

Agile Innovation:

Methodologies and Outcomes



รองศาสตราจารย์ ดร.อรพรรณ คงมาลัย

รองผู้อำนวยการสายบริการและส่งเสริมการเรียนรู้
หอสมุดแห่งมหาวิทยาลัยธรรมศาสตร์

1

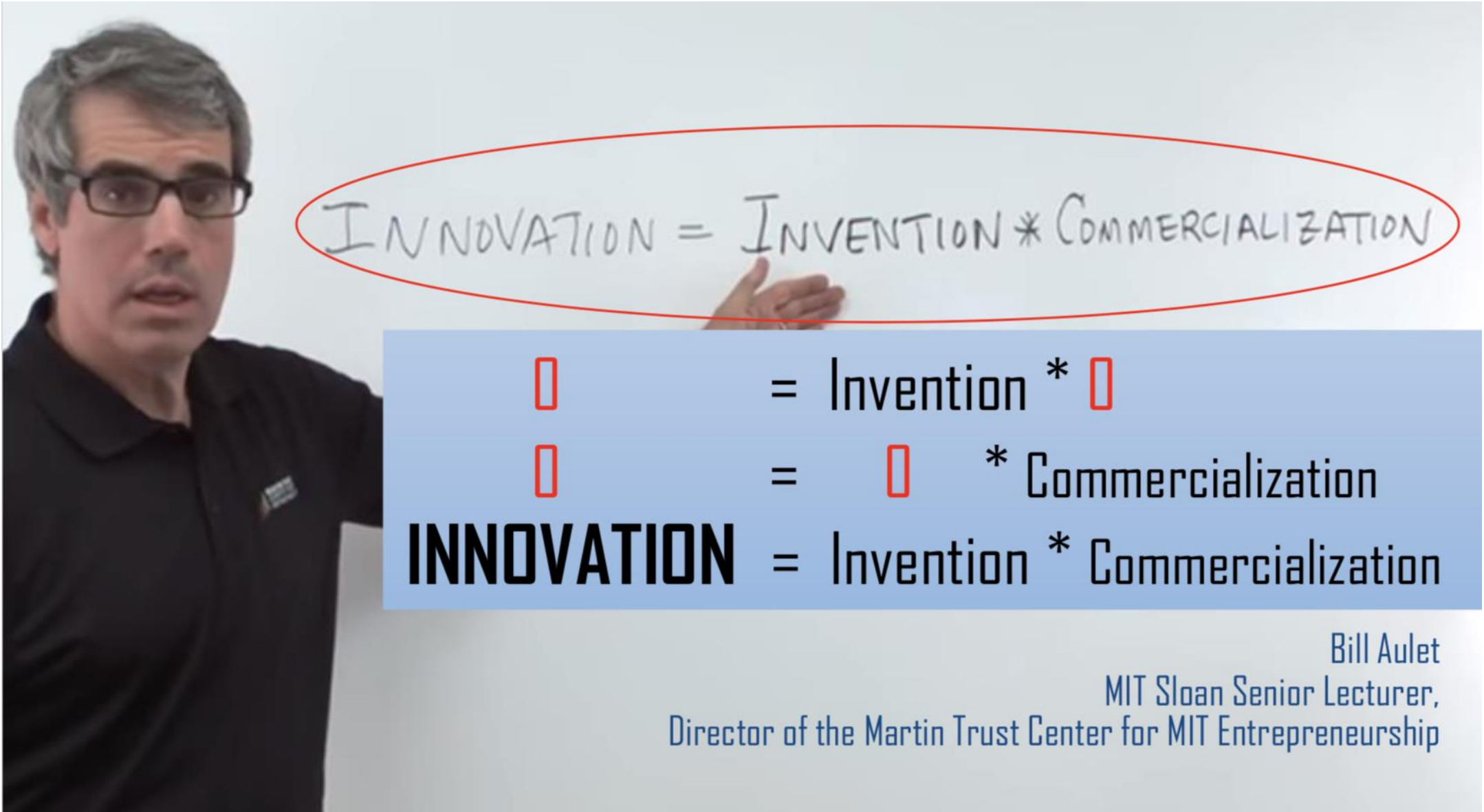
What is innovation?

