the singular

Acquire Customer

↓

A (single) Customer is Acquired

~~*Manage Renewals*~~

↓

Renewals are Managed

Renew Policy

↓

A Policy is Renewed (what the Policyholder and the company want)

~~*Handle Application*~~

Issue Permit

~~*Staff Organisation*~~

Assign Worker

An example from higher education

As part of a strategic initiative to address falling graduation rates, a university took a process-based approach to determine why they were failing to admit the most promising candidates…

The "processes" that were initially identified…

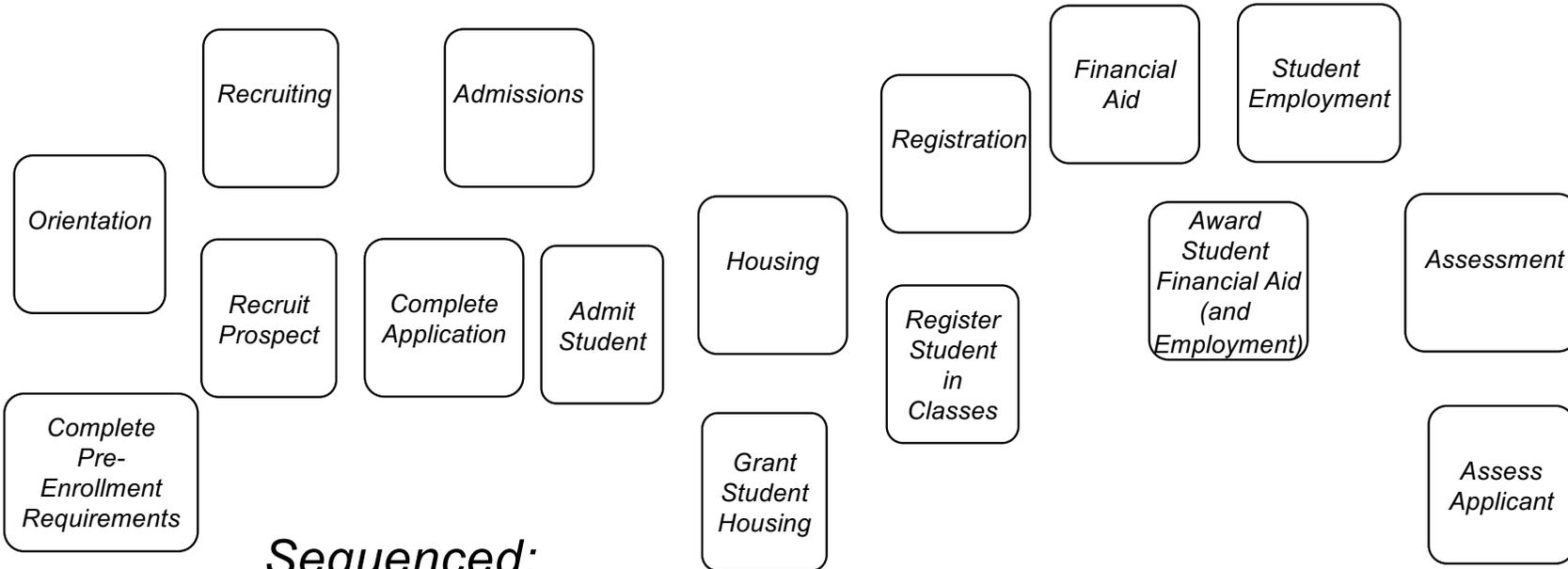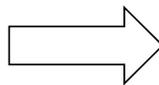|						
	Recruiting		Admissions			Financial Aid
Orientation		Student Employment		Registration		
			Housing			Assessment

Are these good business processes?
NO! Each of these is a department or function.
We convened a facilitated session to determine the "real" process

Rename, reduce, refine, and sequence

Recruiting

Admissions

Financial
Aid

Student
Employment

Orientation

Registration

Recruit
Prospect

Complete
Application

Admit
Student

Housing

Award
Student
Financial Aid
(and
Employment)

Assessment

Register
Student
in
Classes

Complete
Pre-
Enrollment
Requirements

Grant
Student
Housing

Assess
Applicant

Sequenced:

Admit and Onboard a Student

Recruit Prospect	Complete Application	Assess Applicant	Admit Student	Award Student Financial Aid	Grant Student Housing	Complete Pre-Enrollment Requirements	Register Student in Classes

Token: A student,
from prospect to registered

From the session – "Is it a single X-functional process?"

Triggers   The process   major Activities
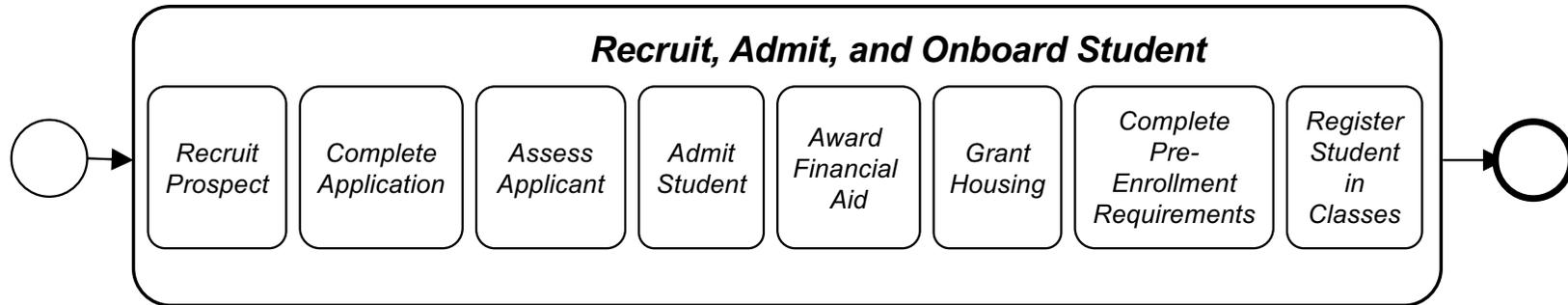(or phases, milestones,
subprocesses…)   Results
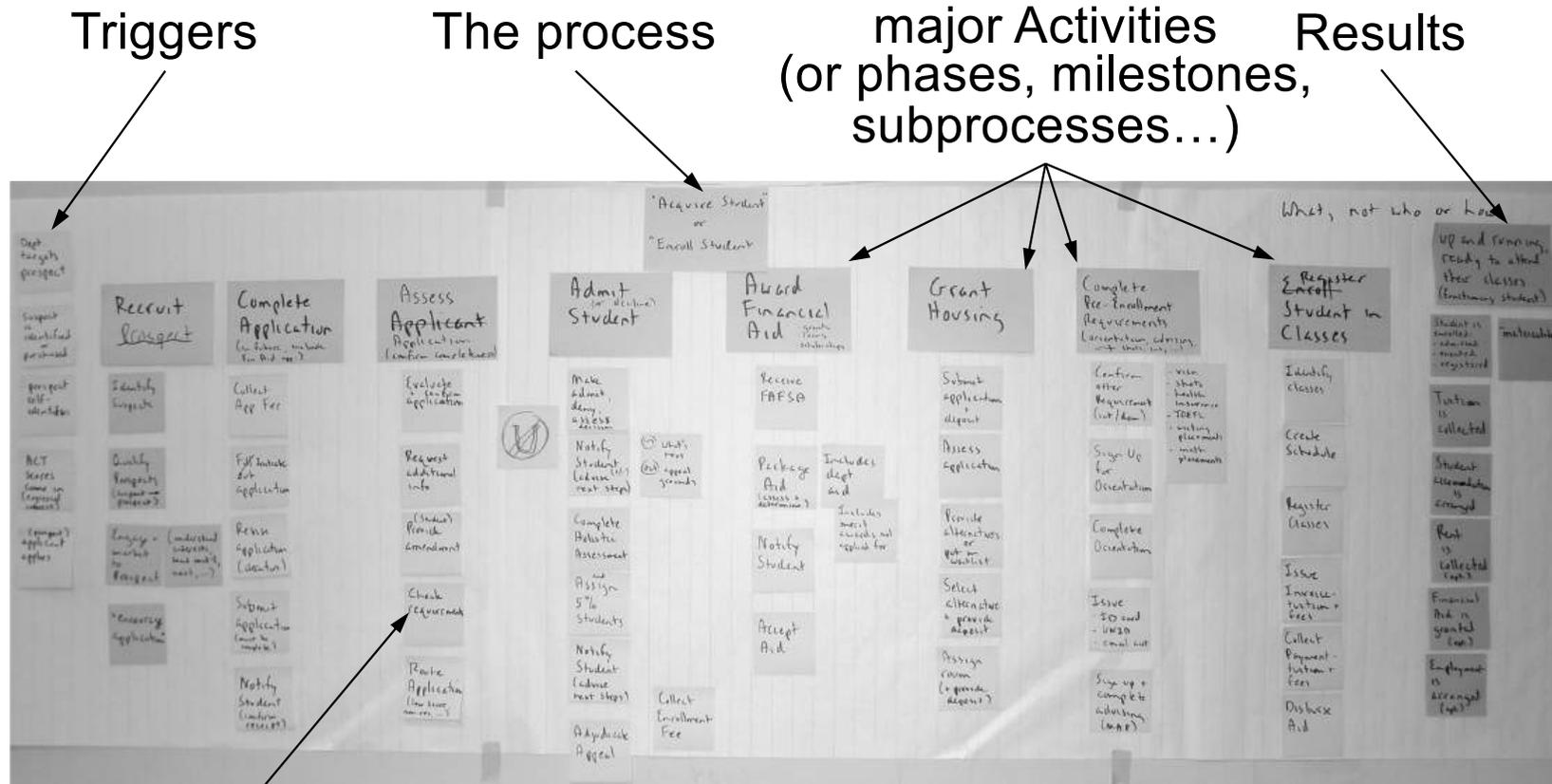
More detailed
activities

Focus is on "what, not who or how."

Note the high-tech tools.

Very iterative, but only 90 minutes!

The cleaned-up "Process Scope Model"

Recruit, Admit, and Onboard Student

| *Recruit Prospect* | *Complete Application* | *Assess Applicant* | *Admit Student* | *Award Financial Aid* | *Grant Housing* | *Complete Pre-Enrollment Requirements* | *Register Student in Classes* |

Triggering Events:
- Dept. targets prospect
- Suspect is identified or purchased
- Prospect self-identifies
- ACT scores come in
- Prospect applies
- …

Cases:
- In-state undergrad
- Out-of-state undergrad
- …

Final Results:

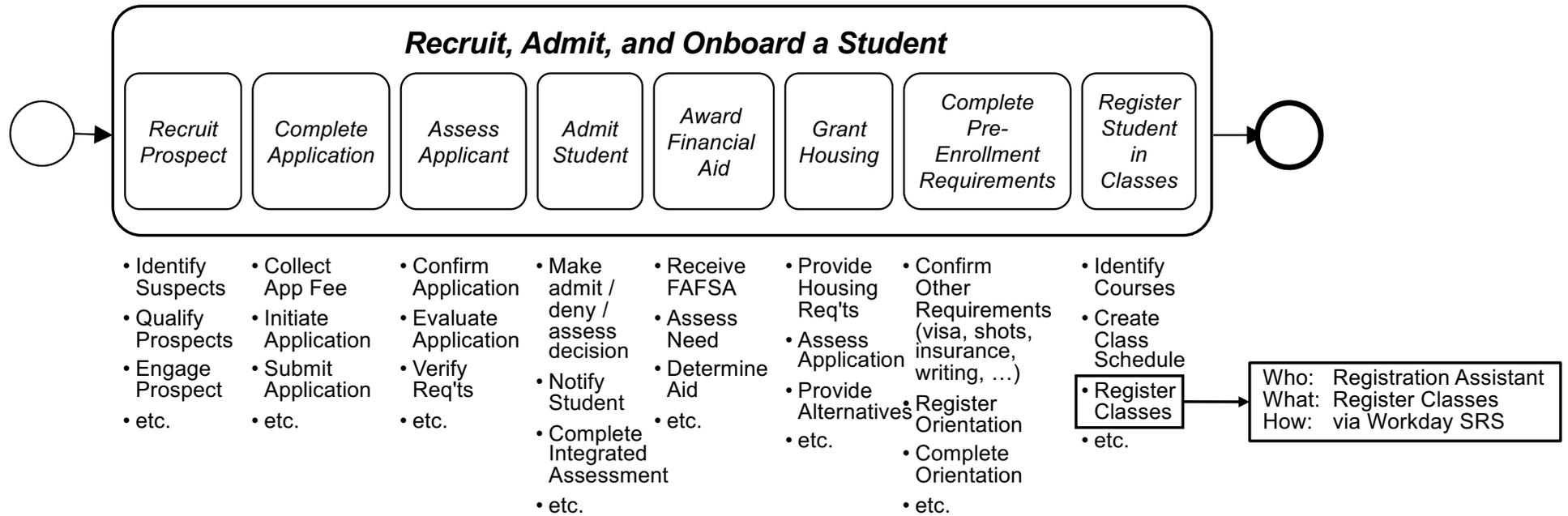"Up and running," ready to attend classes:
- Student is:
  - admitted
  - oriented
  - registered
- Tuition is collected
- Student accommodation is arranged
- Financial aid is granted
- Employment is arranged
- …

TRAC –

- Trigger
- Results
- Activities (~5-7 phases or milestones)
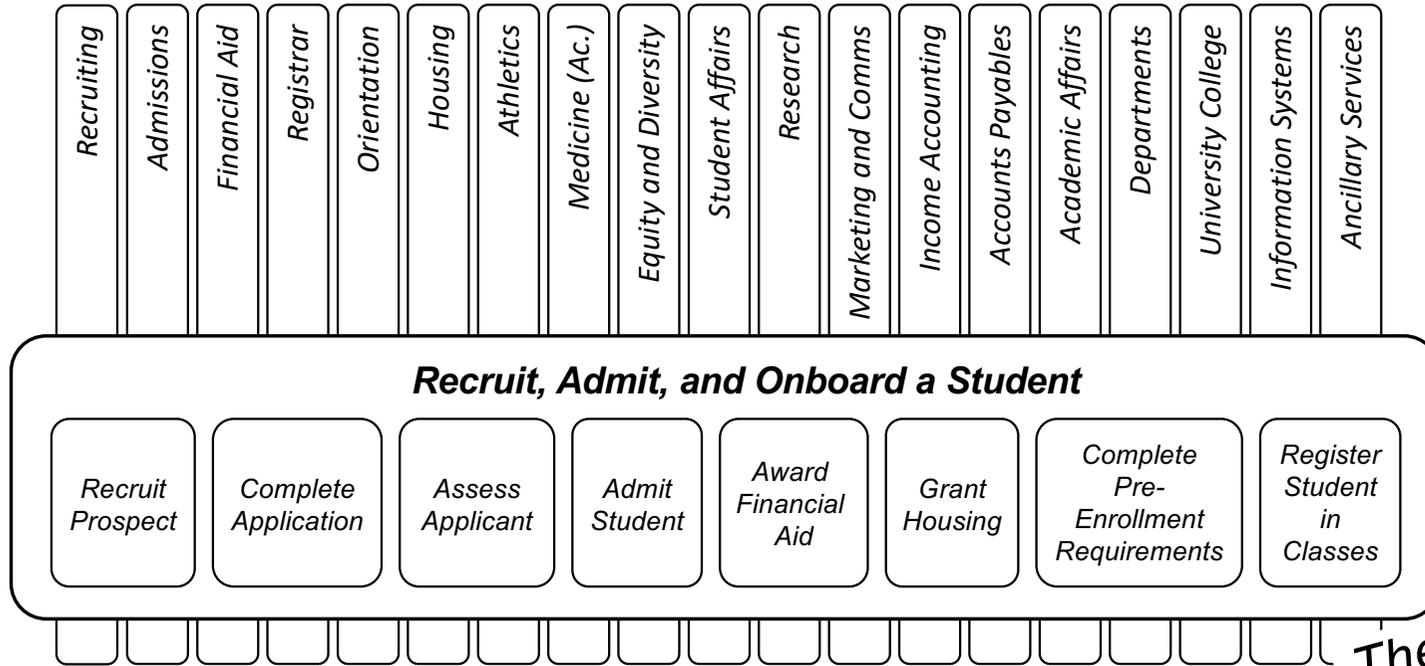- Cases (major Variants)

The cleaned-up "Augmented Scope Model"

Recruit, Admit, and Onboard a Student

Recruit Prospect	*Complete Application*	*Assess Applicant*	*Admit Student*	*Award Financial Aid*	*Grant Housing*	*Complete Pre-Enrollment Requirements*	*Register Student in Classes*

- Identify Suspects
- Qualify Prospects
- Engage Prospect
- etc.

- Collect App Fee
- Initiate Application
- Submit Application
- etc.

- Confirm Application
- Evaluate Application
- Verify Req'ts
- etc.

- Make admit / deny / assess decision
- Notify Student
- Complete Integrated Assessment
- etc.

- Receive FAFSA
- Assess Need
- Determine Aid
- etc.

- Provide Housing Req'ts
- Assess Application
- Provide Alternatives
- etc.

- Confirm Other Requirements (visa, shots, insurance, writing, …)
- Register Orientation
- Complete Orientation
- etc.

- Identify Courses
- Create Class Schedule
- Register Classes
- etc.

Who:	Registration Assistant
What:	Register Classes
How:	via Workday SRS

Typically, 5 – 7 activities identified within each major activity.
Initially just "what" (verb – noun) – later, add "who and how,"
e.g., Registration Assistant (who) Register Classes (what) via Workday SRS (how)

Identifying the functional area responsible for each activity revealed the process was massively cross-functional…

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Process Summary Chart shows an astonishingly cross-functional process

Recruiting | Admissions | Financial Aid | Registrar | Orientation | Housing | Athletics | Medicine (Ac.) | Equity and Diversity | Student Affairs | Research | Marketing and Comms | Income Accounting | Accounts Payables | Academic Affairs | Departments | University College | Information Systems | Ancillary Services

Recruit, Admit, and Onboard a Student

| Recruit Prospect | Complete Application | Assess Applicant | Admit Student | Award Financial Aid | Grant Housing | Complete Pre-Enrollment Requirements | Register Student in Classes |

The point – the execs said "Get on with it! There's no need to burn up $50,000 on a business case."

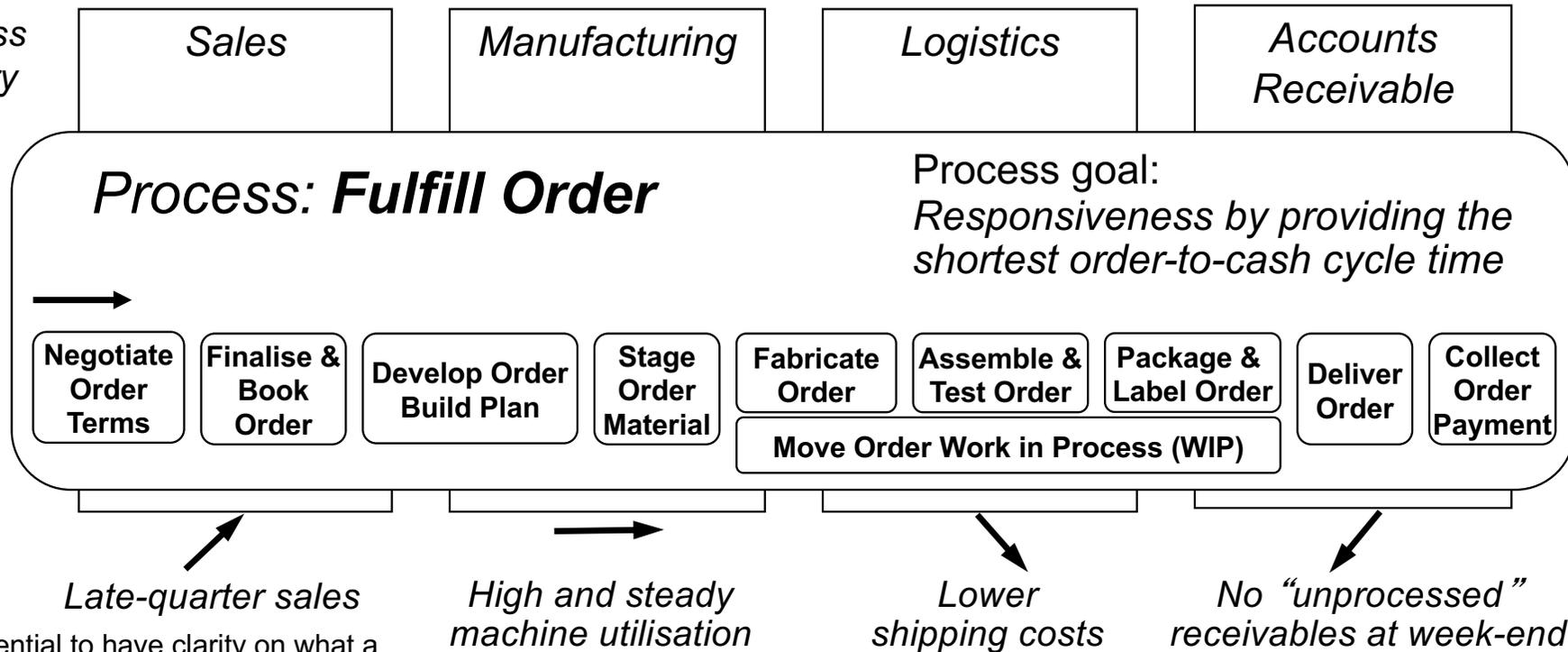Without explicitly addressing the end-to-end process:
- almost no chance the student experience is positive
- very frustrating for the people doing the work
- almost no chance the university is going to meet its goals

Two key points:

1. *Functions are doing their best to optimise their activities*
2. *A multitude of dis-integrated systems and data sources are being used*

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2. A common obstacle – misaligned performance measures

*A Process
Summary
Chart*

Sales	Manufacturing	Logistics	Accounts Receivable

Process: **Fulfill Order**

Process goal:
*Responsiveness by providing the
shortest order-to-cash cycle time*

→

Negotiate Order Terms	Finalise & Book Order	Develop Order Build Plan	Stage Order Material	Fabricate Order	Assemble & Test Order	Package & Label Order	Deliver Order	Collect Order Payment

Move Order Work in Process (WIP)

Late-quarter sales   *High and steady machine utilisation*   *Lower shipping costs*   *No "unprocessed" receivables at week-end*

1. It is essential to have clarity on what a *business process* really is
2. Performance measures may be *functionally aligned* and work *against* business processes
3. Enterprise system implementations must include a business process perspective
4. Success with business processes requires a *holistic view* in which six *enablers* are considered
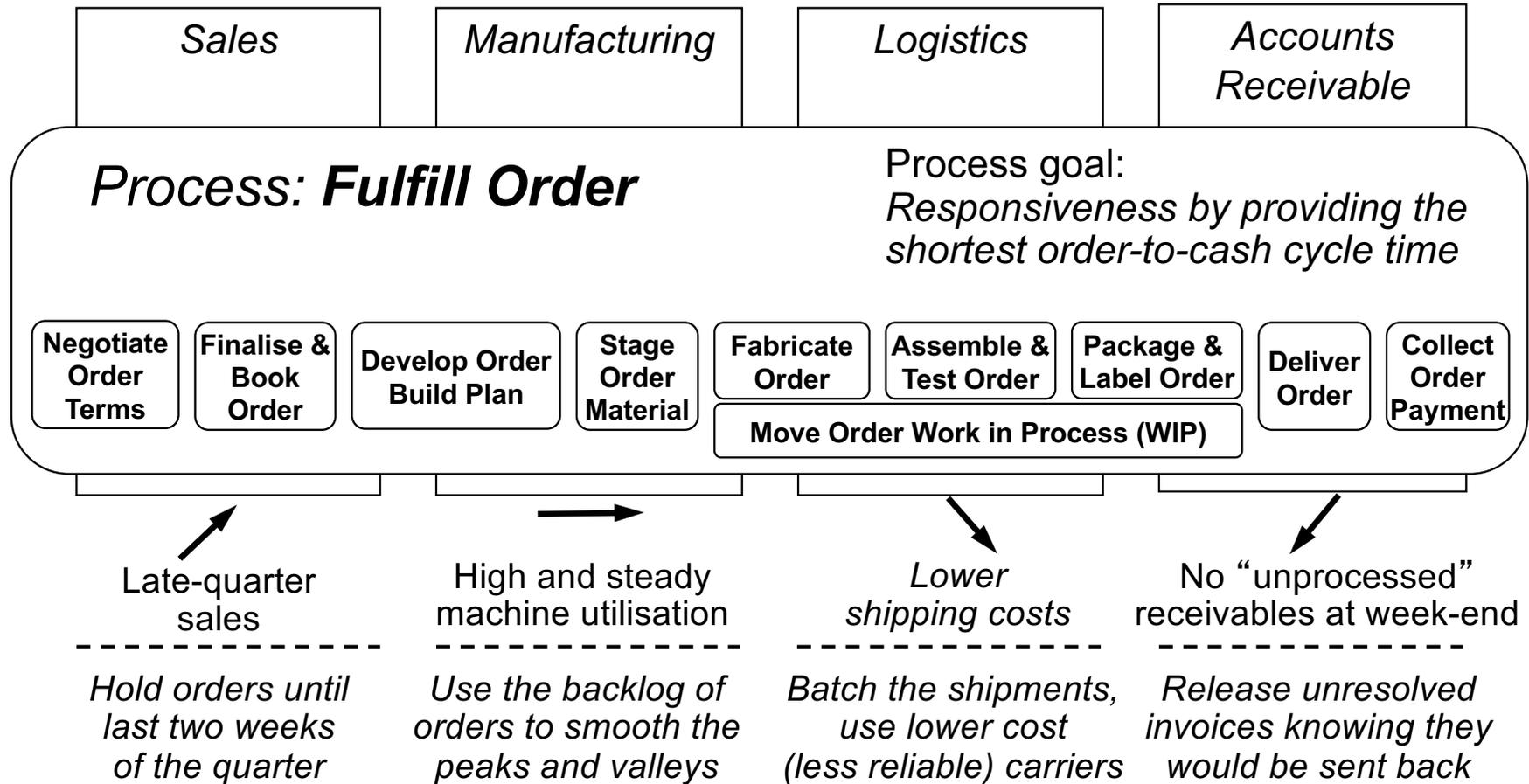5. A business process can't be great at everything – a single *differentiator* must be chosen

But… performance measures were established *functionally, before* awareness of the *end-to-end process*
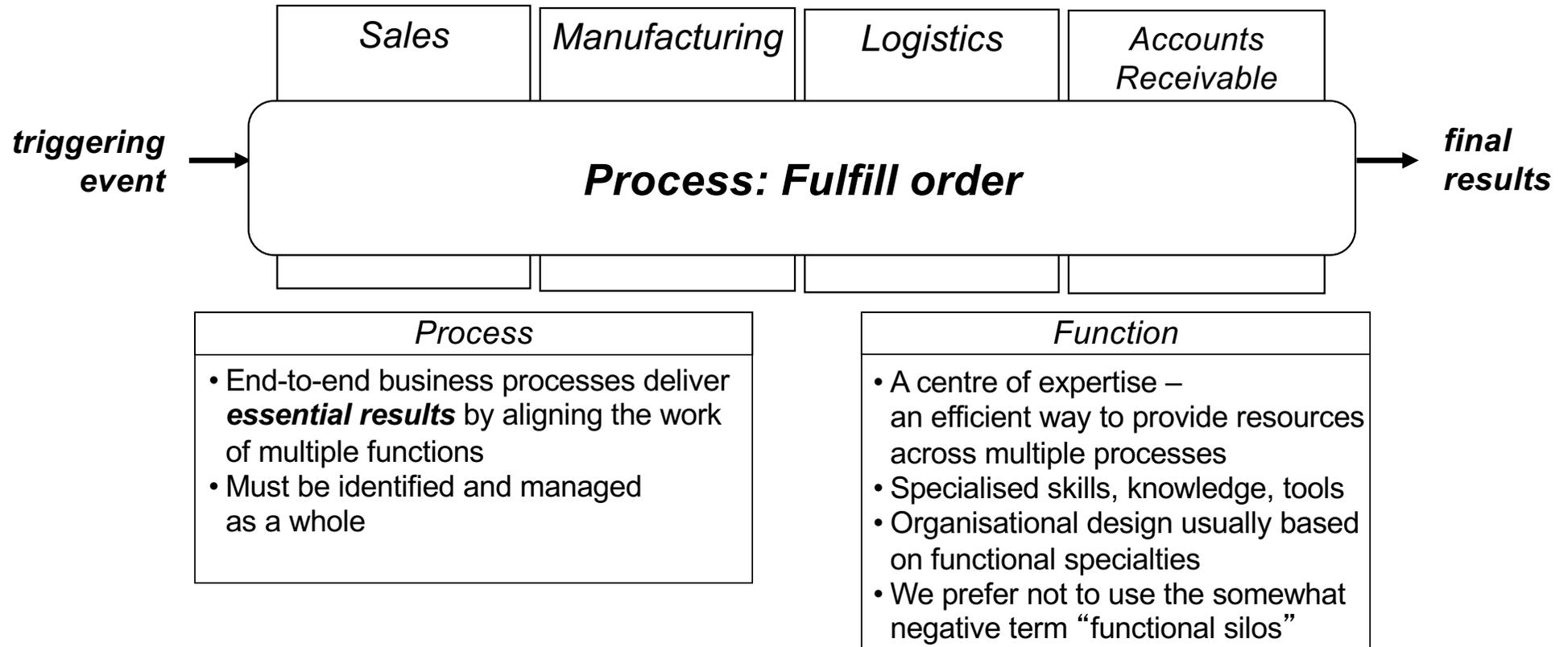
Discuss –
What are the likely impacts of these performance goals?
What will the different functions do to meet the targets?
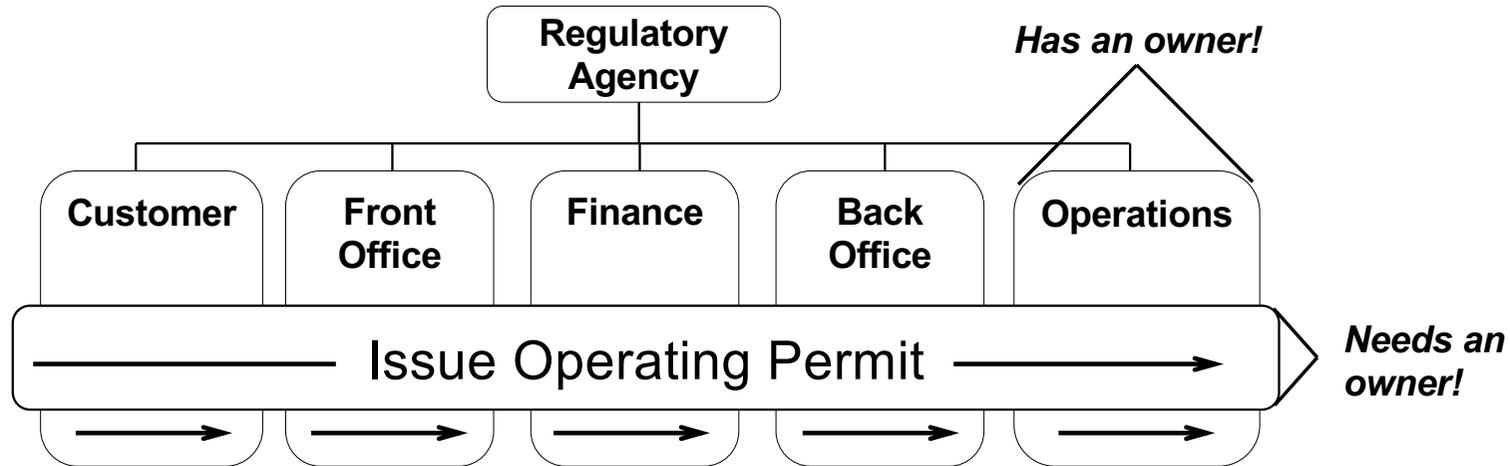
27

Misaligned performance measures

Sales	*Manufacturing*	*Logistics*	*Accounts Receivable*

Process: Fulfill Order

Process goal:
Responsiveness by providing the shortest order-to-cash cycle time

Negotiate Order Terms	**Finalise & Book Order**	**Develop Order Build Plan**	**Stage Order Material**	**Fabricate Order**	**Assemble & Test Order**	**Package & Label Order**	**Deliver Order**	**Collect Order Payment**

Move Order Work in Process (WIP)

Late-quarter sales

High and steady machine utilisation

Lower shipping costs

No "unprocessed" receivables at week-end

– – – – – – – – – – – – – –   – – – – – – – – – – – – –   – – – – – – – – – – – – –   – – – – – – – – – – – – –

Hold orders until last two weeks of the quarter

Use the backlog of orders to smooth the peaks and valleys

Batch the shipments, use lower cost (less reliable) carriers

Release unresolved invoices knowing they would be sent back

Poor performance because each function was
working hard to meet *uncoordinated, functional targets*

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This doesn't mean functions are bad!

Sales	Manufacturing	Logistics	Accounts Receivable

triggering event → **Process: Fulfill order** → **final results**

Process	Function
• End-to-end business processes deliver ***essential results*** by aligning the work of multiple functions • Must be identified and managed as a whole	• A centre of expertise – an efficient way to provide resources across multiple processes • Specialised skills, knowledge, tools • Organisational design usually based on functional specialties • We prefer not to use the somewhat negative term "functional silos"

Ultimately, business processes are all about alignment

Processes and functions – three key points

Regulatory Agency

Has an owner!

Customer	Front Office	Finance	Back Office	Operations

Issue Operating Permit

Needs an owner!

- The first step in managing processes is to *determine what they are* – they don't identify themselves

- Performance goals for the functions must *align with* (or be *balanced against*) the performance goals of the process

- Processes need an *owner / steward* to set direction, ensure alignment, and resolve conflict

It takes concerted effort – nothing happens by accident

3 – Processes and information systems

1. It is essential to have clarity on what a *business process* really is
2. Performance measures may be *functionally aligned* - work *against* business processes
3. Enterprise system implementations must include a business process perspective
4. Success with business processes requires a *holistic view* in which *six enablers* are considered
5. A business process can't be great at everything – a single *differentiator* must be chosen

"Success with SAP Implementation"

Study by the late Michael Hammer, "godfather of BPR"
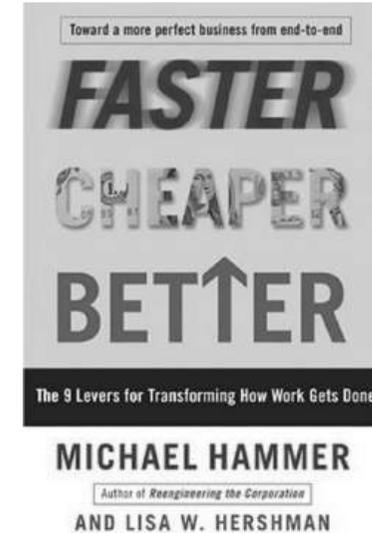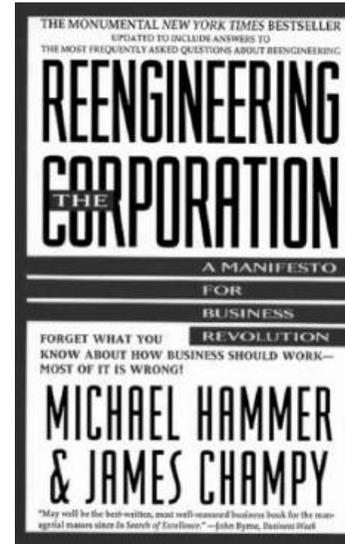
Observed that success of SAP implementations varied *wildly*

Worked with ~80 companies to assess their degree of success with SAP implementation
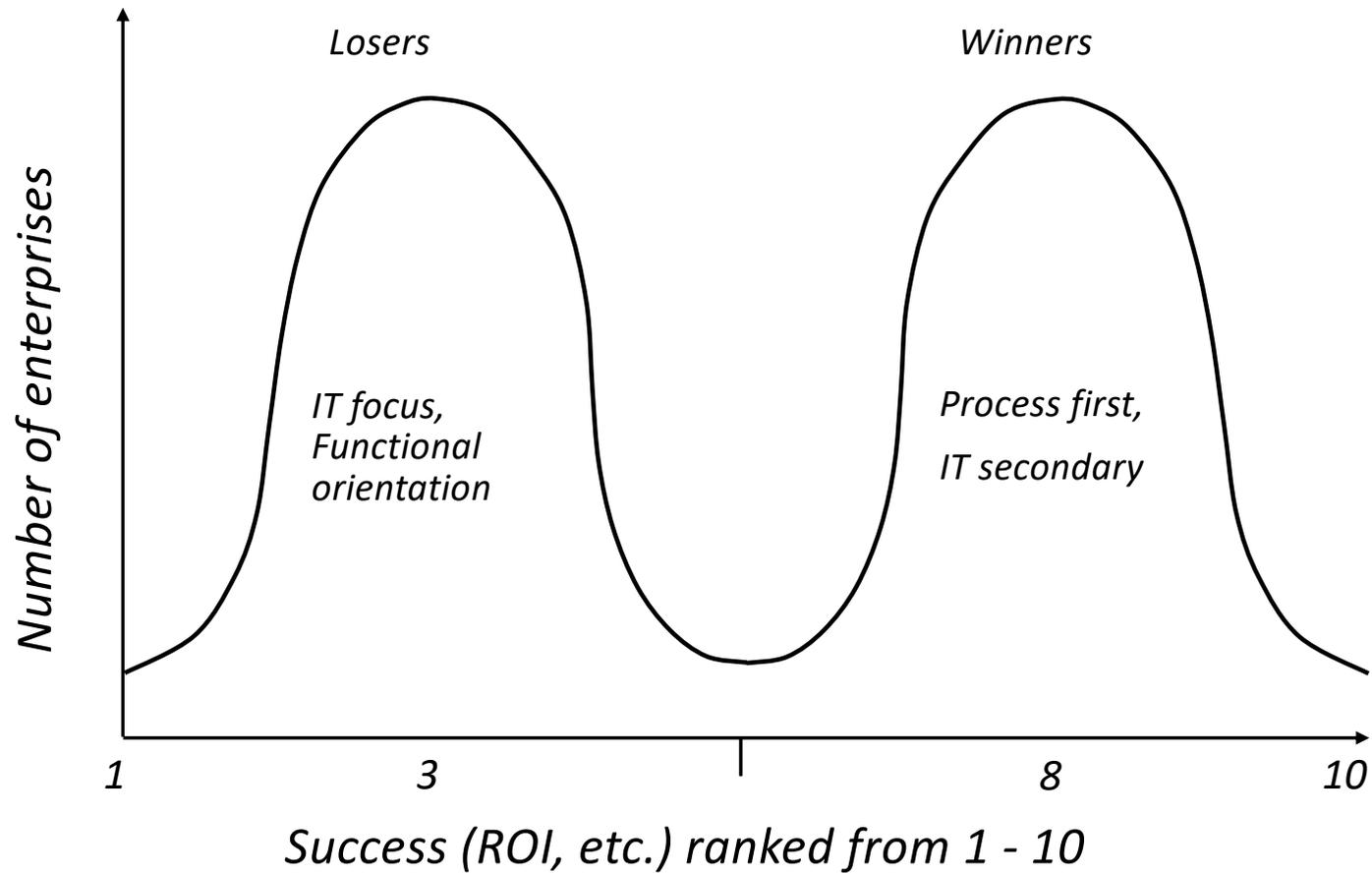
Success with SAP implementation

Hammer plotted the number of companies for each "success" ranking

Number of enterprises (y-axis)

Guess the line or curve

1   3   8   10

Success (ROI, etc.) ranked from 1 - 10
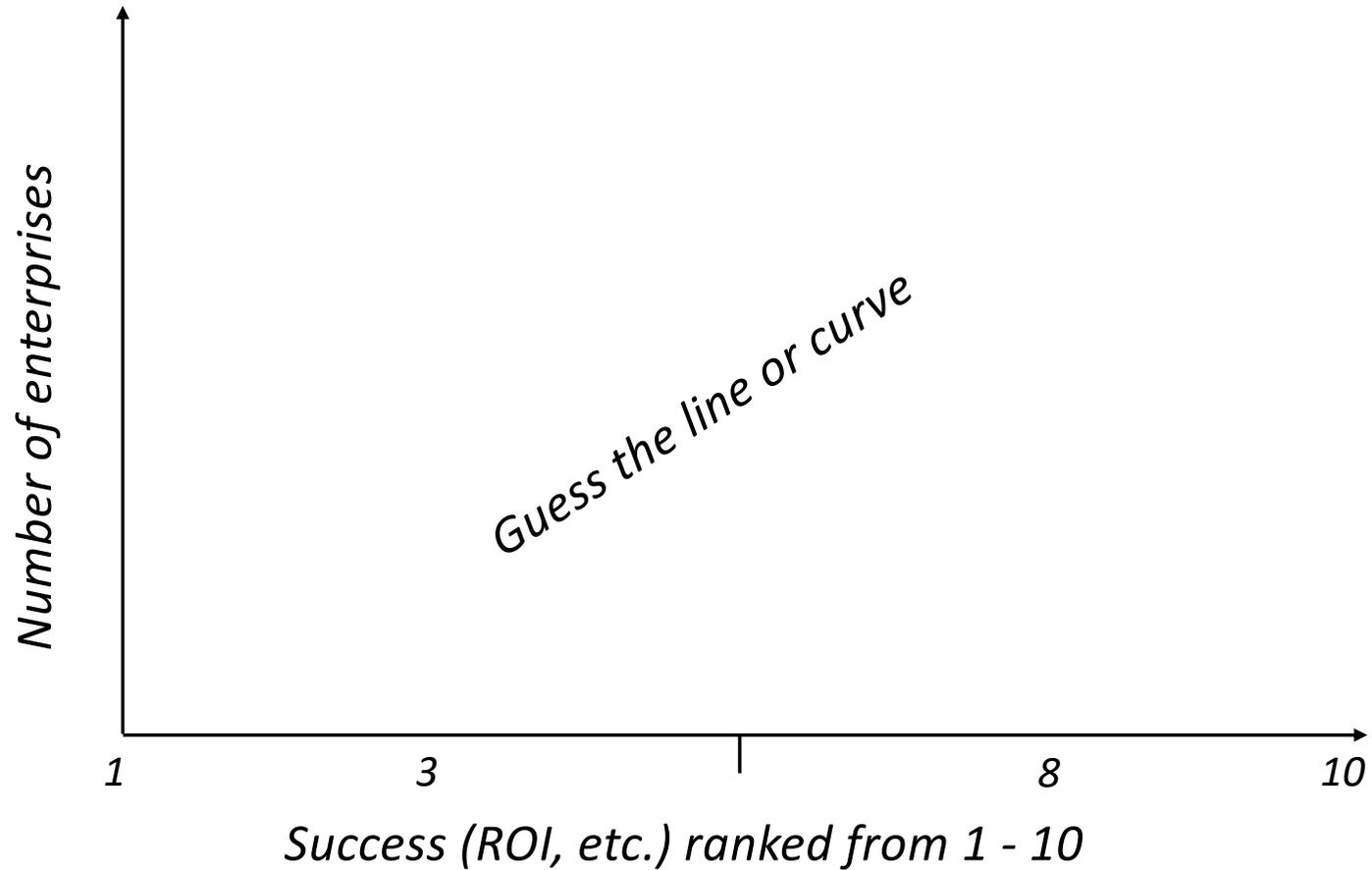
Hammer not sure what the outcome would be

Skewed
pessimistically

Expected a
normal
distribution...

