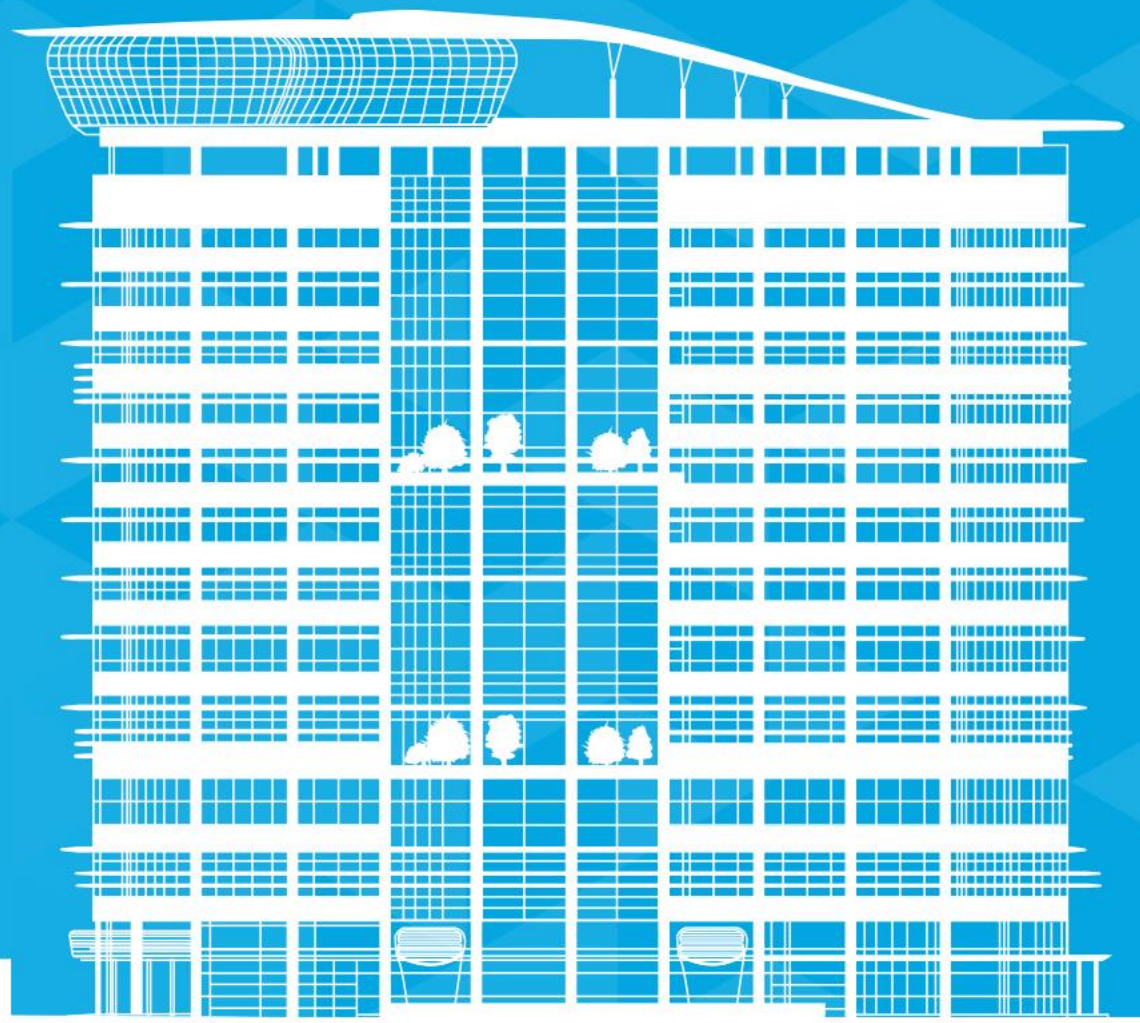
Operations Remake

Innovating and Optimizing Public Library Operations

Presented by:
Lo Wan Ni
Manager, Library Planning and Development
National Library Board Singapore



NLB | National Library Board Singapore

About Public Libraries

Key Statistics

26 branches
3 library tiers – regional, standalone, mall

30.9 mil loans
25.5 mil visitors
2.4 mil members
7.5 mil physical items

Vision

Readers for Life
Learning Communities
Knowledgeable Nation

Mission

We make **knowledge** come alive
spark **imagination** and create **possibilities**

Our Innovation Journey

1995 2010 2011 2012 2013 2014 2015 2016 2017 & beyond…

Self-Service and Resource Optimization Through Technology

Making Singapore Content Discoverable

Service Delivery Through Partnership

Introduction of **Radio Frequency Identification** (RFID) in NLB

1998

2001

World's first public library network to implement **self-checkout and automatic bookdrop**.

Making Singapore content discoverable via search engines, starting with **Infopedia**

2008

2009

Launch of **Library in Your Pocket**

Launch of **NewspaperSG**

2010

Silent Studio at library@ Esplanade opened

2011

RFID Refresh

2012

Opening of **library@Chinatown**

2013

2012 **Singapore Memory Project**

Auto-Sorter, Reservation locker

2014

2013

Archives Online revamped

NLB Mobile app, OneSearch launched

2014

library@orchard and **Sembawang Public Library** re-opened

Citizen Archivist Project launched

2015

Oral History Interviews Portal launched

Pasir Ris Public Library re-opened

2015

Robot-Assisted shelf reading system successfully trialed.

New **NLB Mobile** app launched

2016

Libraries of the Future

2017 - 2018

Re-opened **5** revamped libraries with focus on (1) volunteerism: **Bukit Panjang PL, Bedok PL and Tampines RL**

(2) New service age groups: **Sengkang PL, Yishun PL**

WHY ARE WE
Remaking Operations?

Future trends can be a threat or opportunity

Be Future-Ready, not Future-Shocked

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Pain points as impetus for innovation

Seen from perspectives of users, staff, organization

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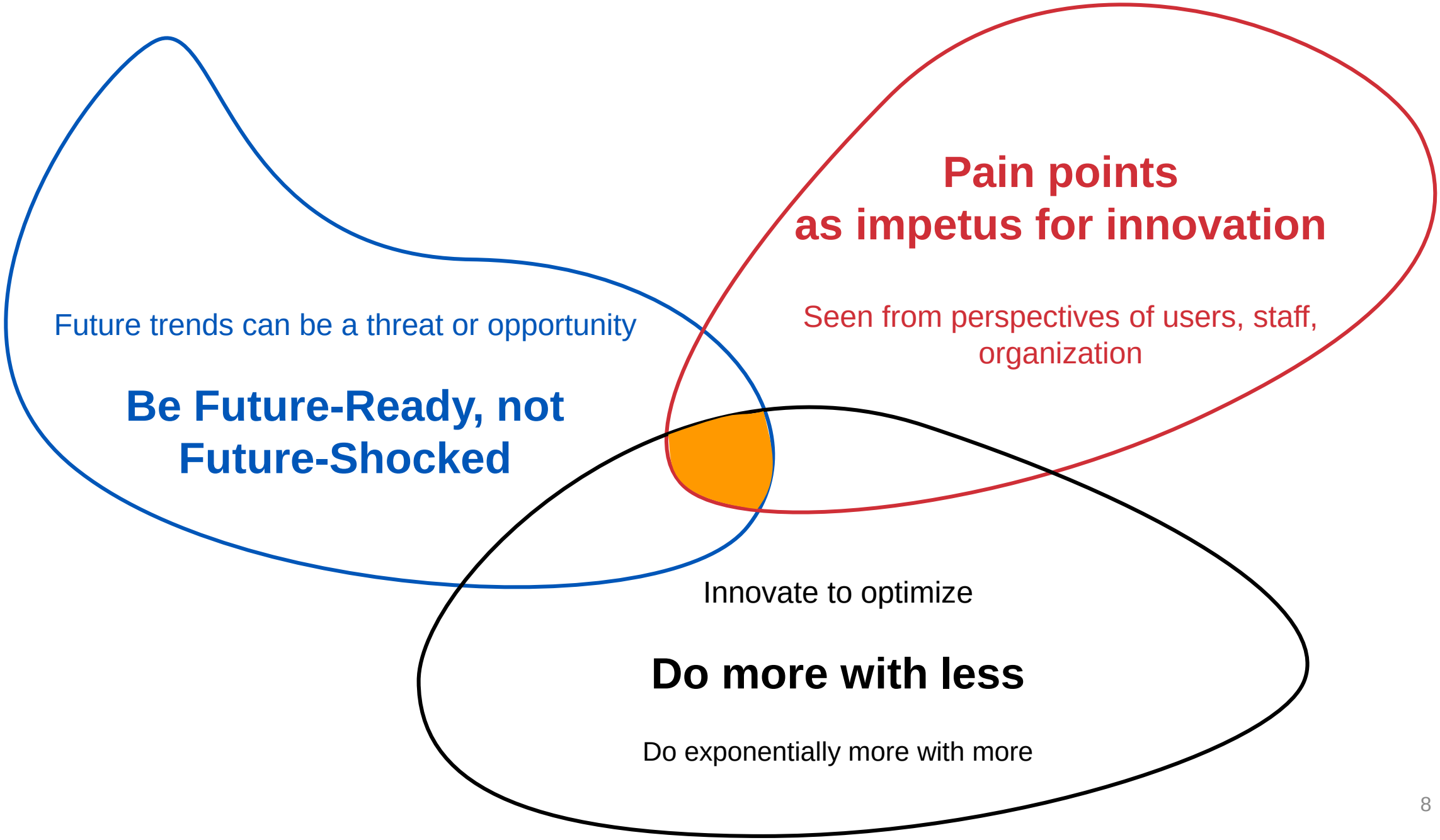
Innovate to optimize