The word innovation is derived from the Latin word “**nova**”

meaning is **new**



“An innovation is something that is new”



$INNOVATION = INVENTION * COMMERCIALIZATION$

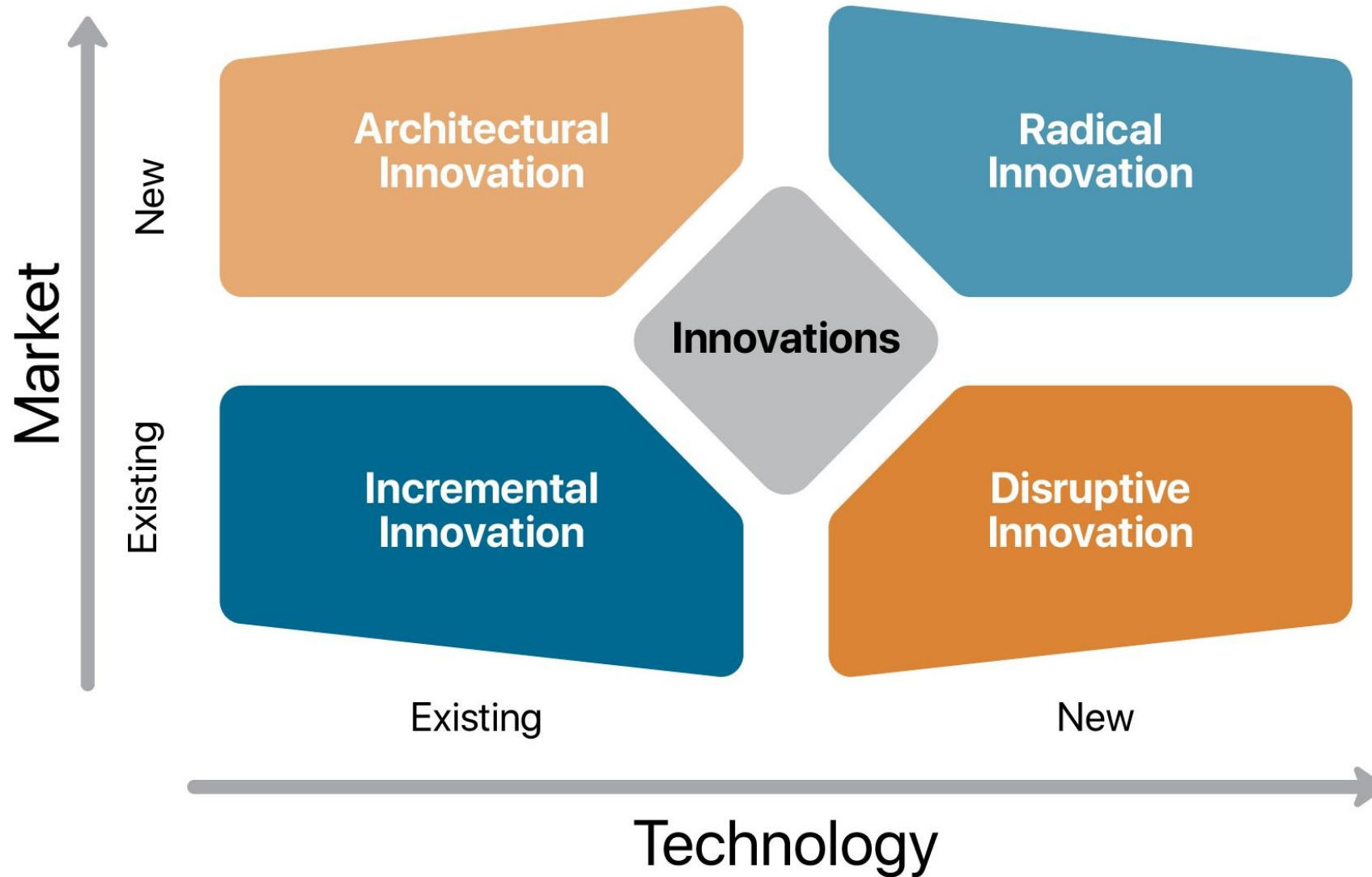
$\square = Invention * \square$

$\square = \square * Commercialization$

INNOVATION = Invention * Commercialization

Bill Aulet
MIT Sloan Senior Lecturer,
Director of the Martin Trust Center for MIT Entrepreneurship