Skewed
optimistically

Really
pessimistic

Number of enterprises

1   3   8   10

Success (ROI, etc.) ranked from 1 - 10

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The surprising result

Losers

Winners

IT focus,
Functional
orientation

Process first,
IT secondary

Number of enterprises

1   3   8   10

Success (ROI, etc.) ranked from 1 - 10

34
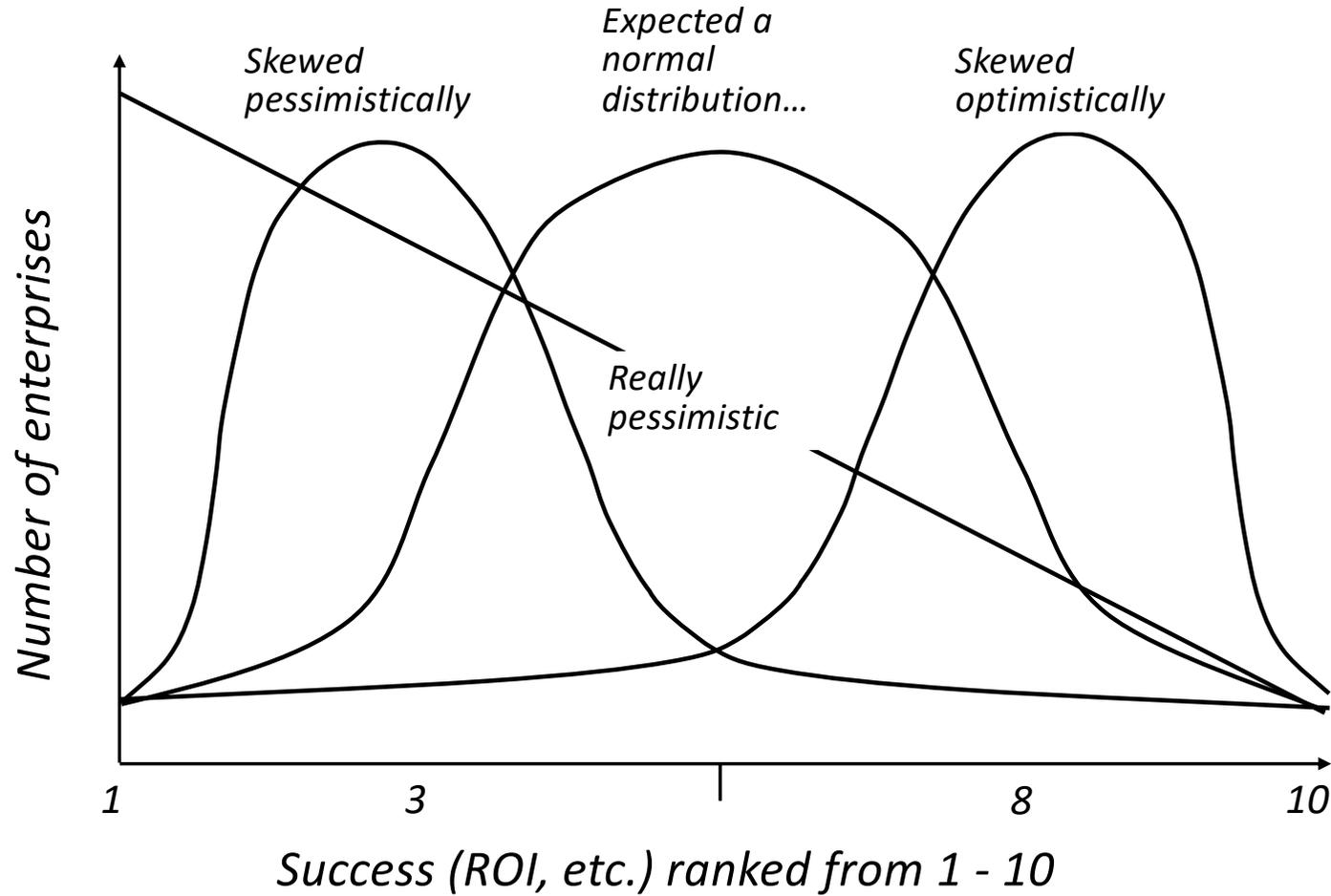
Returning to an earlier example

Global manufacturer implementing SAP

Four primary modules:
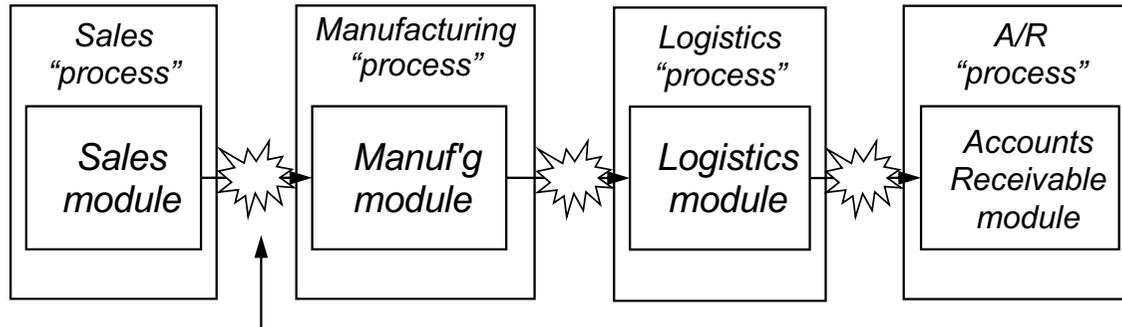
- *Sales*

- *Manufacturing*

- *Logistics*

- *Finance*

Determined to *do it right:*
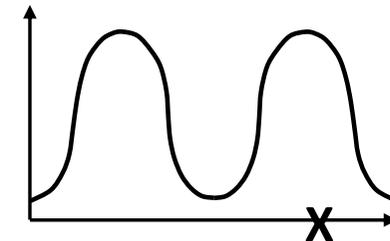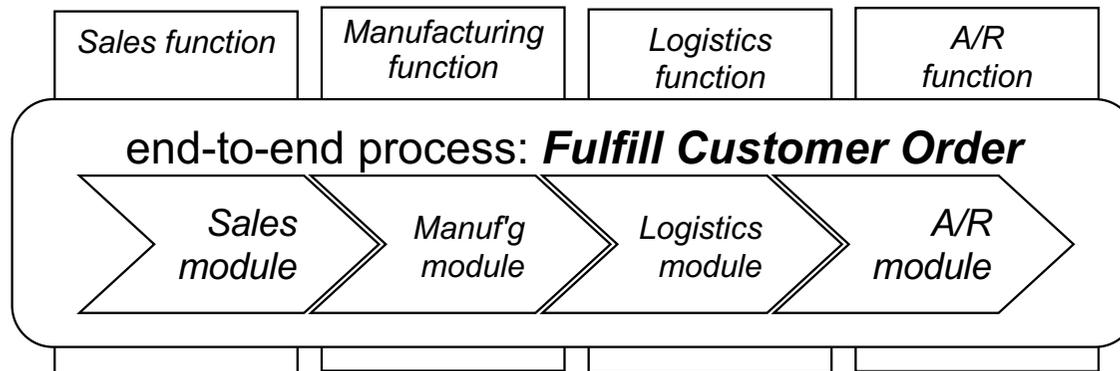"This will be a *process-oriented* implementation!"
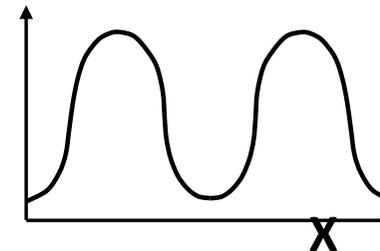
Impact of confusing function and process

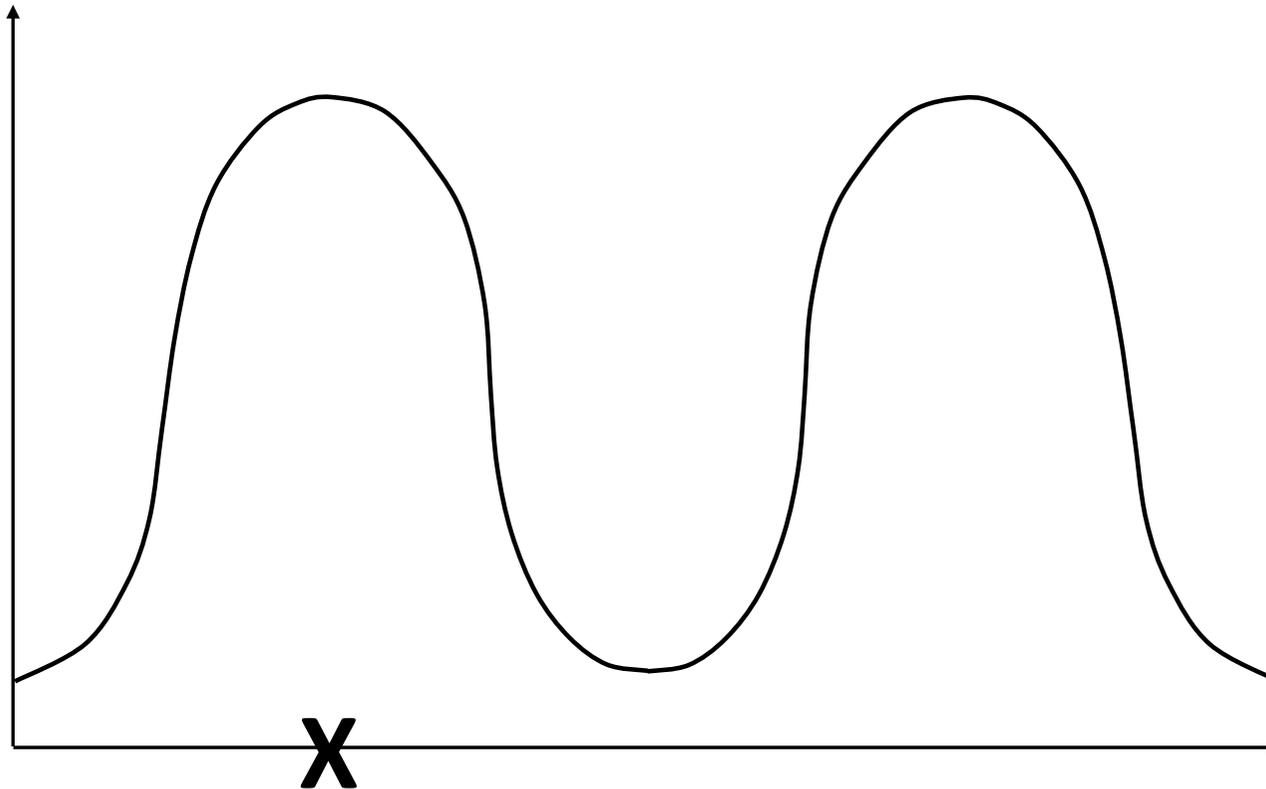*Implementing SAP without clarity on "process":*
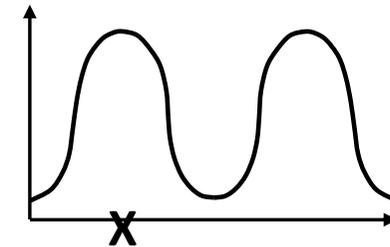
Conflicts: timing, coding, terminology, data formats, *performance targets*, …

SAP re-implemented in a process-driven configuration:

Same software, radically different outcomes

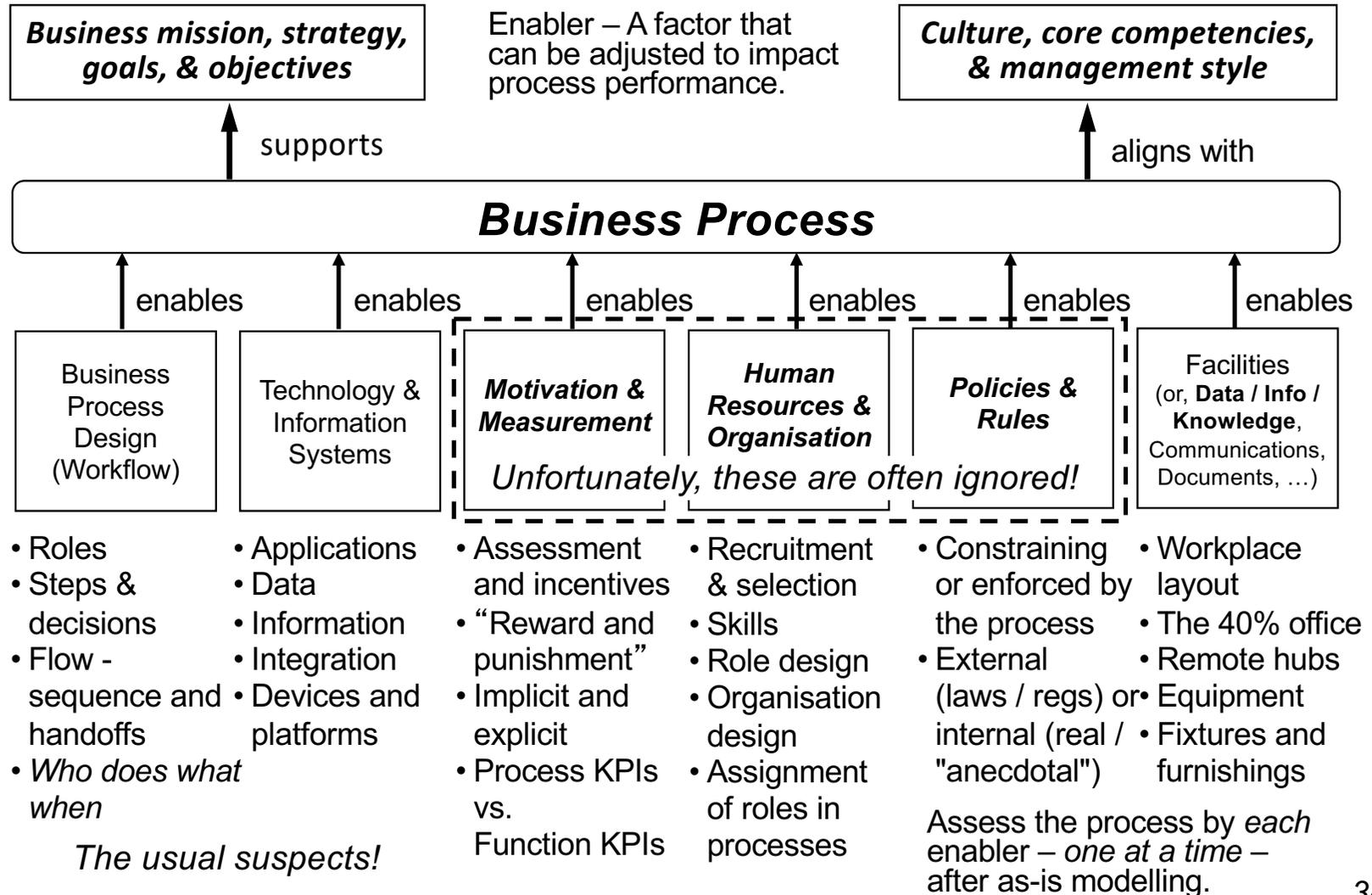# Staying "right" in an "entropic" environment

There will always be a pull back towards functional comfort
- **ongoing management of the process is critical!**
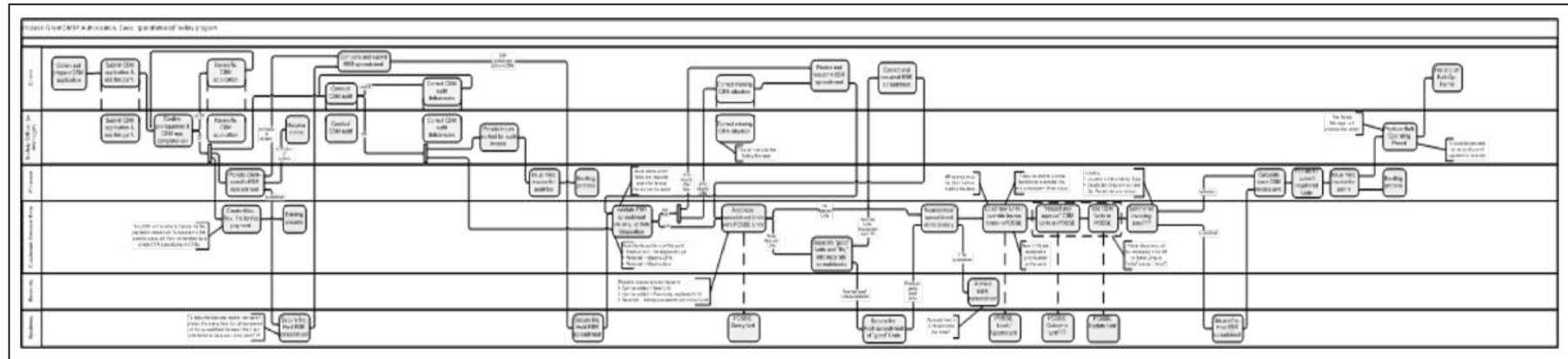- **all enablers must be addressed for a sustainable process**

4. A holistic view for process analysis and design

1. It is essential to have clarity on what a *business process* really is

2. Performance measures may be *functionally aligned* - work *against* business processes

3. Enterprise system implementations must include a business process perspective

4. Success with business processes requires a *holistic view* in which six *enablers* are considered

5. A business process can't be great at everything – a single *differentiator* must be chosen

| **Business mission, strategy, goals, & objectives** | Enabler – A factor that can be adjusted to impact process performance. | **Culture, core competencies, & management style** |

↑ supports   ↑ aligns with

Business Process

enables | enables | enables | enables | enables | enables

| Business Process Design (Workflow) | Technology & Information Systems | **Motivation & Measurement** | **Human Resources & Organisation** | **Policies & Rules** | Facilities (or, **Data / Info / Knowledge**, Communications, Documents, …) |

Unfortunately, these are often ignored!

• Roles	• Applications	• Assessment and incentives	• Recruitment & selection	• Constraining or enforced by the process	• Workplace layout
• Steps & decisions	• Data	• "Reward and punishment"	• Skills	• External (laws / regs) or internal (real / "anecdotal")	• The 40% office
• Flow - sequence and handoffs	• Information	• Implicit and explicit	• Role design		• Remote hubs
• *Who does what when*	• Integration	• Process KPIs vs. Function KPIs	• Organisation design		• Equipment
	• Devices and platforms		• Assignment of roles in processes		• Fixtures and furnishings

The usual suspects!

Assess the process by *each* enabler – *one at a time* – after as-is modelling.

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We model the as-is process to support assessment by enabler

As-is modelling maps *reality – who*, does *what*, *when*.

This supports a *fact-based* assessment of the *as-is* process by enabler.

Process Workflow Design: Is each step adding value, placed at the right point in the process, sequential or parallel as appropriate, performed by the best role, etc.?	**Information Systems & Technology:** Are the process, the steps, and the actors supported by the right systems and technology?	**Motivation & Measurement:** How is the performance of the steps, the actors, the participating functions, and the process measured, and what are the consequences?	**Human Resources & Organisation:** Are roles suitably broad, are organisations designed properly, and are roles & skills deployed well into the process?	**Policies & Rules:** What policies or rules , whether internal or external, constrain or are enforced by the process, and what is their impact?	**Facilities (or other):** Are the layout & furnishings optimal or do they impede the process? (Many clients instead use this enabler to consider data, info, and knowledge.)

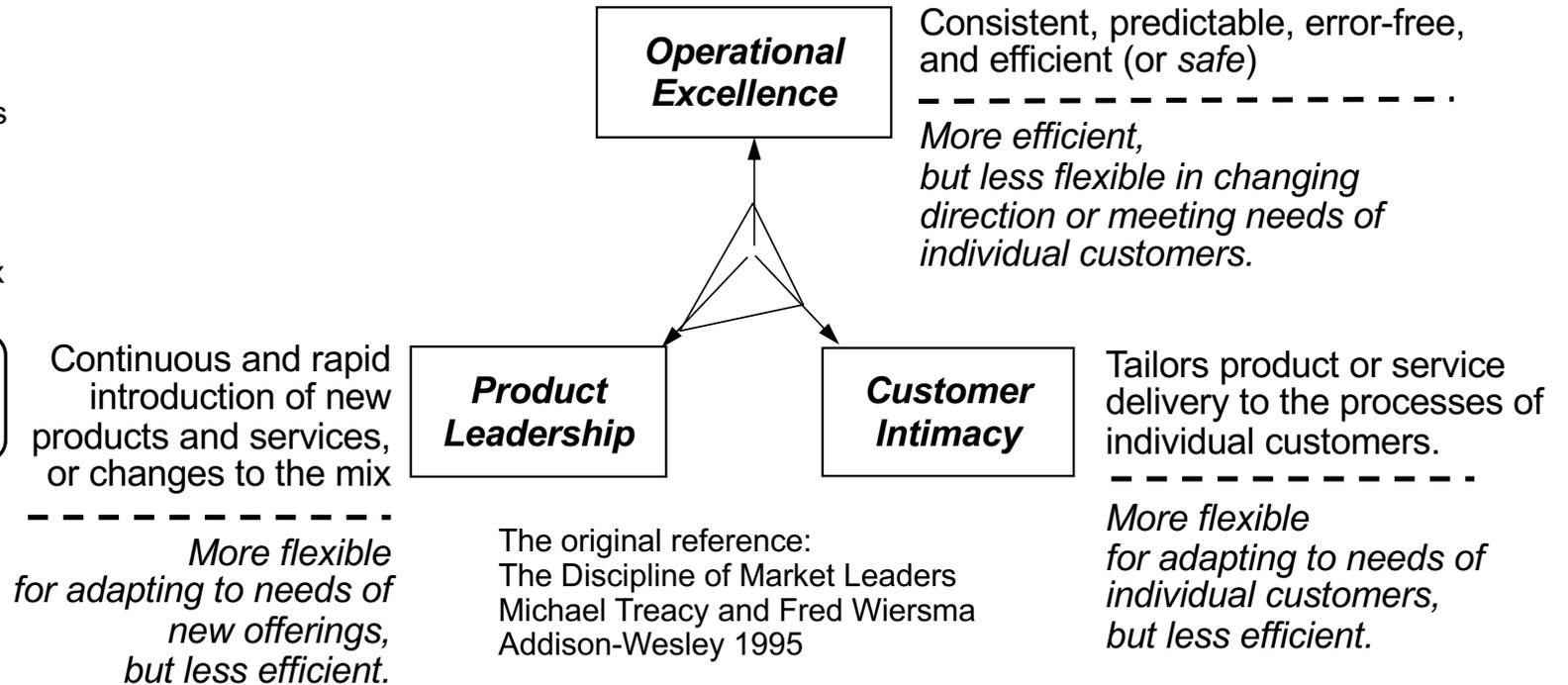# 5. Process goals: know your "differentiator"

1. It is essential to have clarity on what a *business process* really is
2. Performance measures may be *functionally aligned* - work *against* business processes
3. Enterprise system implementations must include a business process perspective
4. Success with business processes requires a *holistic view* in which six *enablers* are considered
5. A business process can't be great at everything – a single *differentiator* must be chosen

As noted, this is one of the things I do on ~100% of *Project Recovery* assignments -

1. Build *Process Scope Model* & *Process Summary Chart*
2. Develop *Case for Action* – an *As-Is Assessment by Stakeholder*
3. Establish the *Differentiator*
4. *(Optionally conduct an As-Is Assessment by Enabler)*

Great processes don't try to be all things to all people – strive to be **great** at one differentiator, and **good** at the other two…

Operational Excellence

Consistent, predictable, error-free, and efficient (or *safe*)

More efficient, but less flexible in changing direction or meeting needs of individual customers.

Product Leadership

Continuous and rapid introduction of new products and services, or changes to the mix

More flexible for adapting to needs of new offerings, but less efficient.

Customer Intimacy

Tailors product or service delivery to the processes of individual customers.

More flexible for adapting to needs of individual customers, but less efficient.

The original reference:
The Discipline of Market Leaders
Michael Treacy and Fred Wiersma
Addison-Wesley 1995

1. Concept developed for the entire enterprise, but great for individual process areas – a "signpost" for decisions on process changes.
2. Processes in an enterprise do not all have the same differentiator.
3. The Process Differentiator can change over time – *slowly!*

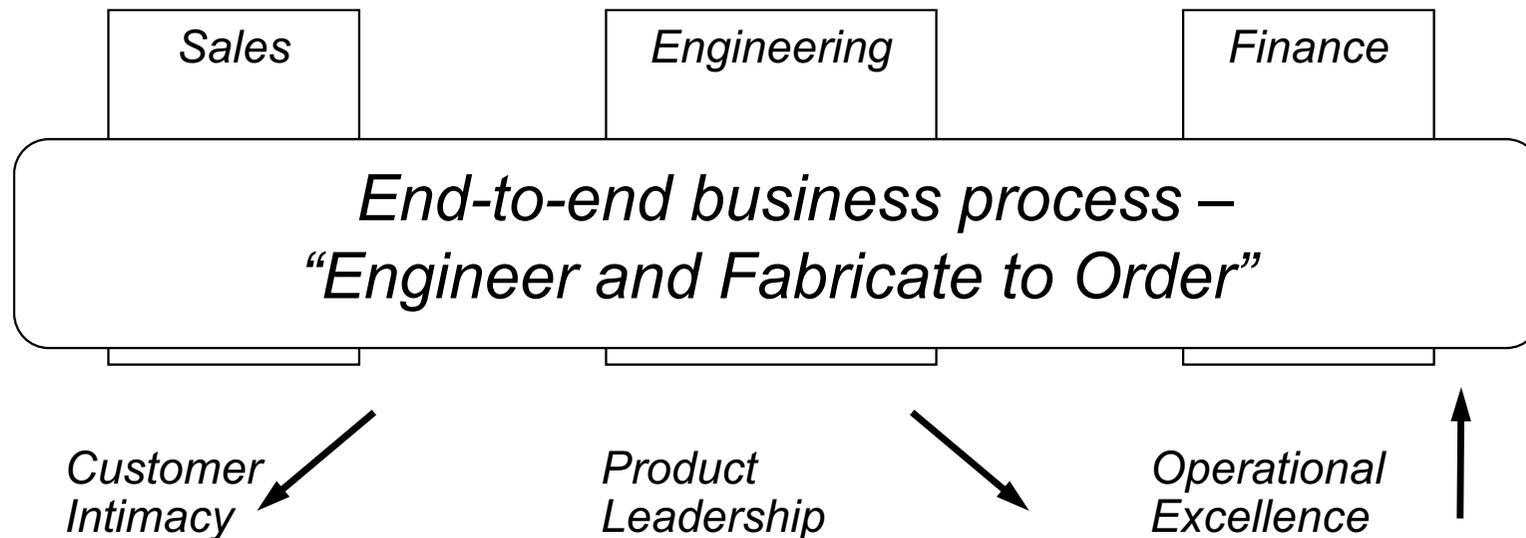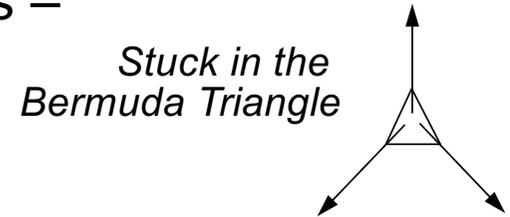# *Example: "differentiator confusion"*

Getting it wrong can be *expensive…*

- Insurance company recruits CEO from high tech industry

- New CEO decides "innovation is everything" –
$100M spent on
process redesign and system development
in support of "innovative car insurance products" –
Product Leadership

- Total failure – customers wanted affordable,
easy to understand, easy to buy insurance –
Operational Excellence (Op Ex)

Customer base:

Operational Excellence

New CEO:

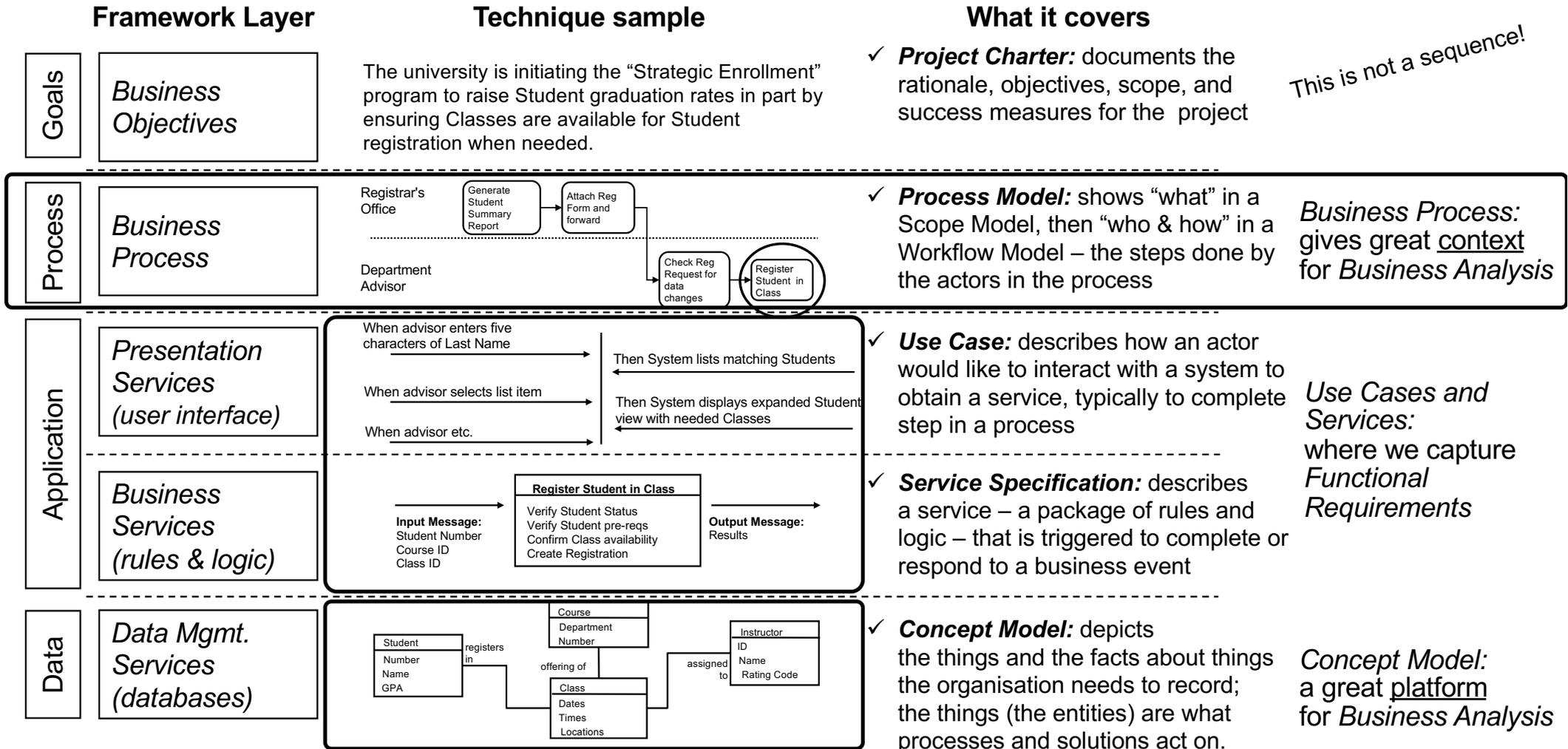**Product Leadership**

Customer Intimacy

41
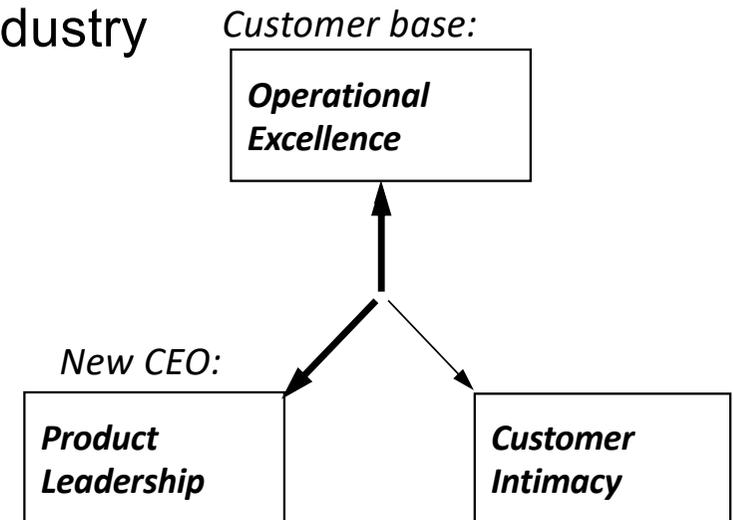
Three common differentiator problems

1. Focus on the wrong differentiator – *customer alienation*

2. No differentiator or trying to excel at *multiple* differentiators – *stressed workforce* and *lower performance*

   - *Operational excellence* – "We must be the low-cost provider!"

   - *Customer focused* – "We must do what it takes for each client!

3. Conflicting differentiators within functions of a process – *lower performance*

Stuck in the Bermuda Triangle

Sales	Engineering	Finance

End-to-end business process – "Engineer and Fabricate to Order"

Customer Intimacy   *Product Leadership*   *Operational Excellence*

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Business Process – *part of the Clariteq Framework for Business Analysis*

Framework Layer	**Technique sample**	**What it covers**	

This is not a sequence!

Goals — *Business Objectives*

The university is initiating the "Strategic Enrollment" program to raise Student graduation rates in part by ensuring Classes are available for Student registration when needed.

✓ **Project Charter:** documents the rationale, objectives, scope, and success measures for the project

---

Process — *Business Process*

Registrar's Office
- Generate Student Summary Report → Attach Reg Form and forward

Department Advisor
- Check Reg Request for data changes → Register Student in Class

✓ **Process Model:** shows "what" in a Scope Model, then "who & how" in a Workflow Model – the steps done by the actors in the process

Business Process: gives great <u>context</u> for *Business Analysis*

Application

Presentation Services (user interface)

When advisor enters five characters of Last Name → Then System lists matching Students

When advisor selects list item → Then System displays expanded Student view with needed Classes

When advisor etc.

✓ **Use Case:** describes how an actor would like to interact with a system to obtain a service, typically to complete step in a process

Use Cases and Services: where we capture *Functional Requirements*

Business Services (rules & logic)

Register Student in Class
Input Message: Student Number, Course ID, Class ID → Verify Student Status / Verify Student pre-reqs / Confirm Class availability / Create Registration → **Output Message:** Results

✓ **Service Specification:** describes a service – a package of rules and logic – that is triggered to complete or respond to a business event

---

Data — *Data Mgmt. Services (databases)*

Student: Number, Name, GPA — registers in — Course: Department, Number — offering of — Class: Dates, Times, Locations — assigned to — Instructor: ID, Name, Rating Code

✓ **Concept Model:** depicts the things and the facts about things the organisation needs to record; the things (the entities) are what processes and solutions act on.

Concept Model: a great <u>platform</u> for *Business Analysis*

Only four types of models vs. 14 in the UML! (Unified Modelling Language)

Key point! Everything relies on the concept model

Goals	**Business Objectives**	The university is initiating the "Strategic Enrollment" program to raise Student graduation rates in part by ensuring Classes are available for Student registration when needed.

All use the language and constraints of the Concept Model (the "thing model") – the ultimate "what"

2 | **Process** | **Business Process**

Registrar's Office
- Generate Student Summary Report
- Attach Reg Request and forward

Department Advisor
- Check Reg Request for data changes
- Register Student in Class

Use Cases/User Stories:
- Who (Actors) needs access to the Services, and how (Platform)?

4 | **Presentation Services (user interface)**

When advisor enters five characters of Last Name → Then System lists matching Students

When advisor selects list item → Then System displays expanded Student view with needed Classes

When advisor etc.