Do more with less

Do exponentially more with more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Do more with less
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“

Innovation without **demonstrable value** being added to processes or services is not something that is typically valued by an organization’s leadership.

H. Frank Cervone, 2010

”

How Might We
CREATE VALUE?

Value Creation

Organization Goals

Citizen Goodwill
Increased Usage
Resource Optimization

Value Creation

Organization Goals

Citizen Goodwill
Increased Usage
Resource Optimization

Workplace Experience

Efficiency
Redefined Scope
Empowerment

Value Creation

Customer Journey

Convenient
Seamless
Low barriers

Organization Goals

Citizen Goodwill
Increased Usage
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Workplace Experience

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How Might We
TAKE THE FIRST STEPS?

OPERATIONS REMAKE

At a glance

Outcomes

EFFICIENCY
CONVENIENCE

PRODUCTIVITY

OPERATIONS REMAKE

At a glance

Processes

Time To Information

Time to Shelf

Time To Checkout

Outcomes

EFFICIENCY
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Enablers

MECHANISATION

AUTOMATION

DIGITALISATION

OPERATIONS REMAKE

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Indicators

QUANTITATIVE

- No. of steps taken to complete task
- Amt. of time taken to complete task
- Amt. of output upon completion of task

QUALITATIVE

- Workplace Conditions (Staff)
- On-Site Experience (Customers)

How Might We
TRANSLATE STRATEGY TO ACTION?

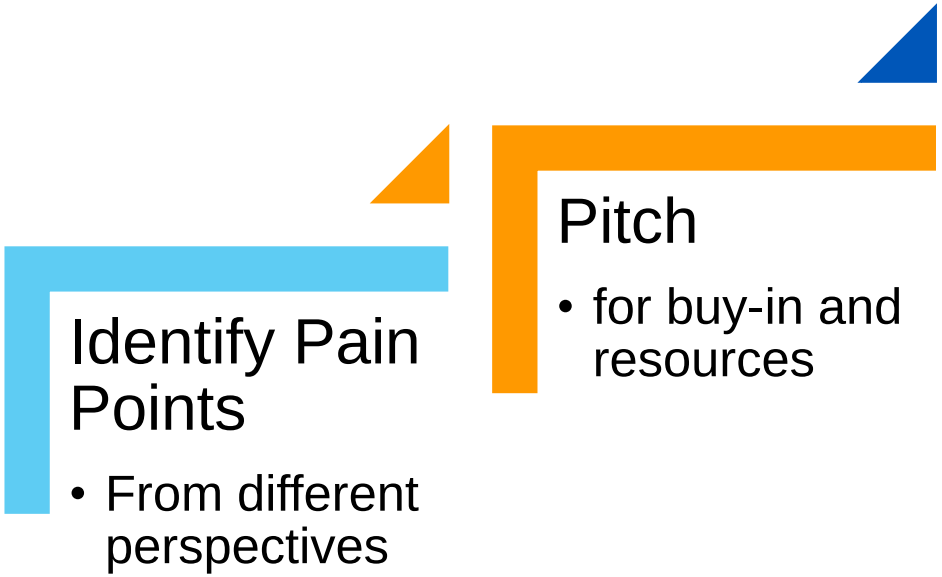
Our 5-Step Action Plan

Our 5-Step Action Plan

Identify Pain Points

- From different perspectives

Our 5-Step Action Plan



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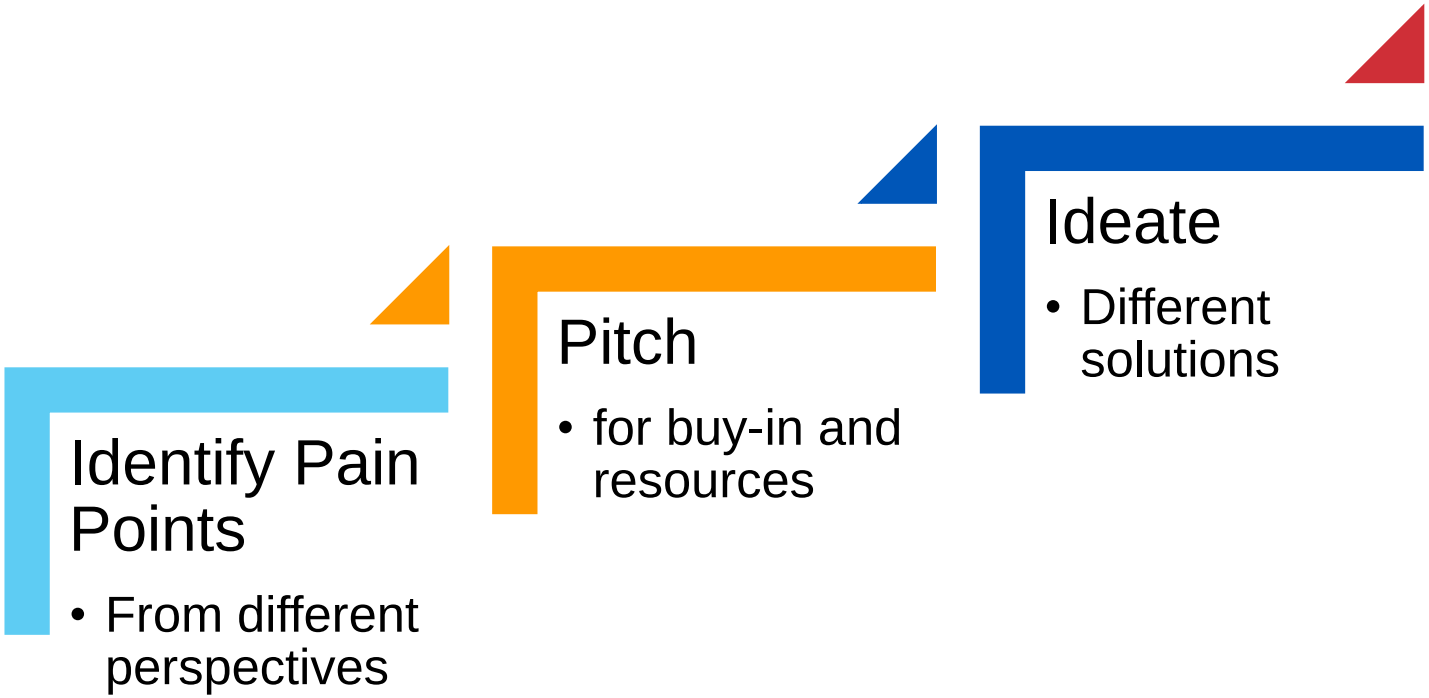