Degrees of Innovation

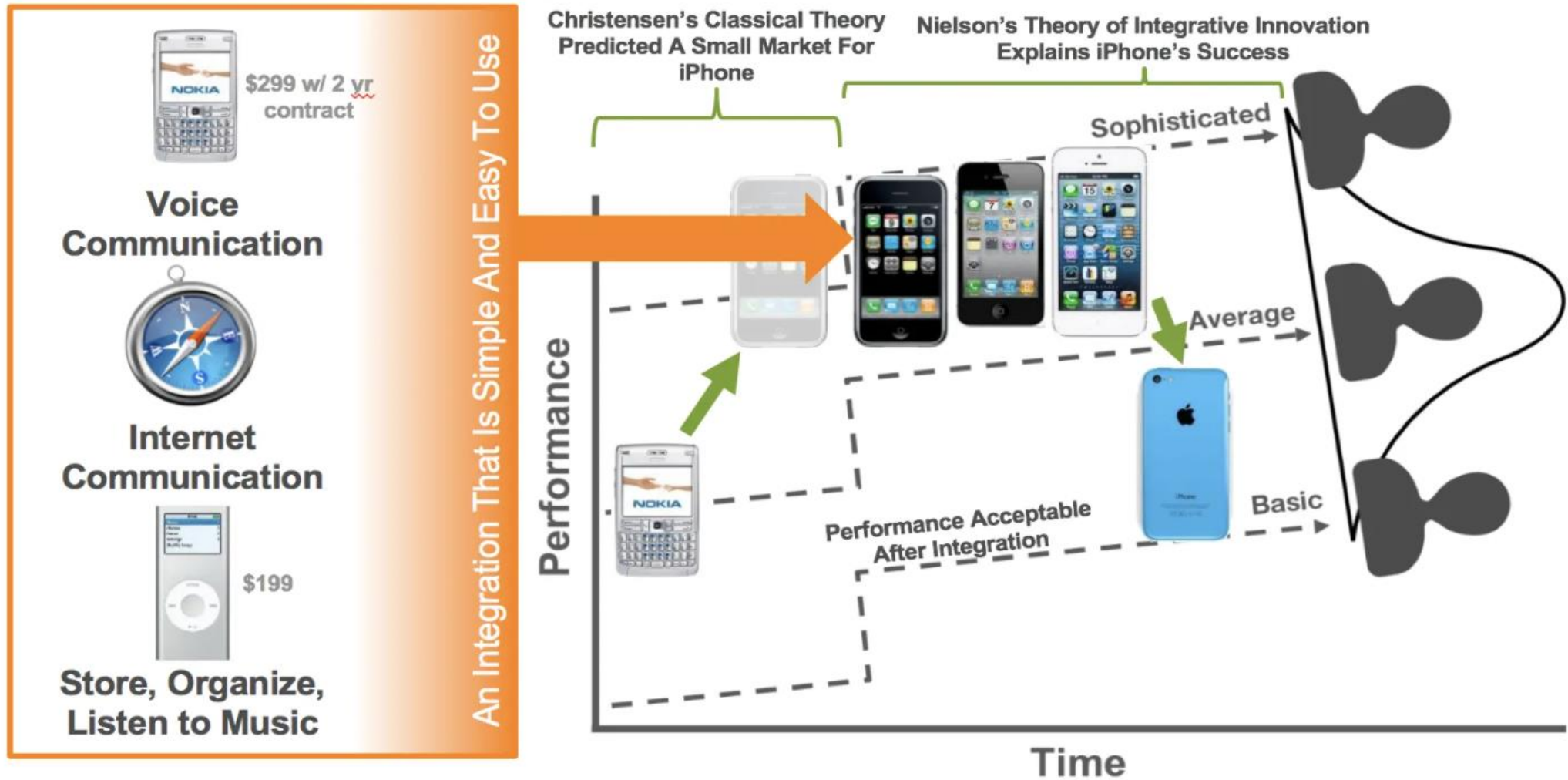


1. Radical Innovation



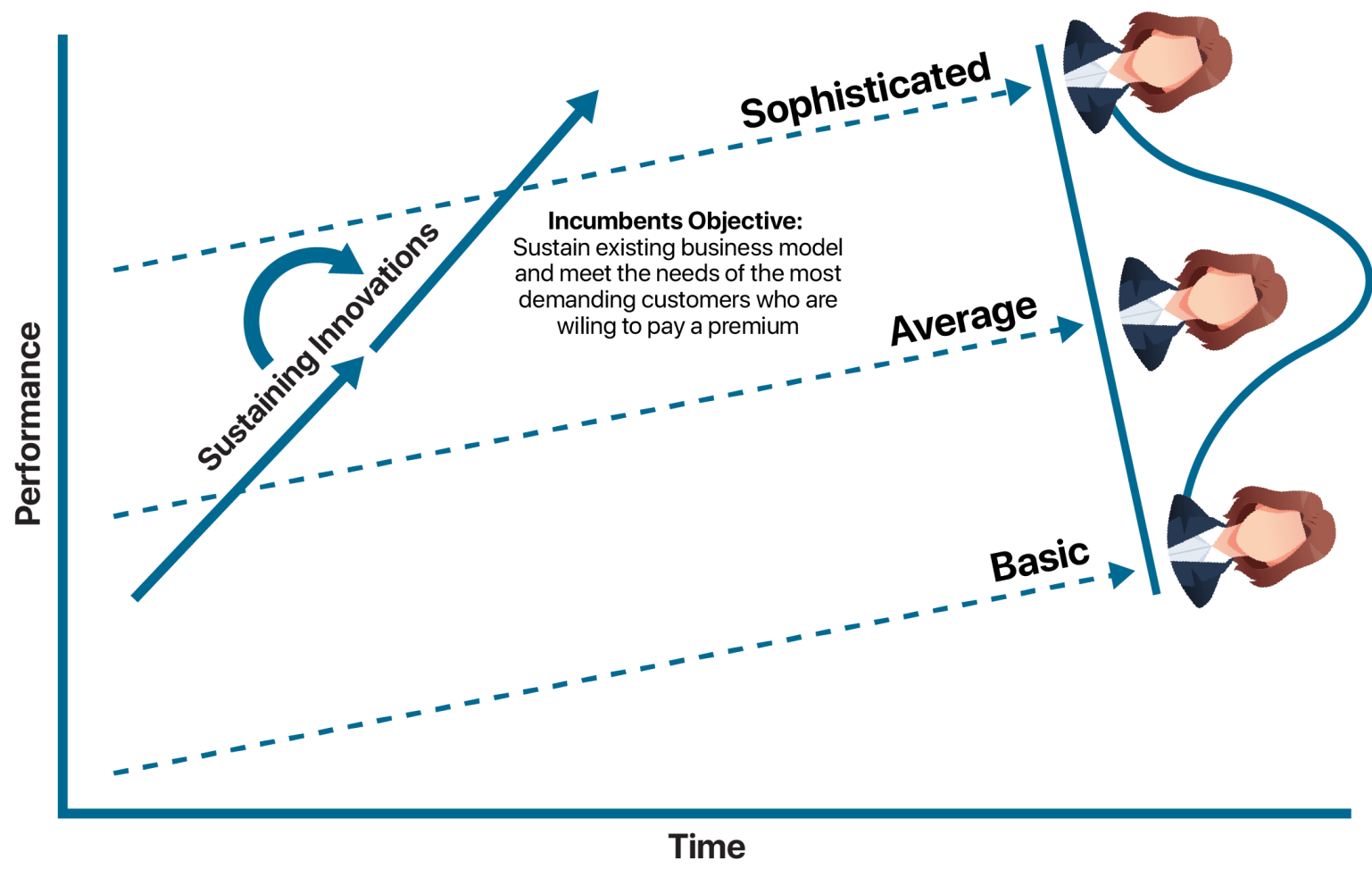
Jobs used this image to show that iPhone provided so many more benefits than just combining an iPod and a BlackBerry into one. Ultimately he built a compelling value proposition.