Use Case

actor + service + platform:
Advisor *Register Student in Class* via SRS

Verb-Noun pairs:
- The *Services* (event-handlers) that are at the heart of a *Service Oriented Architecture.*
- *Also* "building blocks" of Business Processes

3 | **Application** | **Business Services (rules & logic)**

Register Student in Class
Verify Student Status
Verify Student pre-reqs
Confirm Class availability
Create Registration

Input Message:
Student Number
Course ID
Class ID

Output Message:
Results

Service

verb + noun (+ noun):
Register Student in Class

1 | **Data** | **Data Mgmt. Services (databases)**

Student
Number
Name
GPA

registers in

Course
Department
Number

offering of

Class
Dates
Times
Locations

assigned to

Instructor
ID
Name
Rating Code

Entity ("thing")

noun:
Class

The core *Nouns* in your enterprise. Also known as *Business Objects.*

My usual sequence

Bonus – great starting point to discover your Events/Services and Use Cases/User Stories

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Another key point! Different levels of detail for different purposes

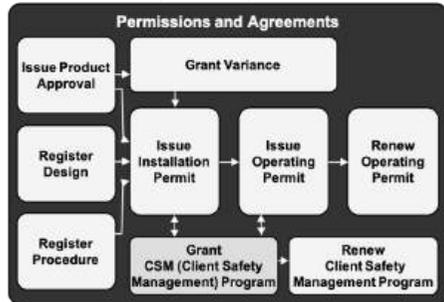Different models and levels of detail for different audiences and purposes.

Also applies to Use Cases, Services, and Data Models

Scope – for Planning	Concept – for Understanding	Detail – for Specification

Process Landscape (optional):

Process Scope Model:

Main Activities (or Milestones, Phases, or Subprocesses)

Process Summary Chart:

Boxes

- Augmented Scope Model showing next level activities: *who - what - how*
- "Business-friendly" (just boxes & lines) flow models to maximise communication and participation
- Two levels – *Handoff* and *Service*

etc.

Boxes & Lines

- Detail for technical design, perhaps using full BPMN
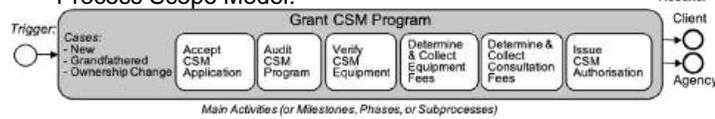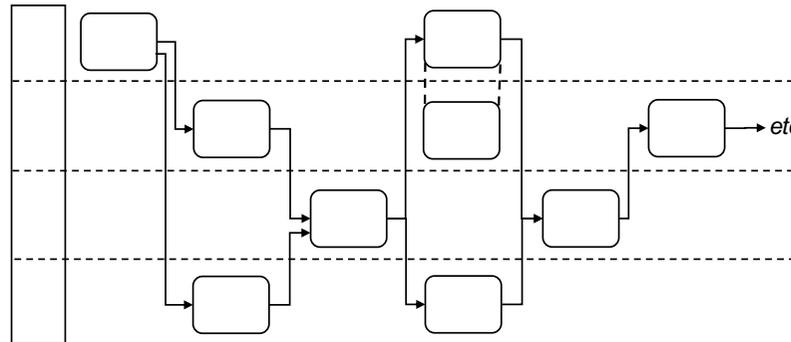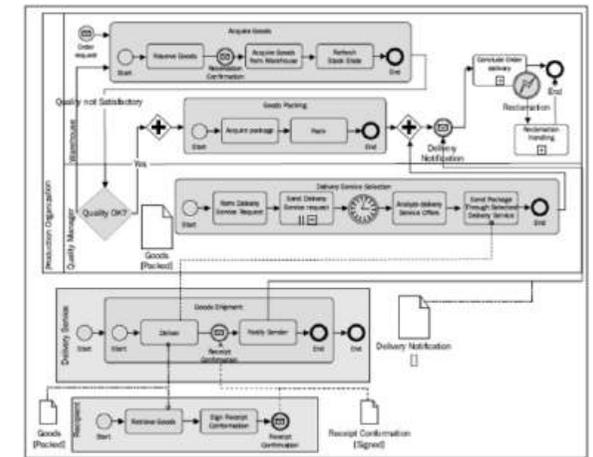
Boxes, Lines, & MANY Symbols

Specifics on progressive detail for all techniques

Clariteq Framework for Business Analysis

		Scope	Concept	Detail	
Goals	**Business Objectives**	Project Charter: primarily "Scope" level - may evolve			
Process	**Business Process**	Process Landscape showing target and related processes, Process Scope Model, initial assessment and goals.	As-is (and later, to-be) Workflow Models for the process' main variations (cases) to the Handoff level.	As-is Workflow Models to the appropriate detail, and to the Service level for to-be. Optionally, document procedures for manual to-be steps.	**Process Modelling**
Application	**Presentation Services**	List of the main Use Cases in the form: Actor + Service + (optionally) Technology / Platform (named only.)	Initial Use Case Modelling (goal, stakeholder interests, use case abstract) for each Use Case. May include initial dialogs.	Use Case dialogs in "when-then" format, annotated, and including alternate sequences. Optionally, Use Case Scenarios.	**Use Cases**
	Business Services	List of main Business Services (named only.)	Initial Service description - result, main actions, cross-referenced to Concept Model	Each service fully documented, including input/output messages, validation, business rules, and data updates to the attribute level.	**Service Specification**
Data	**Data Management Services**	Contextual Model (optional) and a glossary defining the main entities and other important terms.	Concept Model (Business Object Model or Conceptual Data Model) with main entities, relationships, attributes, and rules.	Fully normalised Logical Data Model with all attributes fully defined and documented.	**Concept Modelling**
		Plan	*Understand*	*Specify*	The "Agile Zone"

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Our three-phase methodology – proven, practical, & agile

1 Establish
Process Scope and Objectives

Some goal or issue, not rigorously specified

Identify & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model

Complete ***initial*** as-is process assessment, and to-be objective setting, by ***stakeholder***

• Customer
• Performers
• Owner
• others…

• ID processes & draw *Process Landscape* (Optional – only if you have a large scope)
• ID **T**rigger, **R**esults, main **A**ctivities, **C**ases (**TRAC**) & draw *Process Scope Model* – focus on *what, no* reference to *who* or *how*
• ID involved functions & mechanisms (*who* and *how*) & draw *Process Summary Chart*
• Conduct *stakeholder-based assessment*

2 *Understand*
the As-Is Process

Perform more ***detailed*** as-is modelling: an Augmented Scope Model & optionally, Workflow Models

Complete ***final*** as-is process assessment by ***enabler***, and generate to-be improvement ideas

• Process
• IT
• M&M
• HR
• P&R
• Fac. or…

• Develop *as-is* models:
  • *Augmented Scope Model* – add ~5 – 7 more detailed Activities for each main Activity
  • (Optional) as-is *Workflow Models* – *only* enough detail to understand process behaviour
• Conduct *enabler-based assessment* and identify *potential improvements*

3 Design
the To-Be Process

Refine to-be improvement ideas and determine 5-10 ***key features*** of the to-be process

Assess each to-be feature ***by enabler*** to ensure the new process is implementable and sustainable

Design the to-be process:
1 - ***essential*** activities first
2 - "who & how" next
3 – transport & protocol last

Re-think!

• Select key to-be *Features*

• Assess each key *Feature* by enabler
  • Identify and sequence *essential* activities
  • Develop *Workflow Models* for essential activities by adding *who* and *how*
  • *…on to requirements definition and implementation* 47

Five key points plus a BA framework plus a methodology

F1	F2	F3	F4

Cross-functional process

*Processes:
"large" and X-functional*

F1	F2	F3	F4

Cross-functional process

Misaligned measures

*Model-driven
framework*

Process
Modelling

Use Cases

Service
Specification

Business mission, strategy, goals, & objectives		**Culture, core competencies, and management style**

Business Process

Workflow Design	Information Systems	Motivation & Measurement	Human Resources	Policies and Rules	Facilities (or other)

Holistic method

System success

Operational Excellence

Product Leadership   **Customer Intimacy**

Differentiator

Concept /
Data
Modelling

*…and a proven
Methodology*

Establish
Process Scope and
Objectives

Understand
the As-Is Process

Design
the To-Be Process

Identifying and Scoping Business Processes

1. Business Process fundamentals

2. Identify true, end-to-end, cross-functional *Business Processes*

3. Clarify as-is process issues & to-be goals

4. Model the as-is process in a relevant way

5. As-is process assessment and tips for to-be design / redesign

Identify & scope process(es)

① Establish Process Scope and Objectives	② *Understand* the As-Is Process	③ Design the To-Be Process

Some goal or issue, not rigorously specified

① Establish Process Scope and Objectives
- *Identify* & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model
- Complete *initial* as-is process assessment, and to-be objective setting, by *stakeholder*

② *Understand* the As-Is Process
- Perform more *detailed* as-is modelling: an Augmented Scope Model & optionally, Workflow Models
- Complete *final* as-is process assessment by *enabler*, and generate to-be improvement ideas

③ Design the To-Be Process
- Refine to-be improvement ideas and determine 5-10 *key features* of the to-be process
- Assess each to-be feature *by enabler* to ensure the new process is implementable and sustainable
- Design the to-be process:
  1 - *essential* activities first
  2 - "who & how" next
  3 – transport & protocol last

So first, clarify scope and context

I used to dive in here… … lots of issues!

Whether it's a new initiative or "project recovery," ***always:***

- Develop a Process Scope Model

Permissions and Agreements

Issue Product Approval	Grant Variance
Register Design	Issue Installation Permit / Issue Operating Permit / Renew Operating Permit
Register Procedure	Grant CSM (Client Safety Management) Program / Renew Client Safety Management Program
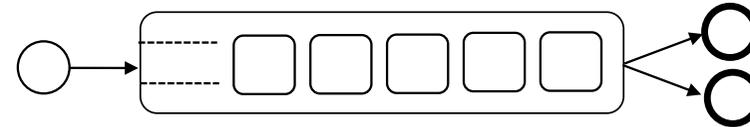
- Develop a Process Summary Chart

Function 1	Function 2	Function 3	Function 4

Cross-functional Business Process
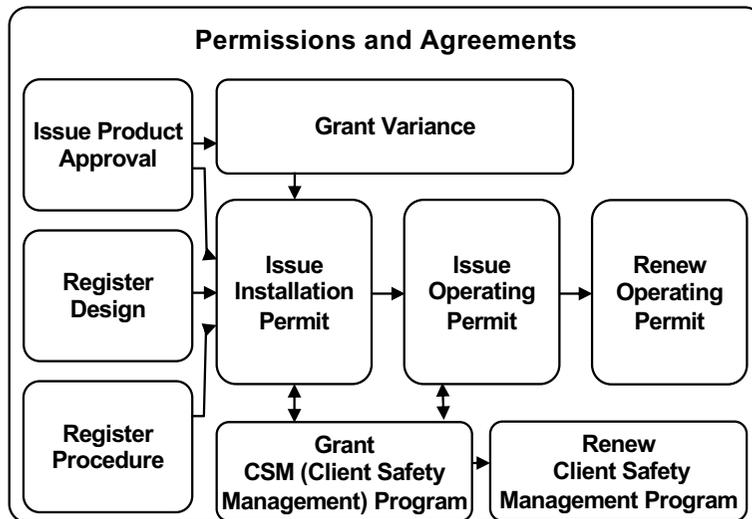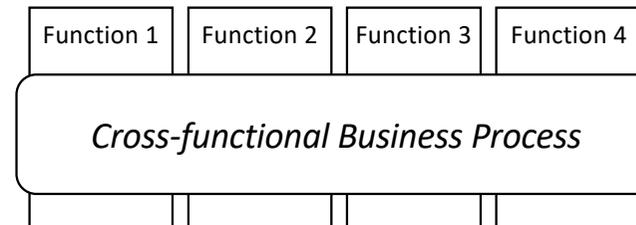
You *might* start at a higher level, with a ***Process Landscape*** –
a decomposition of a business area into a family of *individual business processes*

Identify & scope process(es) (cont.)

First, use TRAC to understand *what* the process is…

Process Scope Model – pure "what"…

Client Result:
Approval granted for a self-managed safety program.
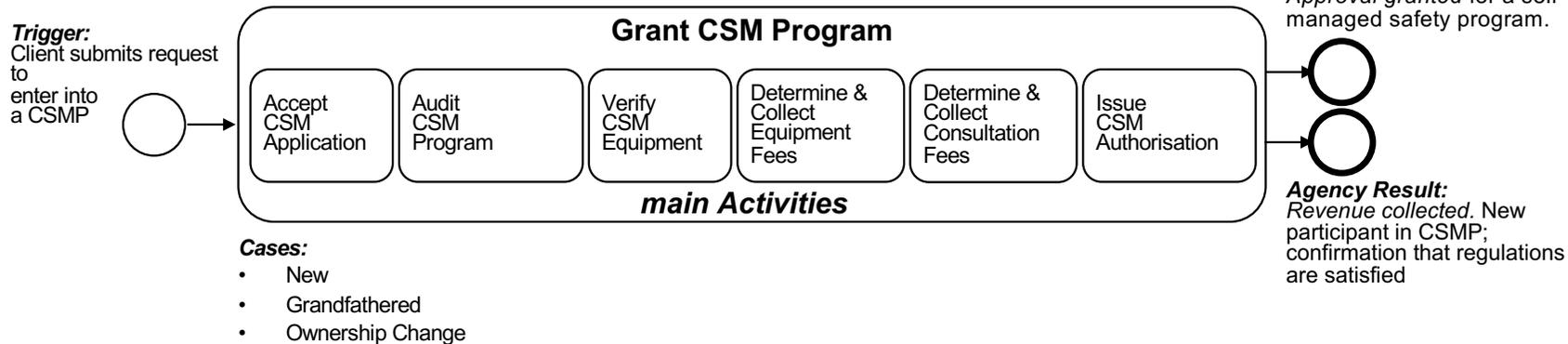
Reminder:
"TRAC"–
- *Trigger*
- *Results*
- *Activities*
- *Cases*

Trigger:
Client submits request to enter into a CSMP

Grant CSM Program

| Accept CSM Application | Audit CSM Program | Verify CSM Equipment | Determine & Collect Equipment Fees | Determine & Collect Consultation Fees | Issue CSM Authorisation |

main Activities

Agency Result:
Revenue collected. New participant in CSMP; confirmation that regulations are satisfied

Cases:
- New
- Grandfathered
- Ownership Change

Then a Process Summary Chart to put the process in context…

Process Summary Chart – simplified "what," plus "who" (and "how")

| Applicant | Customer Service | Records Management | Safety Operations | Finance |

Grant Client Safety Management Program

| Accept CSM Application | Audit CSM Program | Verify CSM Equipment | Determine & Collect Equipment Fees | Determine & Collect Consultation Fees | Issue CSM Authorization |

Now that we know *what, who,* and *how,* we can more accurately determine *why* this process need to change?

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Does identifying end-to-end processes matter?

Regulator directs telephone company to improve its *Service Provisioning* processes

- Service Provisioning – install new service, disconnect service, relocate service (*ins, outs, moves*)
- Five "business processes" misidentified:

Service Order Management process	*Facilities Management process*	*Installation process*	*Service Assurance process*	*Customer Update process*
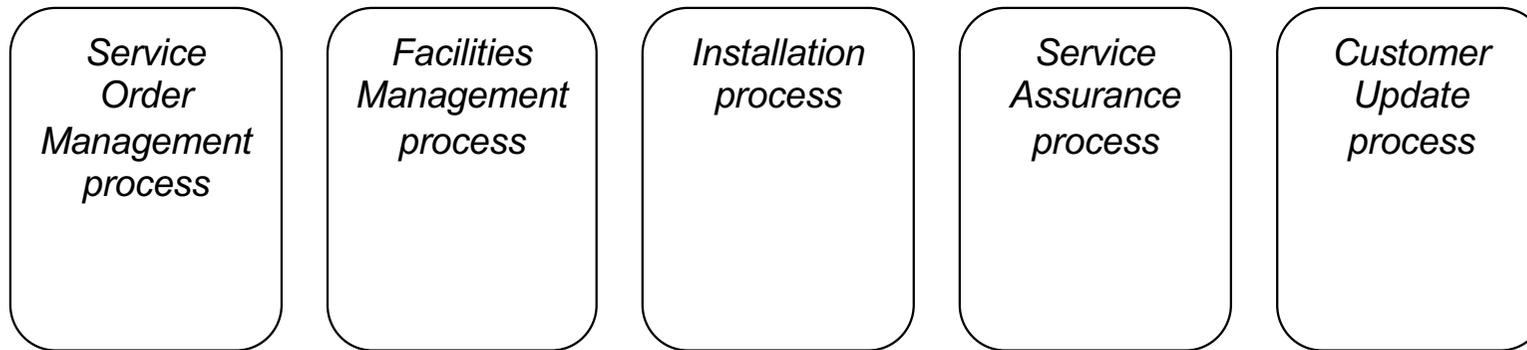
- Five teams started on "process" improvement, directed to *achieve operational efficiencies*
- Each team makes substantial improvements to *efficiency* within their "process," largely through new constraints like batching and scheduling of orders

The outcome…? *Service is worse! Major financial impact!* So, YES, IT MATTERS!!!

What errors did the Telco make?

What went wrong? Multiple errors!

No business process (end-to-end, trigger to result) perspective or metrics

Customer Service	Facilities Management	Installation & Repair	Network Monitoring	Customer Records & Billing
Service Order Management	*Facilities Management*	*Installation*	*Service Assurance*	*Customer Update*

Trigger

Final results

"Mushy" naming

Confusing *process* with *function* (organisation)

Failing to notice the 1:1 connection between activities

Internal focus – *no recognition of the result the Customer wanted*

Eliyahu Goldratt:
"Local optimisation yields global suboptimisation."

When does one business process end, and another begin?

Customer
result:
Telephone
service
is moved

Trigger:
Customer
requests
telephone
service
move.

The actual process: Fulfill Move Service Order

| *Capture Move Service Order* | 1:1 | *Assign Service Order Facilities* | 1:1 | *Install Service Order Equipment* | 1:1 | *Confirm Service Quality* | 1:1 | *Activate Customer Account* |

5 major Activities (or Phases, Milestones, Subprocesses, …)

Telco
result:
Active
account,
receivable
posted

Guidelines:

▪ If the result of one activity is the trigger for another activity, on a 1:1 basis, they're likely part of the same overall *business process. A 1:M or M:1 signals a process boundary.*

▪ If the "token" (a Service Order, a Student, a Trouble Report, …) changes,
that indicates a process boundary

| *Recruit Prospect* | 1:1 | *Complete Prospect Application* | 1:1 | *Assess Applicant* | *etc.* |

Same process
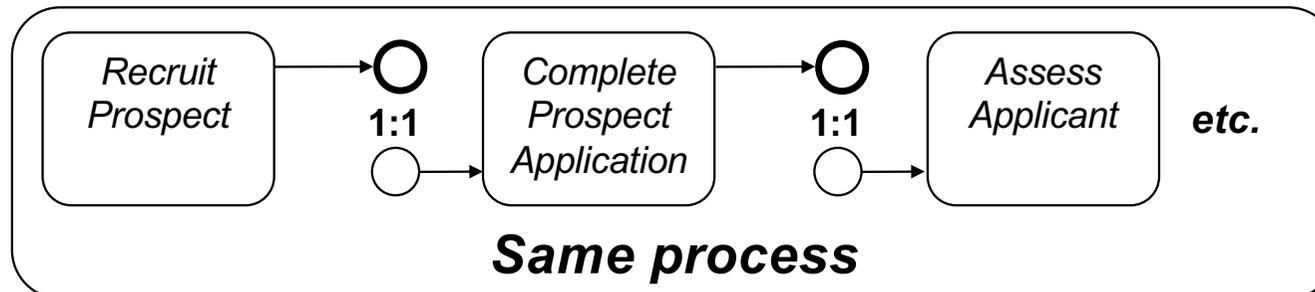
▪ We use this technique during process discovery

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Process discovery example

A bank believed they had identified the 12 *business processes* in their Commercial Loans Management area, including these 7:
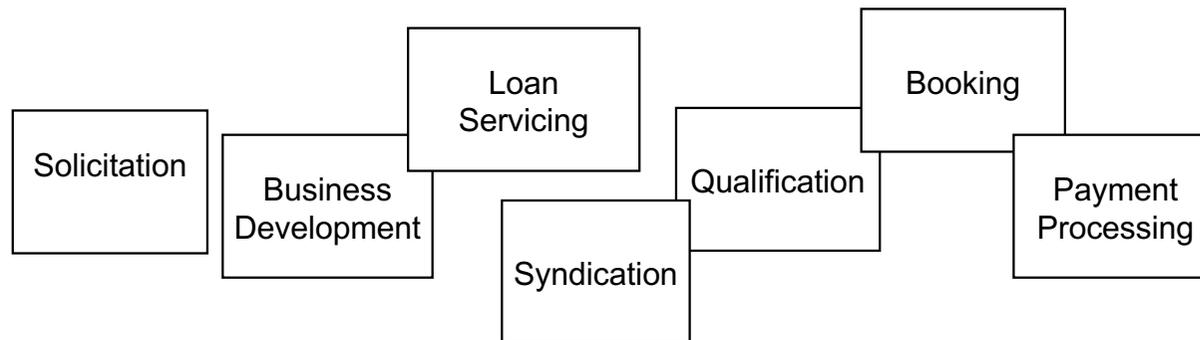
Discuss:

*   What is wrong with the names of these processes?
*   Can you think of any questions to help improve these process names?

Bottom-up process discovery – example

Loan
Servicing

Booking

Solicitation

Business
Development

Qualification

Payment
Processing

Syndication
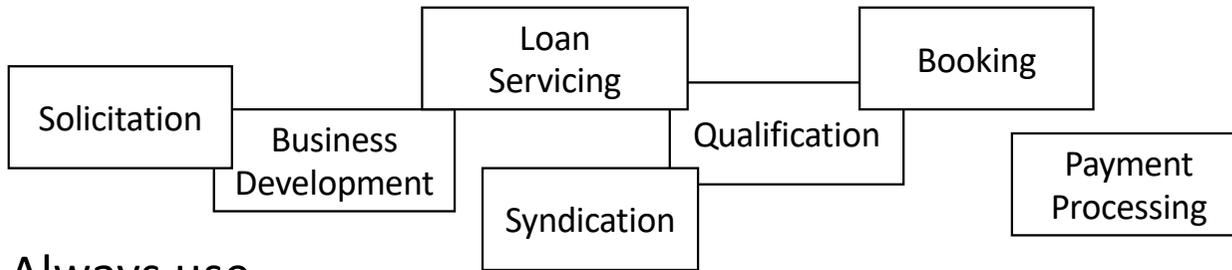
Dubious "business processes"

Always use
"active verb – noun" naming
with no "who and how"

Solicitation???

Solicit...
what?

Solicit
Prospect

Solicit
Loan Payment
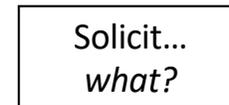
Client then identified *recognisable* activities, each producing an essential *result* (easy!)
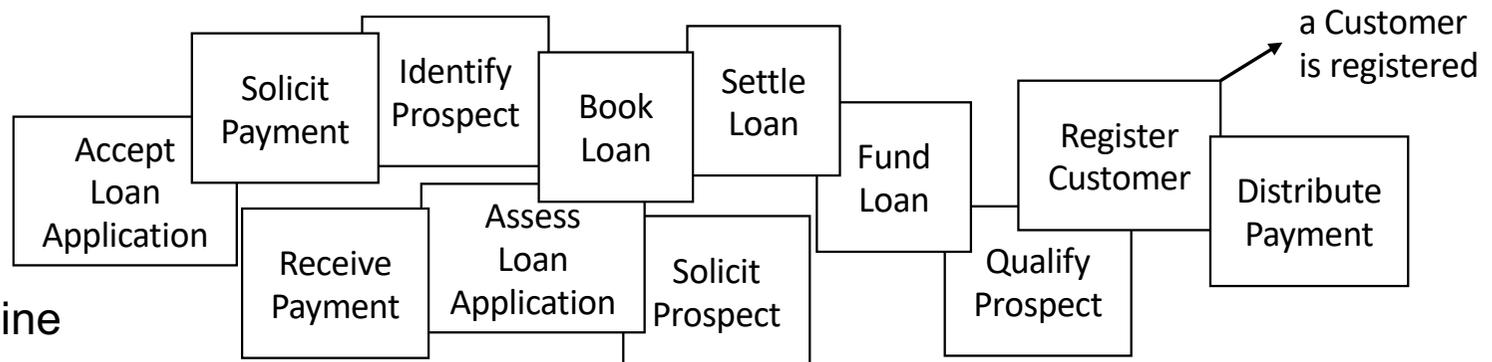
Let's put these
in sequence, then
use *TRAC* to determine
Business Processes.

Accept
Loan
Application

Solicit
Payment

Identify
Prospect

Book
Loan

Settle
Loan

Fund
Loan

Register
Customer

Distribute
Payment

Receive
Payment

Assess
Loan
Application

Solicit
Prospect

Qualify
Prospect

a Customer
is registered

This was done in-person with Post-its and flipcharts
but tools like Lucidchart and Miro work well virtually

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Summary – sequence activities

Not usually linear – parallel chains are typical

Identify Prospect	Qualify Prospect	Solicit Prospect	Register Customer	Receive Loan Application	Assess Loan Application	Fund Loan	Book Loan	Solicit Payment	Receive Payment	Distribute Payment	Settle Loan
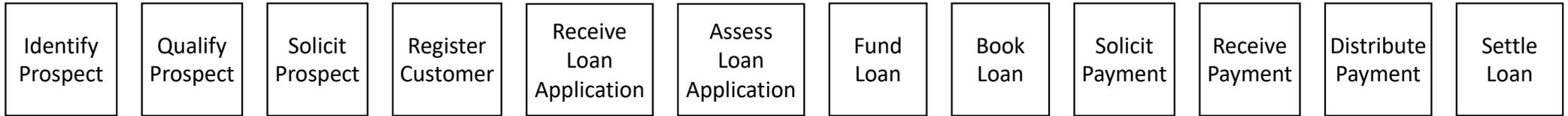
The clients arranged the
activities in sequence:
- *easy!*
- *a learning experience!*
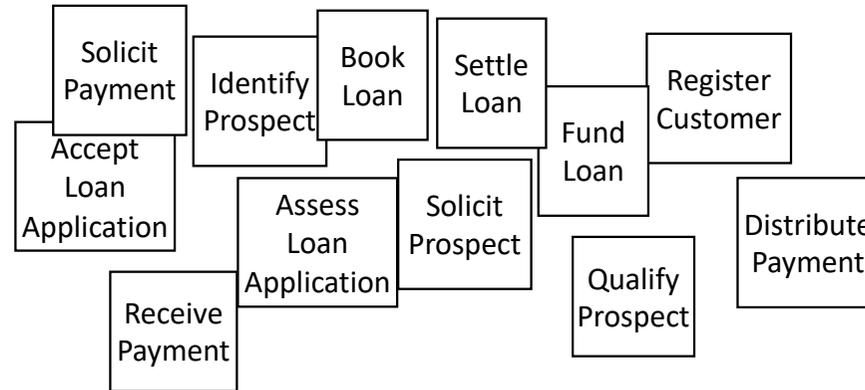
Now we'll use my "TRAC"
framework for
business processes –
- *Trigger*
- *Results*
- *Activities*
- *(Cases – later)*

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Summary – use TRAC to discover business process boundaries

Various… (they struggled with this one)

Customer seeks loan financing (decision event)

Time for repayment installment (temporal event)

Zero balance (conditional event)

1:1	1:1	1:1	1:1 (1:M)	1:1	1:1	1:1	1:1 (1:M)	1:1	1:1	1:1 (M:1)
Identify Prospect	Qualify Prospect	Solicit Prospect	Register Customer	Receive Loan Application	Assess Loan Application	Fund Loan	Book Loan	Solicit Payment	Receive Payment	Distribute Payment	Settle Loan

Customer
(from prospect to registered)

Loan
(from applied to booked)

Payment
(from solicited to distributed)

Loan

Customer:
  an Account that enables business with the bank
The Bank:
  a new Customer (an asset)
Business Development:
  Commission credit

Customer:
  Loan funds available
The Bank:
  a performing asset (Loan)
Syndication Partners:
  a share of the Loan

Bank:
  Loan payment received & distributed
Syndication Partners:
  Loan Payment received

Customer:
  release of Loan liability
The Bank & Syndication Partners:
  completed Loan
Regulator:
  Loan completion notice

It appears we have discovered four business processes, each with:
  Trigger
  Results
  Activities
  (Cases later)

1. ID where a final Result of value is delivered to one or more (usually at least two) stakeholders – "happiness points"

2. Identify points where a Triggering event (decision, time, condition) beyond the organisation's control is required before activities can proceed

3. Identify "cardinality" of connections between Activities (1:1, 1:M, M:1)

4. Identify "tokens" flowing through the activities

5. Name business processes with active verbs and nouns (usually the tokens)

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Four end-to-end business processes, objectively demonstrated

Various...

Customer seeks
loan financing
(decision event)

Time for
repayment installment
(temporal event)

Zero balance
(conditional
event)

Acquire Customer

| Identify Prospect | Qualify Prospect | Solicit Prospect | Register Customer |

Grant Loan

| Receive Loan Application | Assess Loan Application | Fund Loan | Book Loan |

Collect Payment

| Solicit Payment | Receive Payment | Distribute Payment |

Settle Loan

| Settle Loan |

Customer:
an Account that enables
business with the bank
The Bank:
a new Customer (an asset)
Business Development:
Commission credit

Customer:
Loan funds available
The Bank:
a performing asset (Loan)
Syndication Partners:
a share of the Loan

Bank:
Loan payment
received &
distributed
*Syndication
Partners:*
Loan Payment
received

Customer:
release of
Loan
liability
*The Bank &
Syndication
Partners:*
completed
Loan
Regulator:
Loan
completion
notice 59

Client had faith these were *their* business processes

Six guidelines for well-formed processes, two clients <u>really</u> appreciate

1. "Active verb – noun" naming that indicates primary result

2. Triggered by an event (decision, time, data) outside process' control

3. At the end are results that makes one or more stakeholders happy

4. In between are ~5 to 7 major Activities (phases, milestones, subprocesses, …)

5. Activities linked *1:1* are probably part of the same process;
a *1:M* or *M:1* connection between activities is probably a boundary

6. The same *token* moves through the whole process,
changing state, e.g. a Loan, from applied to booked;
there will be a *change of token* across a process boundary
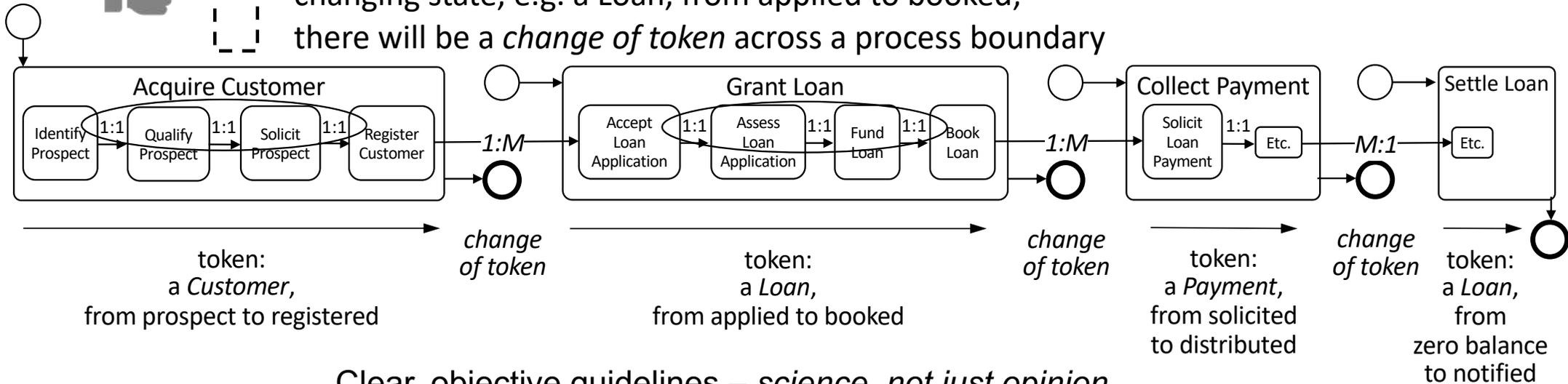
Clear, objective guidelines – *science, not just opinion*

Doing this virtually with a tool like Lucidchart…
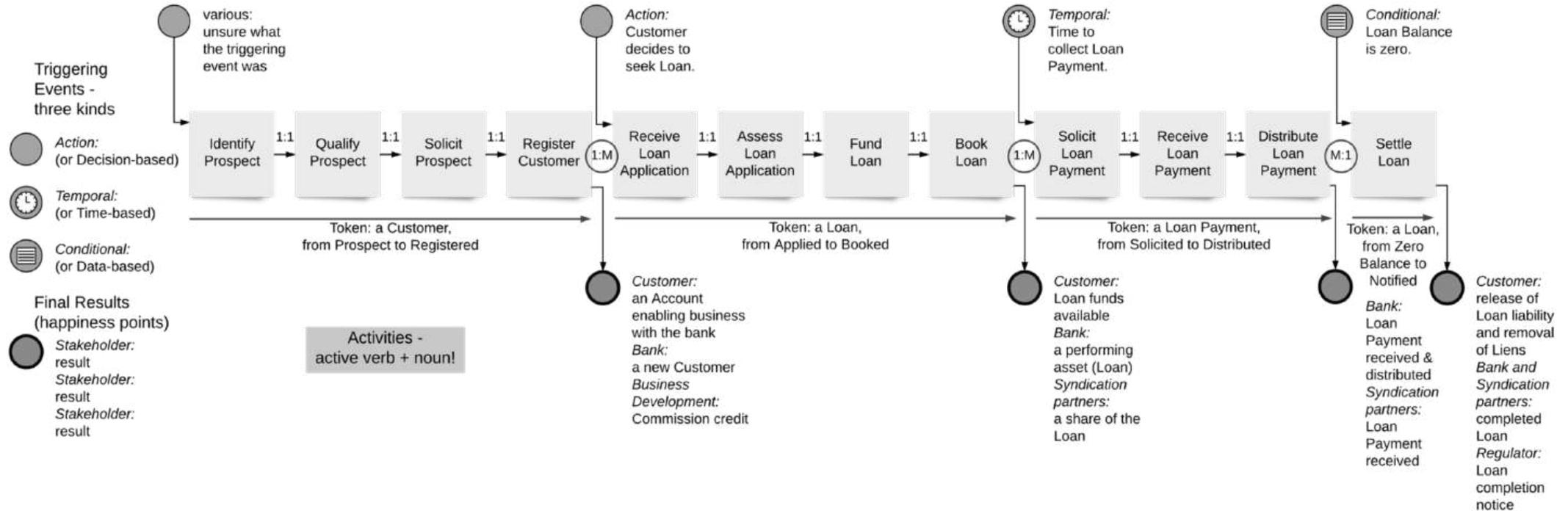
Correspondence to the Concept Model

Customer

Acquire Customer

1:M

is granted

is granted to

Grant Loan

Loan

1:M

is repaid via

repays

Collect Payment

Loan Payment
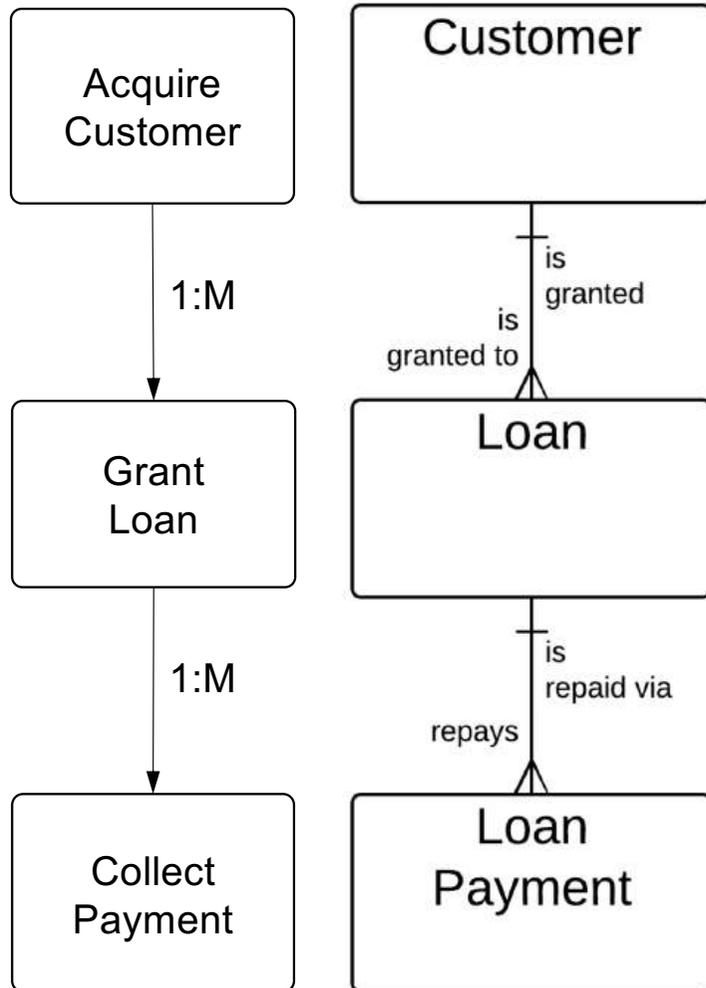
- The nouns in your verb-noun *Process* name are most often the *Entities* in your Concept Model, and each will usually have one primary *Process*

- The relative number of Process instances (e.g., 1:M or M:1) align with relationship cardinality

- This *does no*t mean there is only one Process per Entity
  - Assess *Customer* Performance
  - Retire *Customer*
  - Merge *Loans*
  - Write Off *Loan*
  - …

What next?

Commercial Loans Management

Acquire Customer

Grant Loan → Collect Payment → Settle Loan

Simplify "up"

○ Various…

A *Process Landscape* for the *Process Area* "Commercial Loans Management" showing its four Business Processes. More were added later. This is the beginning of the Process Architecture.

Acquire Customer

| Identify Prospect | Qualify Prospect | Solicit Prospect | Register Customer |

Grant Loan

| Receive Loan Application | Assess Loan Application | Fund Loan | Book Loan |

Collect Payment

| Solicit Payment | Receive Payment | Distribute Payment |

Settle Loan

| Settle Loan |

◎

Refine "down"

Customer*: an account…
The bank: a new Customer…
Biz Dev: commission credit…

A *Process Scope Model* for "Acquire Customer"

○ Prospect is identified →

Acquire Customer

| Capture Prospect Details | Assess Prospect Financial Health | Assess Prospect Strategic Fit | Solicit Prospect | Register Customer Account |

→ ◎

Customer, Bank, Biz Dev: *no change*

Cases: Enterprise, SMB, Retail, Government

The arc of modelling and analysis

Start bottom-up to build overall framework – *Continue* top-down

Draw a *Process Landscape,*
our overall framework

Use objective criteria to
identify process boundaries

Progressive refinement and elaboration

Sequence activities
into "chains"

Develop *Process Scope Model,
Process Summary Chart, and
Augmented Scope Model*

bottom-up synthesis

top-down analysis

Granular activities
(real, recognisable work)

Develop *Initial Swimlane Diagram* 64

Clarify Business Process as-is issues & to-be goals

1. Business Process fundamentals

2. Identify true, end-to-end, cross-functional
   Business Processes

3. Clarify as-is process issues & to-be goals

4. Model the as-is process in a relevant way

5. As-is process assessment and tips for to-be design / redesign

Our methodology – three responses to three common difficulties

1 Establish
Process Scope and Objectives

Some goal or issue, not rigorously specified

Identify & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model

Complete *initial* as-is process assessment, and to-be objective setting, by *stakeholder*

Big picture first

Don't start here!

2 *Understand*
the As-Is Process

Perform more *detailed* as-is modelling: an Augmented Scope Model & optionally, Workflow Models

Complete *final* as-is process assessment by *enabler*, and generate to-be improvement ideas

Flow first, detail later

3 Design
the To-Be Process

Refine to-be improvement ideas and determine 5-10 *key features* of the to-be process

Assess each to-be feature *by enabler* to ensure the new process is implementable and sustainable

Design the to-be process:
1 - *essential* activities first
2 - "who & how" next
3 – transport & protocol last

My *hardest* assignments

1 – Premature diagnosis of the situation

Don't start with a problem statement!
There will be some goal or issue, but don't formalise it *yet*.

And remember… it may not be a "process" issue.