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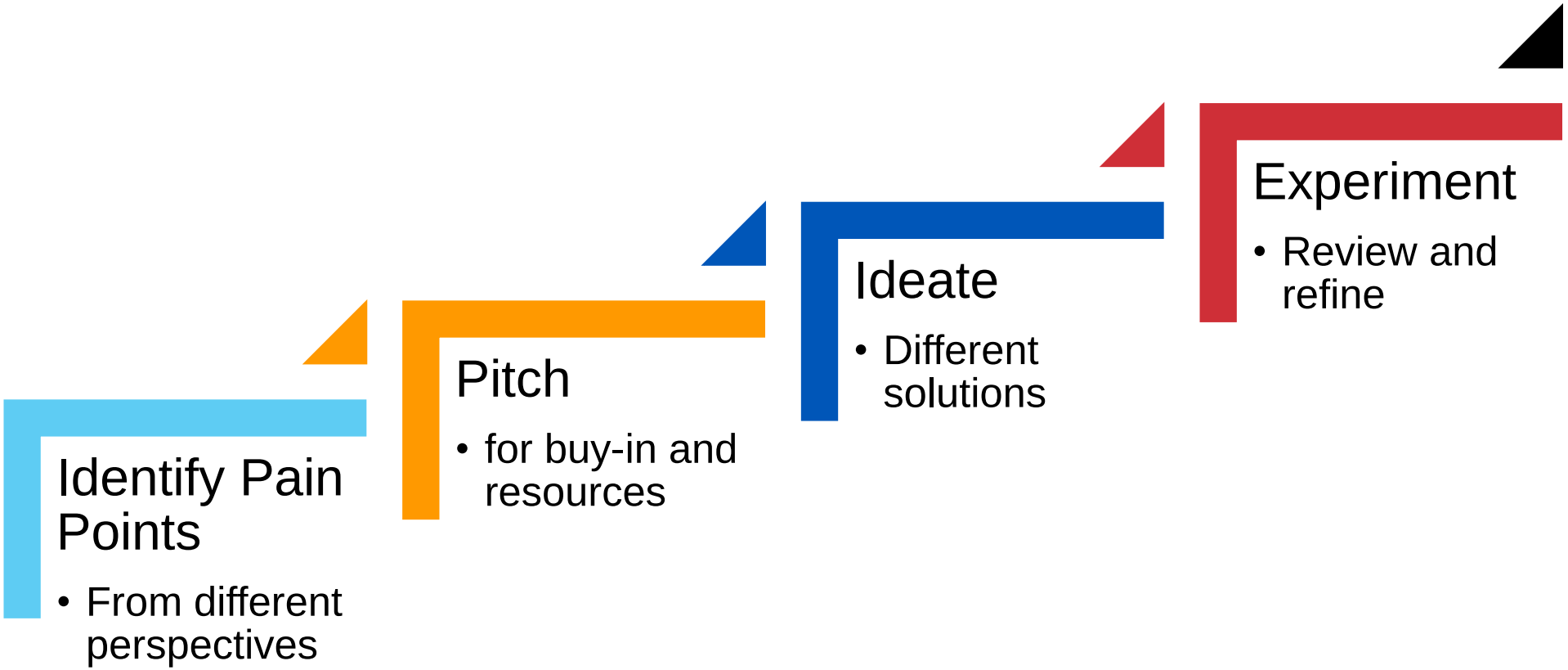

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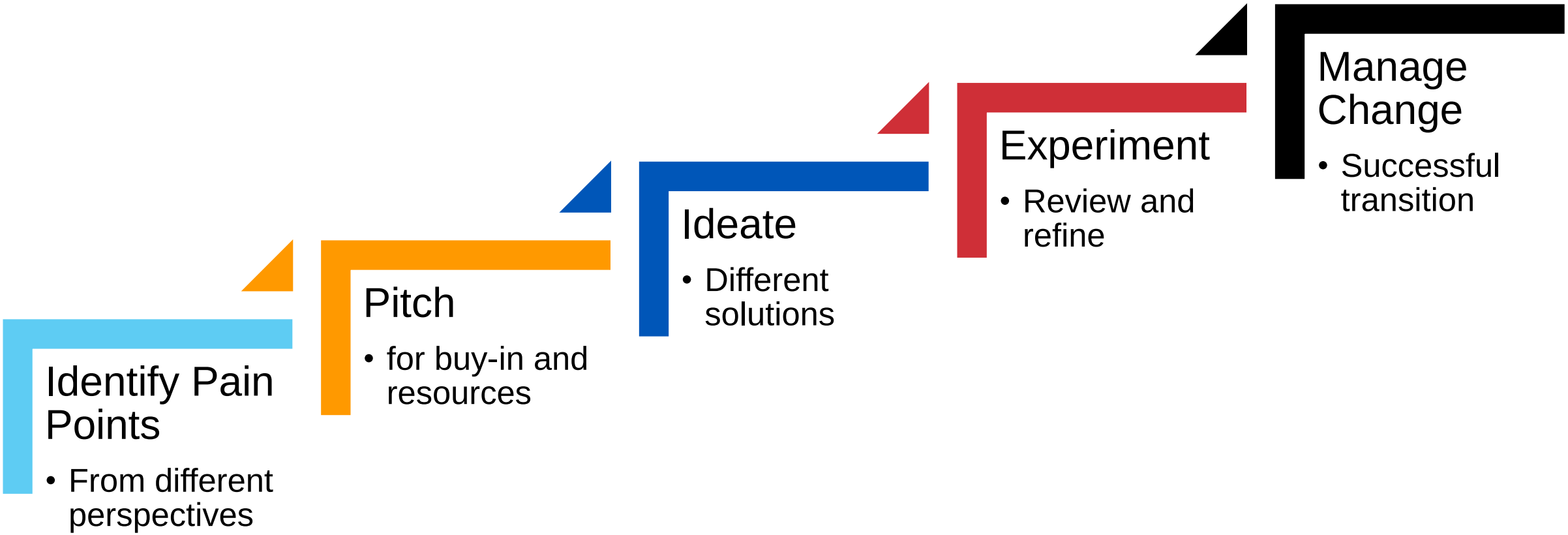
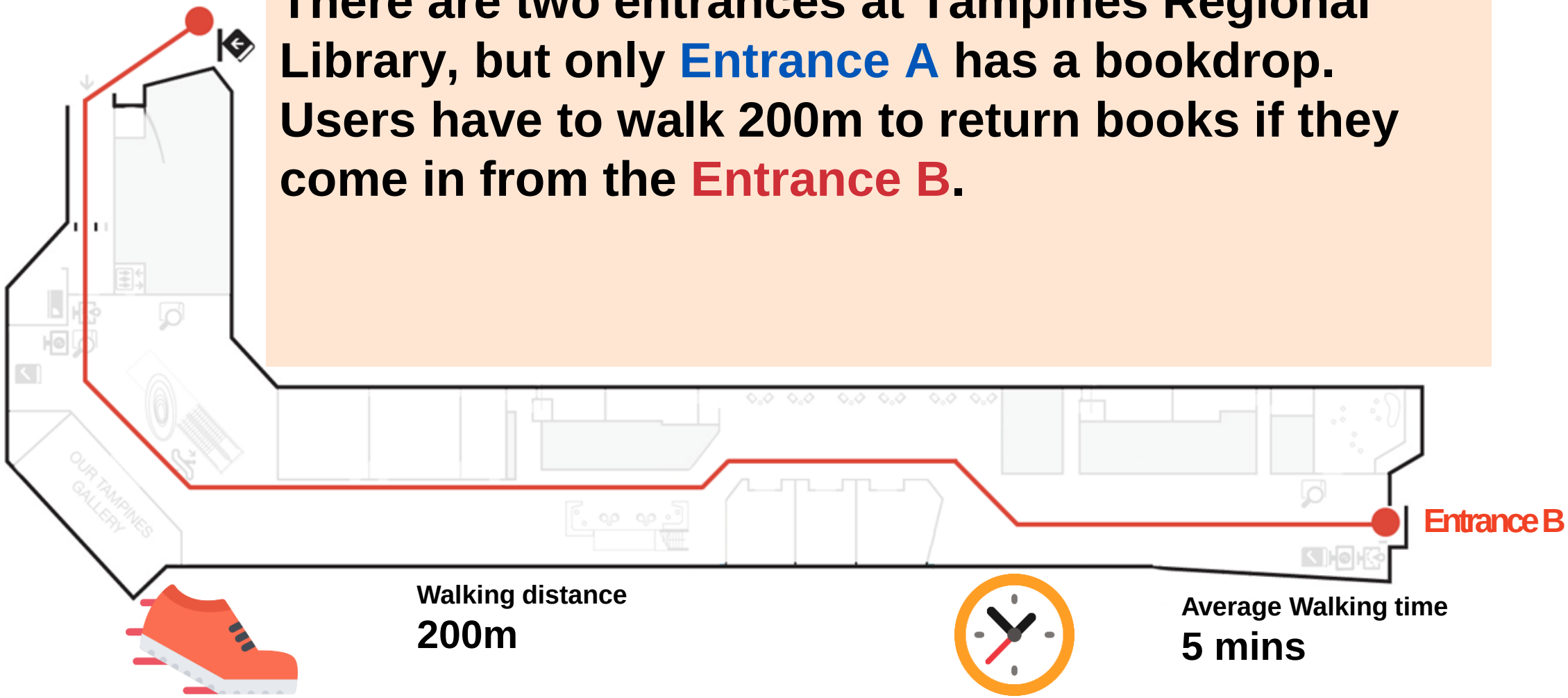