1. Radical Innovation / Integrative Innovation



Integrating Multiple Jobs In A Way That Allows Consumers To Accomplish Those Jobs Simply Is Key

2. Incremental Innovation

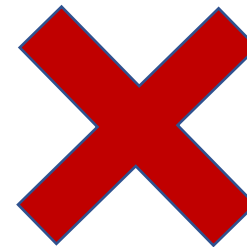


iPhone 12



iPhone 13

3. Disruptive Innovation



Best Sellers in Beauty & Personal Care [See more](#)



Best Sellers in Cell Phones & Accessories [See more](#)



Most wished for in Video Games [See more](#)



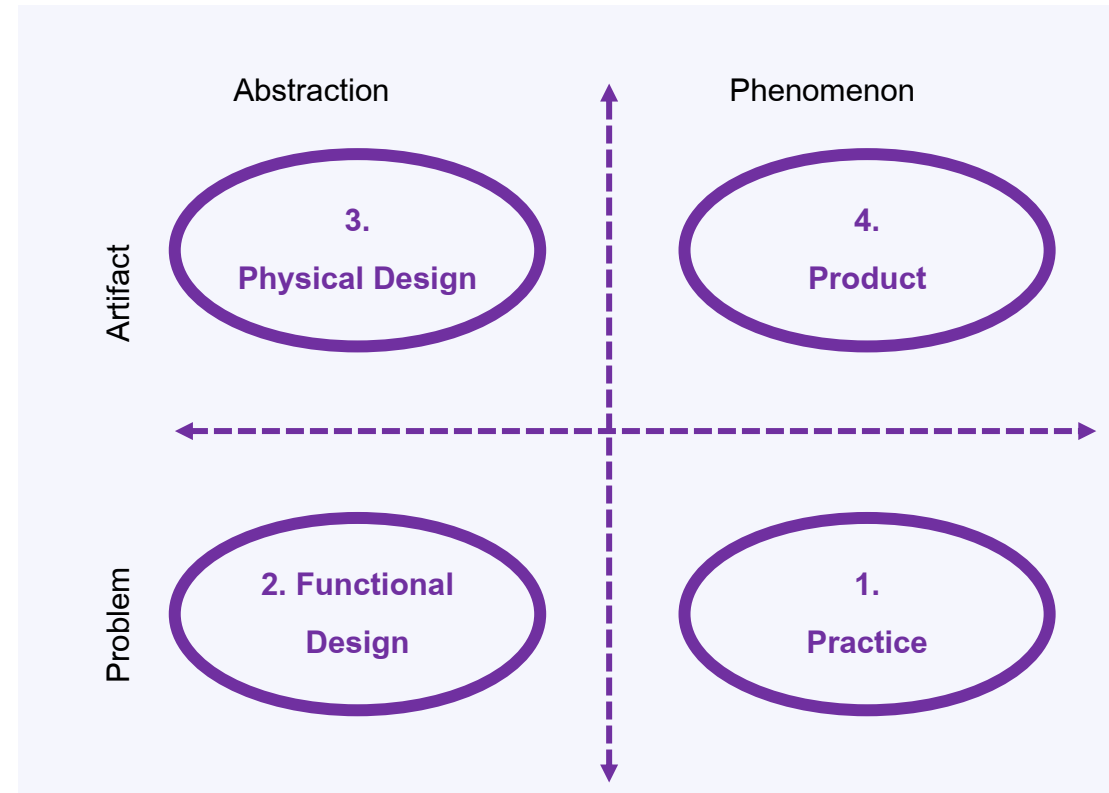
Marketing View

Newness to market



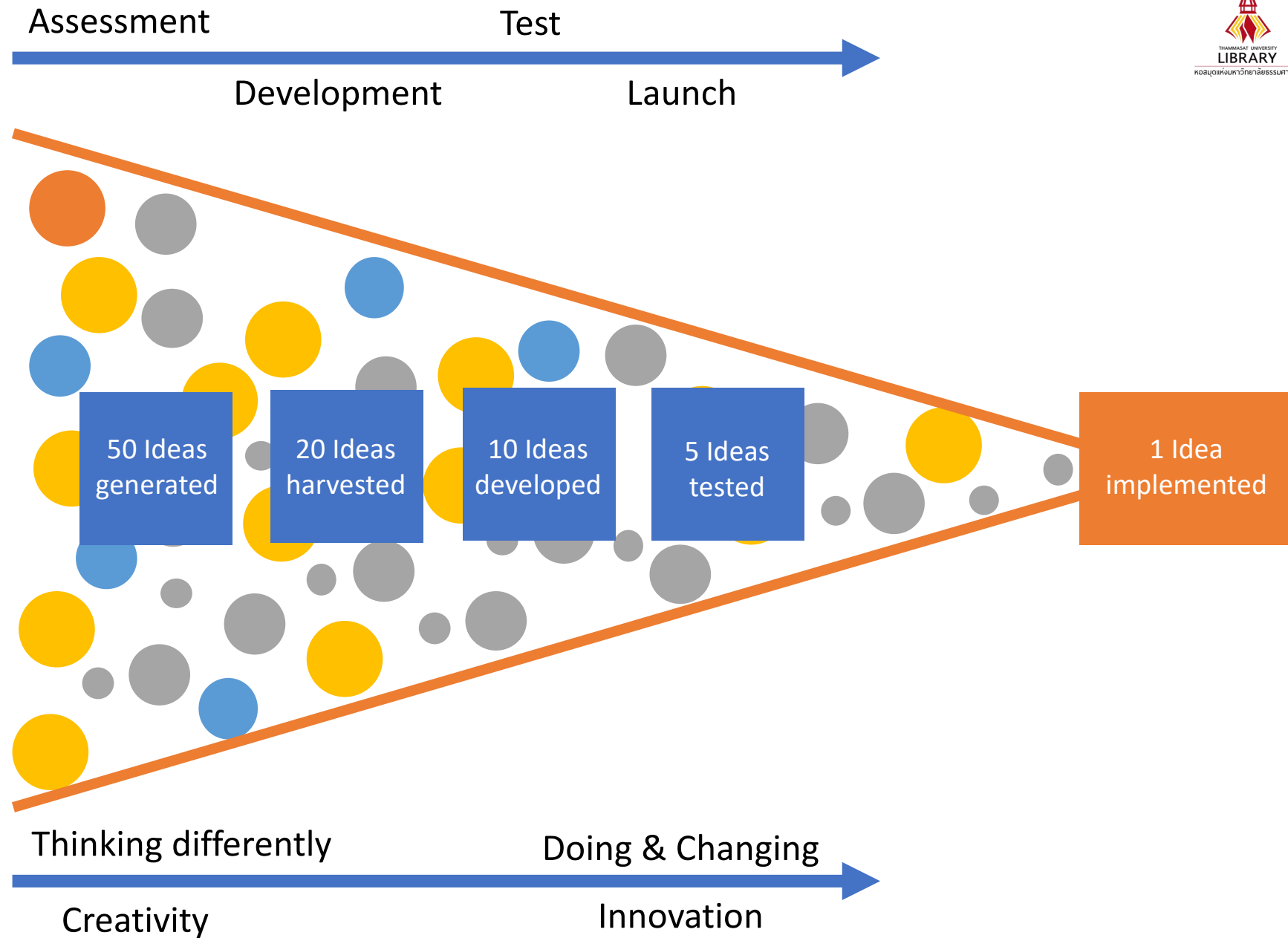
Source: Adapted from Cooper (2001)