2 – Failure to identify true end-to-end processes

Rigorous techniques to identify real business processes – a Process Scope Model and a Process Summary Chart make scope and context visible.

3 – A rapid descent into unhelpful detail

Clarify the big picture, then take a *controlled* descent with well-defined levels of detail.

Perform initial as-is assessment, determine to-be objectives

① Establish Process Scope and Objectives		② *Understand* the As-Is Process		③ Design the To-Be Process		
Identify & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model	Complete *initial* as-is process assessment, and to-be objective setting, by *stakeholder*	Perform more *detailed* as-is modelling: an Augmented Scope Model & optionally, Workflow Models	Complete *final* as-is process assessment by *enabler*, and generate to-be improvement ideas	Refine to-be improvement ideas and determine 5-10 *key features* of the to-be process	Assess each to-be feature *by enabler* to ensure the new process is implementable and sustainable	Design the to-be process: 1 - *essential* activities first 2 - "who & how" next 3 – transport & protocol last

Some goal or issue; not rigorously specified

Why does this process need to change?

But for a process…

Process Scope Model

START WITH WHY
HOW GREAT LEADERS INSPIRE EVERYONE TO TAKE ACTION
SIMON SINEK

THE GOLDEN CIRCLE
WHY / HOW / WHAT
by SIMON SINEK

What first

Who & How next

Only then *Why?*
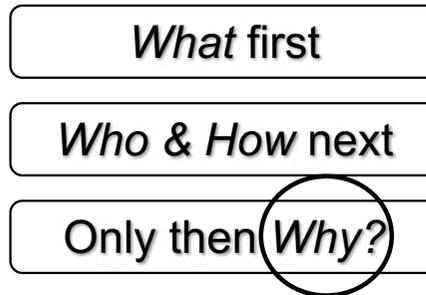
"People don't buy *what* you do, they buy *why* you do it."

Why does this process *need* to change? We'll answer that with a *Case for Action* (a nuanced form of problem statement)

Process Summary Chart

Function 1	Function 2	Function 3	Function 4
Cross-functional Business Process			
Supporting Mechanisms			
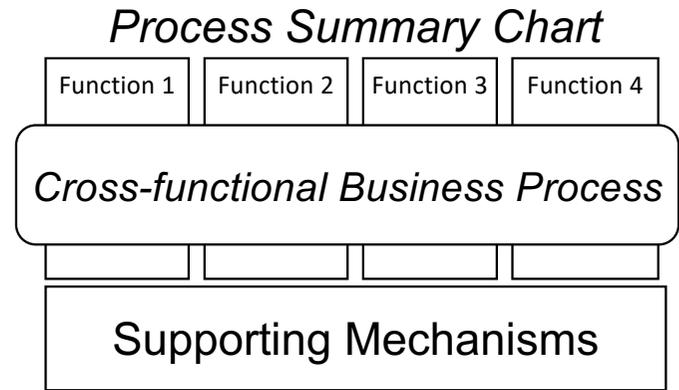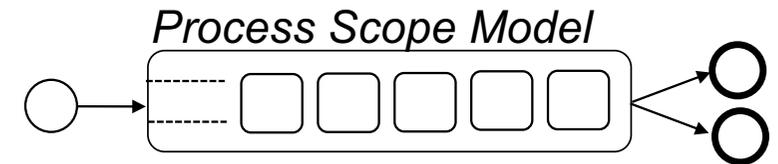
Now we have an end-to-end, cross-functional perspective.

Michael Hammer's original "Case for Action"

- **Characteristics**
  - a "wedge" or "prybar"; where we are, why we can't stay
  - factual, not exaggerated
  - concise, clear, compelling

- **Five components**
  1. *business context* – what's happening?
  2. *business problem* – essence of concern?
  3. *marketplace demands* – requirements we can't meet?
  4. *diagnostics* – why we can't meet them?
  5. *costs of inaction* – what if we do nothing?

- **I simplified it, re-sequenced it,
  and made it more stakeholder-focused**
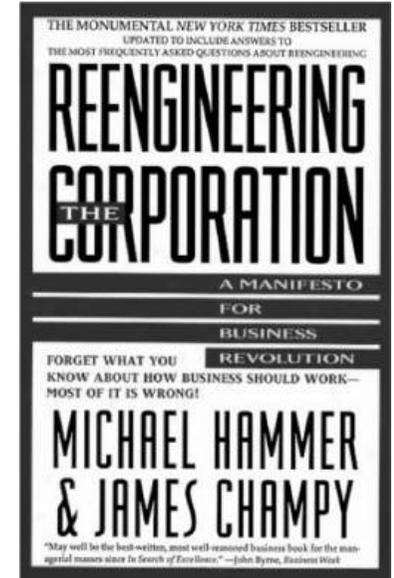
My version of Michael Hammer's "Case for Action"

1) Stakeholder assessment **–** makes it *real*

What are the concerns of *each* stakeholder group?

- Customer
- Performers
- Owner/manager (the enterprise itself)
- Others (regulator, partners, …) as needed 😔

!

We're not that bad!

2) Context **–** makes it *blame-free*

What changes in the environment since the process was "designed" have caused these issues to surface? 😀

Yay – It's not our fault!

3) Consequences of inaction **–** makes it *compelling* 😲

What will happen if the process is left as-is?

We'd better get on with it! 69
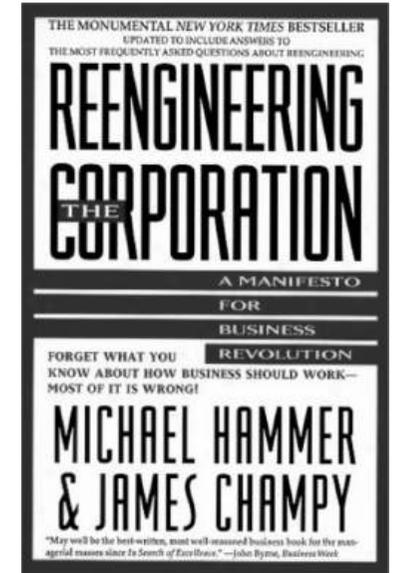
1. *Stakeholder concerns*

*"You must communicate in a clear and compelling way why the process
has to change by completing the initial assessment for the as-is process."*

Initial assessment – 3 components

Stakeholder assessment – makes it *real*
- Customer
- Performers
  (***what's in it for me?)***
- Owner/manager
  (the enterprise itself)
- Others, as needed

Initial assessment – typical questions

Customer:
- Are there too many interactions?
- Are rules, requirements, protocol reasonable?
- Can *your* work be located within the process?
- Are *you* the process integrator –
  the human glue that connects the process steps?

Performer:
- What are your major sources of frustration?
- Do you have the necessary tools and support?
- Are there steps that serve no purpose?
- Are problems caused upstream? Does the workload vary wildly?
- What would you change if you could?
- *Are* there documented processes and procedures?

Owner/manager:
- Does the process use resources you would rather re-allocate?
- Is it a net contributor or a source of problems?
- Does the process constrain innovation, growth, or opportunities?
- Is it a source of customer or media *criticism?*

2. Context – assessing changes in the environment

Context – makes it blame-free
What changes in the environment since the process was first "designed" have caused these issues to surface?

Areas to consider:

- Regulatory change
- Workforce changes (e.g., "recruiting and retaining" vs. "retiring")
- Emergent technology (AI, robotics, drones, "SMAC" - Social, Mobile, Analytics, Cloud,) or current supporting technology is EOL ("End Of Life")
- Changing customer expectations
- Competition, especially new or emerging

- -

- Changes in business volume (growth or contraction)
- Socio-political change
- Environmental ("green") concerns
- Change in business model (e.g., customised or standarised)
- Change in business ownership (public, private,) M&A, divestiture
- Change in government (post-election fallout)
- Changes in business operating locations
- Economic conditions
- … and many others (see "PESTLE")

3. Consequences of inaction

Consequences of inaction – makes it compelling
What will happen if the process is left as-is,
and the status quo is maintained?

For the individual:

- Unsatisfying work environment?
- Diminished opportunities?
- Reduced employment
  or *loss of employment?*
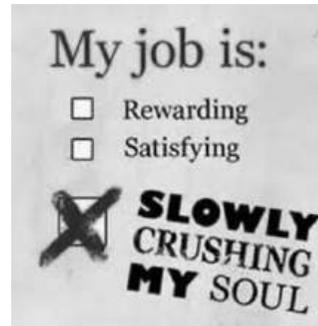
For the organisation:

- Reduced performance?
- Reduced stature or reputation?
- Withdrawal from the market?

"Case for Change" example

Situation:
- Manufacturing firm redesigns core *Financial Reporting* processes prior to COTS selection
- No progress! – Project has descended into "the blame game"

Stakeholder assessment –

Client was very happy!

- *Customer* – Financial markets / fund managers cannot get the info they need for investment decisions
- *Performers* – Finance staff spend all their time on assembling "the numbers" with no time for value-added analysis
- *Owner/manager* – CFO is under constant pressure and criticism from the financial markets and other executives

Context –
- Firm recently divested from a huge conglomerate
- Financial reporting was formerly to Head Office, but now is to financial markets which the processes were *never designed to do*

Consequences of inaction –
- Planned acquisition of competitor will not go ahead due to lack of financial market support for new bond issue;
- *Firm likely to be acquired by the competitor. Uh oh… Finance staff quickly realised their employment was threatened and got on board!*

Then, establish process goals / improvement targets

"You must also provide a sense of direction by
defining to-be process goals and objectives."

Subjective goals	**Measurable objectives**

Give people a *"feel"* for direction:
• "Customers will love this process because…"
• "Performers will love this process because…"
• "The process owner will love this process because…"
	Provide *specific targets*
	Establish baseline to *prove* success
	Format:
	• Topic
	   (what will be improved?)
	• Target
	   (what is the measurable objective?)
	• Timeframe
	   (when will these results be realised?)

It may now be appropriate to introduce new process measures, metrics,
and key performance indicators (KPIs,) and establish baseline performance

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Example from in-person workshop – assessment to goals

Stakeholder-based Initial Assessment of the as-is. ("Case for Action")

1) Stakeholder concerns

Customer:
- excessively "high touch" (too many meetings)
- long lead times from contact to publication
- errors in ads and invoices

Performers:
Sales Rep:
- too many review meetings which cut into selling time
- overhead ("administrivia") in order submission procedure

Production:
- Monday to Wednesday crunch
- too many cycles to obtain ad approval

Finance:
- redundant ad order data leading to errors
- lack of pricing controls

Owner:
- ceiling on growth
- lost revenue
- staff frustration

2) Context: growth, customer expectations, IT, competition.
3) Consequences of inaction: Out of business!

Stakeholder-based goals for the to-be

Subjective ♡

"Why will they 'love' the new process?"
- fewer or no meetings
- shorter lead time
- no errors in ads or invoices
- fewer or no meetings
- relief from burdensome order submission
- level workload
- more ads approved on first review
- elimination of ad order data redundancy ("single source of truth")
- GROWTH
- no lost revenue to errors
- eliminate stress and friction.

Objective ▯▯▯

"measurable"

topic	target	timeframe
ads approved at first review	80%	Q4 2017
lead time	reduced from average of 10 days to 5	Q4 2017
invoice error rate	.3%	Q4 2017
ad orders/week	+20%	Q1 2018
(or commission?) time spent on order submission	— %	Q4 2017
daily workload variation	≤5% daily	Q4 2017
ads approved at first review	80%	Q4 2017
page count	increasing at 15% per annum	Q1 2018
staff satisfaction score	?	Q1 2018

Case for Action summary

Stakeholder
assessment

All stakeholders
have *real* issues
with the
as-is process –
it needs attention!

*Factual and
unexaggerated*

Context

These issues have
surfaced because of
changes *beyond our
control* in the wider
environment.

*Blame-free and
non-threatening*

Consequences
of inaction

If we don't fix this
process, there are
serious
consequences –
individually and for
the enterprise.

Urgent!

The *Case for Action* is also a great starting point for
specifying to-be objectives,
and clarifying the process' *Differentiator*.

Operational Excellence

Product Leadership

Customer Intimacy

Phase 1 summary – Discover processes, "frame" the target process

– 1 – ***Identify, scope, and assess the target process***	**– 2 –** Understand the "as-is" process	**– 3 –** Characterise and design the "to-be" process

> **Phase 1 – Identify processes & "frame" the target process (scope, issues, goals)**

Identify a set of related processes	***Select target process and define "what" (essential scope)***	***Define as-is process "who and how"***	***Determine why process must change – "Case for Action"***	***Specify to-be process goals – "Process Goals" and Differentiator***	***Specify to-be process performance metrics***

• ID common terms
• Select core nouns (things)
• ID activities acting on things
• Link activities into processes
• Draw *Process Landscape*
	• *What* – **TRAC:**
	  • **T**riggering event
	  • Final **R**esults by stakeholder
	  • ~5 +/- 2 main **A**ctivities
	  • **C**ases / variations
	• Draw *Process Scope Model*
		• *Who* – Functions / Organisations / each Actor (optionally main responsibilities)
		• *How* – supporting Mechanisms
		• Draw *Process Summary Chart*
			• Stakeholder issues and concerns
			• Business context (changes in the environment)
			• Consequences of inaction
			• Record *Case for Action*
				• Establish subjective goals by stakeholder
				• Establish objective (measurable) goals
				• Clarify differentiator
				• Record *Process Goals*
					• Determine basic *measures*
					• Craft process *metrics:*
					  • strategically aligned
					  • outcome-based
					  • customer-focused.

This slide left blank by accident

As-is Business Process modelling

1. Business Process fundamentals

2. Identify true, end-to-end, cross-functional *Business Processes*

3. Clarify as-is process issues & to-be goals

4. Model the as-is process in a relevant way, and *fast!*

5. As-is process assessment and tips for to-be design / redesign

3 – Complete additional as-is modelling

The goal is to *understand* the as-is process, not document it in *excruciating detail!*

Admit and Onboard a Student

Recruit Prospect	Complete Application	Assess Applicant	Admit Student	Award Financial Aid	Grant Housing	Complete Pre-Enrollment Requirements	Register Student in Classes

- Identify Suspects
- Qualify Prospects
- Engage Prospect
- etc.

- Collect App Fee
- Initiate Application
- Submit Application
- etc.

- Confirm Application
- Evaluate Application
- Verify Req'ts
- etc.

- Make admit / deny / assess decision
- Notify Student
- etc.

- Receive FAFSA
- Assess Need
- Determine Aid
- etc.

- Provide Housing Req'ts
- Assess Application
- Provide Alternatives
- etc.

- Confirm Other Requirements (visa, shots, writing, …)
- Register Orientation
- etc.

- Identify Courses
- Create Class Schedule
- Register Classes
- etc.

Who:	Registration Assistant
What:	Register Classes
How:	via Workday SRS

Optionally, model initial Workflow –
- Simplicity – minimal symbols and detail
- "Flow first, detail later!"

I always build an Augmented Scope Model –
1. *What* the *detailed* activities are, e.g. "Register Class" (verb + noun)
2. Add *who* and *how*, e,g, "*Advisor* Register Class *via SIS*"

This is often good enough! – no need for an as-is swimlane diagram / workflow model

www.lucidchart.com

Simple Swimlane Diagrams – maximise their strengths

Complete semester enrollment (partial)

Student
- Prepare enrollment package
- Submit enrollment package
- Decide to proceed — yes / no — Student gives up!
- Provide supporting documentation

Departmental Assistant
- Submit enrollment package
- Decide if supporting documentation needed — yes / no
- days later!

Departmental Advisor
- Confirm course prerequisites
- Decide if waiver required — no / yes
- Enroll student per instructions
- Prepare confirmation → Etc.
- Must be printed and signed.

Departmental Dean
- Approve or reject waiver request
- Note - This is simplified - we haven't shown the "transport mechanisms."

Other Process
- Grant Financial Aid

Handoff: A flow from one actor to another.

Flow: A sequential dependency between steps.

Actor: A participant in the process – could be a person, organisation, job, system, tool, or anything else that "holds the work."

- Shows *sequence and dependency*, left to right
- Simple – *anyone* can read
- Shows *all* actors and therefore *all* handoffs
- The *entire,* e2e process
- *What,* but not *how*

Step: An activity or step carried out by one or more actors.

Who – the actors

What – the steps

When – the flow

Other tools are better for capturing detail – *how* the steps are done:
- step-by-step procedures
- checklists
- decision trees
- use cases
- etc.

Why did simple Swimlane Diagrams become popular?

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A quick Google Images search on "swimlane diagram" reveals…

… lots of diagrams I might draw differently.
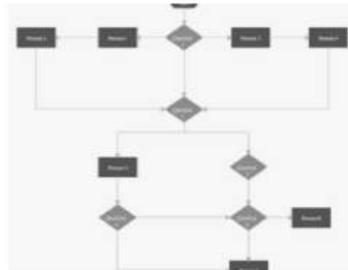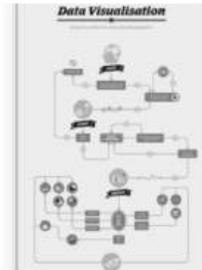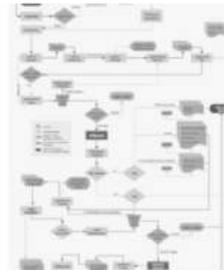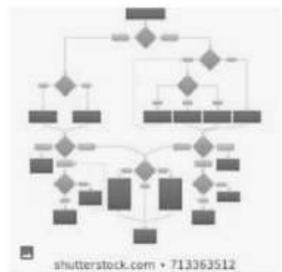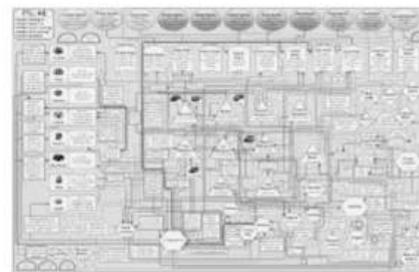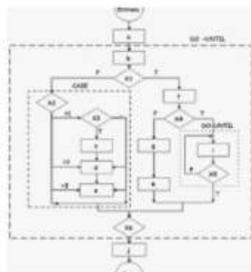
One example… "Chaos With Colours"
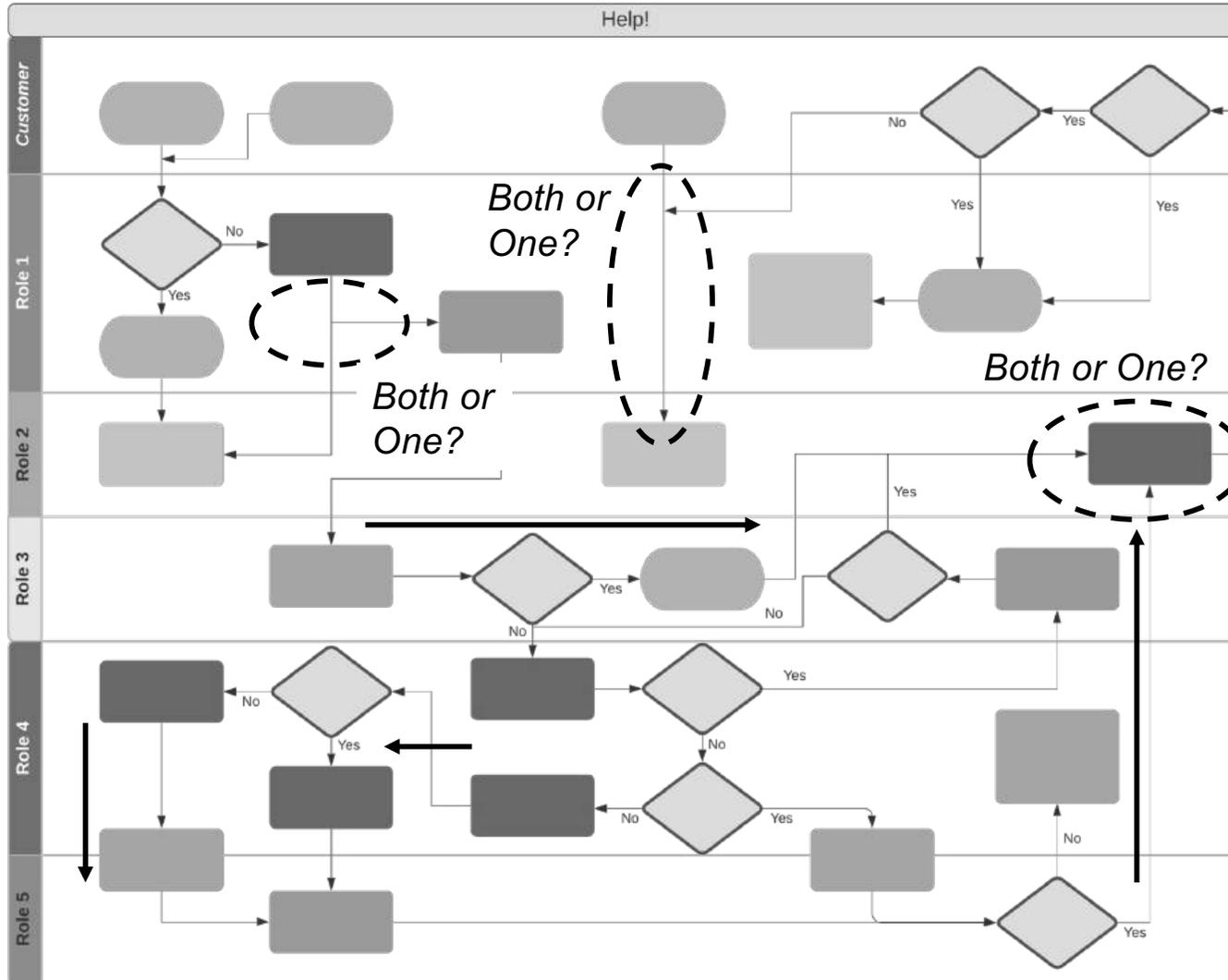
Probably accurate,
not too many symbols, but…
- do unexplained colours help?
- significance of multiple flows?
  - two separate flows inbound to a step
  - two joined flows inbound to a step
  - one outbound flow splitting
- but most of all…
  flows in all directions!:
  - left to right
  - right to left
  - top down
  - bottom up

Why???

Forcing it into a "one-pager" defeats the graphic power of the diagram.

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If you <u>need</u> a one-pager draw an Augmented Scope Model

Admit and Onboard a Student

Add 5 – 10 Activities per Major Activity

Recruit Prospect	*Complete Application*	*Assess Applicant*	*Admit Student*	*Award Financial Aid*	*Grant Housing*	*Complete Pre-Enrollment Requirements*	*Register Student in Classes*

- Identify Suspects
- Qualify Prospects
- Engage Prospect
- etc.

- Collect App Fee
- Initiate Application
- Submit Application
- etc.

- Confirm Application
- Evaluate Application
- Verify Req'ts
- etc.

- Make admit / deny / assess decision
- Notify Student
- Complete Integrated Assessment
- etc.

- Receive FAFSA
- Assess Need
- Determine Aid
- etc.

- Provide Housing Req'ts
- Assess Application
- Provide Alternatives
- etc.

- Confirm Other Requirements (visa, shots, insurance, …)
- Register Orientation
- Complete Orientation
- etc.

- Identify Courses
- Create Class Schedule
- Register Classes
- etc.

Later add *who* & *how* to each Activity

Who: Registration Assistant
What: Register Classes
How: via Workday SRS
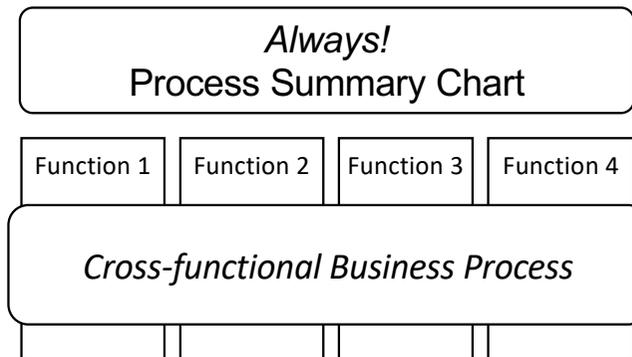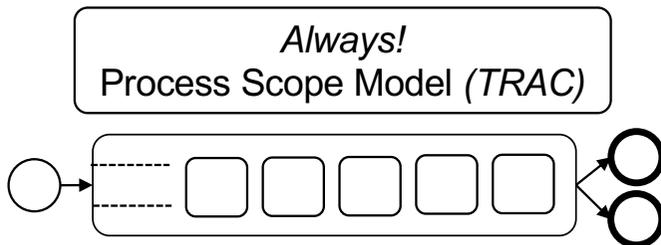
We're almost at swimlane level!

Before "swimlaning"…

Always!
Process Scope Model *(TRAC)*

Always!
Process Summary Chart

Function 1	Function 2	Function 3	Function 4

Cross-functional Business Process

Almost always!
Augmented Scope Model

…… …… …… …… ……
…… …… …… …… ……
…… …… …… …… ……
…… …… …… ……
…… ……

84
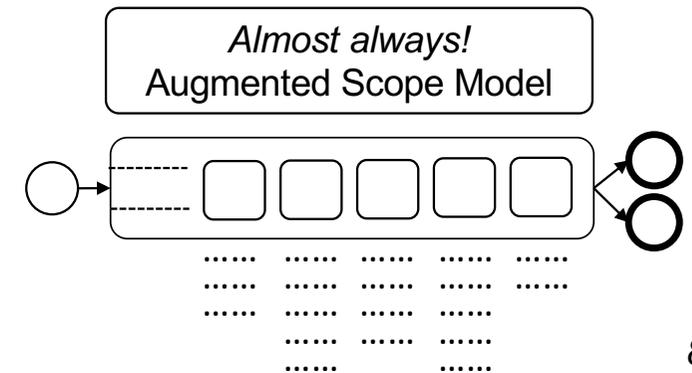
Another fast Augmented Scope Model example

Cases:
- $5000 - $25000 Goods
- $25000 - $50000 Goods
- $5000 - $25000 Services
- $25000 - $50000 Services

Assume everything <$5000 is purchased with a PCard

Triggering Event:
- Customer needs Good / Service

Source Good/Service

Prepare Requisition	Evaluate Requisition	Solicit Quotes	Evaluate Quotes	Award / Issue P.O.	Receive & Approve Invoice	Issue Payment

Final Results:
- Customer has received Good/Service:
- Vendor has been paid
  - via A/P
  - via PCard

Prepare Requisition
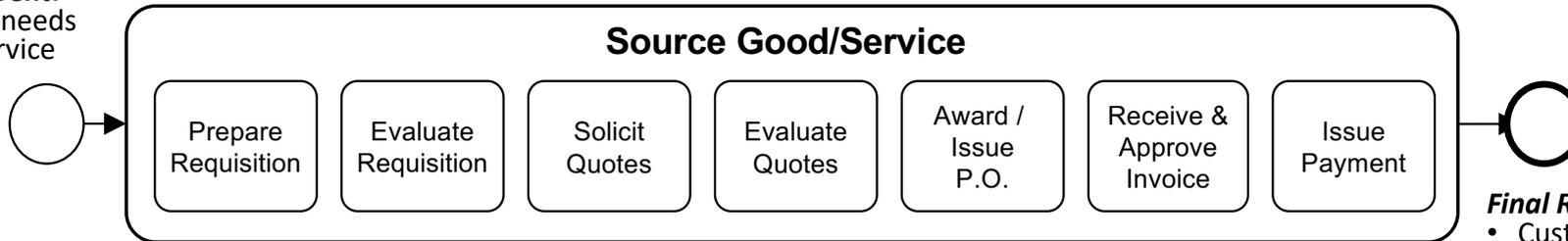
Develop scope of work / specs

Investigate potential vendors (and price?)

Solicit vendor quotes (just to get an idea)

Obtain approval (Department)

Verify Item and Account (General Accounting)

Submit requisition (visible to all)

Evaluate Requisition

Confirm completeness – get clarification this is actionable (scope sufficient)

Assign (or re-assign Buyer as necessary)

Identify MBE/SB opportunity (competitive) (co-op) * sole source or co-op, vendor(s) known

Determine methodology
- sole source
- co-operative (piggyback on contract)
- competitive
- emergency

Solicit Quotes

Determine (additional) potential vendors

Solicit quote (including Bid Due Date)

Post quote (solicitation documents) in "the binder"

Resolve vendor queries

* Up to $200K, we control who gets solicitations; above, no control – it's "publicly advertised."

Over $200K there would be 20 more activities, and could be multiple award.

Evaluate Quotes

Receive quote (mail, fax, e-mail, ...)

Confirm completeness

Verify suitable price, terms, and conditions (generally, low bid for equivalent)

Clarify (not negotiate) with vendor

Optional:
- Evaluate equivalency (for alternate)
- Confirm equivalency w. Customer

Identify vendor

Award / Issue P.O.

Generate Purchase Order

Notify Requestor

"Transmit / deliver" P.O.
* Pain point – we aren't sure when the vendor receives the P.O.

Receive & Approve Invoice

Receive Good/Service
* Invoice could be attached

Accept Good/Service

Issue invoice (vendor)

Issue Payment

Receive invoice:
- from vendor
- from the department the vendor sent it to
* Vendor complains invoice is "lost"

If >$5000, match
- invoice
- PO
- receiver
If <$5000, match
- invoice
- PO
* Could invoice $4K on $40K PO

Batch invoices for GAD

Receive payment

Issue Payment (Magic Happens Here)

* If multiple line items, different line items could go to different vendors;
* If multiple vendors, line items are not split.

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Core principles – "Flow first, detail later" and "Simplicity!"

The purpose of a *Workflow* Model is to show the *Flow* of *Work*

Whatever you call them,
they are a *great* tool for showing flow – sequence and dependency of steps

- Swimlane Diagram
- Workflow Model
- Process Map
- Cross-Functional Flowchart
- People-Process Chart
- Functional Deployment Diagram
- Process Responsibility Diagram
- LOVEM Diagram
- …

Left-to-right flow
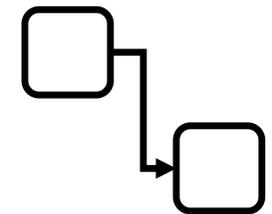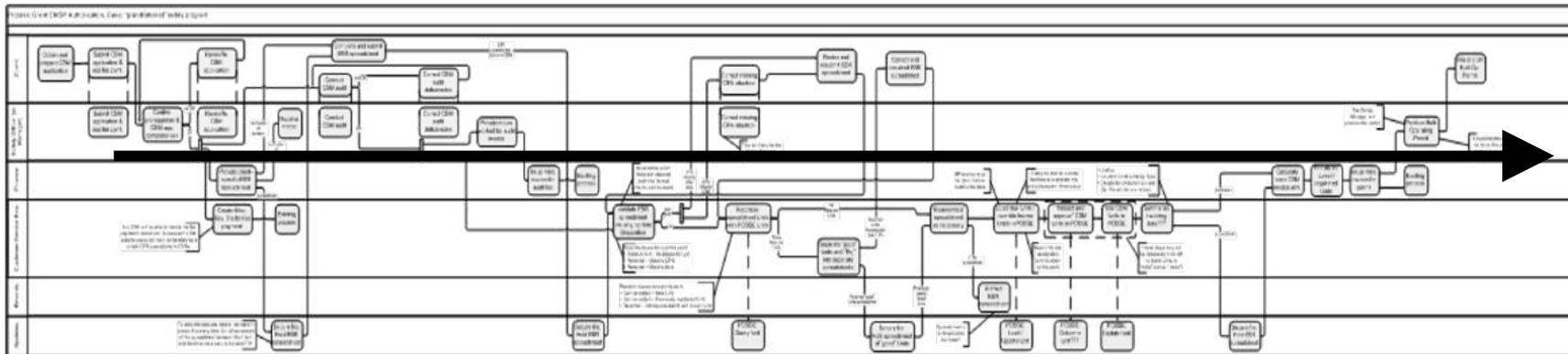
Simple… but not *simplistic*

Symbols were just boxes and lines

The Cognitive Psychology of diagramming

What do people first perceive on a diagram?

1. relative size

an important step

a less important step
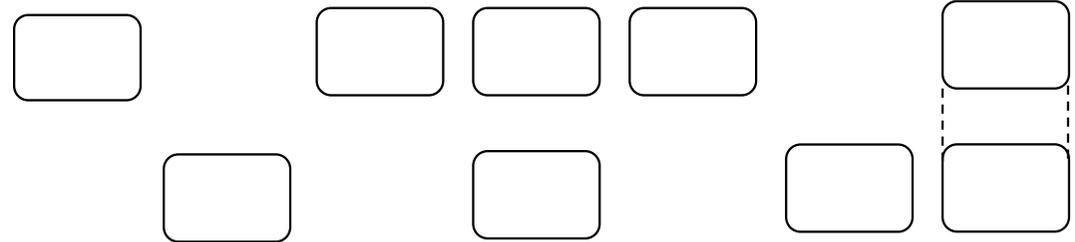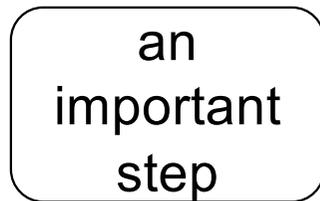
Make all the steps the same size, *unless* you're trying to make a point

2. relative X-Y position

Actors

Y

X

Flow (time)

87
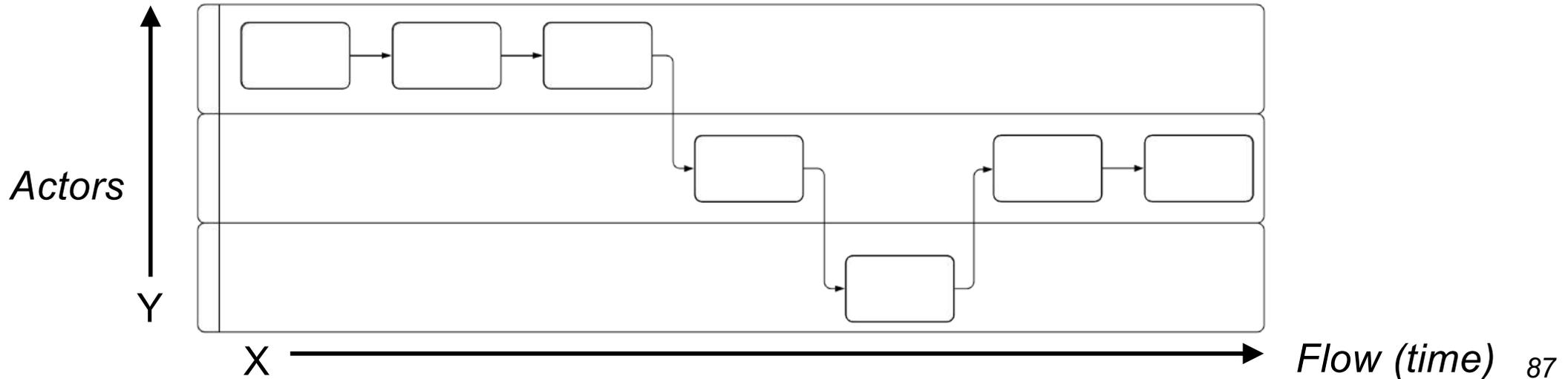
Don't conceal sequence and dependency
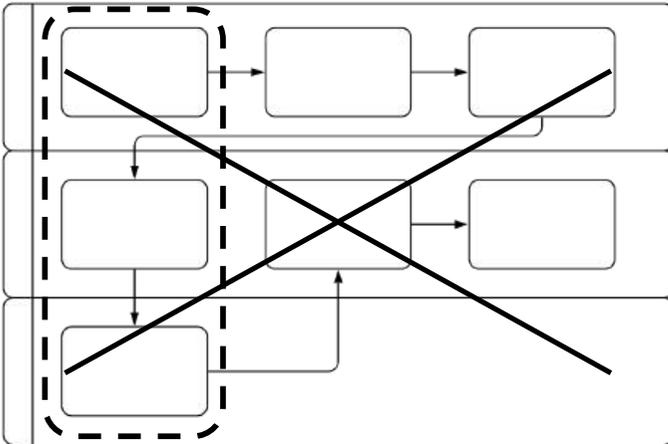
Steps perceived as happening in *parallel*, even though flow lines indicate *sequential*.

Critical in analysing a process:
- sequential vs. parallel
- dependent vs. independent
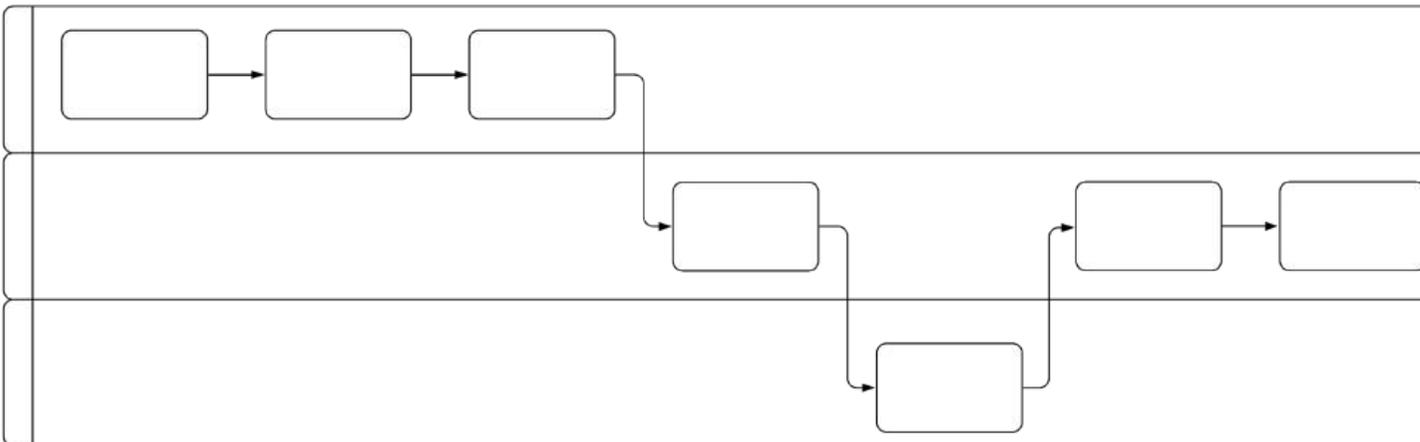
A simple guideline: flow lines *only* leave the right edge and *only* enter the left edge – never the top or bottom.

"I think I know why our business partners don't want to review this…"

Probably a good DFD (Data Flow Diagram) useful to a technical audience

Not a good Process Flow Diagram, useful to business professionals, because...

- no obvious flow
- too many symbols
- cryptic acronyms
- lanes aren't actors
- …

What's wrong with this diagram as a means of communicating with a business audience?