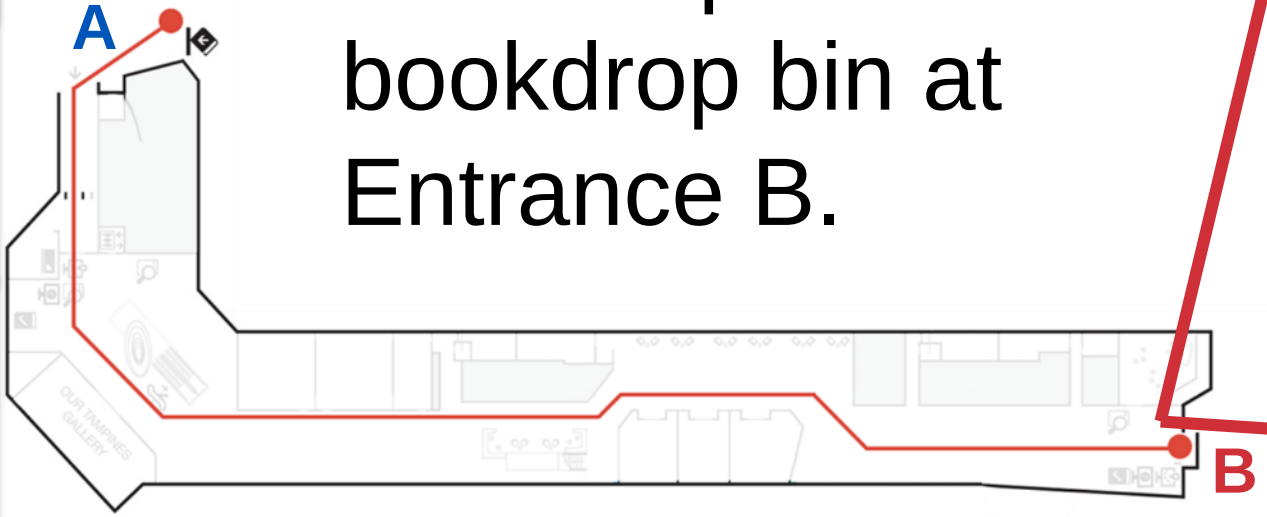
How best to identify pain points?

There are two entrances at Tampines Regional Library, but only Entrance A has a bookdrop. Users have to walk 200m to return books if they come in from the Entrance B.



Solution 1:

Install a portable bookdrop bin at Entrance B.

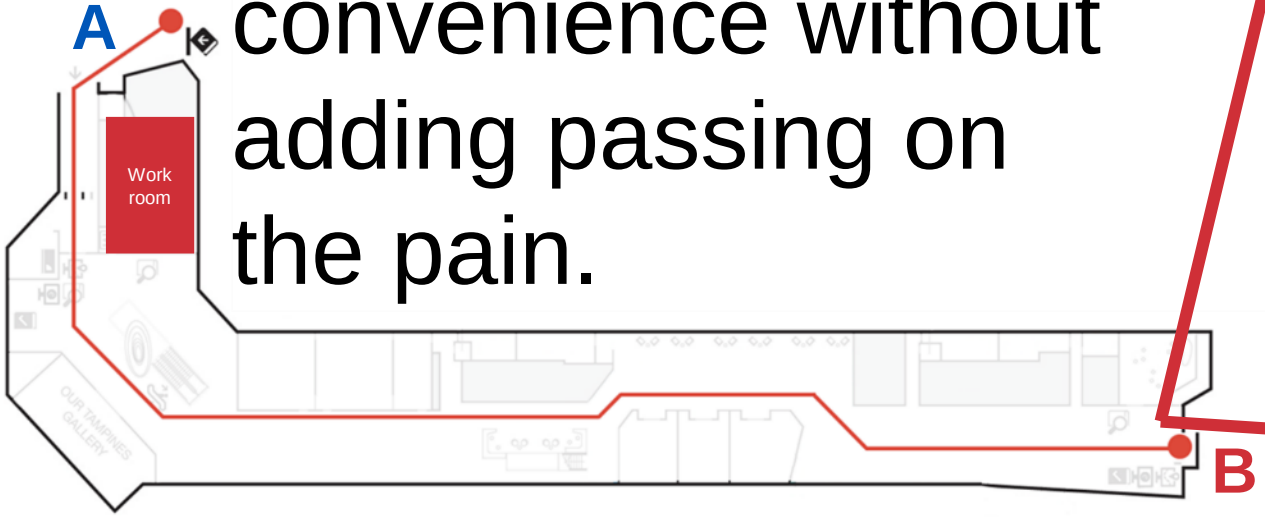


Problem:

Effort is transferred to staff. Workroom is also about 200m away.

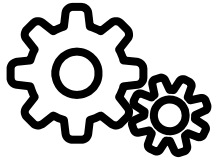
Solution 2:

Use of Autonomous Bookdrop Bin to increase user convenience without adding passing on the pain.



How do we persuade stakeholders?

CURRENT STATE



HOW-TO

VALUE PROPOSITION

PERFORMANCE MEASURE(S)

TRIAL SITE(S)

SUCCESS INDICATOR(S)

Example

Current State

I am perceived as overly serious at work and during presentations.

Example

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Value Proposition

Injecting humour can build rapport with others leading to better working relationship.

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Trial Site

APLIC 2018

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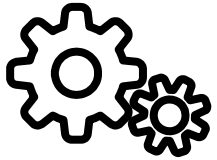

How To

I will insert a funny slide explaining how to pitch an innovation proposal.

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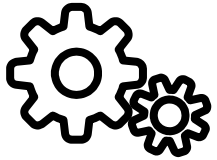

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Performance Measures

No. of attendees who laughed. Loudness of laughter.