Design-Based View



Source: Svahn (2012)

INNOVATION FUNNEL



2

Innovation and Library Transformation

The Library experience



I am your customer, I am unique, I want to be special, pay me real attention, excite me, open my eyes and make my time with you a fabulous experience

The Library Experience

Library Transformation

➤ **Internationalization**

➤ **Innovation**

➤ **Fast & Beyond Responsiveness**

➤ **Sustainability**

Technology Disruption

- AI, Chatbot
- Digital Literacy & Responsibility

Behavior

- Digital Lifestyle
- Speed
- Everytime, Everywhere

Library Transformation

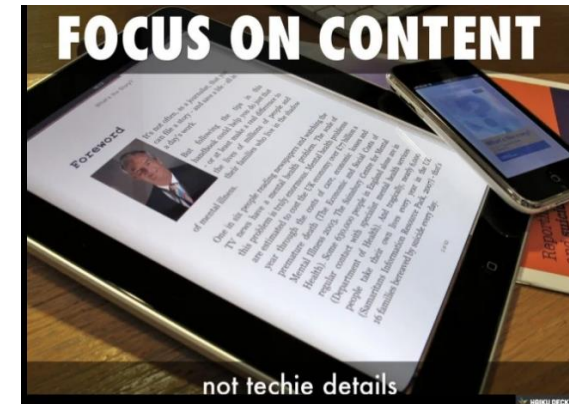


Goals

1. Make services easier to use and access
2. Inspire and inform
3. Help customers learn new skills

1. Mobile Apps

Librarians care about access to information for everyone, and **mobile interfaces are making access easier for people of all abilities**. Now is a great time for librarians to become app experts for their communities.




2. RFID Technologies

Libraries have **extended their hours of availability**, new forms of **self-service solutions** have emerged in the form of machines or software for different processes i.e. inventory readers, fines payment or reception of returned materials, etc.



3. Augmented Reality (AR)

The category of AR application consisted of **finding resources, user guidance, strengthening education, promoting users' information literacy, gamification, etc.**

 **Halton Council**
@HaltonBC · Follow

See books really come to life this weekend with 'augmented reality' at your library @HaltonLibraries #Haltonreads ow.ly/siOt30IQRIP



4. Virtual Reality (VR)

Interactive content experiences

- ILLINOIS Library
- Ferguson Library in Stamford, Connecticut
- California State Library,

I ILLINOIS LIBRARY

Virtual Reality

The Library supports access to a variety of 360 virtual and augmented reality content creation (through workstations with authoring software and loanable 360 cameras), for students and researchers.