89
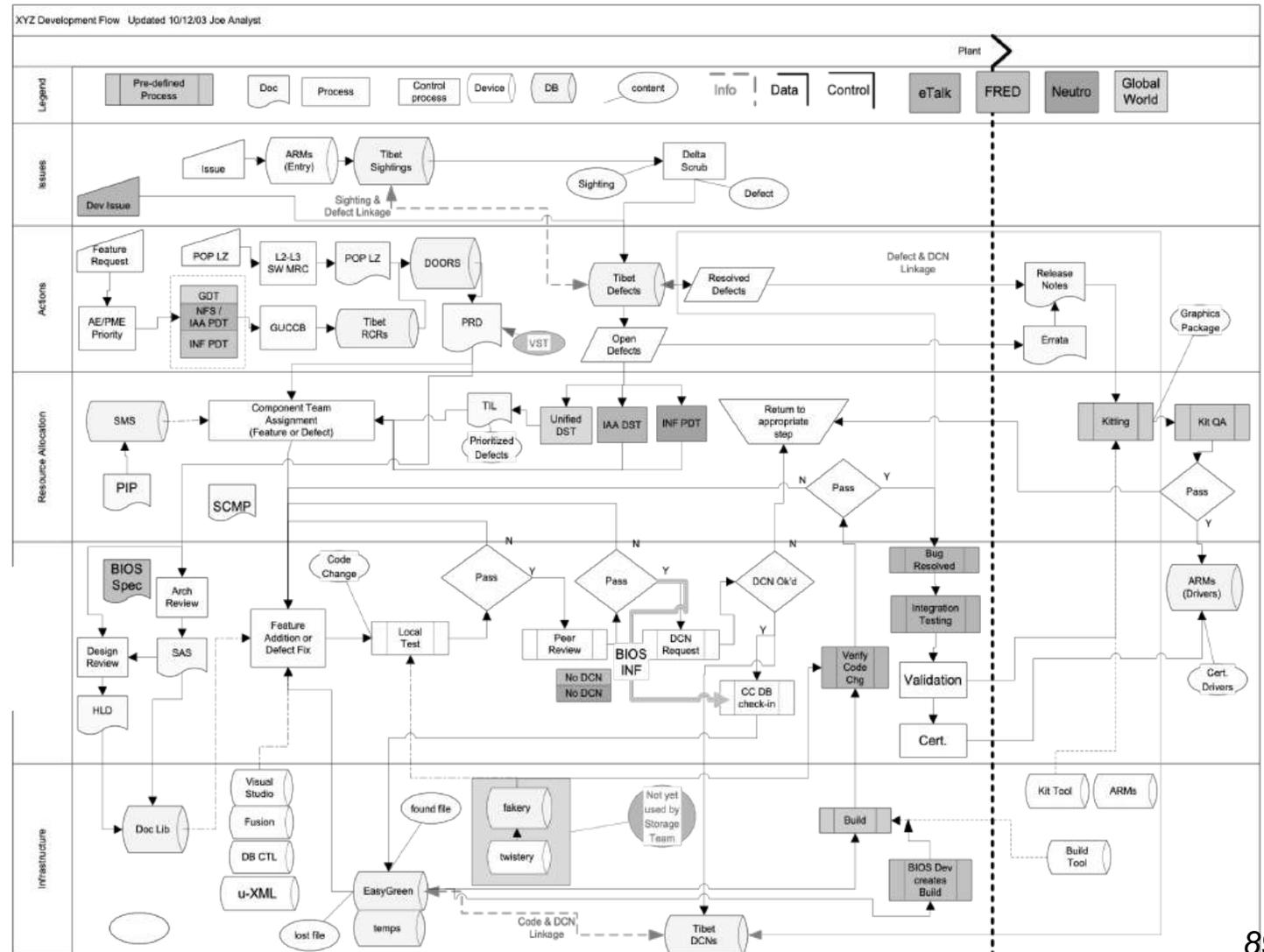
Boxes alone are a great start

Remember – you can build an initial flow model with Post-its, real or virtual

Minimal symbols

Later, redrew it with *Lucidchart* (www.lucidchart.com) –
add rigour, but still focus on flow and simplicity.

91
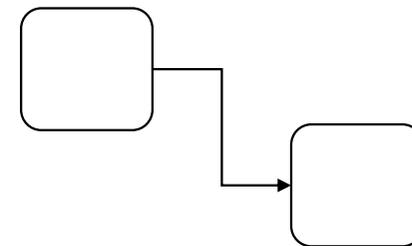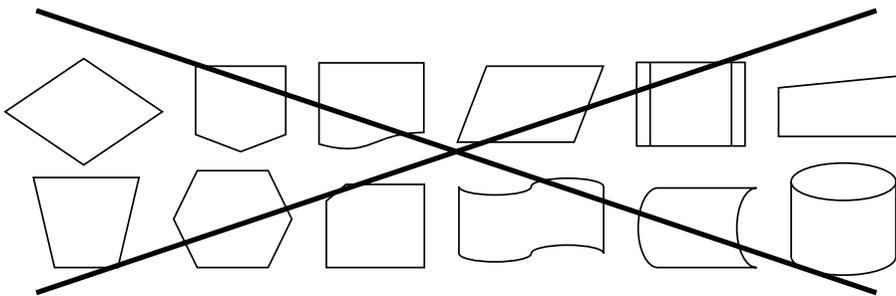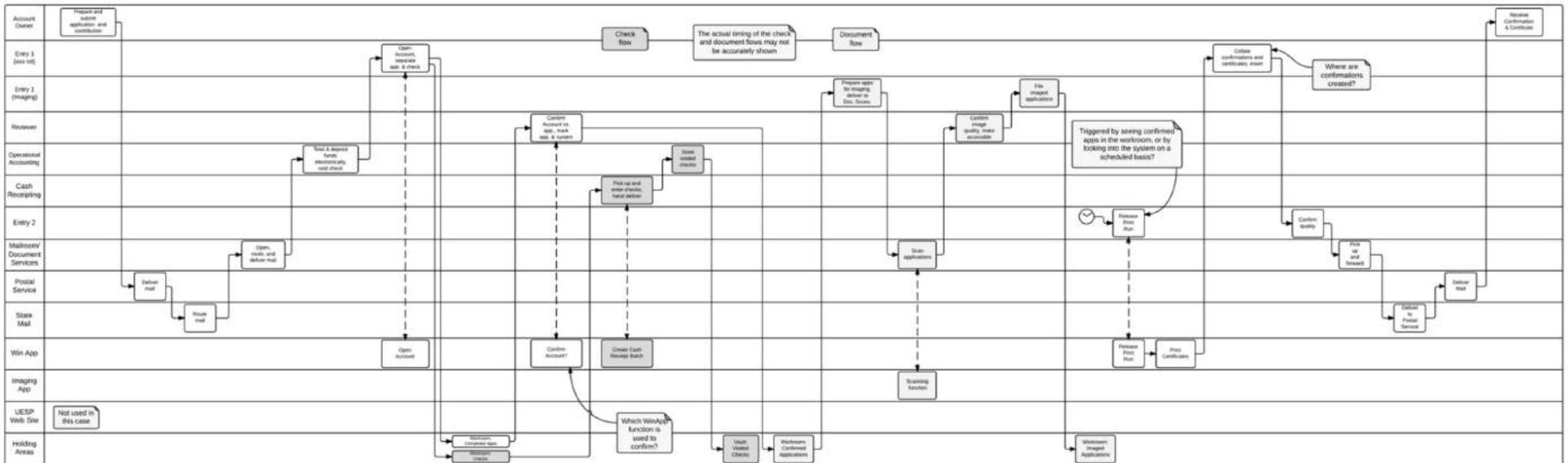
Full BPMN – not useful for business purposes*

If you choose to use BPMN, use extreme restraint! Only use a few symbols such as Lanes, Tasks, Flows, simple Events, and optionally Gateways
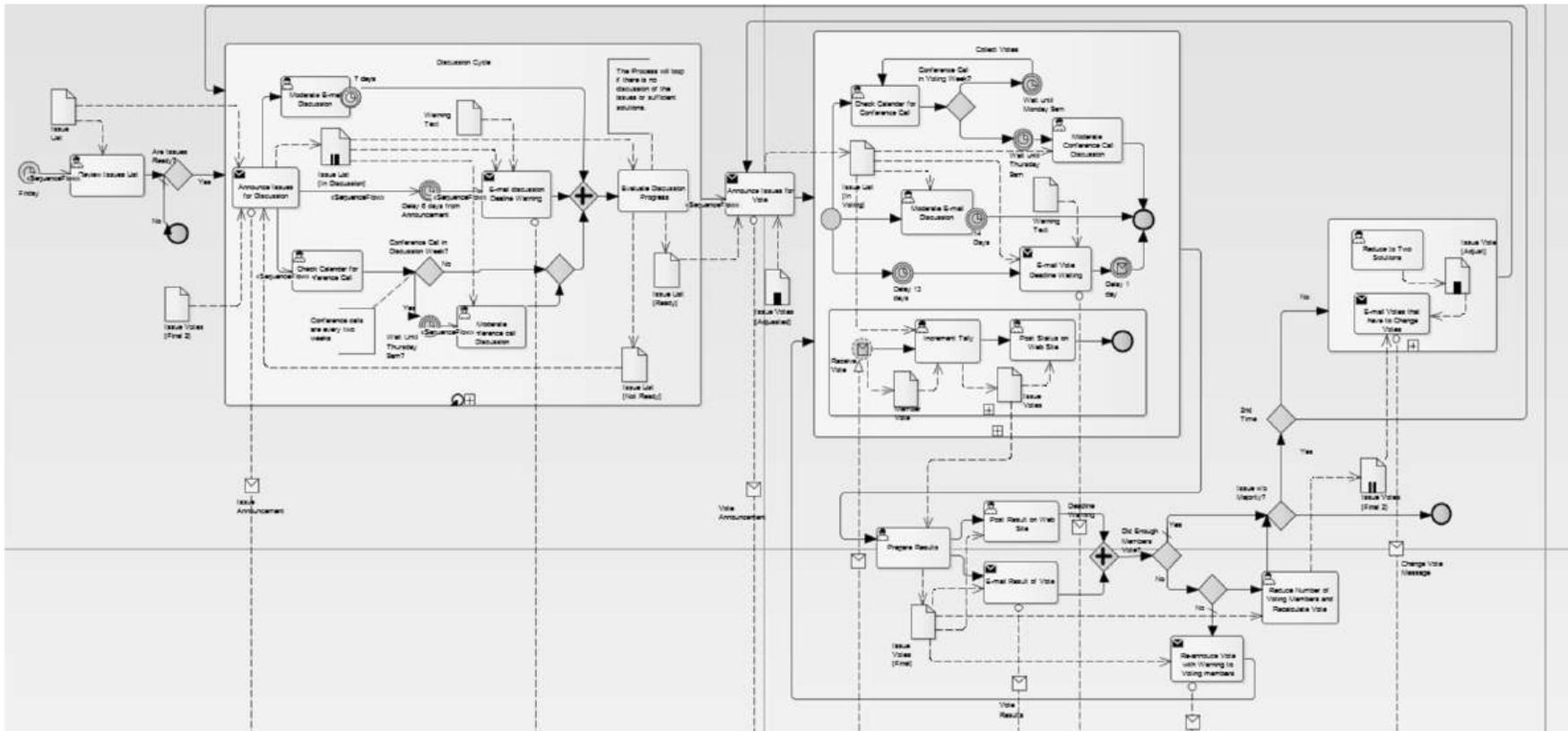
*Business Process Model and Notation, a standard by the OMG. BPMN was created to be a *visual programming language* for automating workflow, not for business modelling.

The full BPMN symbol set (why we use a subset)

4 kinds of
Activities
(plus
Markers &
Task Types)

63 kinds of
Events

7 kinds of
Gateways

6 ways to
represent
Data

Minimal symbols for an approachable workflow model

parallel

exclusive

I don't use the
BPMN Gateways:

I use
BPMN
event
symbols

exclusive (XOR –
exactly one flow,
in or out)

parallel (AND –
(all flows,
in or out)

inclusive (OR –
one or more flows,
in or out)

one or more

interaction

94
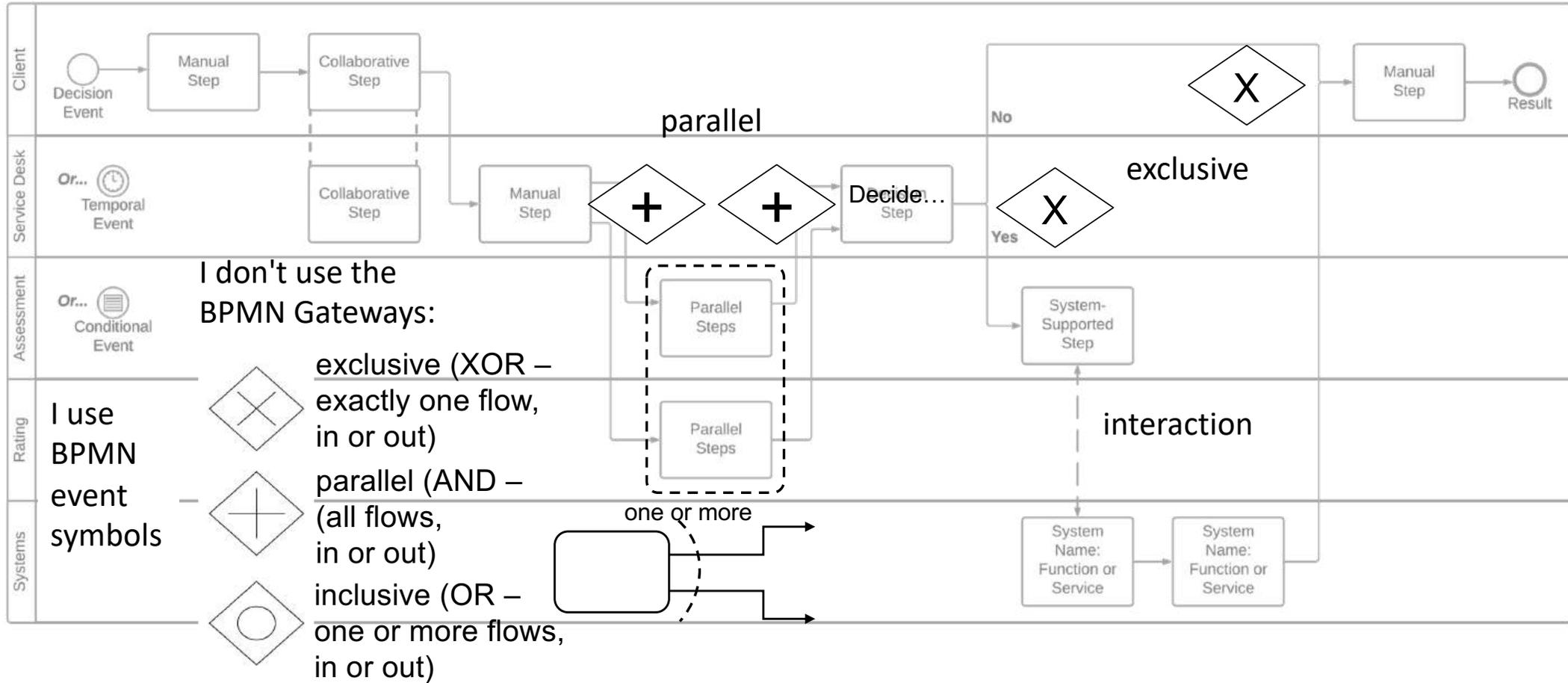
Striving for precision can undermine the purpose

Aristotle –
"It is the mark of an educated mind to rest satisfied with the degree of
precision that the nature of the subject admits, and not to seek exactness
where only an approximation is possible."

Business-oriented workflow models will never simultaneously be:
- entirely precise and
- entirely generalised

Remember:
- diagrams convey concepts and structure – they tell a story
- other forms are better to convey detail – narratives, checklists,
procedures, decision tables, use cases, activity diagrams / flowcharts, etc.

Three questions to develop your <u>initial</u> workflow model

Emphasis:

- keep you out of the details – focus on *flow*

- ensure the involvement of *every* actor is shown –
  it doesn't matter *how much* or *how little* they do,
  or whether they *add value*

Three simple questions:

1. "*Who* gets the work next?"

2. "*How* does it get there?"
   – Often uncovers "transport" actors or systems

3. "Who *really* gets the work next?"
   – Often uncovers additional actors
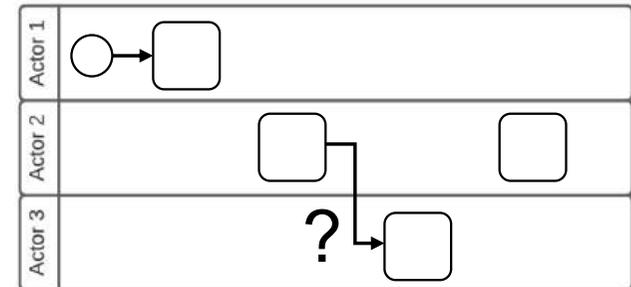
Guideline for the initial Handoff Diagram:
Whenever an actor *holds the work*,
whether they do a *lot* or a *little*,
draw *one* box (or post *one* sticky)
and *move on!*
(And no value judgements – include
every actor that holds the work!)

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Question 1 – "Who gets it next?" traces overall flow

Process: Issue Building Permit
Case: Single Family Dwelling (SFD)

My mantra –
"Flow first, detail later"

Builder		
Permit Control Clerk		Etc. – In some cases it will carry on to Schools, Parks and Recreation, Legal, …
Zoning		
Fire Safety		
Road-works		
Water-works		

How would you describe this process?
Be factual, not judgmental
What questions do you have for the Building Permit experts? *Focus on why it works the way it does, not "Couldn't we do it this way instead…?"*

Two key concepts:
– sequential vs. parallel
– dependent vs. independent

In scoping, you identified the trigger, the result, and the main actors. Now, starting at the triggering event, keep asking question 1 –
"Who gets the work next?"
- trace the flow of work through to the Customer's result, following one path only!
- at a decision or parallel flows, follow the main path, mark the other with a cloud, and return later
- **DO NOT** ask "What do you do?"

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Question 2 – "How does it get there?" uncovers more actors

Process: Issue Building Permit
Case: Single Family Dwelling (SFD)

Builder

Permit Control Clerk

Zoning
?

Fire Safety
Admin Services and
the Mailroom move the work

Road-works

Water-works
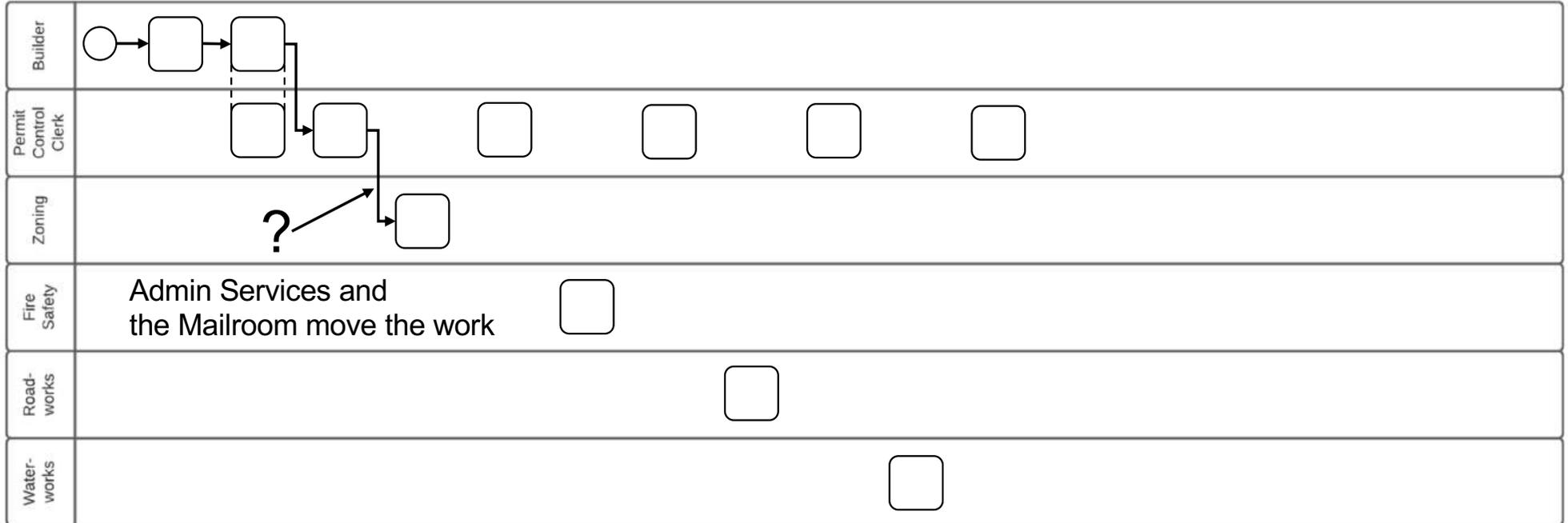
Next, at every handoff, ask question 2 –   .
"How does it get there?"
- uncovers *additional actors*, and therefore more handoffs
- a handoff is a potential source of *delay, error, or expense*

Question 2 revealed more actors and transport mechanisms
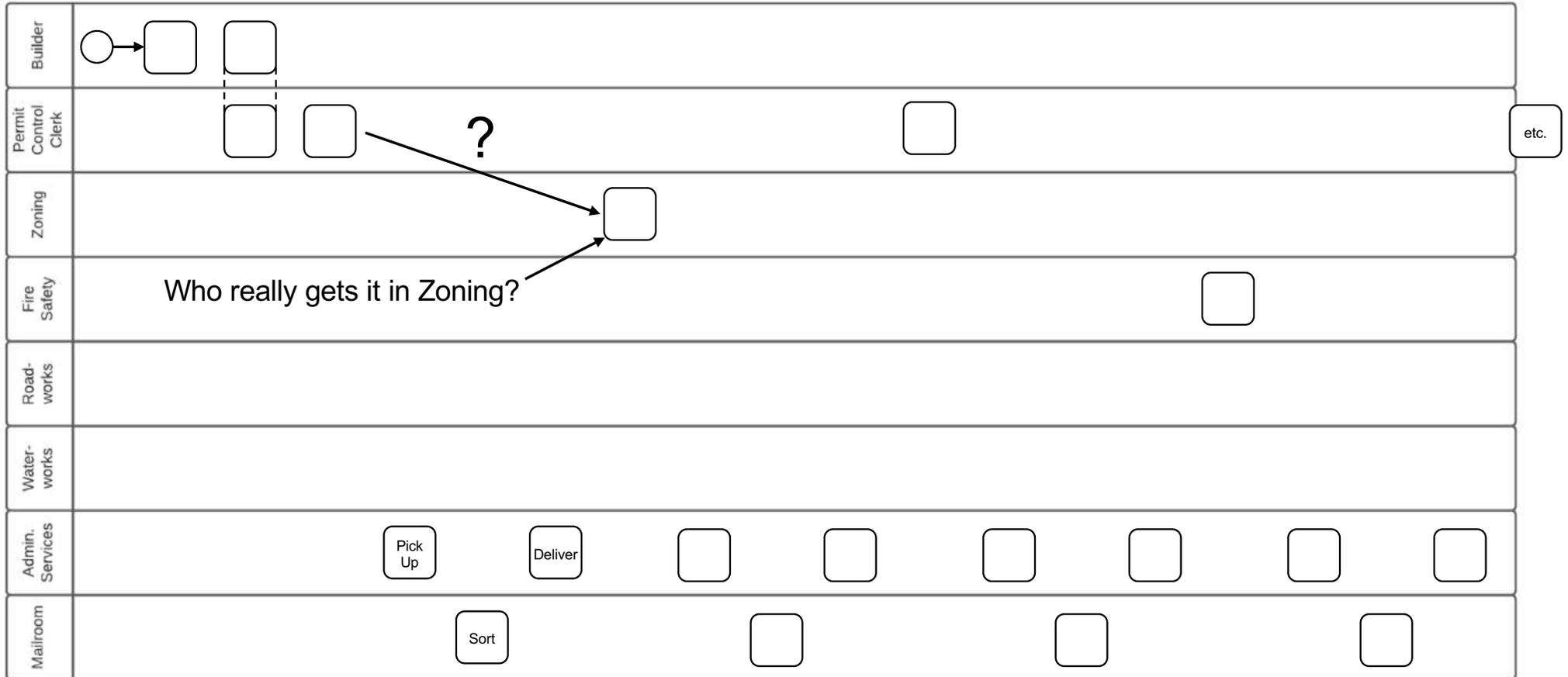
Now, inspect handoffs again, looking for missing actors, ask question 3 -
"Who really gets it next?"
- does it *really* go directly to the actor you first identified?

Question 3 – "Who really gets it next?" uncovers specific roles

Builder

Permit Control Clerk

Zoning — **Admin Assistant** — Log — Forward

Manager — Review

THREE actors within Zoning

Compliance Officer — Assess

If you stick to the 3 questions, this is *fast* – trace one overall flow through the process without bogging down in detail.

Fire Safety

We found FOUR actors within Fire Safety

Road-works

Only when we got to the level of *individual actors* did we see where the delays were

Water-works

Admin. Services

Mailroom

We have <u>started</u> a "Handoff Diagram"

Builder	
Permit Control Clerk	
Zoning / Admin Assistant	*a little* Log Forward
Zoning / Manager	Review
Zoning / Compliance Officer	*a lot* Assess
Fire Safety	
Road-works	
Water-works	
Admin. Services	
Mailroom	

Guideline:
Whenever an actor holds the work,
whether they do a lot or a little,
draw one box (or post one sticky)
and *move on!*

Emphasises *who* is involved *when.*
Shows handoffs and pattern of involvements –
the overall flow, not the individual tasks.

Now develop a "Service Diagram"

Builder — Prepare App'n → Accept App'n & Fee

Permit Control Clerk — Accept App'n & Fee → Route App'n

Admin Assistant — Log App'n

Zoning Manager — *First,* name steps in the handoff diagram, draw flow lines, check for alternate or parallel flows, etc. — Review App'n

Zoning Compliance Officer

Fire Safety

Road-works

Water-works

Admin. Services — Pick Up App'n → Deliver App'n

Mailroom — Sort App'ns

Steps within an actor's involvement that complete a service,
e.g., one handoff-level step could become four service-level steps:

Assess Zoning Compliance

becomes...

Assess Zoning Compliance → Assess Site Coverage Compliance → Assess Height & Enclosure Compliance → Assess Easement & Encumbrance Impacts   Etc.

Puts the emphasis on *what* is achieved by showing the significant intermediate results or milestones – no procedural level "how."

Key point!
The model grows left-to-right but not up-and-down – *no new actors* appear in the Service Diagram. If they do, go back and revise the Handoff Diagram.

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Two levels of swimlane diagrams

	Level	Definition	Emphasis	Notes
1 Hand-off		• Draw one step (box) every time an actor continuously "holds the work," no matter how much or little they do	"Who"and "When" - pattern of involvement	• Sometimes this level of detail is enough to understand As-Is process behaviour
2 Service		• Decompose handoff-level steps into discrete services, *as necessary:* one step each time actor achieves a significant result or state change	"What" is actually achieved	• Usually, we don't go any further than this for the As-Is process • Also called a "Milestone" diagram

The handoff-level diagram is <u>critical</u> – ensures we discover the overall flow before diving into detail.

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The Handoff level workflow

Purpose:

| *Helps you get through the entire process* |

| *Makes the overall structure visible* |

| *Supports understandable presentations* |

Key points:

- One step ("involvement") each time there is continuous or uninterrupted work by an actor, regardless of time, effort ("a lot or a little",) or complexity
- Puts the emphasis on *who* is involved *when* by showing the handoffs and pattern of involvements –
"the overall flow, not the individual tasks"
- Prevents getting bogged down in detail

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"As Is " - Handoff (page 1)
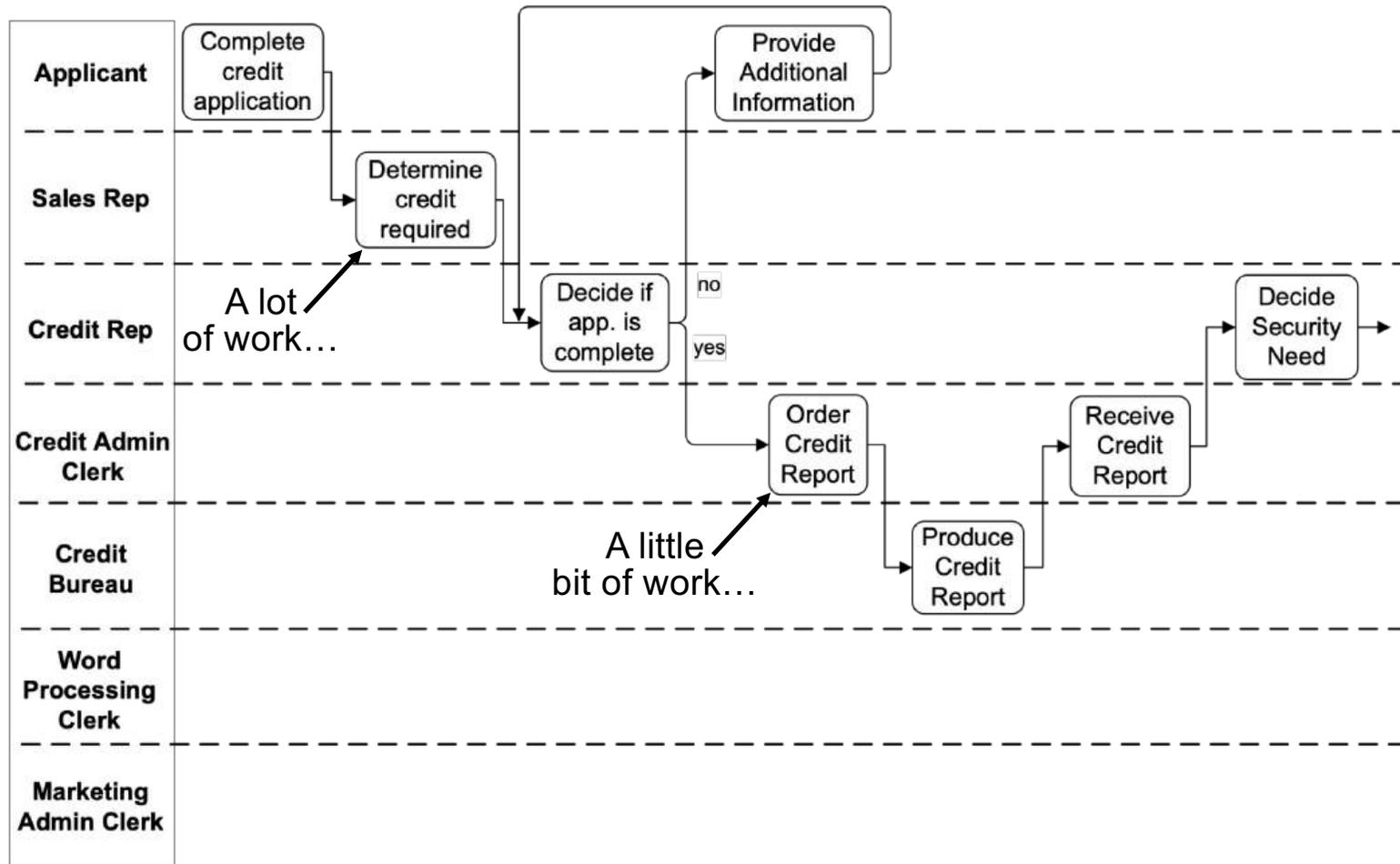
"As Is" - Handoff (page 2)
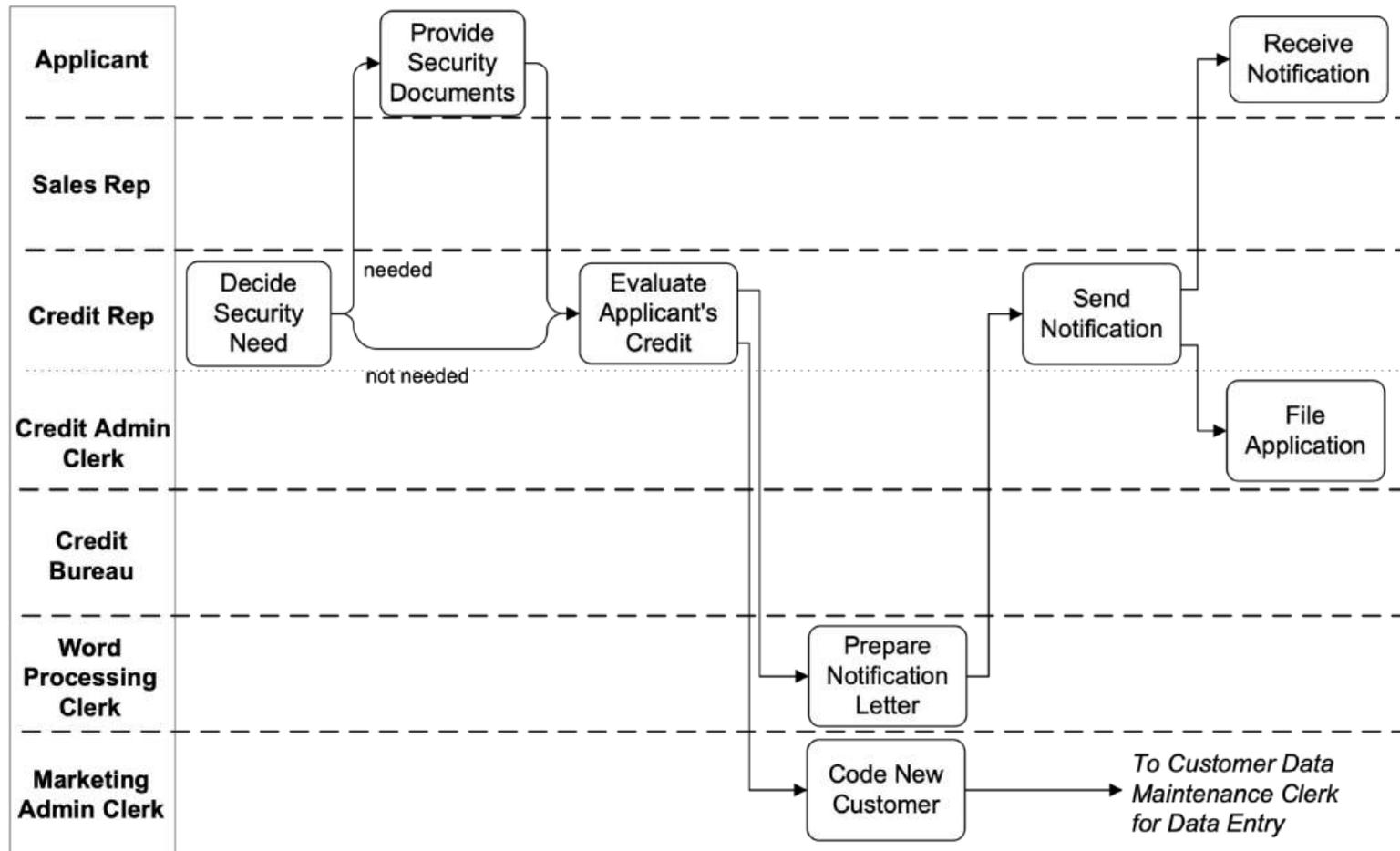
What stands out on this minimalist Handoff Diagram?
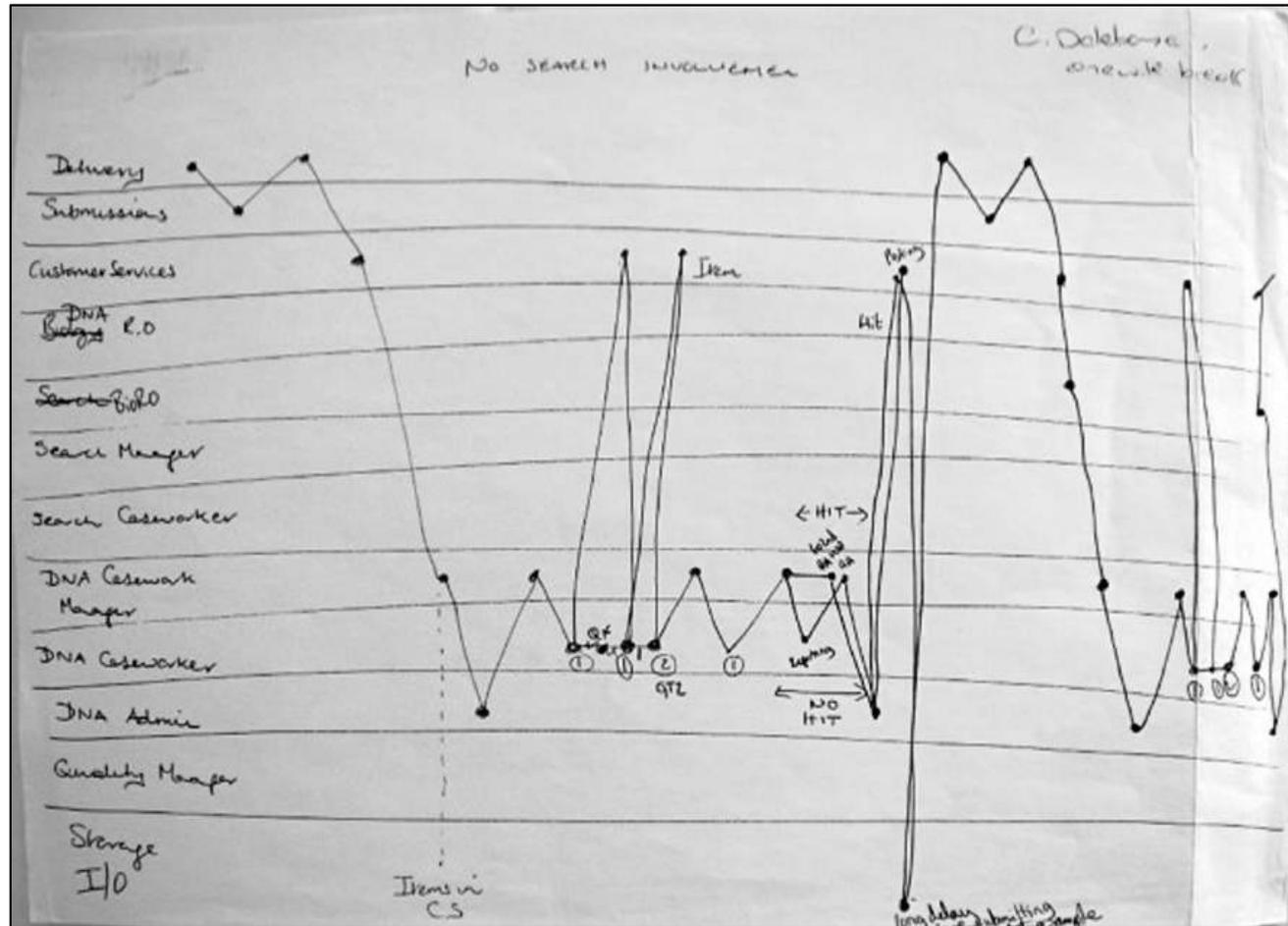
"Order and simplification are the first steps to mastery of a subject."
Thomas Mann

We learned a LOT in a short period of time
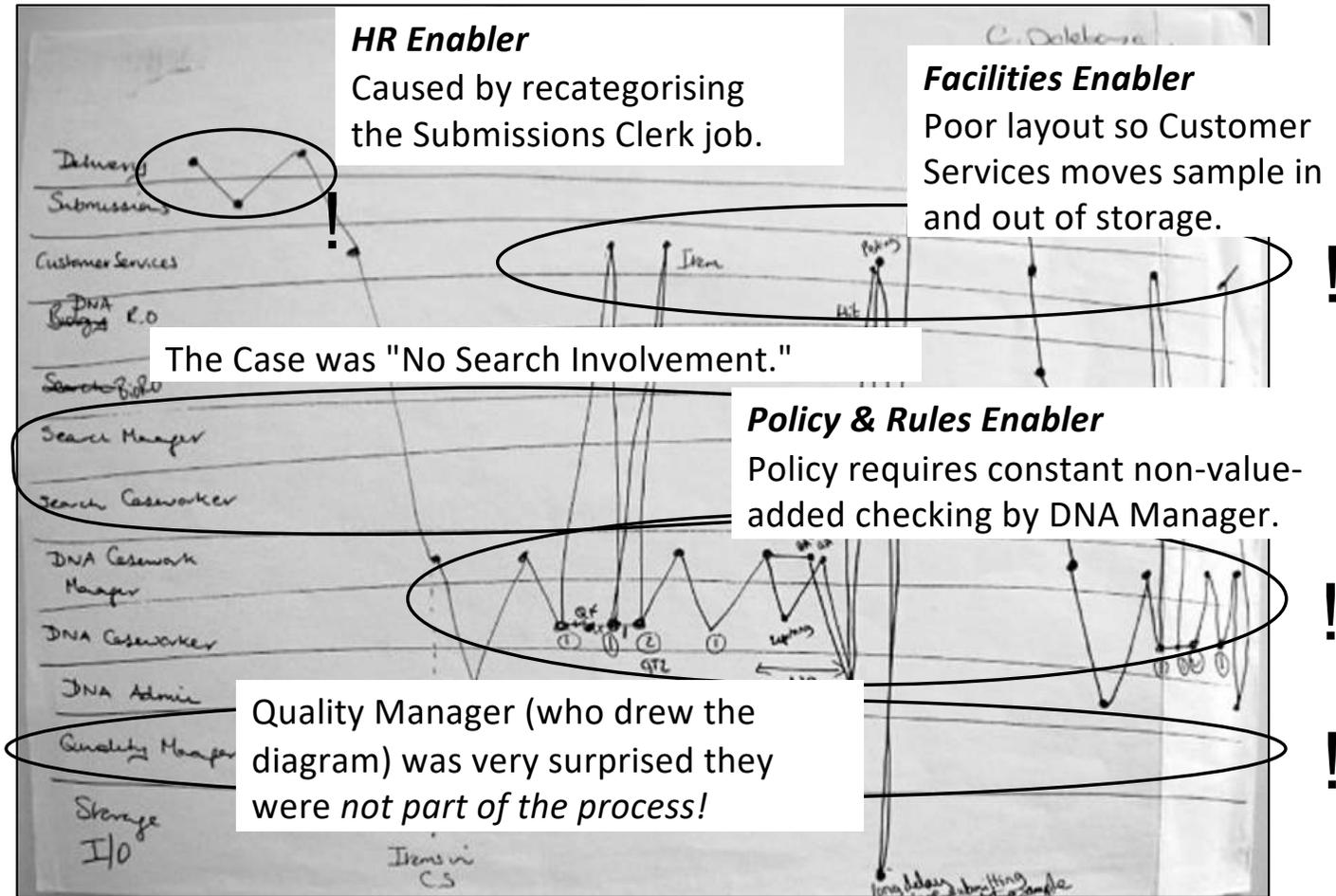
HR Enabler
Caused by recategorising the Submissions Clerk job.