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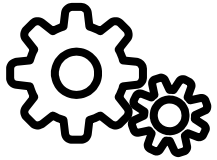

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APLIC 2018

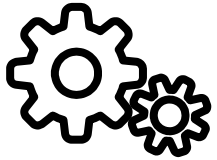
Success Indicators

A majority of attendees laughed loudly.

Example – Foreign Membership Registration

Current State

Most people can register as a member easily. Foreigners need staff to verify their ID.



How To

Change the registration mechanism using an OCR card scanner.

Value Proposition

A DIY registration process will make it more convenient, and increase our reach.

Performance Measures

No. of successful registration and user rating.

Trial Site

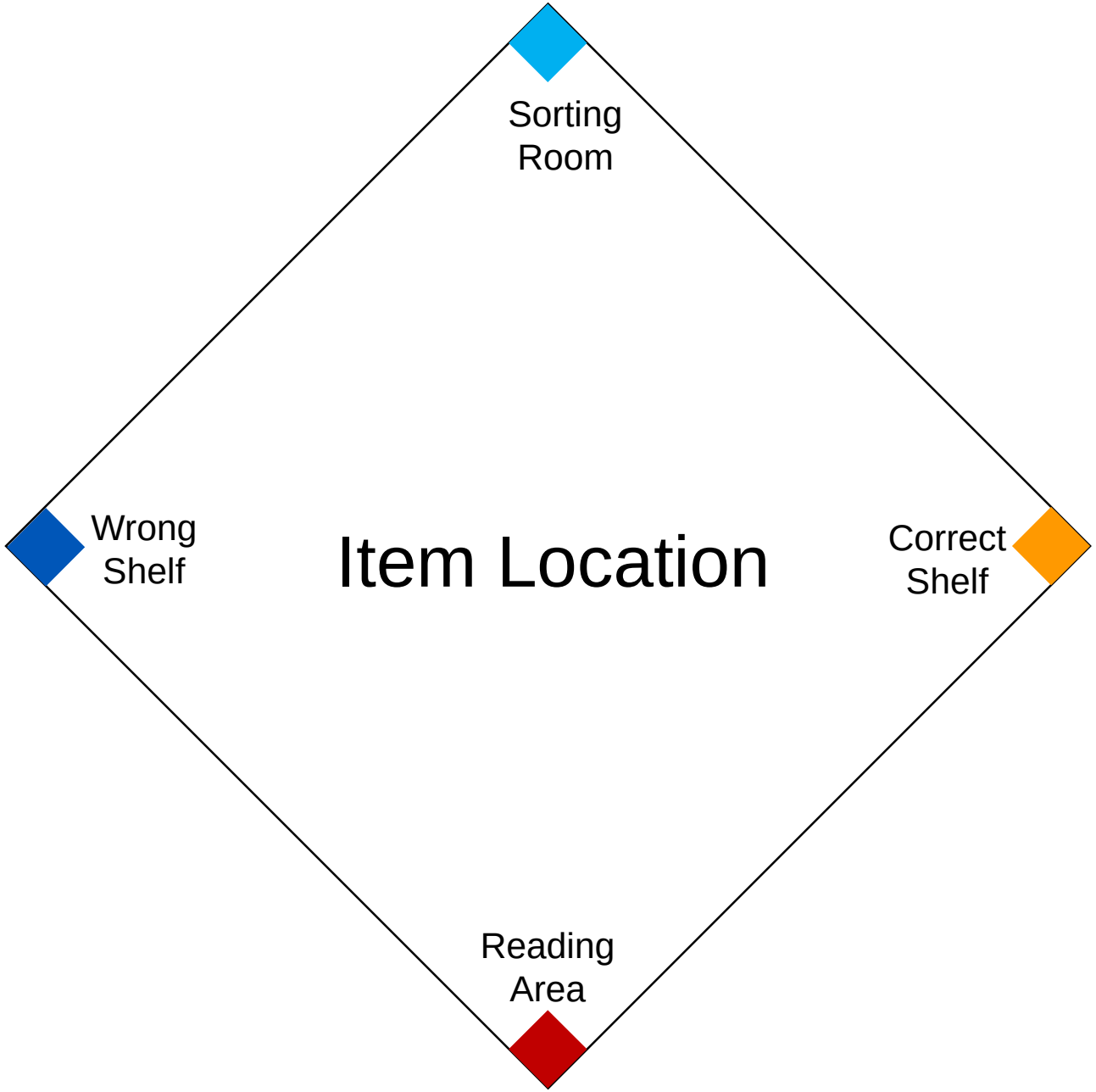
Libraries with more foreigners.

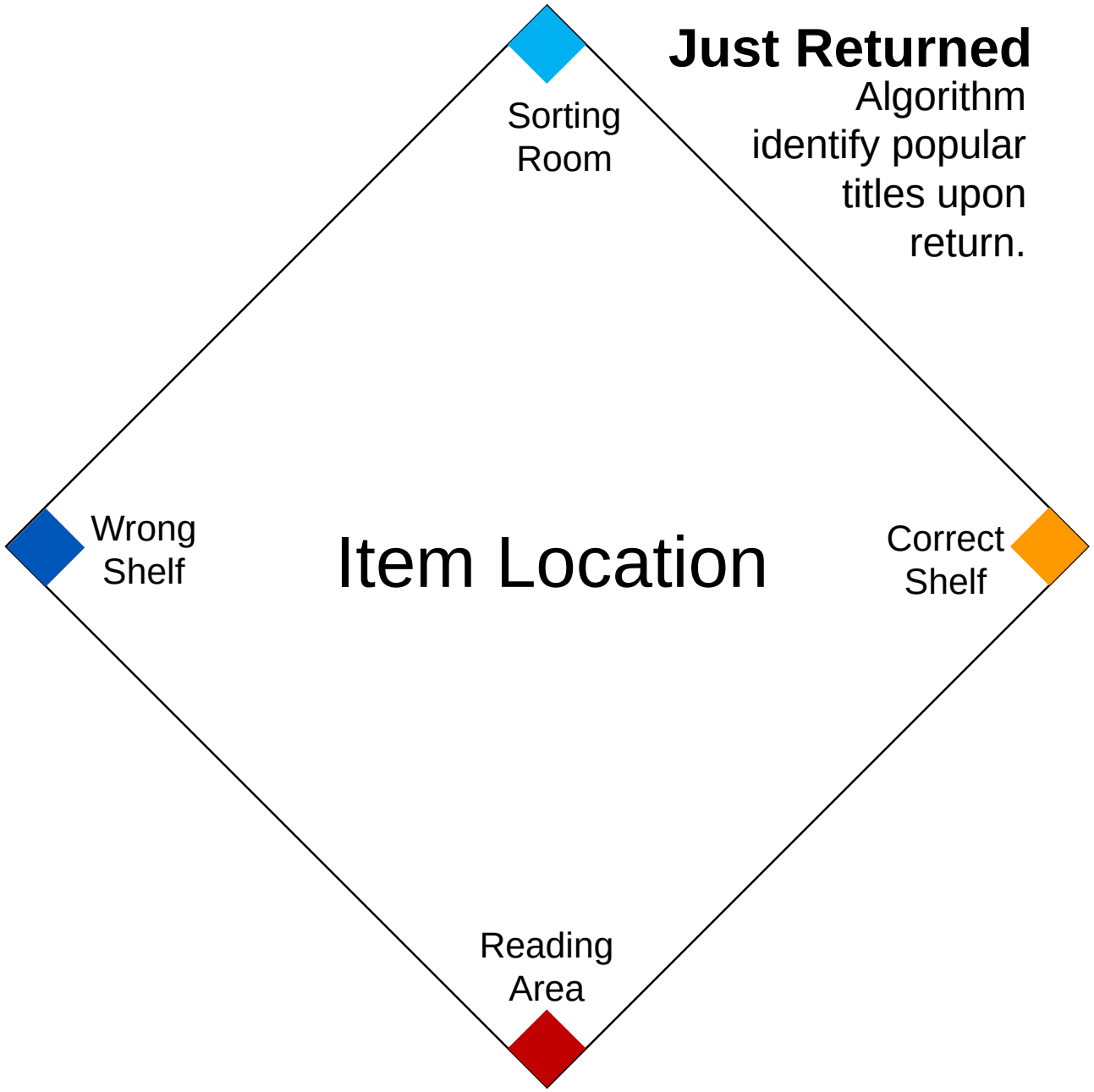
Success Indicators

More foreign members and higher usage of libraries.