Facilities Enabler
Poor layout so Customer Services moves sample in and out of storage.

The Case was "No Search Involvement."

Policy & Rules Enabler
Policy requires constant non-value-added checking by DNA Manager.

Quality Manager (who drew the diagram) was very surprised they were *not part of the process!*

Business Process Design (Workflow)	Technology & Information Systems	*Motivation & Measurement*	*Human Resources & Organisation*	*Policies & Rules*	Facilities (or, **Knowledge / Info / Data**, Communications, Documents, …)

Even handoff level diagrams can get a little more complex

Process: Grant CSM Program Authorization, Case: "grandfathered" safety program (page 1 only)
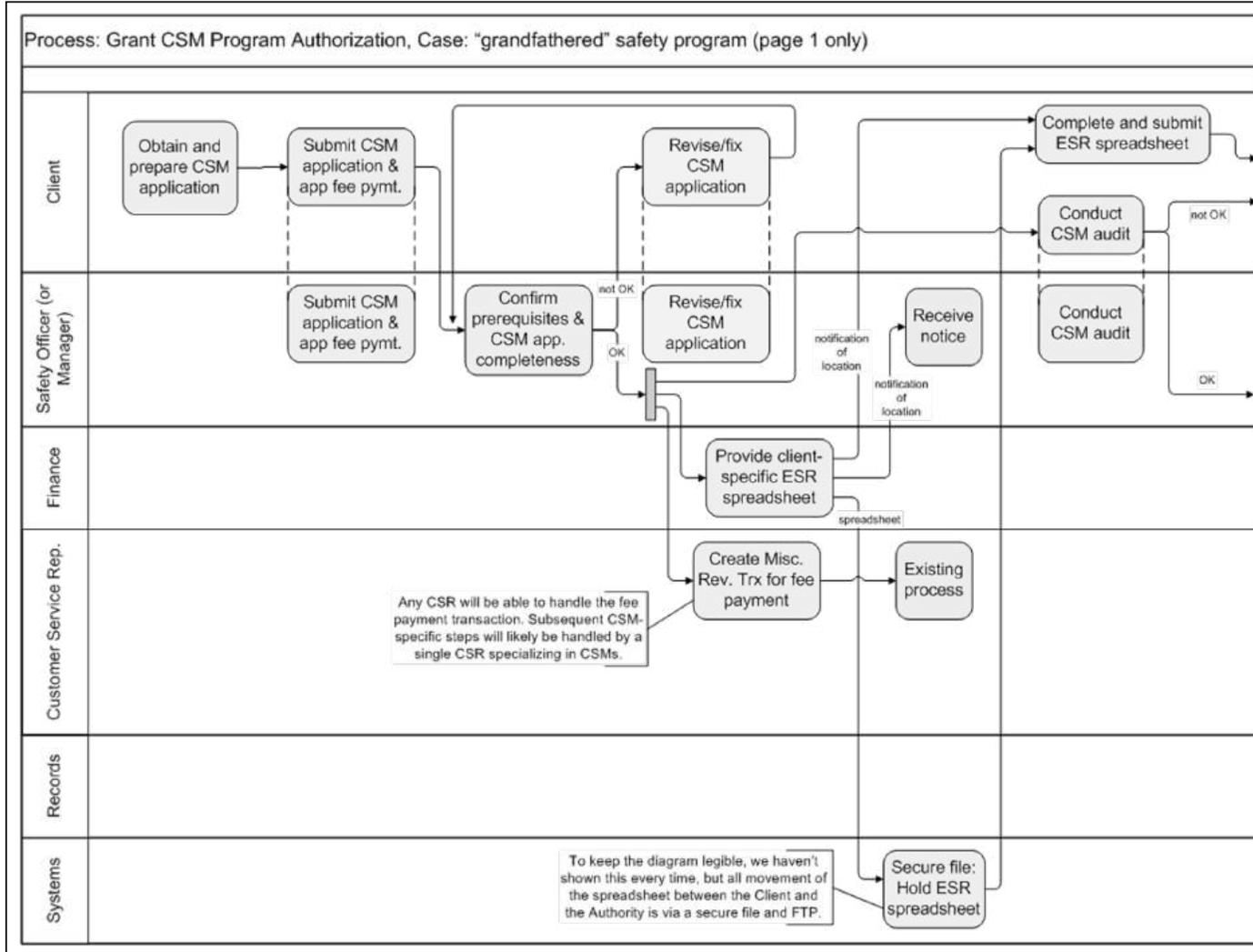
The Service level workflow

- Purpose -

*Understand the actual contribution of
each actor to the process*

*Ensure feasibility and effectiveness of process
(can each actor actually perform their steps?)*

*Show relationship to systems - steps involving automated
support correspond strongly to use cases and services*

Key points:

- Steps within an actor's involvement that complete a service
E.g., *one* handoff-level step could become *five* service-level steps:

| Initiate Vehicle Insurance Claim | ⇨ | Identify Claimant | → | Describe Incident | → | Describe Loss | → | Confirm Coverage | → | Schedule Inspection |

One handoff-level step   *One or more* service-level steps

- Puts the emphasis on *what* is achieved during the process by showing the significant intermediate results or milestones –
"the achievements, not the individual tasks"

"As Is" - Service (page 1)

An example for reference – skip to 115.

Applicant	Complete Credit App. → Submit Credit App.	
Sales Rep	Receive Application → Determine Credit Required → Update Application Form → Forward Application	
Credit Rep		Receive Credit Application
Credit Admin Clerk		
Credit Bureau		
Word Processing Clerk		
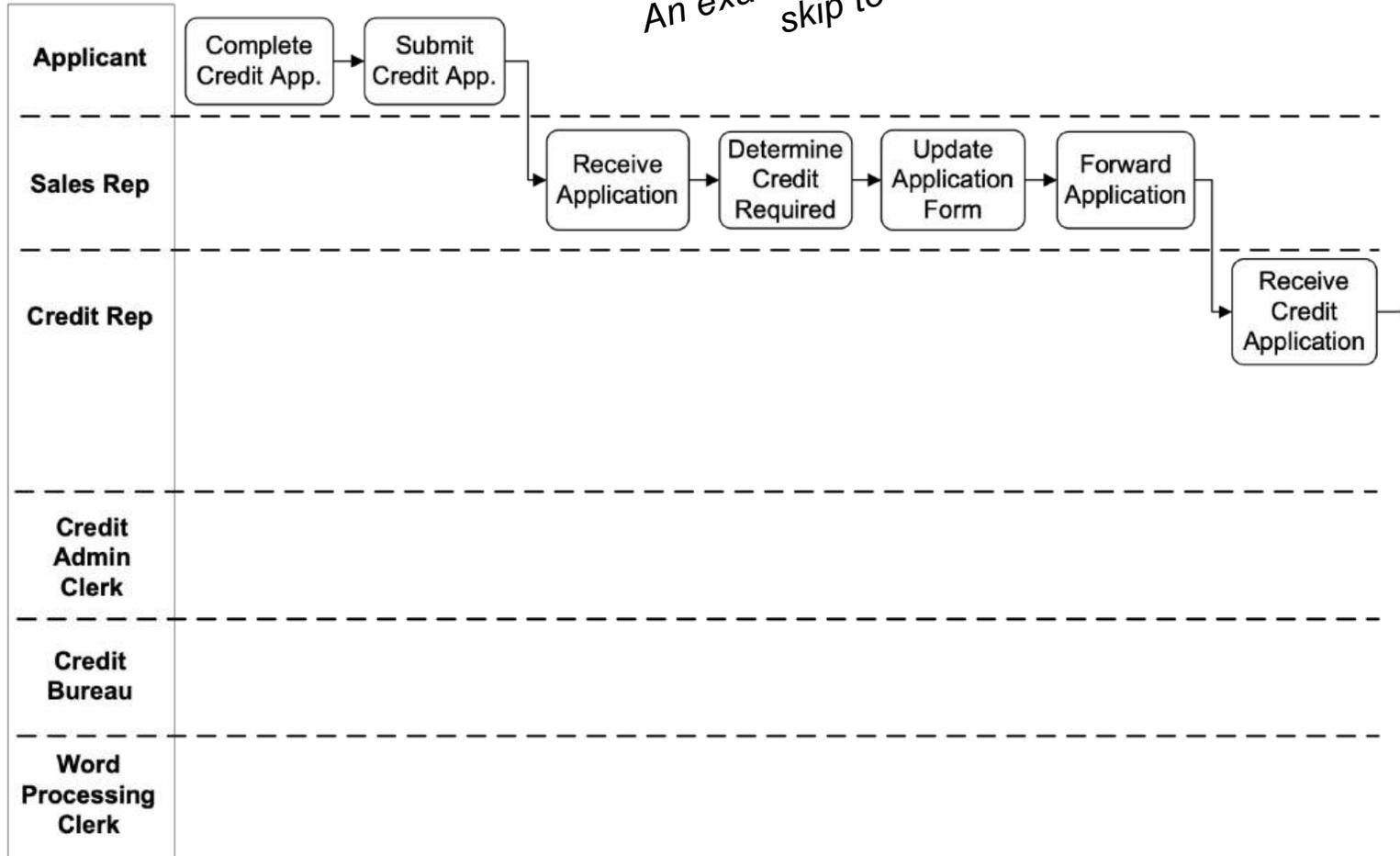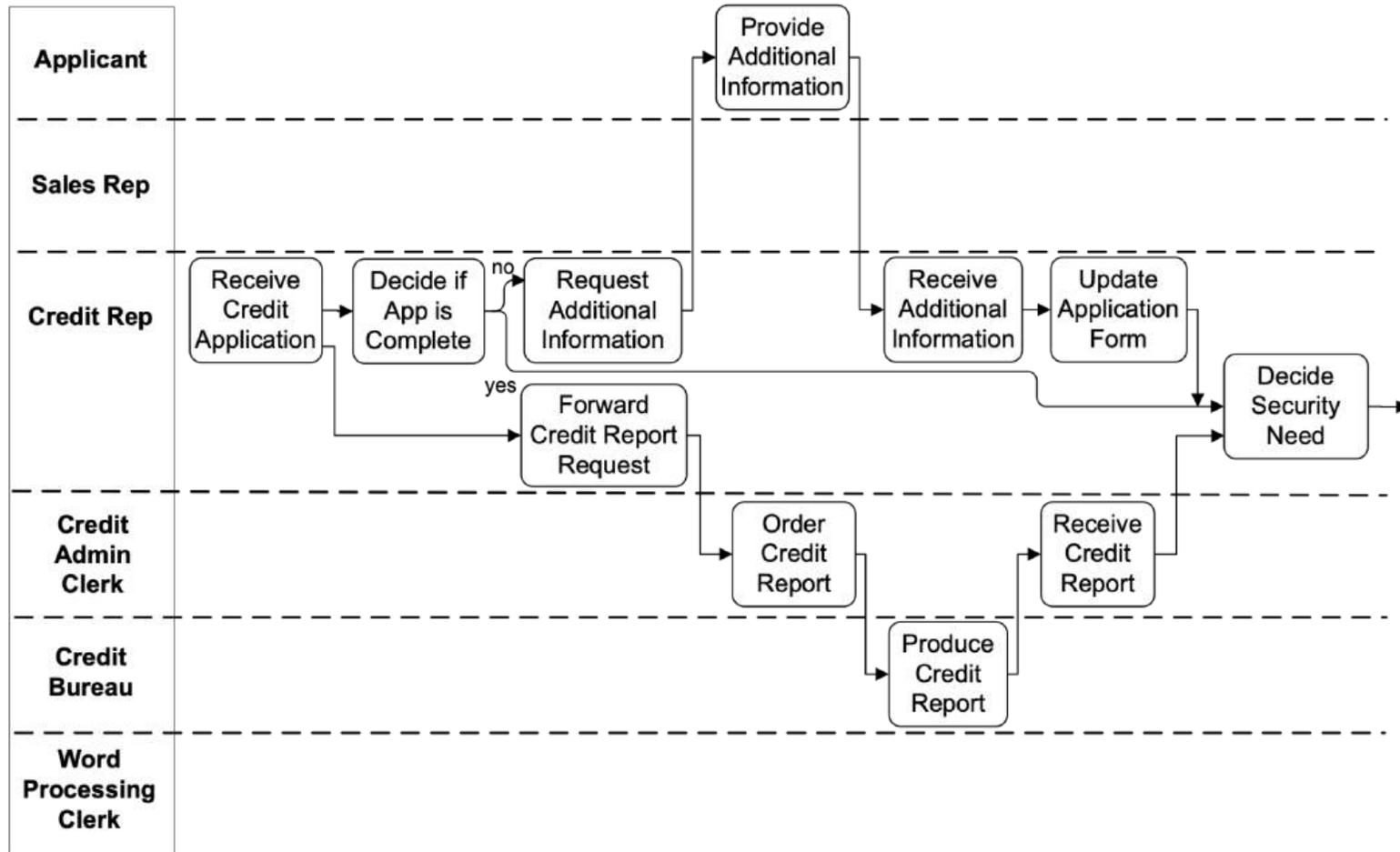
"As Is" - Service (page 2)

"As Is" - Service (page 3)
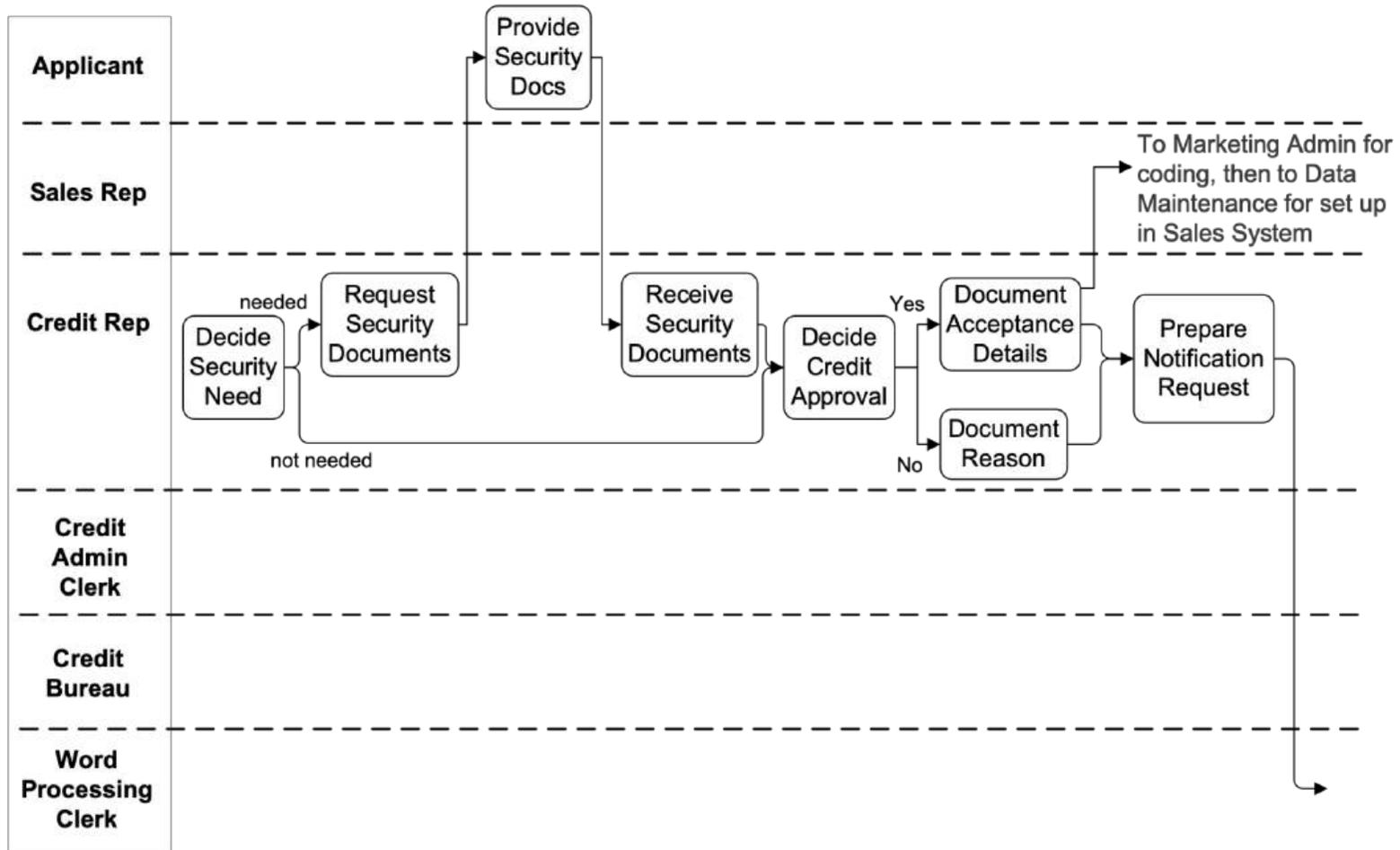
"As Is" - Service (page 4)
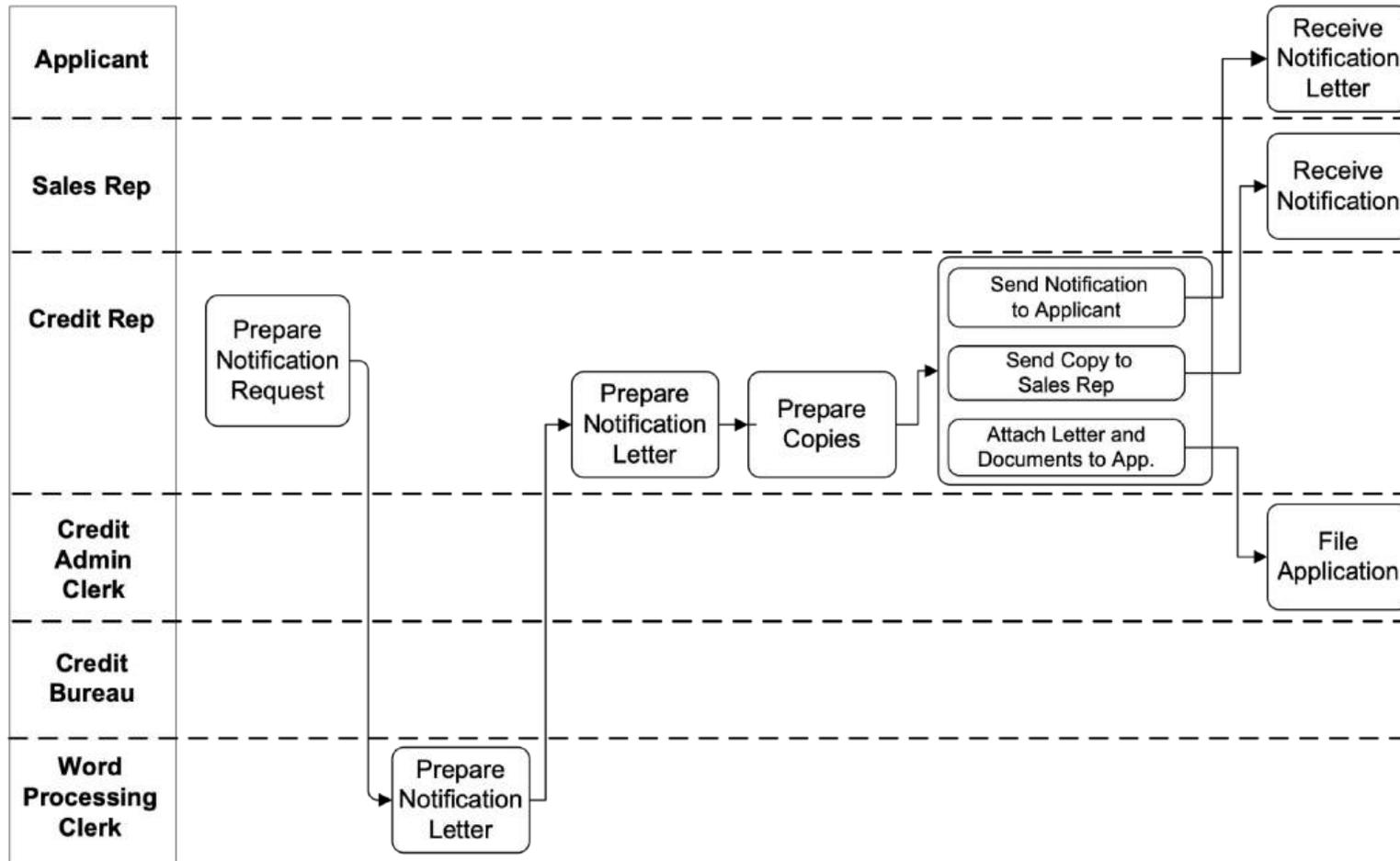
The Service level ties in Use Cases and Services

Process: Grant CSM Program Authorization, Case: "grandfathered" safety program (2nd to last page only)

3) …by interacting with

1) This Actor (or Role)…

2) …completes this Activity…

4) … this Service offered by a System
(which collectively is a Use Case)

115
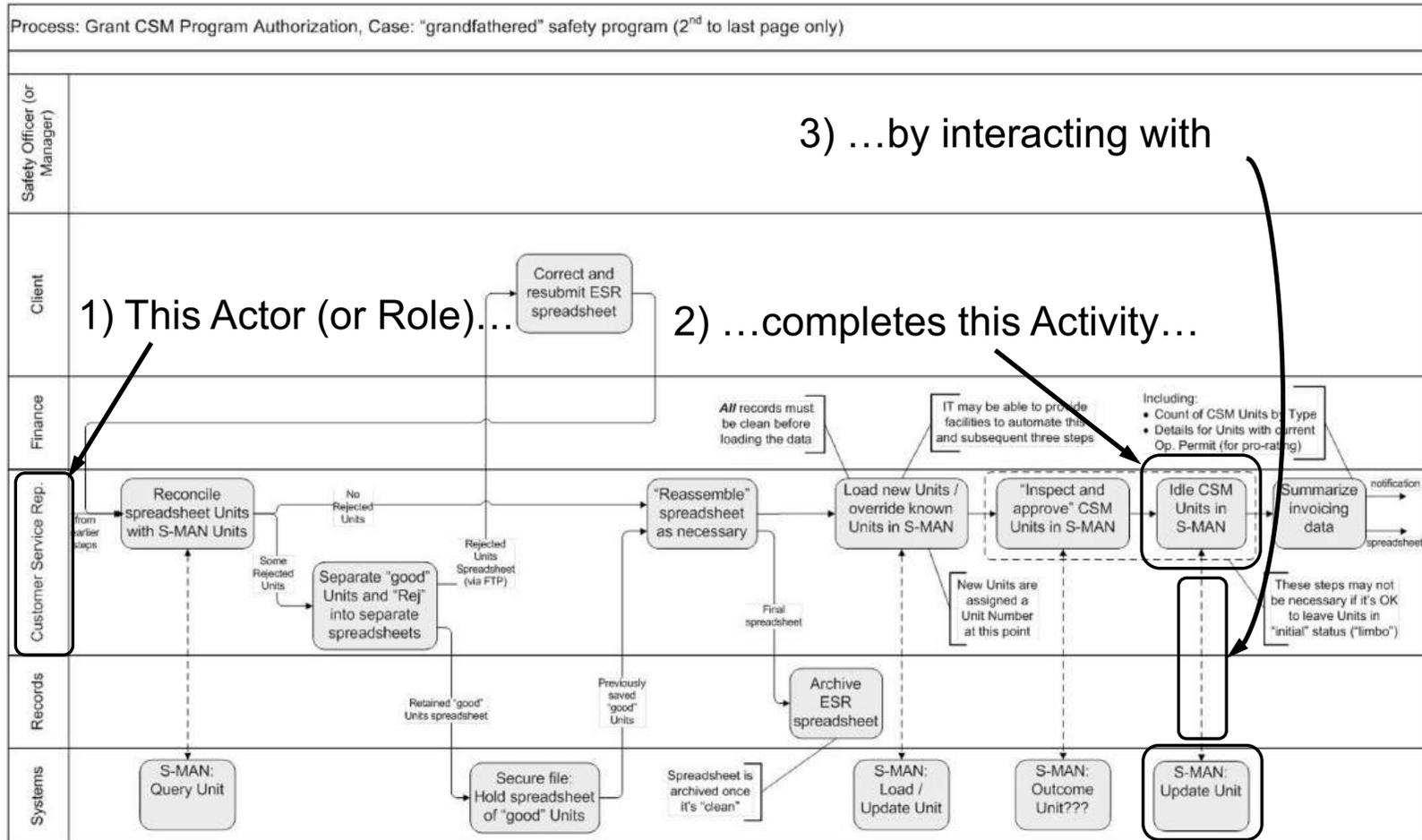
Stop diagramming before you get into "how"

Stop workflow modelling when work isn't flowing.
Do **not** use a workflow model to describe **how** an activity is done –
that belongs in the activity description or in a linked document.

No

Yes

Validate Application Completeness

Determine Credit Limit

Set Up Account

Checklist
- All contact info complete?
- Tax registration number provided?
- Net income <= gross income?
- etc.

Procedure
- Determine gross annual income
- Subtract annual tax
- Subtract child support
- Etc.

Use Case
- When credit rep enters… Then system displays…
- When credit rep selects… Then system calculates…
- etc.

116
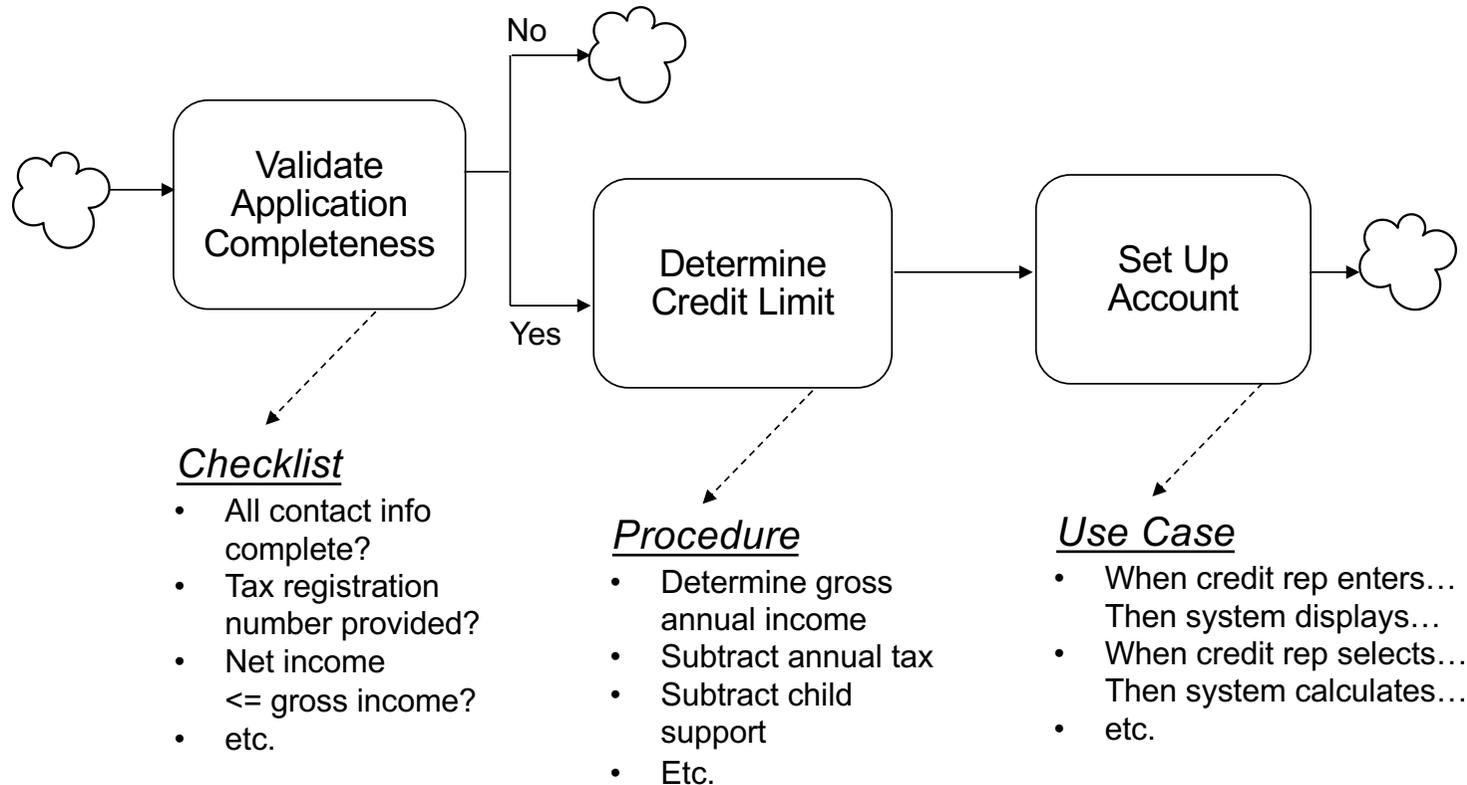
Knowing when you've gone too far

Do *not* use a workflow model to describe *how* an activity is done –
that belongs in the activity description or in a linked document.

Handle TEO
(Telecom Equipment Order)

Customer	Submit TEO (web/fax/print)									
Lead CSR		Receive TEO	Print TEO	Login to OSS	Create Pre-Order	Assign Input Service Coordinator	Input Org ID, Contact Info, Order Type	Input Customer Request from TEO	Print Order from OSS	Print Labels	Distribute Papers & Orders to Assigned CSR
Assigned CSR											Login to CDC
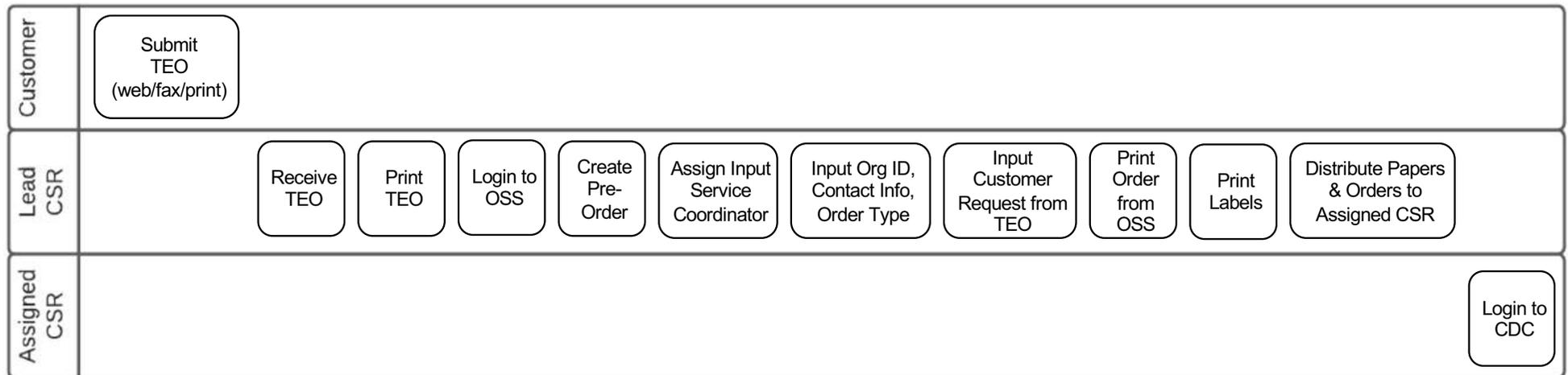
You've gone too far if:
- there are multiple steps in sequence by the same actor
- the steps include "how-to" instructions (procedural level detail)

Getting <u>out</u> of the weeds if you've gone too far

Client struggling with process redesign, mired in detail

One of 17 flow models for variations of the same process
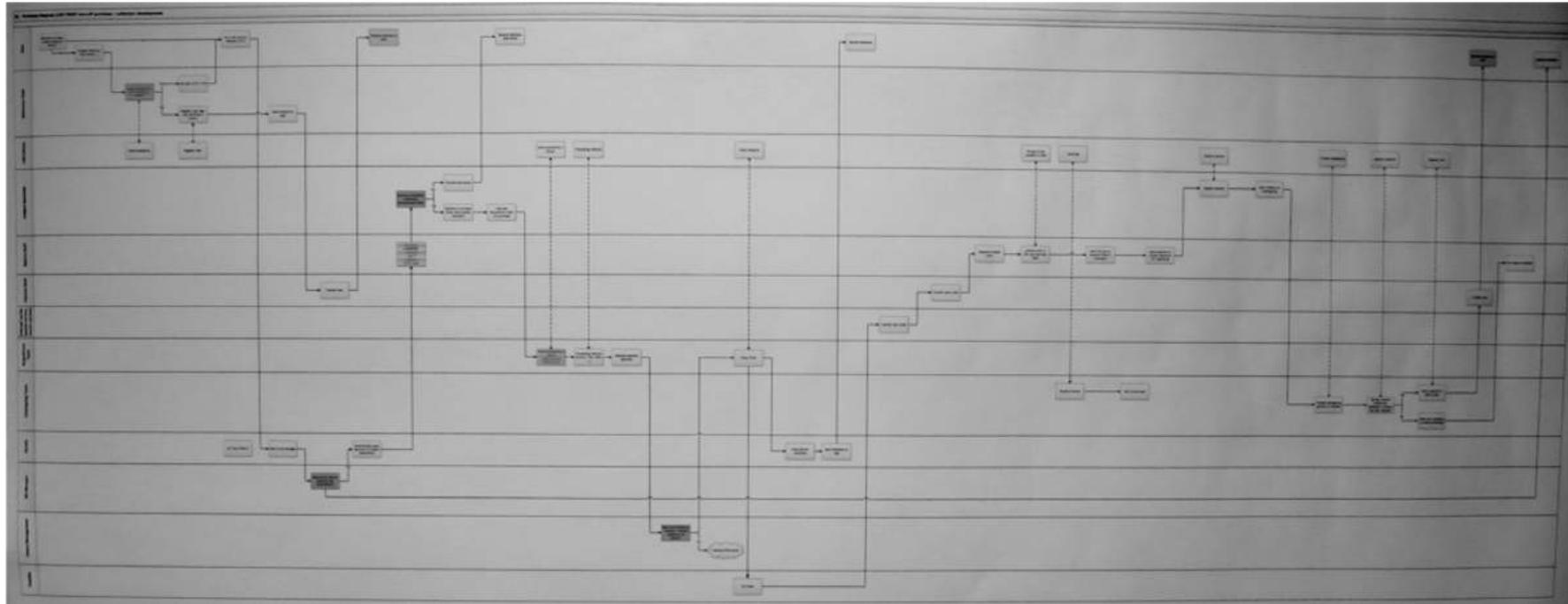
Excellent models, but detail without context is the enemy!

Step One – Establish context with a Process Scope Model

Step 1 – build a Process Scope Model then a Summary Chart

Only took ~20 minutes
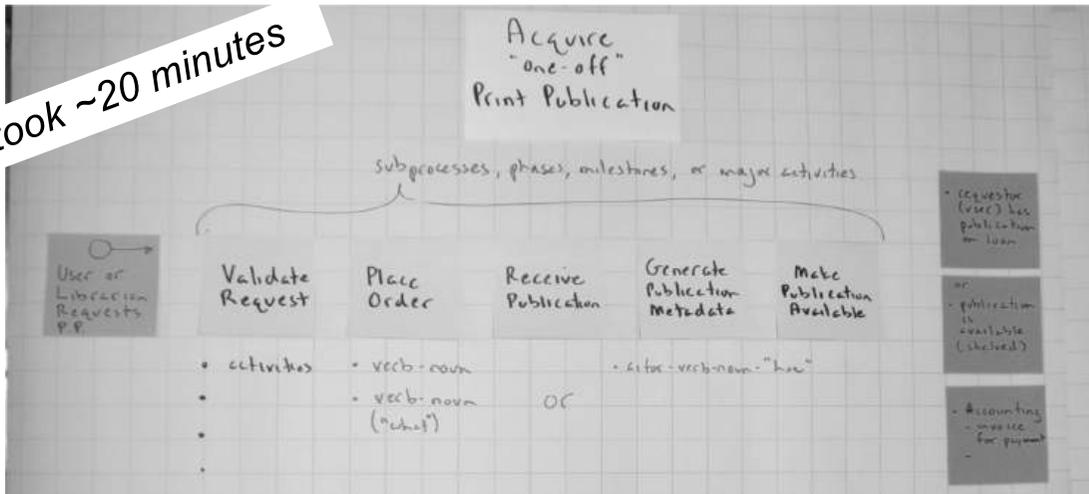
The process was actually
"Acquire Information Asset"
and the Case was
"One-off Print Publication"

Cleaner version using our "TRAC" framework –
Trigger, Results, Activities, Cases:

Then add
participating functions:

Trigger:
User or
Librarian
requests Print
Publication

User (Requestor)	Library	Accounting	Agent	Supplier

Acquire "one-off" Print Publication

Cases TBD:
(triage criteria)

Validate Request	Place Order	Receive Publication	Generate Publication Metadata	Make Publication Available

Customer result:
User (requestor) has
publication on loan

Library result:
Publication is
available (shelved)

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Process Scope Model puts the detail into context

One of the clients had a great idea –
overlay the phases from the *Process Scope Model* on the *Workflow Model.*

90+ % of the process is activities the customer dislikes or doesn't care about!
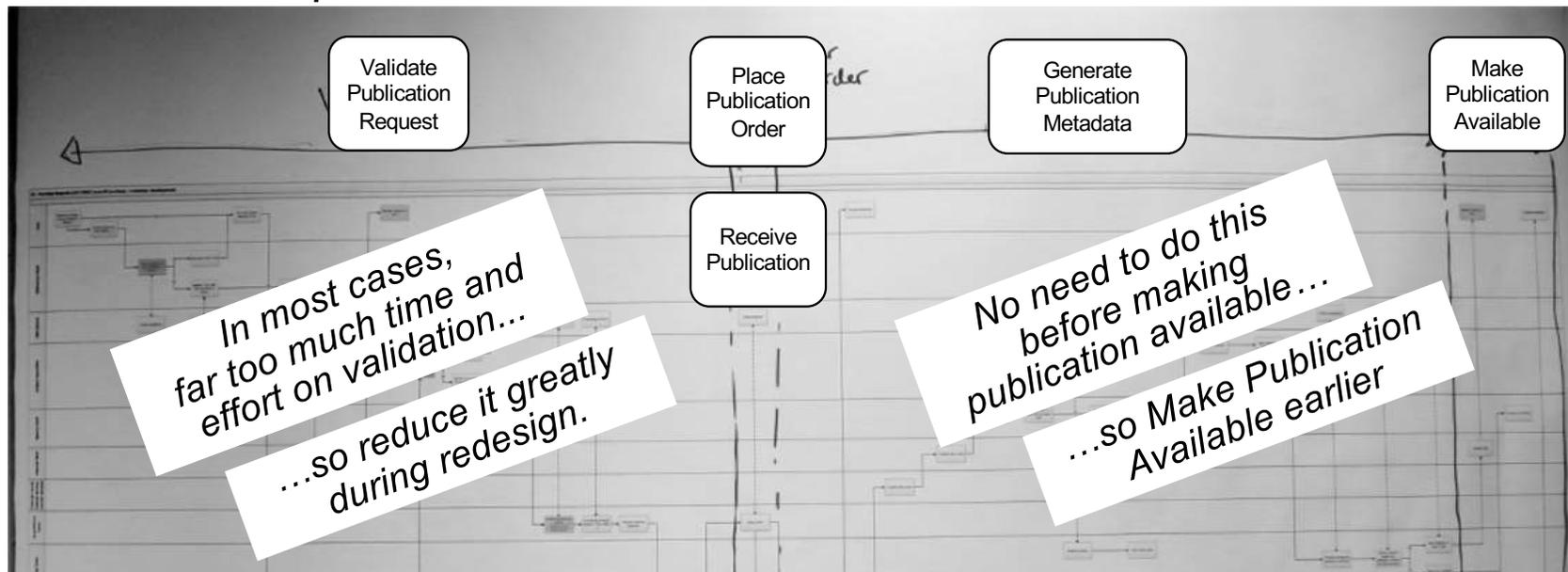
Client comments:
- *The steps we went through and starting at the high level "opened up our minds."*
- *Pulling back to the high level (Scope Model) enabled us to make the progress we did.*
- *Without high level, it's easy to get into the weeds.*

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Optional finer points: actors, steps, flow

Slides 121 – 126 are for reference – we've covered the key points already.

There are different kinds of actors……

Student	⟵ • *Role played by a person or organisation*
Sales	⟵ • *Organisational unit (e.g., a department)*
Pay Clerk	⟵ • *Job title*
Other Processes	⟵ • *Separate process that plays a role*
Systems	⟵ • *Information system or machine*
Holding Areas	⟵ • *Storage area*

- All the work performed by an actor appears in their swimlane
- Usual sequence of swimlanes: *customer, core actors, supporting actors,* then three more lanes – ***Other Processes, Systems, Holding Areas***
- Alternate sequence: any order that helps to "tell a story"

Which actors to include?

"Should I show handoffs *within* a department?"

"Yes. Show *all* distinct roles, and the *handoffs* between them, even when they're within the same department."

vs.
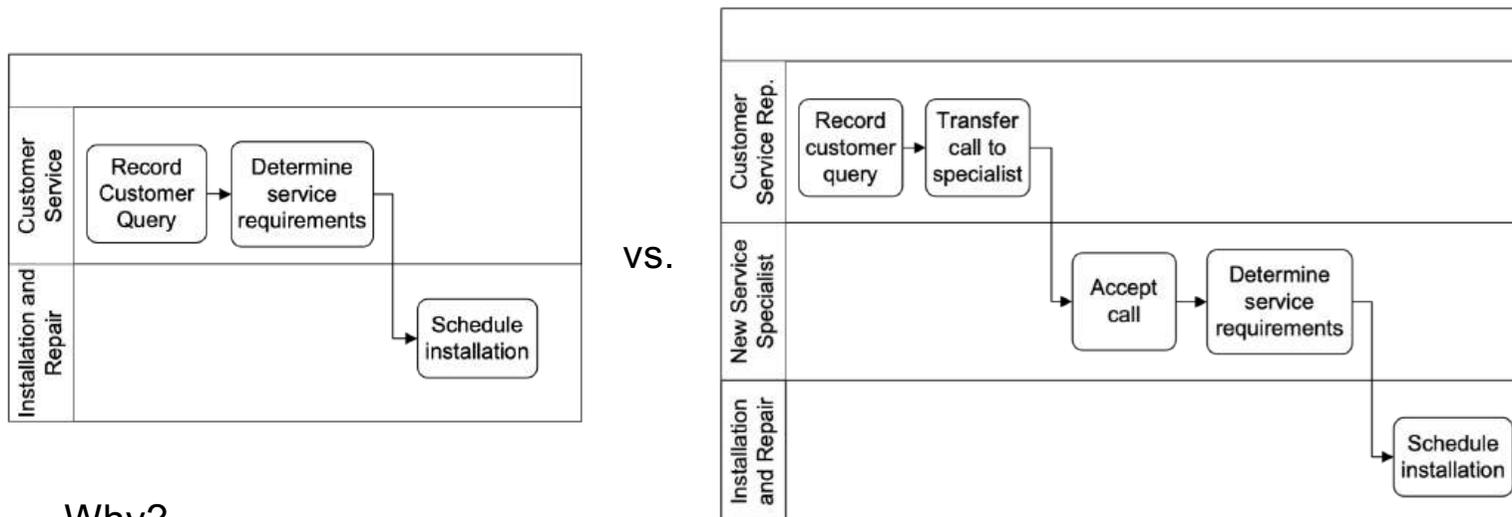
Why?

- You might convey the idea that the process is "cleaner" than it is
- Eventually, you'll need to know every actor impacted by change
- And most of all…
  every handoff is a potential source of *delay, error, expense, risk, or frustration*

Showing systems and processes as actors

Show systems that have a role in the process in a "Systems" swimlane.

When a system is involved, add a step that shows the name of the system and the service (function) being used.

Caution! – don't turn the process model into a data flow diagram

Show other processes that a process interacts with in an "Other Processes" swimlane.

Two cases:
- the other process performs work that your process waits for
- your process does not wait for a response (a one-way handoff)
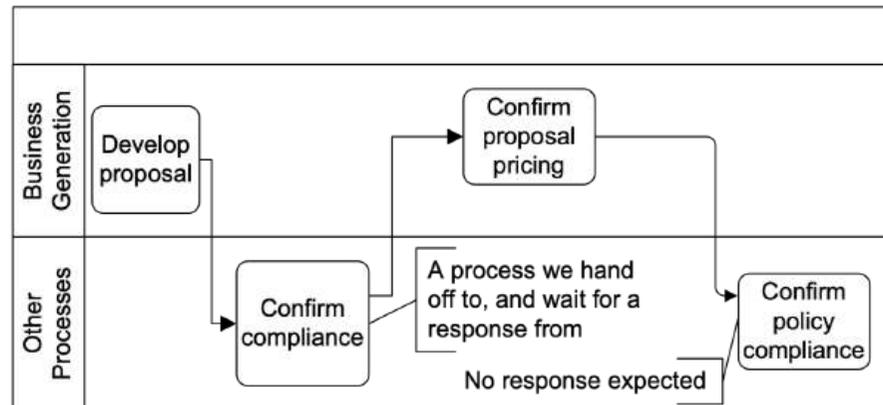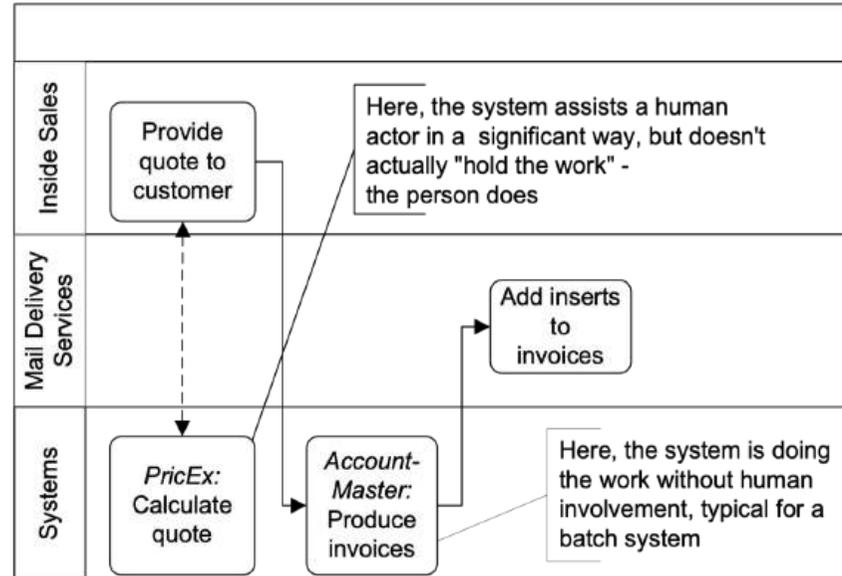
Translating mushy verbs

"Review"
often means
"Decide…"

Review
application

Decide
application
completeness

"Analyse"
often means
"Determine…"

Analyse
service
outage

Determine
service outage
cause

"Monitor"
often means
"Identify
variance in…"

Monitor
reactor
temperature

Measure
reactor
temperature

Identify
exception
condition

exception
detected

"Track"
often means
"Record…" or
"Query…"

Track
shipment
location

Record
current
shipment location

or…

Query
current
shipment location

"Manage," "maintain," "support," "administer,"
"control," "handle," "do," "process," "facilitate," and
other mushy verbs don't have a convenient
translation, so you must ask...

"*What* is actually being accomplished in this step?"
or
"Is this a *collection* of processes, not *one discrete* process?"
or
"Is this an *oversight activity*, not a *step* in the workflow?"

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Steps can involve multiple actors

Actors can be involved in the
same meeting and/or shared task…

Connectors (flow lines) are only
attached to the uppermost step

Student and Registrar's Office are
working together

Student	Prepare Financial Aid Application	Submit Application		Justify Application
Registrar's Office		Submit Application	Forward Application	
Financial Aid Officer				Justify Application

Student and Financial Aid Officer
are working together, and the
Registrar's Office *is not* involved
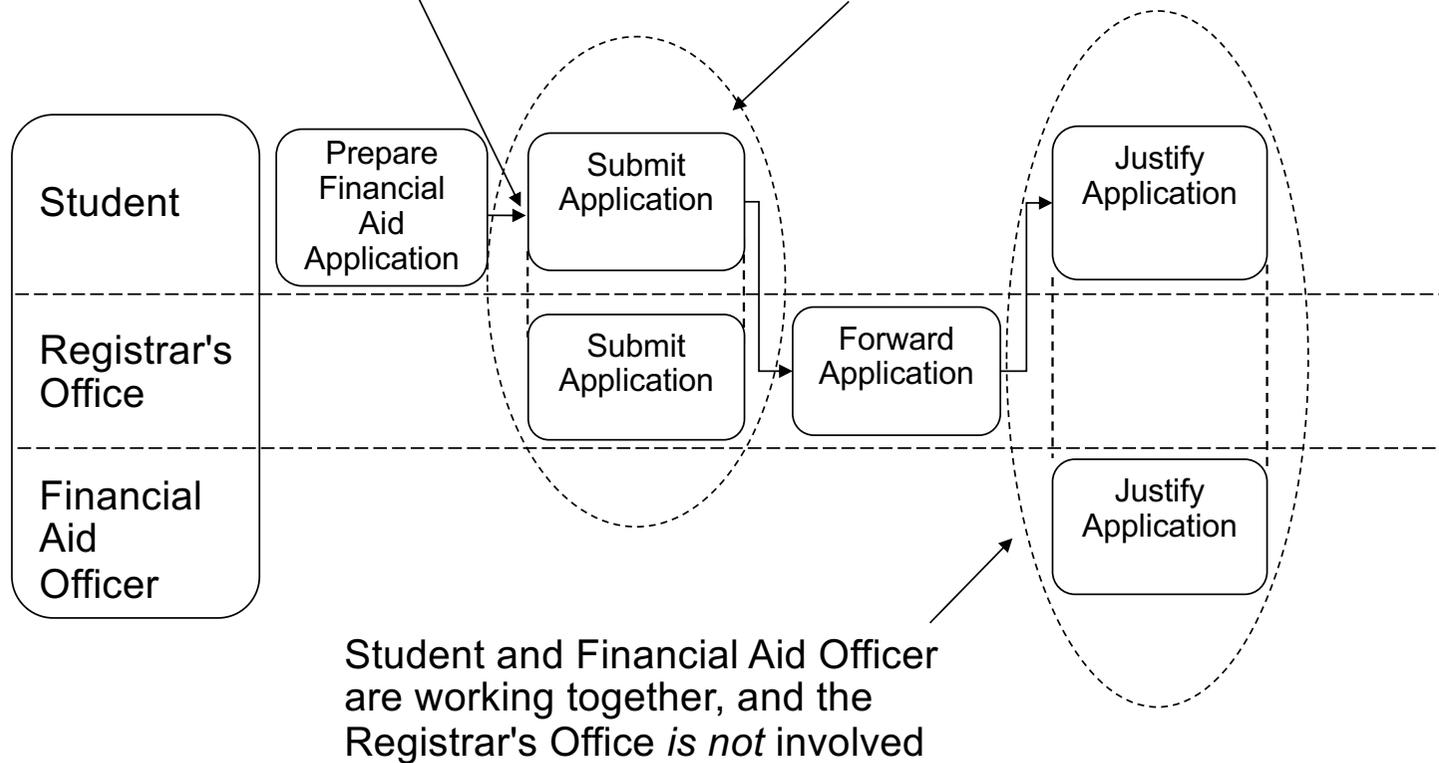
A common source of errors…

…failing to accurately and consistently show multiple actors and steps

Sequential:

role X	step a → step b
role Y	step c
role Z	step d

Parallel vs. Mutually Exclusive:

"AND" → step b → *"XOR"* → step f
step a → step c → step e → step g → step i
step d → step h

Parallel *Mutually Exclusive (a Decision)*

Collaborative:

role X	step b
role Y	step a → step b
role Z	step b
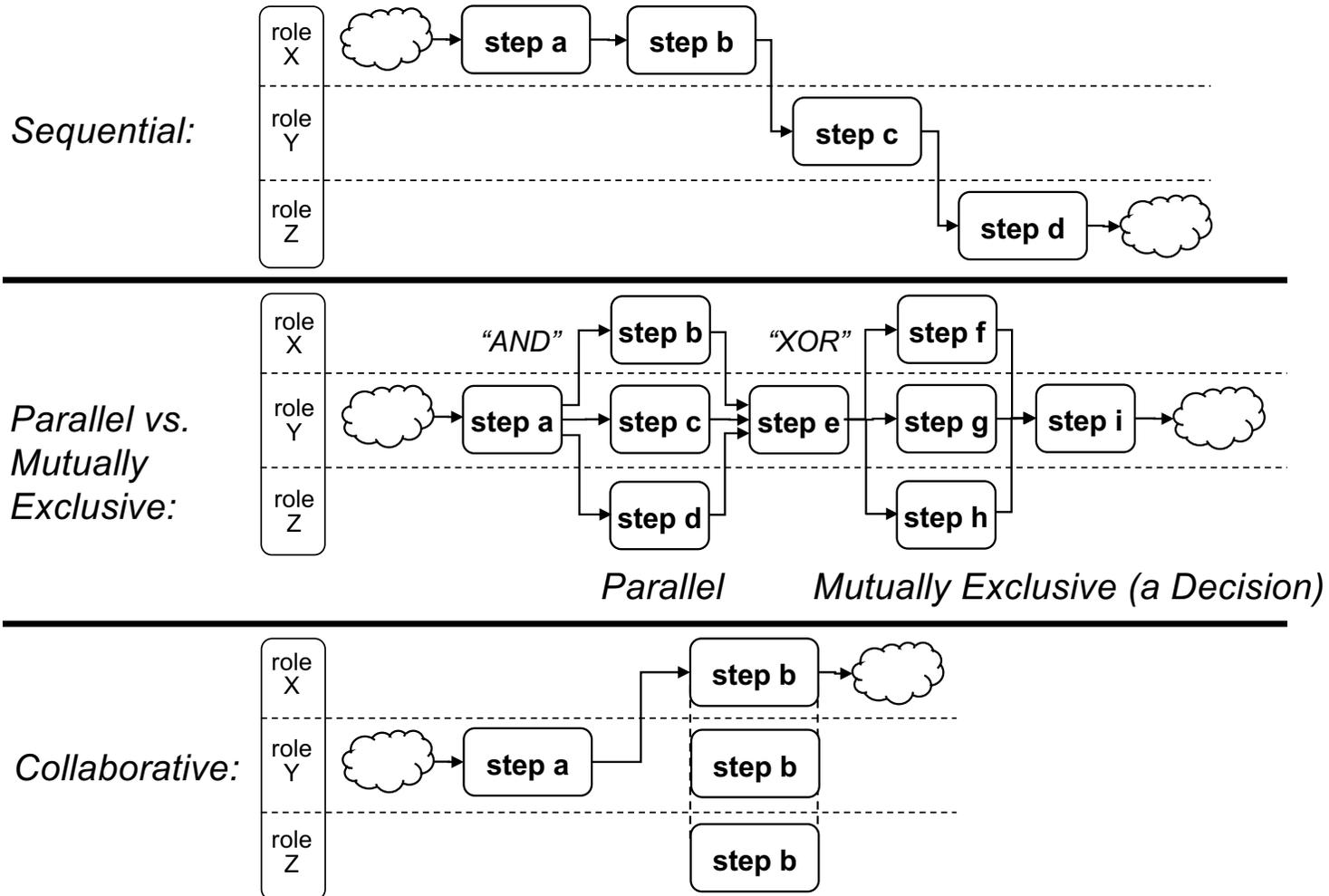
Summary – where we've been, where we're going

Principles

The purpose of a *Workflow* Model is to show the *Flow* of *Work*

Simplicity is a virtue

Always do a Scope Model and a Summary Chart before flow modelling

Why they work

Flow (sequence & dependency) is clearly visible, left to right

Simple to read – the symbols are mostly boxes and lines

Shows all actors and their steps, and therefore all interactions and handoffs

Shows the entire, end-to-end process, from trigger to results

Shows "what" the steps are without diving into "how"

The most *common* errors

Concealing flow by drawing a convoluted diagram, usually in an attempt to make it a "one-pager"

Using a lot of symbols that regular folks don't understand

Omitting actors just because they play a minor part – e*veryone* has an impact

Cutting the diagram into one-page segments – the initial flow model should be continuous

Using a Workflow Model to document procedural level detail

Phase 2 summary – Model and <u>understand</u> the as-is process

– 1 –
Identify, scope, and assess the target process

– 2 –
Understand the "as-is" process

– 3 –
Characterise and design the "to-be" process
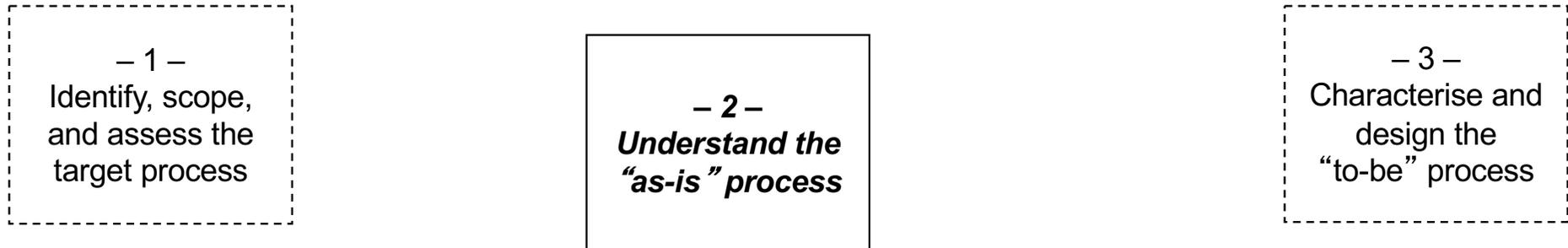
> *Phase 2 – Model and understand the as-is process, and impact of all enablers*

Organise and initiate a modelling session	***Augment Process Scope Model with more detailed steps***	***Optional: Develop handoff-level as-is Swimlane Diagram***	***Validate completeness using "the five questions" for each step***	***Model other cases of the same process***	***Develop service-level Swimlane Diagram, if necessary***
• Workers, managers, external stakeholders • Review *Process Landscape, Process Scope Model,* and *Process Summary Chart* • Review ground rules	• Identify ~5 – 7 essential steps per main Activity • Determine "who and how" for each key step • Add supporting activities (e.g., transport, review, inform) as necessary	• From trigger, trace *one* flow to result – "flow first, detail later" • Three questions: 1 - "Who next?" 2 - "How?" 3 - "Who really?" • Add details – names, labels, alternate flows	1) "How does it get there?" - system? - external process? 2) "Good name?" 3) "All inbound flows shown?" 4) "All actors / systems shown?" 5) "All outbound flows shown?"	• Use initial diagram (case) as starting point. • If unwieldy, it's normal to create a separate diagram	• Develop *service level* diagrams (one per case) • Document procedures etc. as needed (not usually done)

Optional, if you choose to develop as-is *Swimlane Diagrams* (*Workflow Models.*)

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5. Business Process assessment (as-is) and design (to-be)

1. Business Process fundamentals

2. Identify true, end-to-end, cross-functional *Business Processes*

3. Clarify as-is process issues & to-be goals

4. Model the as-is process in a relevant way

5. As-is process assessment and tips for to-be design / redesign

Before we do a "formal" as-is assessment…

1. Record first impressions, and identify obvious problems and NVA (non-value added) work

2. Identify *leverage points* –
   A point in a process that has a
   disproportionate impact on
   overall performance.

   • Often early in the process

   • Most "bang for the buck" – *fix first!*

Leverage point examples:

• Sales reps dislike returning to the office to submit orders,
  so, they submit in bulk at the last minute, causing a surge in workload

• Forensics lab accepts *all* items submitted,
  in the mistaken belief they are *legally obligated* to accept all of it,
  even though much of it is *redundant* or *useless*

…then apply structured, enabler-based techniques

Two critical techniques address common problems:

1. *Problem:* focusing excessively on *workflow and IT.*
   Solution: conduct a *final assessment* that holistically addresses
   all **enablers** and generates potential improvements

2. *Problem:* implementing process "improvements" that have
   unforeseen consequences (negative and/or expensive)
   Solution: assess significant improvement
   by specifically considering each of the six **enablers**

Result: a set of to-be process characteristics ("features") that:

- impact specific issues

- are consistent with one another and the differentiator

- are feasible with respect to culture, resources, …

Key point – don't jump into workflow design too soon!!!

Our methodology – two points highlighted by clients

Some goal or issue, not rigorously specified

1 Establish
Process Scope and Objectives

Identify & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model

Complete **initial** as-is process assessment, and to-be objective setting, by **stakeholder**

2 *Understand*
the As-Is Process

Perform more **detailed** as-is modelling: an Augmented Scope Model & optionally, Workflow Models

Complete **final** as-is process assessment by **enabler**, and generate to-be improvement ideas

3 Design
the To-Be Process

Refine to-be improvement ideas and determine 5-10 **key features** of the to-be process

Assess each to-be feature **by enabler** to ensure the new process is implementable and sustainable

Design the to-be process:
1 - **essential** activities first
2 - "who & how" next
3 – transport & protocol last

Start with *what*

Inclusive assessment

Based on *reality*

Awareness of *all* factors

Addresses *our* goals

We can *do* it!

Feature-based approach

1 – Builds support for *change*

2 – Not a "big bang" –
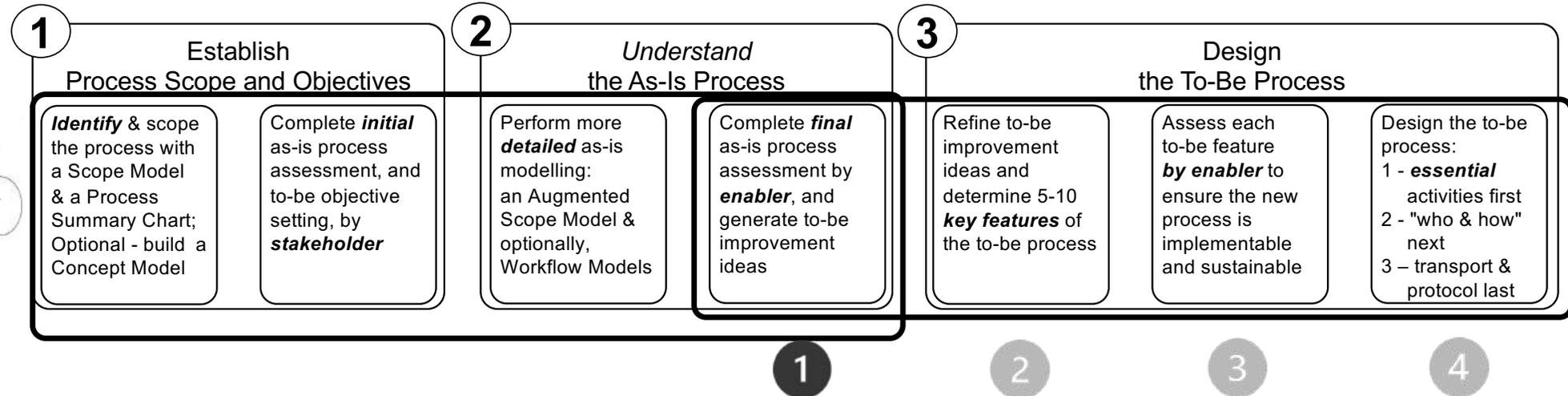an effective, implementable, sustainable business process

"We like the way support for change is built in *throughout* your approach, not bolted on at the end."
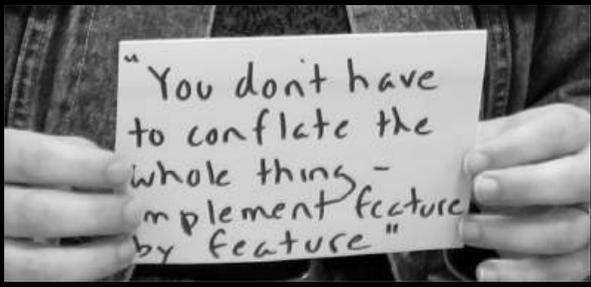
Feature-based approach makes it *Agile / iterative.*

And *fast!* – up-front work avoids endless rehashing later

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The link between the As-is Process and the To-be Process

1 Establish
Process Scope and Objectives

2 *Understand
the As-Is Process*

3 Design
the To-Be Process

Some goal or issue, not rigorously specified

Identify & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model	Complete ***initial*** as-is process assessment, and to-be objective setting, by ***stakeholder***

Perform more ***detailed*** as-is modelling: an Augmented Scope Model & optionally, Workflow Models	Complete ***final*** as-is process assessment by ***enabler***, and generate to-be improvement ideas

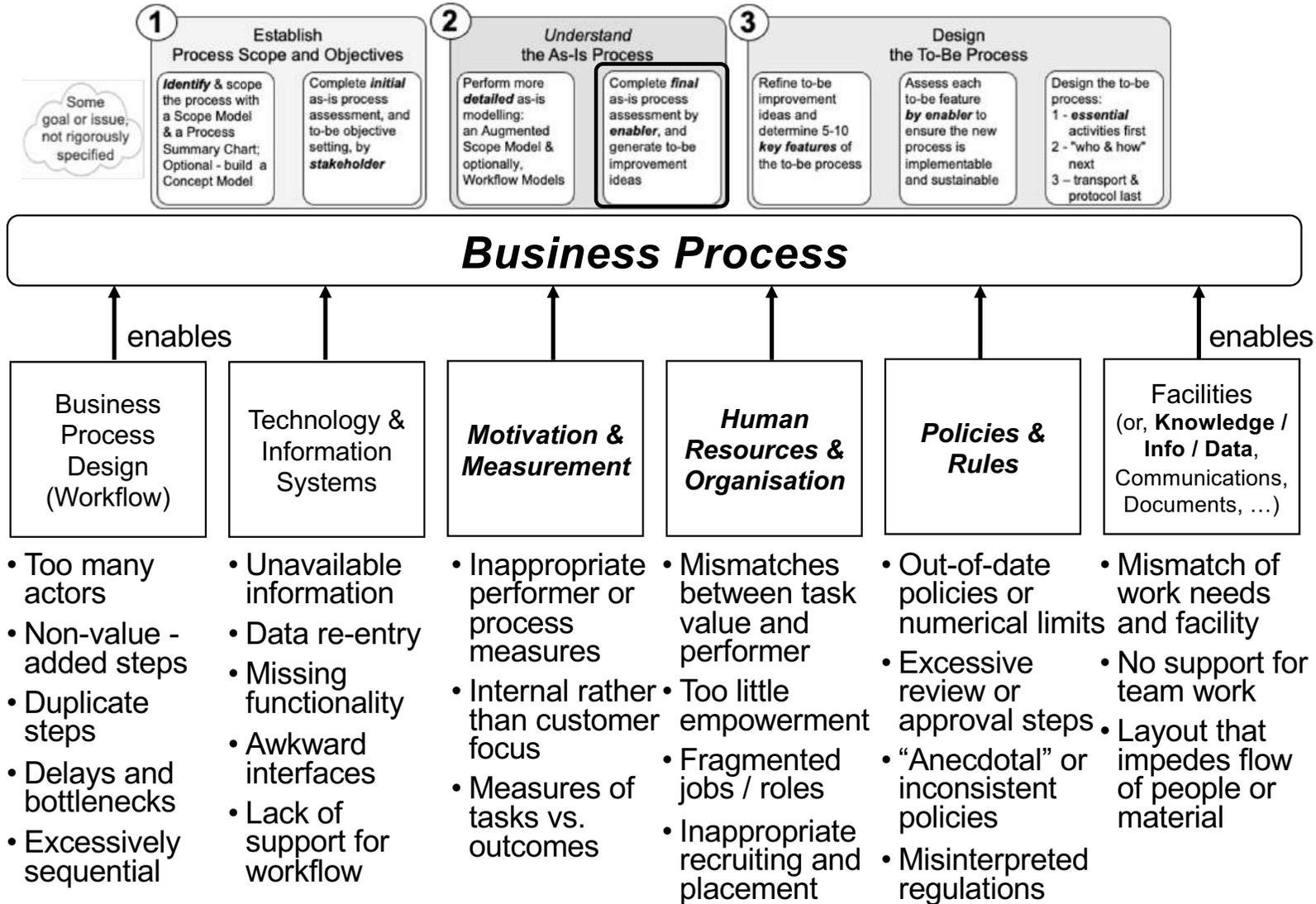|		
Refine to-be improvement ideas and determine 5-10 ***key features*** of the to-be process	Assess each to-be feature ***by enabler*** to ensure the new process is implementable and sustainable	Design the to-be process: 1 - ***essential*** activities first 2 - "who & how" next 3 – transport & protocol last

1   **2**   **3**   **4**

This activity (**1**) marks the pivot from as-is to to-be:

- we capture what we learned while studying the *as-is*

- we use this to generate ideas for the *to-be*

- three more activities (**2** **3** **4**) lead us to a new design

Key point!
Much of what we learn comes from discussions along the way, not from studying the swimlane diagram.
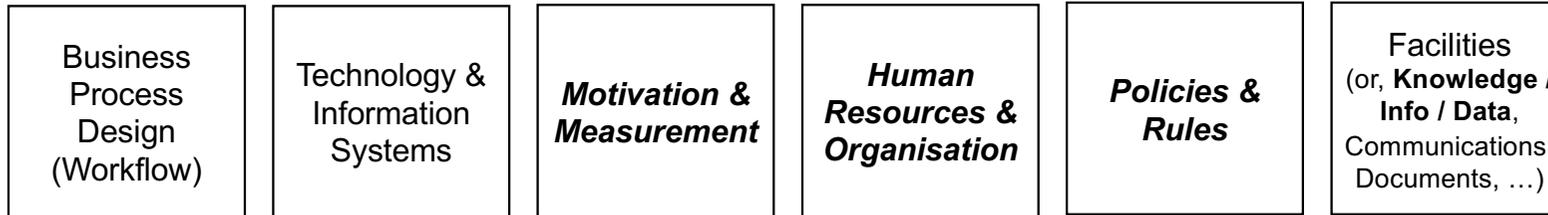
Complete final as-is assessment, generate to-be ideas

① Establish Process Scope and Objectives

| ***Identify*** & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model | Complete ***initial*** as-is process assessment, and to-be objective setting, by ***stakeholder*** |

② Understand the As-Is Process

| Perform more ***detailed*** as-is modelling: an Augmented Scope Model & optionally, Workflow Models | Complete ***final*** as-is process assessment by ***enabler***, and generate to-be improvement ideas |

③ Design the To-Be Process

| Refine to-be improvement ideas and determine 5-10 ***key features*** of the to-be process | Assess each to-be feature ***by enabler*** to ensure the new process is implementable and sustainable | Design the to-be process: 1 - ***essential*** activities first 2 - "who & how" next 3 – transport & protocol last |

Some goal or issue, not rigorously specified

Considering all six enablers is at the heart of this methodology

Business Process

enables → ... ← enables

| **Business Process Design (Workflow)** | **Technology & Information Systems** | ***Motivation & Measurement*** | ***Human Resources & Organisation*** | ***Policies & Rules*** | **Facilities (or, Knowledge / Info / Data, Communications, Documents, …)** |

This *always* uncovers issues that would have been missed otherwise and *always* generates ideas (potential *features*) for the to-be process

- Too many actors
- Non-value - added steps
- Duplicate steps
- Delays and bottlenecks
- Excessively sequential

- Unavailable information
- Data re-entry
- Missing functionality
- Awkward interfaces
- Lack of support for workflow

- Inappropriate performer or process measures
- Internal rather than customer focus
- Measures of tasks vs. outcomes

- Mismatches between task value and performer
- Too little empowerment
- Fragmented jobs / roles
- Inappropriate recruiting and placement

- Out-of-date policies or numerical limits
- Excessive review or approval steps
- "Anecdotal" or inconsistent policies
- Misinterpreted regulations

- Mismatch of work needs and facility
- No support for team work
- Layout that impedes flow of people or material

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A few examples…

| Business Process Design (Workflow) | Technology & Information Systems | *Motivation & Measurement* | *Human Resources & Organisation* | *Policies & Rules* | Facilities (or, **Knowledge / Info / Data**, Communications, Documents, …) |

Workflow AND Technology
- Failing to rethink process design to take advantage of new technology…
- *The new "Settle Claim" process was still completely sequential after implementing a Workflow system because they copied the old paper-based workflow*

Motivation and Measurement
- What you measure is what you get…
- *Customer Service Representatives: measured on not exceeding 2 minute call time, so they hung up on Customers at 1:58 or 1:59*

Human Resources
- Depressingly common…
- *Clerical, administrative, and support staff made redundant, so highly-paid professional staff do the work instead (and poorly)*

Policies & Rules
- Micromanagement…
- *Laboratory technicians: work had to be checked by a senior manager (often unqualified!) after every step, so the process was bogged down in pointless reviews*

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Assessment by Enabler generates ideas for the To-Be

Workflow:

- Resource not available to Requestor until after *all* classification and tagging is complete, even though classification and tagging is unnecessary in many/most cases because the US Library of Congress and British Library do it and make it freely available to other libraries.

To-Be idea – make Resource available immediately, then do classification and tagging only if necessary, first checking if other libraries have done it

IT:

- Three separate core systems lead to manual copying of data from system to system, often through "shadow systems."

To-Be idea — automated data replication

- Functional richness of core systems leads to overcomplexity

To-Be idea – identify the subset of features are really needed, and only use those

Assessment by Enabler generates ideas for the To-Be

Motivation & Measurement:
- Because work is so granular, no one is motivated by the performance of the whole, which is not even measured.
To-Be idea – develop relevant end-to-end metrics, and develop role and workgroup metrics to assess our impact on professional staff

Human Resources:
- Acquisition tasks don't require a skilled, higher cost Records Manager – Agency staff could do much more, RMs could do higher value work.
To-Be idea – Assign authority for higher-value work to Agency staff

Policies & Rules:
Three *(3!)* approvals required for low-value (€20 - €50) cases
To-Be idea – revise policy to reduce approvals, eliminate them entirely for low-value cases

Closing thought on the value of a framework,

Give people a framework, go through it point-by-point,
and they will *quickly* identify factors that would have been *missed*.

Assess by enabler, establish 5-10 to-be features, assess each feature by enabler

1 Establish Process Scope and Objectives

- **Identify** & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model
- Complete **initial** as-is process assessment, and to-be objective setting, by **stakeholder**

2 Understand the As-Is Process

- Perform more **detailed** as-is modelling: an Augmented Scope Model & optionally, Workflow Models
- Complete **final** as-is process assessment by **enabler**, and generate to-be improvement ideas

3 Design the To-Be Process

- Refine to-be improvement ideas and determine 5-10 **key features** of the to-be process
- Assess each to-be feature **by enabler** to ensure the new process is implementable and sustainable
- Design the to-be process:
  1 - **essential** activities first
  2 - "who & how" next
  3 – transport & protocol last

Some goal or issue, not rigorously specified

A *feature* is a significant *change* or *improvement* to the process,
or a significant *factor* in the design of an all-new process.

Assessment: **Features:**

Enabler-based assessment of the as-is process generates ideas for the to-be process.

Motivation & Measurement	Sales Reps motivated entirely by commission, with no motivation to return and submit Service Orders	~~Increase Rep's commission for early submission~~	Rejected by execs. A *feature*.
		New Sales Assistant role to enter Service Orders	
Human Resources	Order Capture and Order Submission are not effective uses of a Sales Rep's time	Service Order entry directly by Customer	Another *feature*.
		New Sales Assistant role to enter Service Orders	Same *feature* again.

Then, assess each Feature – what changes are needed, enabler by enabler, to make this feature work?

Feature	Process Design	Info. Systems & Tech.	Motivation & Measurement	Human Resources	Policies & Rules	Facilities (or other)	Feasibility & Notes
Direct Service Order entry by Customers	Need to get the Service Order from the server to the Engineering Supervisor for assignment, and then to Engineer for assessment Customer review?	Obviously, all the Web stuff Integrated Service Order DB Workflow functionality? What format for Customer sketches?	Commission? What impact on commissions for current sales force?	Displacement of current Sales Reps? What are expectations for freed-up Sales Rep time? Customer training?	Will all Customers have access to this?	Electronic orders may free up space currently used for bins, boards, etc..	Highly feasible. What will Customer and Sales Rep reaction be?

Avoids unanticipated consequences!

Determine to-be process key features – numerical approach

All the phases so far have generated to-be ideas –
50, 100, or more ideas. *Now what?!*

You could to a formal assessment, idea by idea.
I'm not a fan, but some organisations like *the numbers*.

Idea	Good for Customer 1 - 3 (best)	Good for Performers 1 - 3 (best)	Good for the Enterprise 1 - 3 (best)	Ease of Implementation 1 - 3 (easiest)	Total
SPOC (Single Point of Contact)	2	2	3	3	10
...	...	...	...	...	