How may we solve a complex problem?

Problem: users can't locate the books they want.


Sorting Room
Wrong Shelf
Item Location
Correct Shelf
Reading Area



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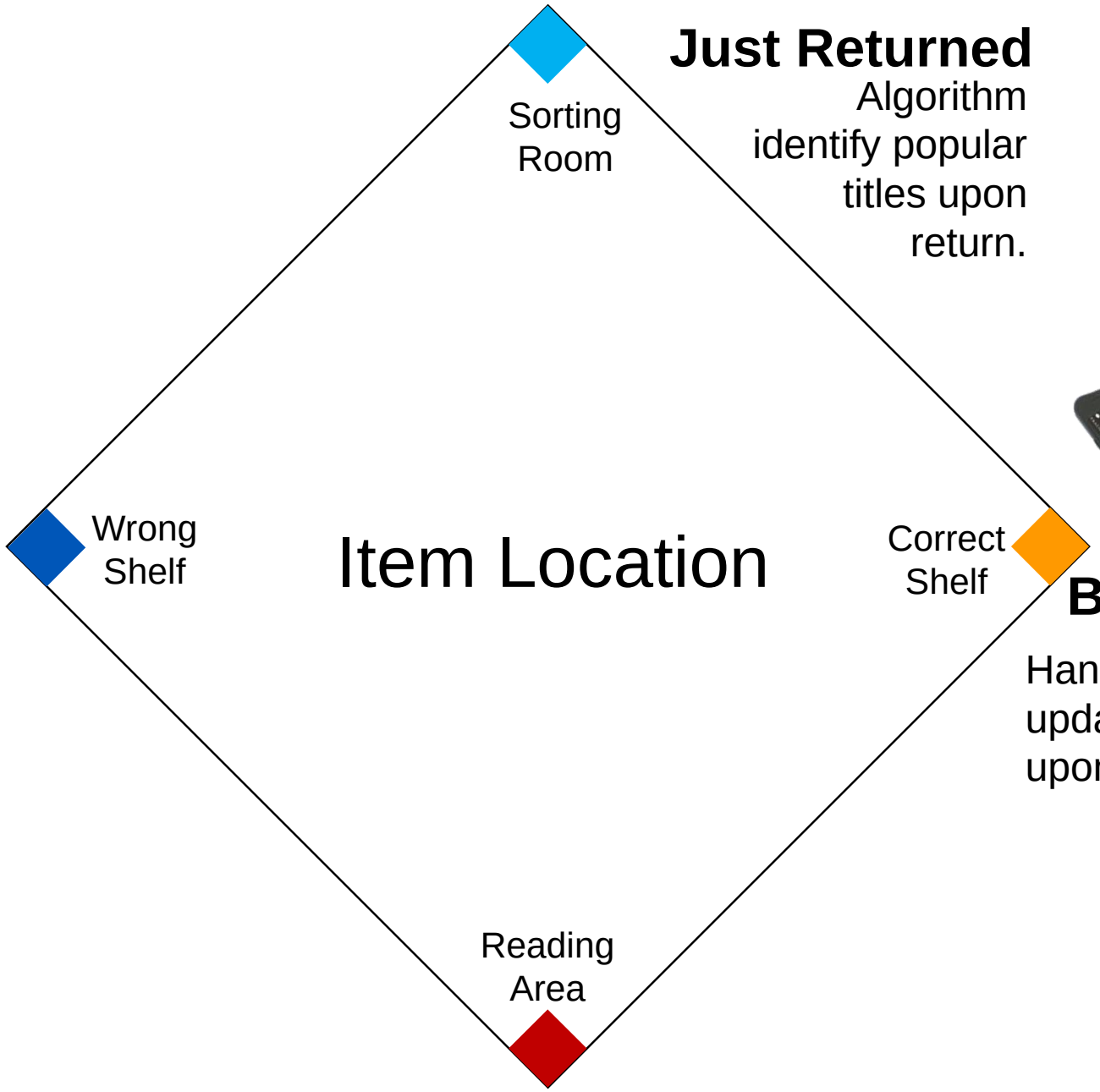
Algorithm identify popular titles upon return.



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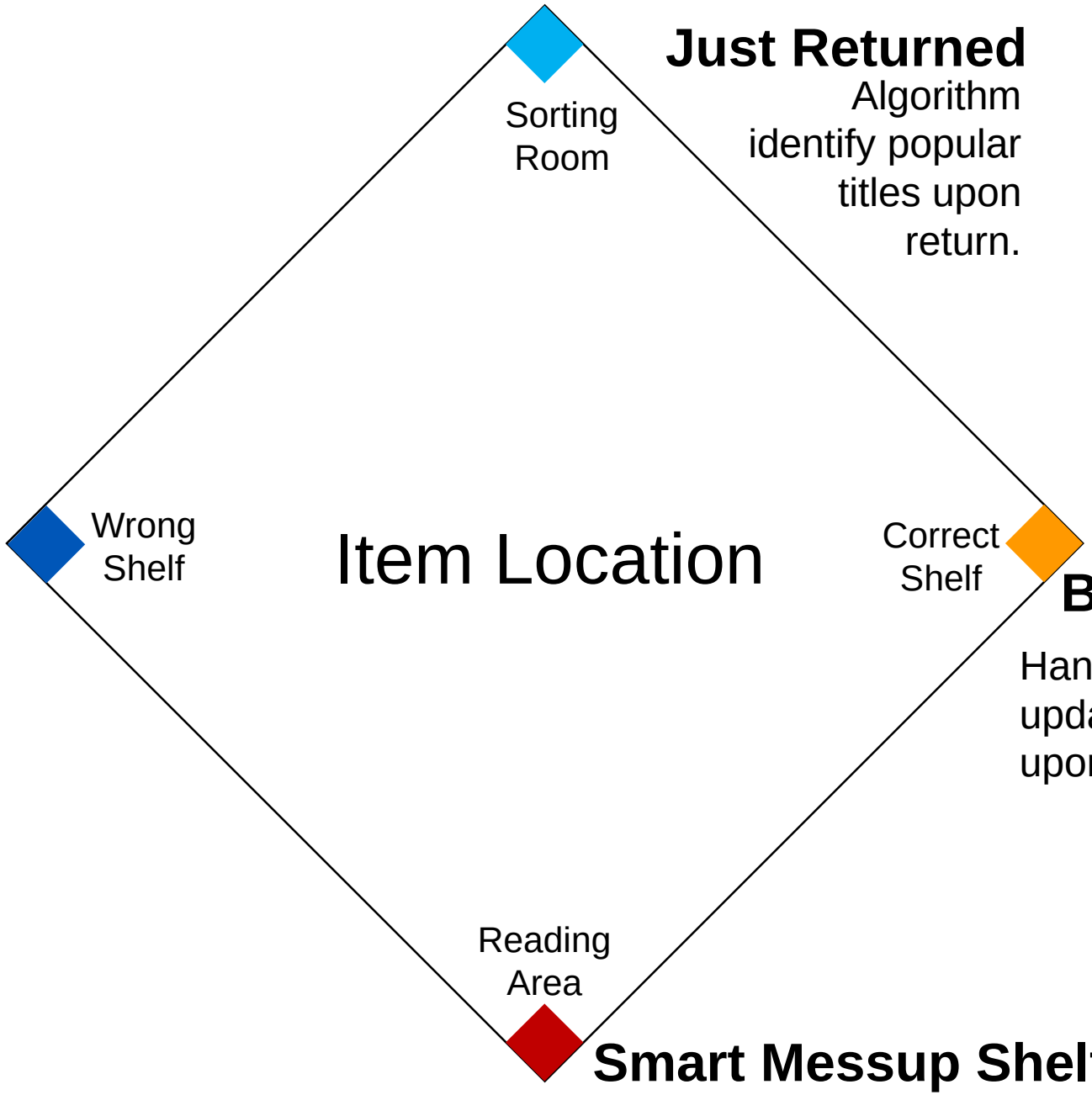