Instead, we rely on the group's:
- ability and desire to *seek consensus*
- *collective knowledge & experience* from working through the first four phases *(remember – don't skip any!)*

We'll use *brainwriting* to synthesise 5-7 *features* from the many *ideas*

Determine to-be process key features – consensus approach

Use "brainwriting" and "big wheel, little wheel" facilitation
- Proven to generate *more* ideas / more *diverse* ideas
- Easier for *everyone* to contribute

2. Each participant "brainwrites" ideas, each on a separate Post-it or Lucidchart "Sticky Note".
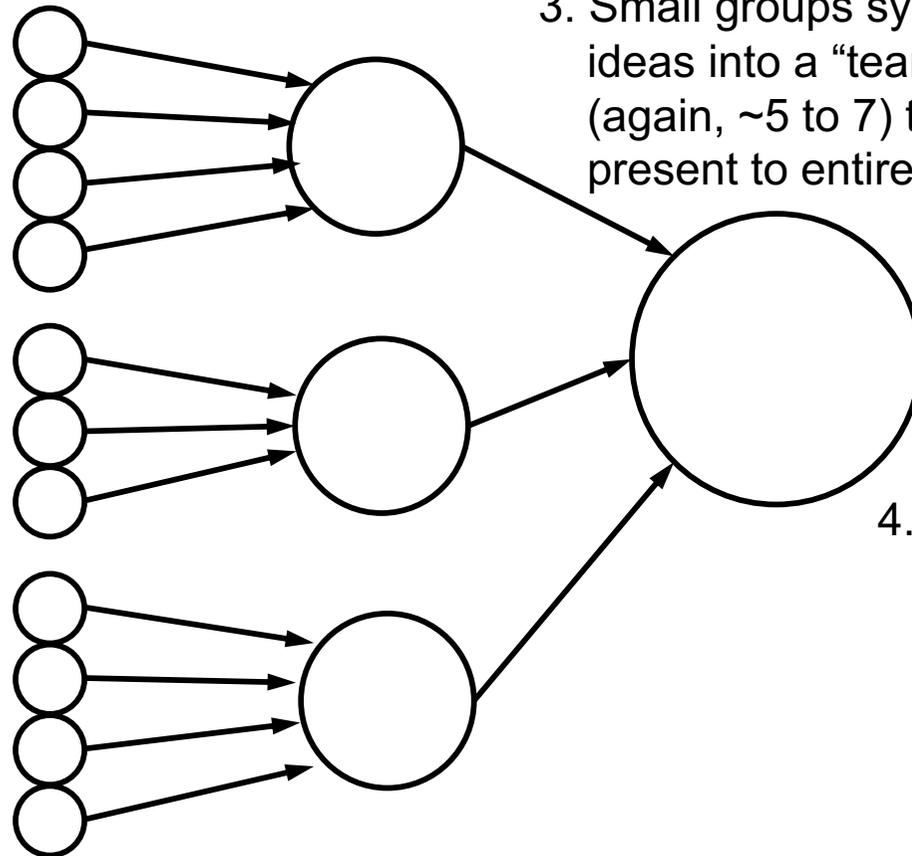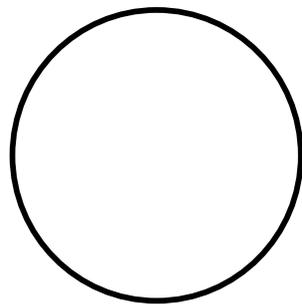
3. Small groups synthesise ideas into a "team effort" (again, ~5 to 7) then present to entire group.

1. Facilitator gives question or instruction to entire group (11 participants, in this case.) "Let's each identify ~5 to 7 key features of the new process."

4. Entire group synthesises ideas into a group effort, ~5 to 7 *features* (rarely more than 10)

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Example – determining features of the to-be process

Ten ideas synthesised into one *feature*…
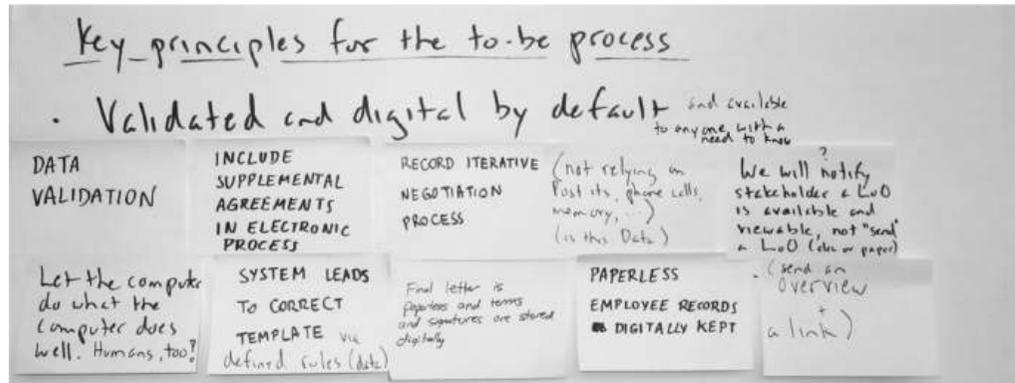
Six ideas synthesised into one *feature*…
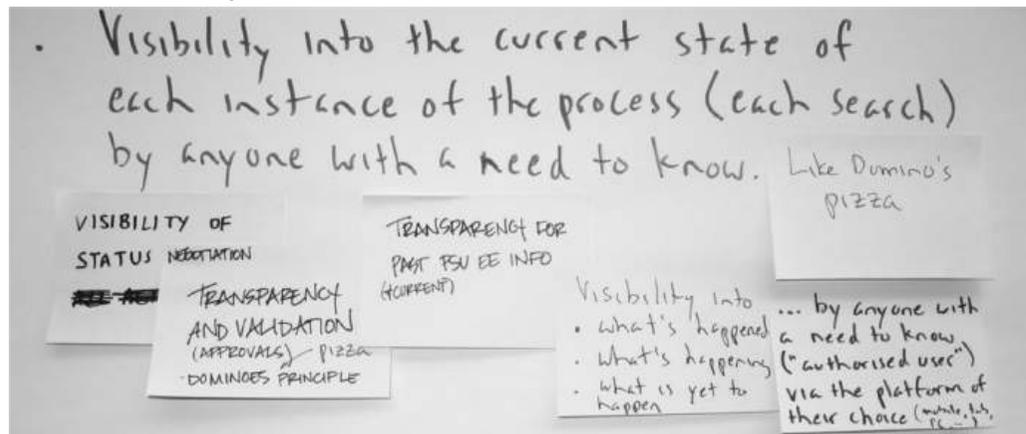
Features…
1. Data digital by default, validated and captured at source, and suitable for all downstream use.
2. Visibility into the current state of each instance of the process (each faculty search) by anyone with a need to know.
3. Separate the "need to approve" from the "need to be informed."
4. Each search will follow a defined and visible workflow.
5. *The process will be designed for digital signatures **only – no fallback!***

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Same example using a virtual whiteboarding tool

Lucidchart / Lucidspark, Miro, or even Google Jamboard are perfect for a brainwriting session like this.

Data digital by default, validated, captured at source, suitable for all downstream use.

Data validation! (Immediate!)	Let the computer do what it does best. Humans too!	Record negotiation process in data - not Post-its, phone calls, memory, ...)	System leads to correct template via defined rules in data
Final offer is paperless, with terms and signatures stored digitally	We will notify a stakeholder an offer is viewable, not "send" it electronically or on paper	Paperless records digitally kept	We will send an overview and a link, but not the offer itself

A bit more on assessing each to-be feature, enabler by enabler

Intent:

- Ensure each feature is *implementable* and *sustainable*
- Avoid *unanticipated consequences* through a holistic assessment

For each *feature,* ask…
"What needs to change in *this specific enabler* to make this *feature* work?"
***Changes in multiple enablers are usually needed for each feature.

Feature	Process Design	Info. Systems & Tech.	Motivation & Measurement	Human Resources	Policies & Rules	Facilities (or other)	Feasibility & Notes
Assign authority for higher-value work to Support Staff rather than having it all done by Senior Records Managers.	Need to decide whether we can auto-route requests to the appropriate staff member, or if all should go to a Senior Records Manager for routing	Current systems are much too complex for most cases, especially the ones that would now go to Support Staff. Need to isolate and only display essential functions	We MUST adjust the performance measures of Support Staff to ensure they are not penalised for taking on additional responsibility	Revise job descriptions for Support Staff as necessary. Provide additional training in Records Management functions and the RM System	Current policies dictate that all categorization and classification work be carried out by Records Managers – this will have to change. Some regulations may be a factor	Some Support Staff will be moved closer to Records Managers, but this is a minor change	Highly feasible if we can resolve Policy issues. Support Staff are very positive about the opportunity, and Records Managers look forward to more time for high-value work.

This feature required change in *all six* enablers, especially M&M and P&R!

A richer example – first, describe the feature (page 1 of 2)

A surprise benefit – invaluable during training and roll-out.

Feature name (A feature is a particular characteristic or improvement in the to-be process)
Forensic strategy ("applying science at the front end")

Description
A Senior Scientist, typically the Case Manager, will meet with the Submitting Officer and develop a case strategy specifying which avenues of investigation, and which items and tests are most likely to yield the needed results in the least time with the least effort. The goal is to do this for as high a percentage of cases as possible.   This is the first decision point in another characteristic, *multiple decision points.*   Visually, this is the first stage in a funnel, in which the work being performed on a case is continually reduced as new facts arise.

Issues addressed
There is a tendency for the Customer (the police) to submit all possible items, and request all possible tests, or at least submit more items for more tests than are necessary or justified. This is known as "forensicating" a case and is ironically a primary cause of the delay and expense that the customer is unhappy with.   Currently, Forensics accepts all items and performs all requested tests through to completion. In some cases, the suspect has become the accused and then the defendant, and has been convicted and incarcerated, yet testing continues.

Anticipated outcomes / benefits
For the Customer – deliver a positive result in less time, at less cost.   For Forensics – free up resources by reducing submissions, and performing fewer tests on fewer items, thereby providing better throughput for all cases.   In the future, Forensics will only perform those tests that will help, and which will stand up in court because we can say "we chose these tests for these reasons."   On an ongoing basis the customer will become more aware of the avenues that are most effective.

Then identify requirements to implement each feature (page 2 of 2)

Eight features assessed in a single five-hour session!

Enablers	
Process Design	Performers ("actors"), tasks, sequence, dependency • Senior scientist "meets with" appropriate scientist, not necessarily in person • Assessment and agreement and recording of *requirement* which is not contracted yet. • The requirement must be made available to the Process Manager, who will assess it with respect to current capacity. • The Case Manager and Process Manager will then negotiate and refine the requirement. They will then agree on "what and when" and commit capacity, which might involve another provider.
Information Systems & Technology	Systems, automated support, data and Information, comm. • Capture requirement • Real-time view into work-in-progress and committed capacity (Forensics' and subcontractors)
Motivation and Measurement	Measurement, assessment, consequences • The Process Manager will be measured on accurately estimating capacity and throughput. • The Process Manager makes a commitment for Forensics, and will be measured on having done the least to get the necessary result. ("lean consumption")
Human Resources	Recruitment, placement, education, roles, matching task to role • New front-end role for scientists • Process Manager role • Provide service 24x7 will impact some staff. • Recruitment, recognition, and reward are fundamental to making this work
Policies and Rules	Internal: policies & guidelines. External: laws and regulations • The overall submissions policy must be revised to reflect forensic strategy vs. "take it all." • Investigate legal consequences of forensic strategy. • Mechanism to protect the individual scientist from pressure. ("Forensics, not the individual scientist" – this is a corporate decision, not a personal decision) • Scientists can't make commitment without the Process Manager. • A 10 minute phone call and a 4 hour conference both constitute delivery of a service. A request to confer with a Case Manager constitutes contract initiation.
Facilities and Equipment	Physical accommodations, layout, equipment, furnishings • Some place to meet – in person, teleconference, …

4 – Design to-be process – overview

Establish Process Scope and Objectives / Understand the As-Is Process / Design the To-Be Process
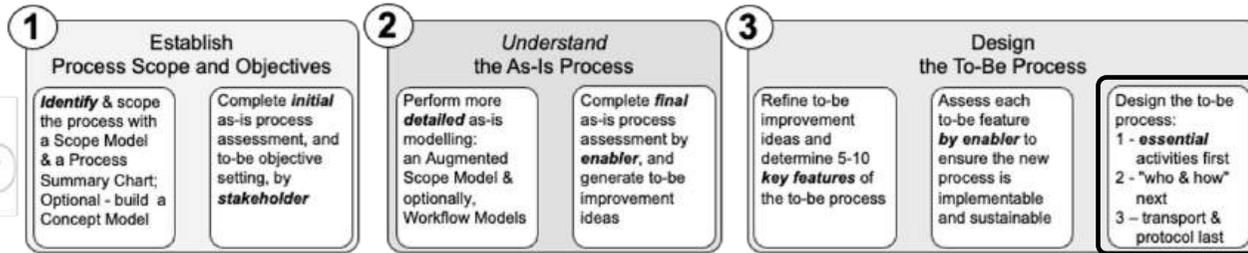
Key points:
- As with the as-is process – *"What first, who and how later"*
- Design around *essential* steps, not *administrative steps*

- Use an Augmented Scope Model to determine *what* the essential activities are

- Next, factor in *who* will perform each activity, then *how*
  - a person as a manual activity
  - a person interacting with a system, e.g. a use case
  - a system, e.g., RPA (Robotic Process Automation)

- Link essential activities by dependency – a PERT chart

- Adjust – e.g., verify activity is assigned to the correct role

- Only then redraw as a swimlane diagram

- *Finally,* add non-value-added but necessary activities:
  - transport, record keeping, notification, etc.
  - ensure any approval steps are *really* necessary ("Don't confuse notification with approval.")
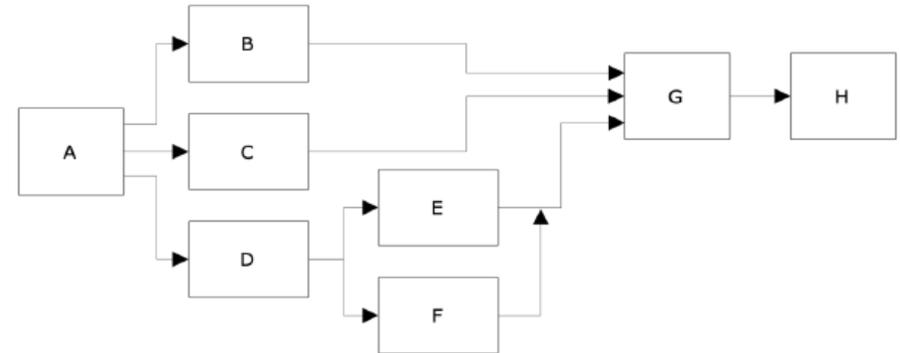
Who:	Safety Officer
What:	Confirm Application Completeness
How:	S-MAN (system)
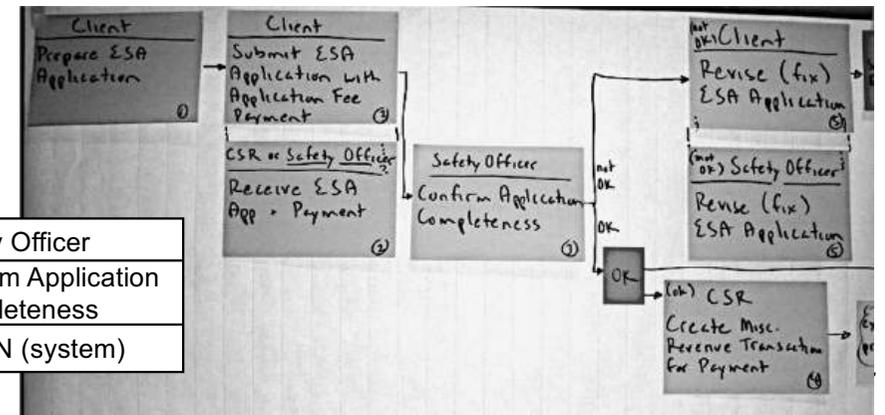
4 – Design to-be process – the details – Identify essential activities

Recruit, Hire, and Onboard Employee

| Prepare to Recruit | Recruit Applicants | Evaluate Applicants & Select Finalist | Negotiate Terms of Employment | Finalise Terms of Employment | Onboard Employee |

Lucidchart version

1 – Two groups brainwrite essential activities. They are "augmenting" the Scope Model.

2 – The full group synthesises a list of essential activities.

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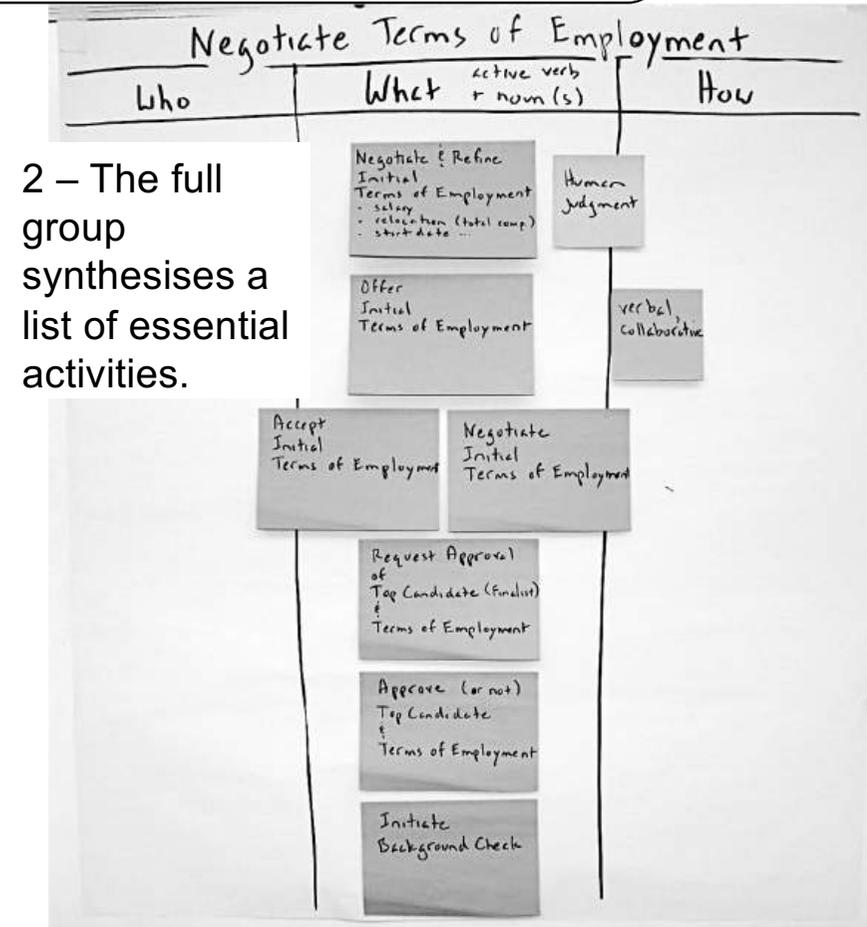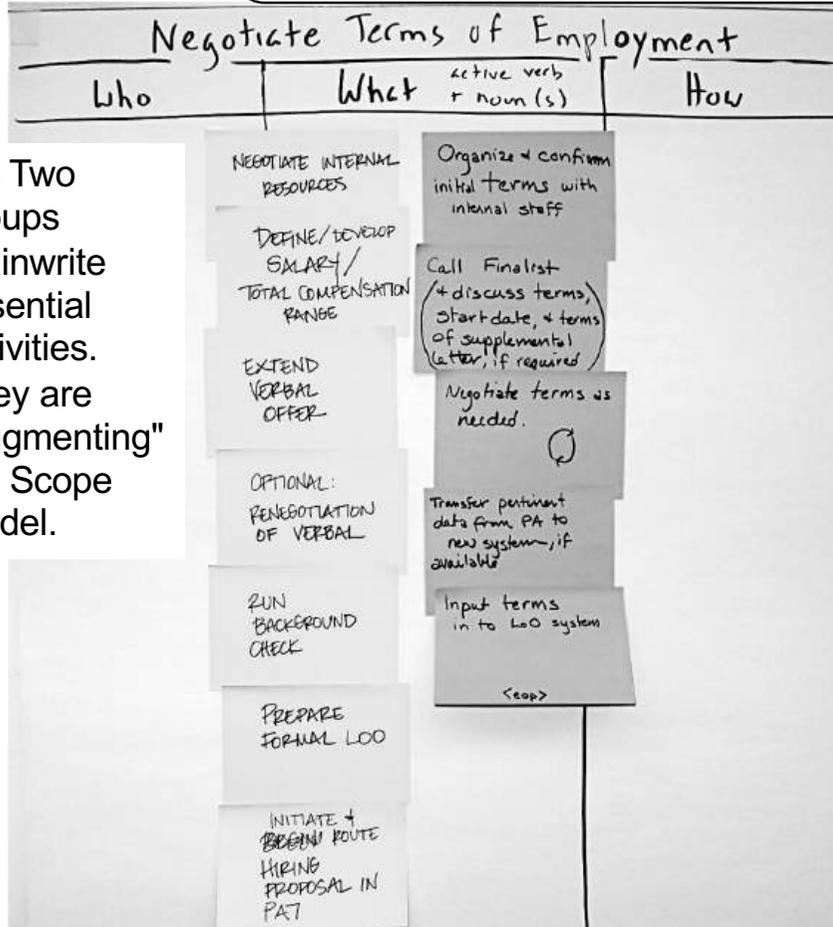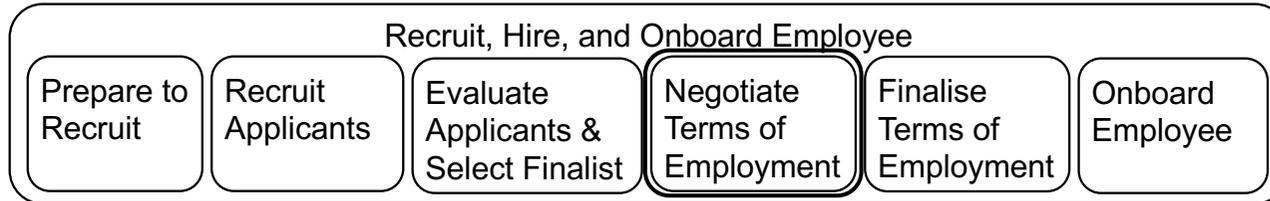
Similar example – Augmented Scope Model for the full process

Recruit, Hire, and Onboard Employee
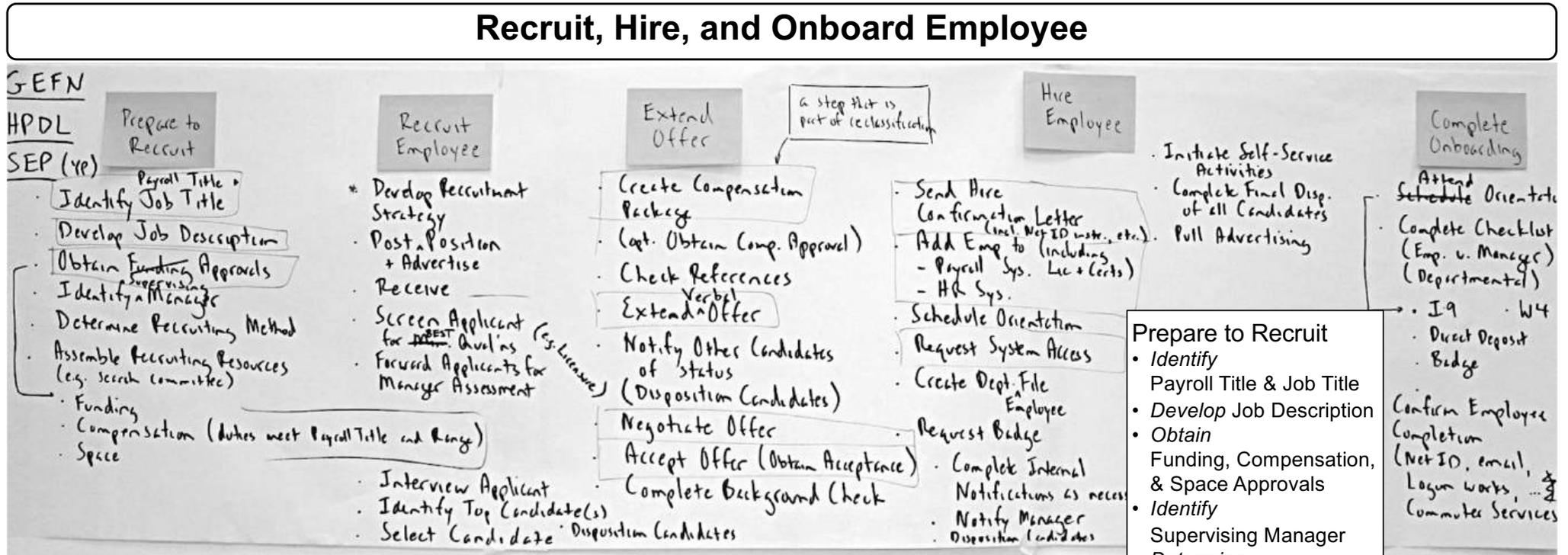
- *For the first time,* the end-to-end process is visible
- A surprise to *everyone* how much work it is
- Still no reference to "who or how" – just "*active verb* + noun"
- *This is critical to build support for change – it "depersonalises" in a good way!*

For each essential Activity, add "Who," "How," and lots of "Notes"

- We have the core of the to-be process design

- Going immediately to a Swimlane Diagram would have been *overwhelming!*

- But now, developing the to-be flow model (swimlane diagram) is straightforward – *We Can Do It!* We have:
  - actors or swimlanes – *Who*
  - steps – *What*
  - the mechanism for each step – *How*
  - sequence (approximate, but OK for now)

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"To-be" flow – Handoff

| Applicant | Complete Credit App. | *Improved form supports process changes* | | | | Receive Notification |

Sales Rep — Determine Credit and Code App. — *Sales Reps perform Customer Coding so Admin doesn't have to before set-up*

Credit Rep — Approve/Decline Large Customer Application — *Split process for large and small Customers* — *Includes activating approved accounts* — *Notifications no longer prepared by Word Processing*

Credit Admin Clerk — Decide Credit App. Routing — Large — Small — Approve/Decline Small Customer Application — File Application

Customer Data Maint. Clerk — Set Up Applicant in Sales System — *Set up applicants early in the process* — *Provide instant credit for small Customers before processing app.* — Set Up Customer w. Instant Credit in Sales System

"To-be" flow – Service (page 1)

Applicant: Complete Credit App.

Sales Rep codes application for Industry, Region, Terms, and Credit Limit

Obtain Additional Info by Telephone

Sales Rep: Estimate Sales and Determine Credit Required → Code and Enter Credit Application

Forms are transmitted electronically to eliminate handoff delay

Credit Rep

Additional information is obtained in "real time"

Credit Admin. Clerk: Decide if Application is Complete → No → Obtain Additional Info by Telephone

Yes

Customer Data Maintenance Clerk

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"To-be " – Service (page 2)

"To-be" – Service (page 3)
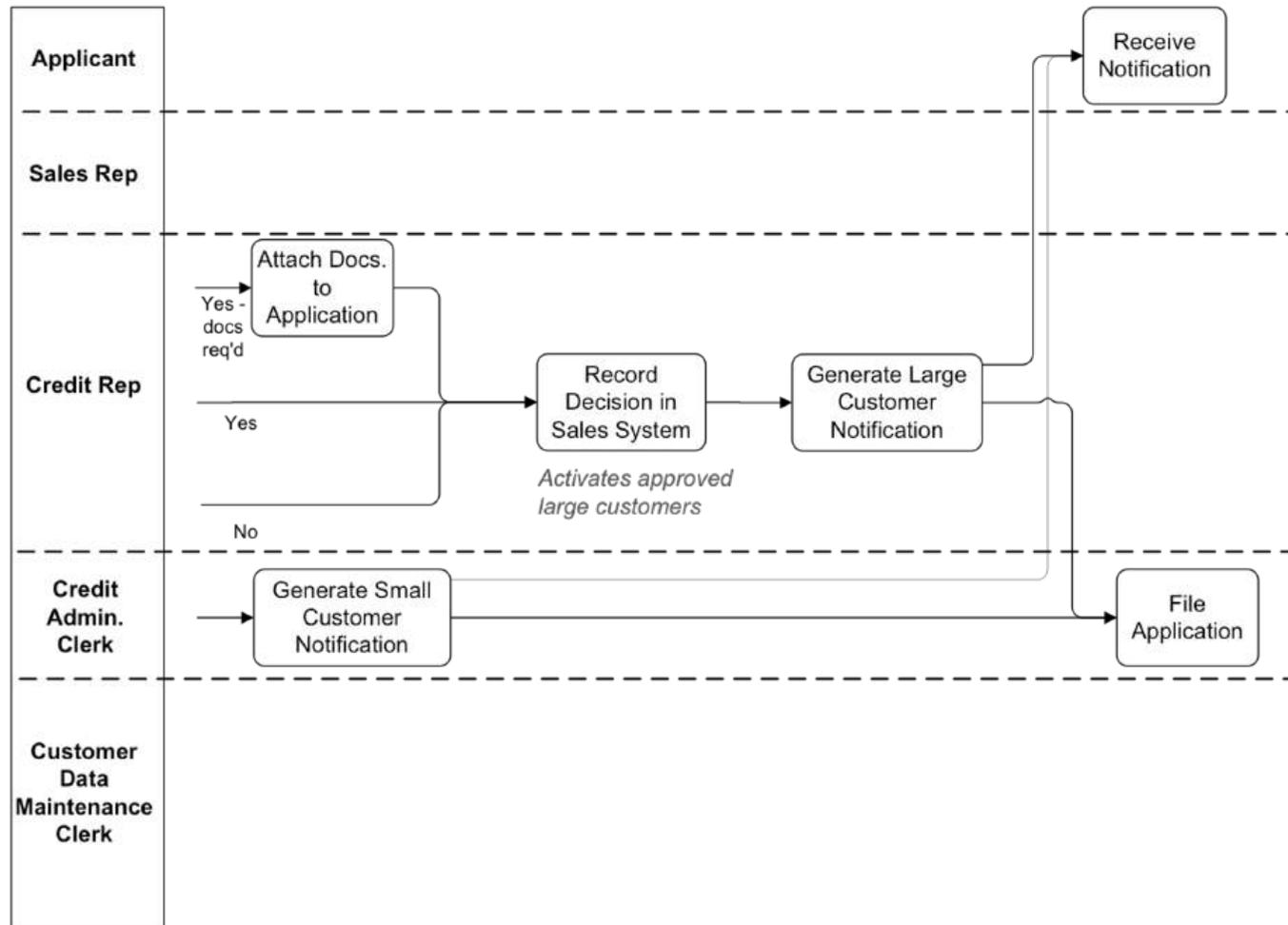
Final observations from session retrospective, 12 people

Session retrospective 1/2

- The steps we went through, and starting @ high level, "opened up minds"
- This core group could be kept together for future process work as we understand the method, etc. but others join in based on topic
- Selection of a group that is open-minded about change was effective.
- Use of visible flipcharts helped, and could be helpful / interesting to other staff
- The group was the right size (not too big)
- It was good to have a group with some "distance" from the current process; current "owners" may not be happy, and will have to be brought on board (we've represented their resistance, though)
- Pulling back to the high level (scope model) enabled us to make the progress we did.

STAPLES

Session retrospective 2/2

- Having enabler assessments (eg Policy) addressed and visible enabled us to "let it go" and lay out new workflow.
- Without high level, it's easy to get into the weeds.
- Specifically addressing the perspective of each stakeholder was a beneficial because it changed our thinking.
- This process (Print Pub) can be a catalyst for major change
- Helpful to have a facilitator - "ignorance is golden"

Final thoughts from session retrospective

- The steps we went through and starting at the high level "opened up minds."

- Use of visible flipcharts helped, and could be helpful / interesting to other staff.

- Pulling back to the high level (Scope Model) enabled us to make the progress we did.

- Having enabler assessments (e.g., Policy) addressed and visible enabled us to "let it go" and lay out new workflow.

- Without the high level, it's easy to get into the weeds.

- Specifically addressing the perspective of each stakeholder was beneficial because it changed our thinking.

- Helpful to have a facilitator – "ignorance is golden."

Every phase contributes to the goal – don't skip any!

1 Establish
Process Scope and Objectives

2 *Understand*
the As-Is Process

3 Design
the To-Be Process

Some goal or issue, not rigorously specified

Identify & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model

Complete ***initial*** as-is process assessment, and to-be objective setting, by ***stakeholder***

Perform more ***detailed*** as-is modelling: an Augmented Scope Model & optionally, Workflow Models

Complete ***final*** as-is process assessment by ***enabler***, and generate to-be improvement ideas

Refine to-be improvement ideas and determine 5-10 ***key features*** of the to-be process

Assess each to-be feature ***by enabler*** to ensure the new process is implementable and sustainable

Design the to-be process:
1 - ***essential*** activities first
2 - "who & how" next
3 – transport & protocol last

Discover the *real* process and participants

Identify issues for *all* stakeholders

Complete *holistic* as-is assessment & generate to-be ideas

Understand activities and flow

Determine *key* process features

Ensure features are *implementable* with no *unforeseen consequences*

Design to-be process flow

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Remember – "It's a process!"

Some goal or issue, not rigorously specified

1 Establish
Process Scope and Objectives

Identify & scope the process with a Scope Model & a Process Summary Chart; Optional - build a Concept Model

Complete *initial* as-is process assessment, and to-be objective setting, by *stakeholder*

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Assess each to-be feature *by enabler* to ensure the new process is implementable and sustainable

Design the to-be process:
1 - *essential* activities first
2 - "who & how" next
3 – transport & protocol last

Transparency and involvement are core principles –
Brad Wheeler – "You can't skip the therapy" and
"We are legitimising what comes next."

You can't start here
with "best practices"

Making the new process sustainable:

- Alignment of *all* enablers, especially *Motivation & Measurement*, *Human Resources & Organisation*, and *Policies & Rule*s
- Visibility of the process – the *whole* process, right down to *job aids*
- *Training* in the new process for current and new staff
- Time for *each feature* of the new process to *take hold* before more change – *continuous* change should mean *regular* but not *constant* change

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Phase 3 summary – Define to-be process characteristics and design

– 1 – Identify, scope, and assess the target process	– 2 – Understand the "as-is" process	**– 3 –** **Characterise and design the "to-be" process**

Phase 3 – Assess as-is process, develop to-be characteristics, design to-be

Conduct final assessment of as-is and generate ideas for the to-be	**Decide on overall approach**	**Conduct a challenge session to generate more to-be ideas**	**Select 5-10 key features for the to-be**	**Assess each feature by enabler (to avoid unanticipated consequences)**	**Design to-be process**
• Collect first impressions and *ideas* • Identify leverage points and *ideas* • Assess process (and optionally each step) by enabler, and record *ideas*	• Abandon • Outsource • Leave as-is • Improve or redesign • Totally new design	• *Optional* • State underlying assumption in each step • *Overstate!* and challenge • Record alternative *ideas,* or keep statement	• Team and management review • Select 5 – 10 key *ideas* that: - meet goals - are significant - are feasible • These are the to-be *features*	• Describe what must be done, one enabler at a time, to make the *feature* work • Result: *Characterised To-Be Process, Process Requirements*	• Identify essential activities (*what*), then *who* & *how* • Link activities by dependency and adjust • Draw initial Swimlane Diagram • Add non-essential activities • *Annotate!*

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Three phases – *summary*

Phase 1 *Identify, scope, and assess the target process*	**Phase 2** *Understand the as-is process*	**Phase 3** *Characterise and design the to-be process*

Phase 1
- **Identify related processes**
  - identify and link activities
  - 1:1 links are in same process
  - draw *Process Landscape*
- **Use TRAC to clarify target process' scope**
  - **T**riggering event
  - **R**esult for each stakeholder
  - ~5+/- 2 main **A**ctivities
  - **C**ases (main variations)
  - draw *Process Scope Model*
- **Clarify as-is process elements**
  - functional areas
  - actors and responsibilities
  - systems and mechanisms
  - draw *Process Summary Chart*
- **Assess as-is process by stakeholder** (initial assessment)
  - also specify context and consequences of inaction
- **Specify to-be process goals**
  - subjective and objective
- **Specify performance metrics**
  - customer-focused outcomes, not internal task efficiency

Phase 2
- **Organise and initiate session**
  - staff and management plus external stakeholders
  - review scope, issues, goals
  - review ground rules
- **Build Augmented Scope Model**
  - Identify main steps by Activity
  - Identify who & how per step
- **Build as-is swimlane diagram**
  - *Optional*
  - one case and path at a time
  - Three questions:
    "Who next?," "How does it get there?," "Who *really* gets it?"
- **Check each step** - **5 questions**
  - Verify all flows in and out
  - Confirm active, accurate name
  - Confirm all actors / systems
- **Model other process cases**
  - create new diagram, or use original case as a starting point
- **Add additional levels of detail**
  - *only if necessary*

Phase 3
- **Assess as-is process by enabler** (final assessment)
  - using as-is models as a guide
  - record ideas for to-be
- **Decide on approach** (abandon, outsource, leave as-is, improve or redesign)
- **Conduct challenge session**
  - challenge hidden assumptions
  - record ideas for to-be
- **Eliminate infeasible ideas** (cost, legal, resources, impact, …)
- **Select 5 – 10 key ideas – these are the to-be "features"**
- **Assess each feature by enabler**
  - helps us *avoid unanticipated consequences*
  - builds Process Requirements
- **Identify & sequence essential activities**
- **Lay out to-be workflow**
  - handoff then service
  - only then add non-essential steps

Other courses for analysts by Alec Sharp

Working With Business Processes – *Process Change in Agile Timeframes*   2 days

Business processes matter, because business processes are how value is delivered. Understanding how to work with business processes is now a core skill for business analysts, process and application architects, functional area managers, and even corporate executives. But too often, material on the topic either floats around in generalities and familiar case studies, or descends rapidly into technical details and incomprehensible models. This workshop is different – in a practical way, it shows how to discover and scope a business process, clarify its context, model its workflow with progressive detail, assess it, and and transition to the design of a new process by determining, verifying, and documenting its essential characteristics. Everything is backed up with real-world examples, and clear, repeatable guidelines.

Business-Oriented Data Modelling – *Useful Models in Agile Timeframes*   2 days

Data modelling was often seen as a technical exercise, but is now known to be essential to other initiatives such as business process change, requirements specification, Agile development, and even big data, analytics, and data lake implementation. Why? – because it ensures a common understanding of the things – the entities or business objects – that processes, applications, and analytics deal with. This workshop introduces concept modelling from a non-technical perspective, provides tips and guidelines for the analyst, and explores entity-relationship modelling at contextual, conceptual, and logical levels using techniques that maximise client involvement.

Working With Business Processes Masterclass – *Aligning Process Work with Strategic, Organisational, and Cultural Factors*   3 days

This 3-day interactive workshop combines the core content from two highly-rated classes by Alec Sharp – "Working With Business Processes" and "Advanced Business Process Techniques." This structure is popular because it gets both new and experienced practitioners to the same baseline on Claritiq's unique, agile, and ultra-practical approach to Business Process Change. First, it shows how to effectively communicate Business Process concepts, discover and scope a business process, assess it and establish goals, and model it with progressive detail. Then, it shifts to advanced topics – specific, repeatable techniques for developing a process architecture, encouraging support for change, and completing a feature-based process design. The emphasis is always on ensuring business process initiatives are aligned with human, social, cultural, and political factors, and enterprise mission, strategy, goals, and objectives.

Business-Oriented Data Modelling Masterclass – *Balancing Engagement, Agility, and Complexity*   3 days

Our most popular workshop! This intensive 3-day workshop combines the core content from two popular offerings by Alec Sharp – "Business Oriented Data Modelling" and "Advanced Data Modelling." First, the workshop gets both new and experienced modellers to the same baseline on terminology, conventions, and Clariteq's unique, business-engaging approach. We ensure a common understanding of what a data model *really* is, and maximising its relevance. Then, we provide intense, hands-on practice with more advanced situations, such as the enforcement of complex business rules, handling recurring patterns, satisfying regulatory requirements to model time and history, capturing complex changes and corrections, and integrating with dimensional modelling. Always, the philosophy is that a data model is a description of a business, not of a database, and the emphasis is on engaging the business and improving communication.

Model-Driven Business Analysis Techniques – *Proven Techniques for Processes, Applications, and Data*   3 days

Simple, list-based techniques are fine as a starting point, but only with more rigorous techniques will a complete set of requirements emerge, and those requirements must then be synthesised into a cohesive view of the desired to-be state. This three-day workshop shows how to accomplish that with an integrated, model-driven framework comprising process workflow models, a unique form of use cases, service specifications, and business-friendly data models. This distinctive approach has succeeded on projects of all types because it is "do-able" by analysts, relevant to business subject matter experts, and useful to developers. It distills the material from Clariteq's three, two-day workshops on process, data, and use cases & services.

*** *Note: two-day in-person workshops are delivered virtually as three half-day sessions via Zoom.*
Three-day in-person workshops are delivered virtually as five half-day sessions via Zoom.

Thank you!

Alec Sharp, West Vancouver, BC, Canada

If you have questions or comments…
don't be shy, get in touch!

- e: asharp@clariteq.com
- ig: @alecsharp01
- m: +1 604 418-3352