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RFID-enabled shelf to update location of browsed books

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Shelfreading robot generates report on mis-shelved and misplaced items

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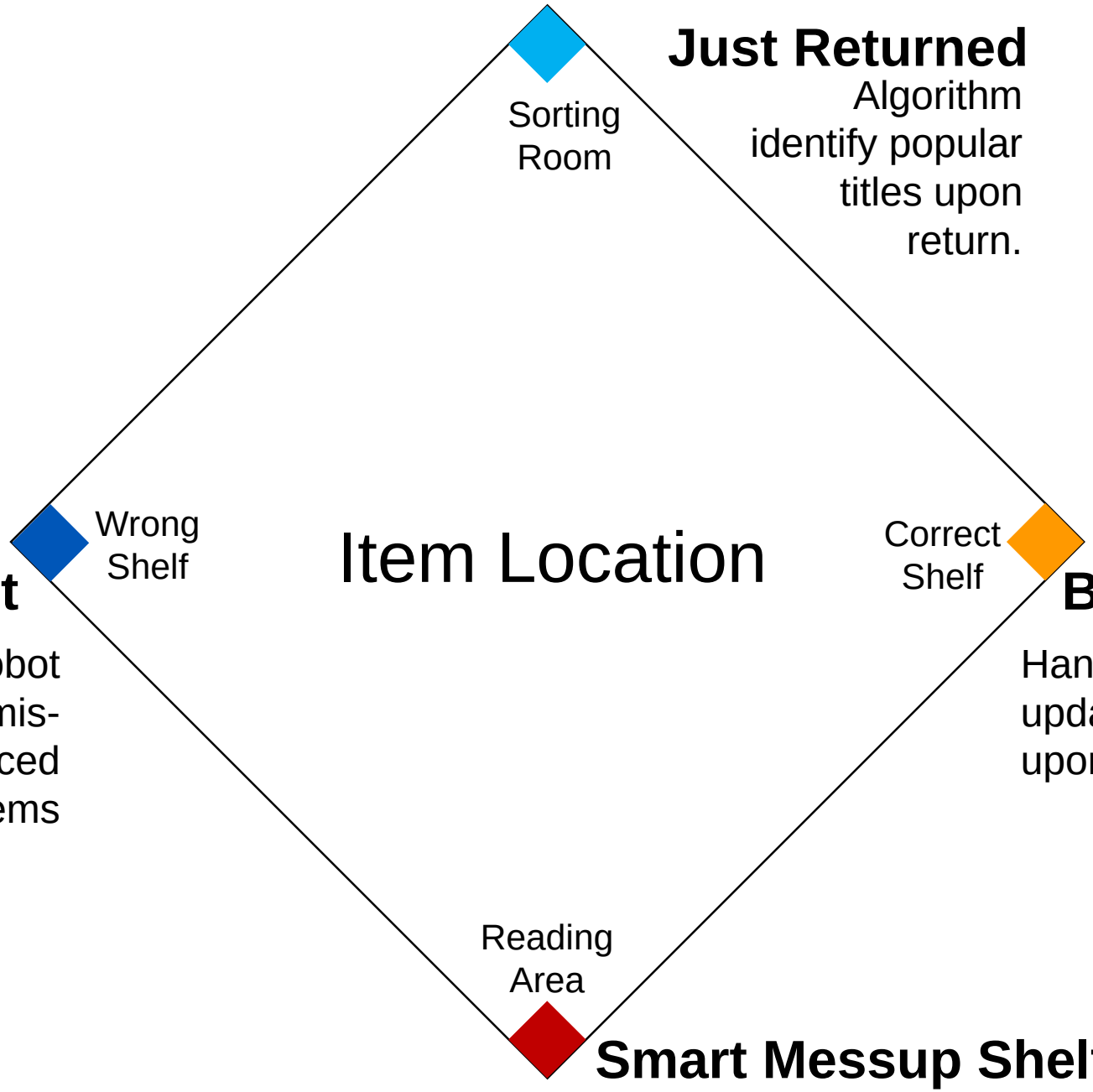

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What happens if it doesn't work?

Book Hunters devices did not work as well as expected.

Review	Refine	Extract Learning Point

What happens if it doesn't work?

Just Returned Algorithm
Many rounds of tweaking to derive secret recipe

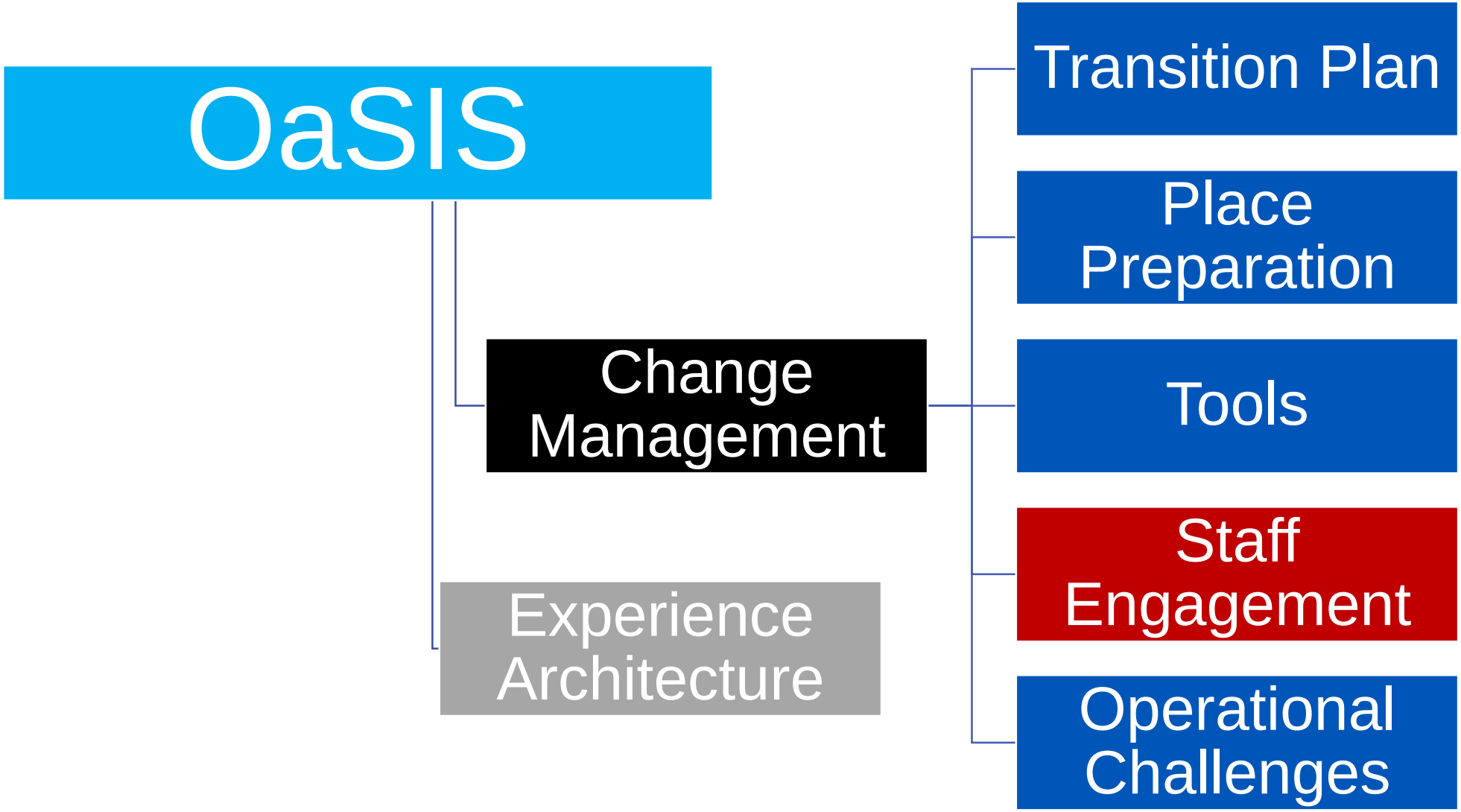
Review | Refine | Extract Learning Point

What happens if it doesn't work?

A robotic book display
Emergency stop button
prone to acts of mischief

Review | Refine | Extract Learning Point

How may we manage changes?



How Might You embark on your own Operations Remake?

Why remake operations?

Why remake operations?

How to create value?

Why remake operations?

How to create value?

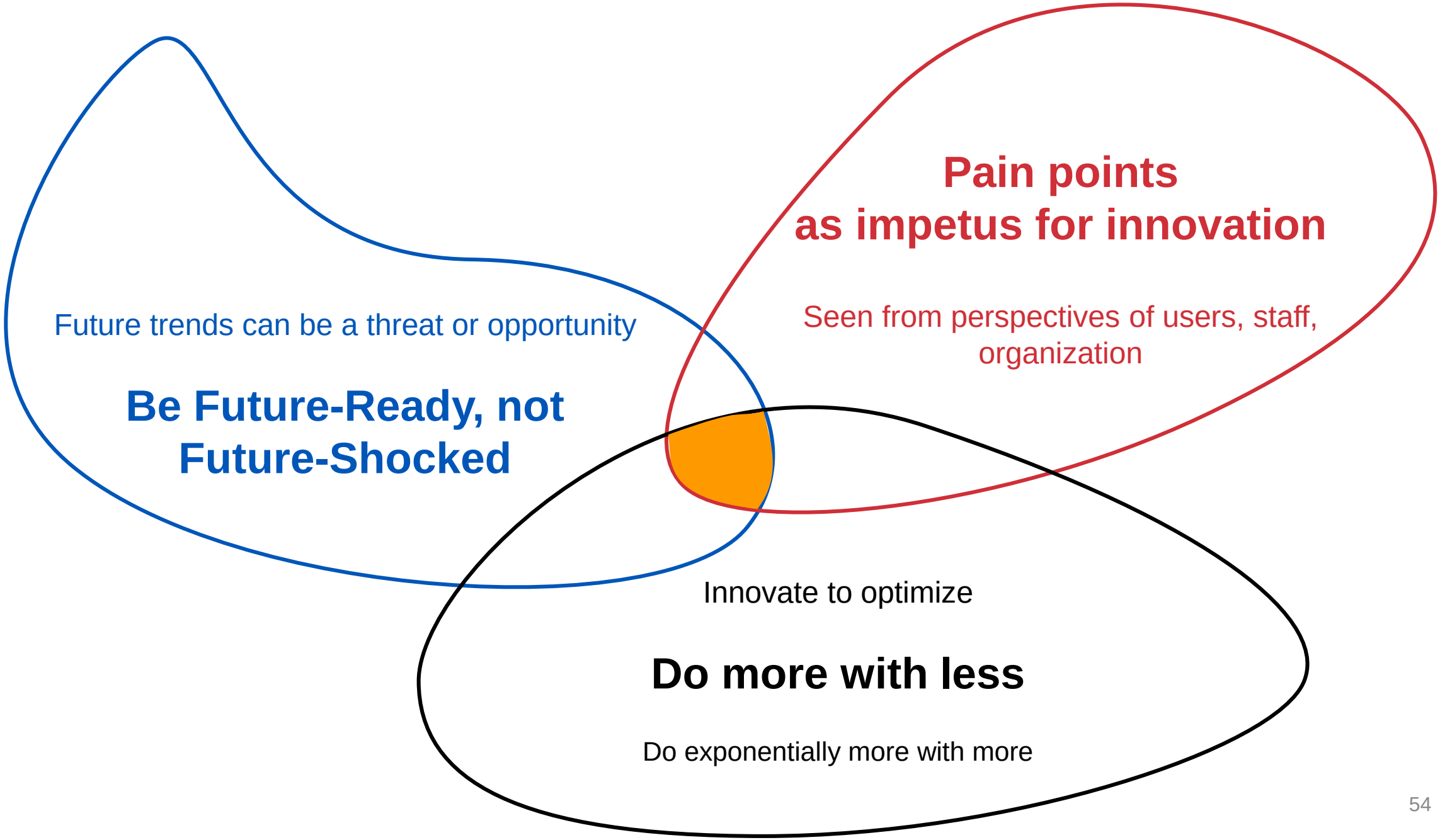
How to take the first steps?

Why remake operations?

How to create value?

How to take the first steps?

How to turn strategy to action?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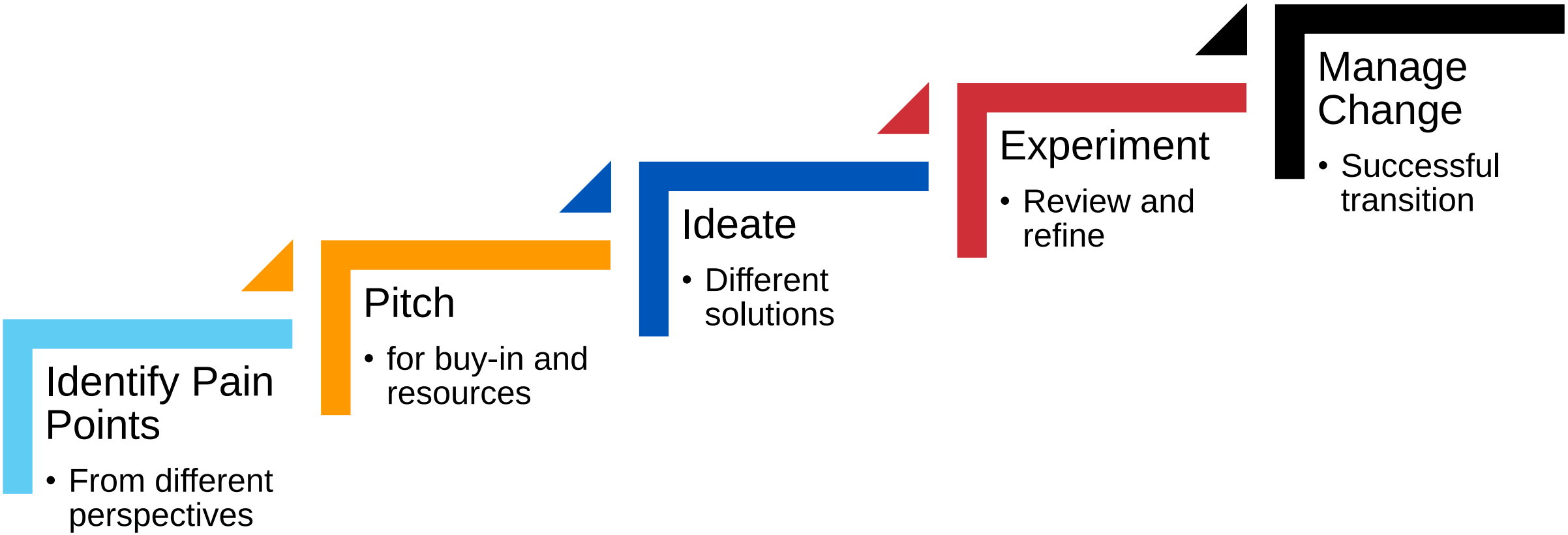
Our 5-Step Action Plan



“

Innovation comes from long-term thinking and iterative execution.

Reid Hoffman, 2014

”

Thank you!

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