5. Artificial Intelligence (AI)

ChatGPT & Information Literacy

"ChatGPT can serve as a valuable resource for librarians looking to"

Welcome

AI & Generative Chat Tools Intro

AI & Librarianship Research

ChatGPT & Information Literacy

ChatGPT In Libraries News

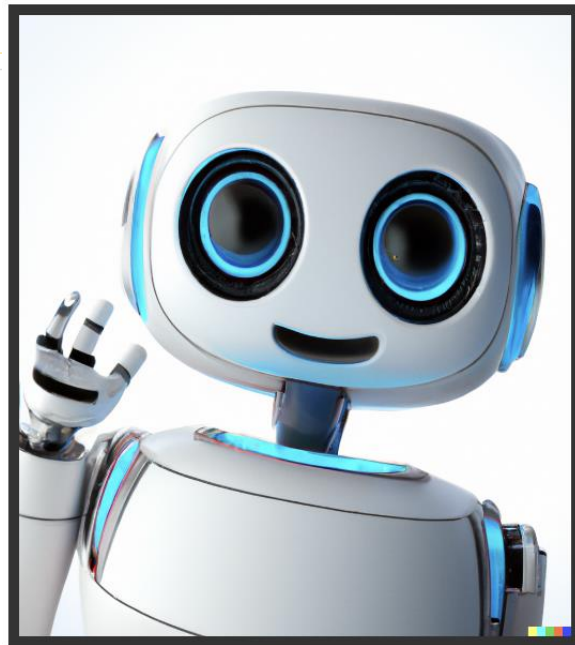
Ethical, Legal, & Privacy Concerns

AI In Libraries & Education

using artificial intelligence in libraries

AI In Education

There's A LibGuide For That



Images made with [DALL-E 2](#)



<https://www.japantimes.co.jp/news/2023/04/26/business/tech/freee-it-tech-bookstore/>

6. Technology Lending

University of Central Florida Library

Select filters below to narrow results:

Clear All Filters

Library

Tech Type

- ACCESSORIES
- AUDIO
- CABLES & ADAPTERS
- CALCULATORS
- CAMERA ACCESSORIES
- CAMERAS
- LAPTOPS
- MICROPHONES
- MISCELLANEOUS

Apple iPad (2017) Tablet

- Tablets
- 4 Week Loan
- Student
- John C. Hitt
- Fine Policy
- Check Availability

Apple iPad (2018) Tablet

- Tablets
- 7 Day Loan
- Student
- John C. Hitt
- Fine Policy
- Check Availability

Apple iPad (8th Gen) Tablet

- Tablets
- 7 Day Loan
- Student
- John C. Hitt
- Fine Policy
- Check Availability

CMC

CMC

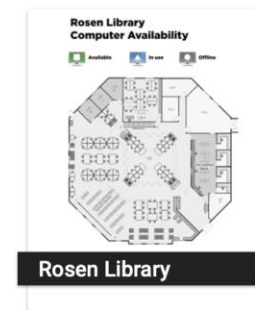
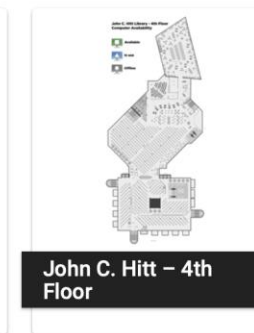
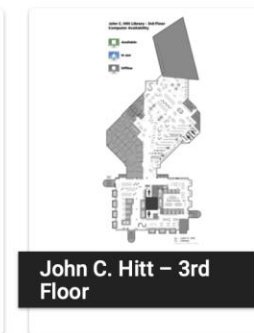
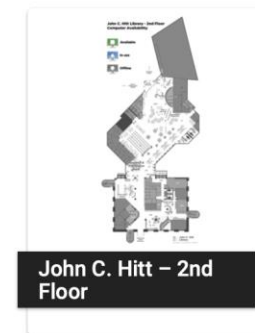
Availability Map



Computer Available



Computer In Use



<https://library.ucf.edu/technology-lending/>

7. Innovative Space

Cyma Rubin Visualization Gallery

NC State University Libraries

- [Art Wall](#), Hunt Library
- [Cyma Rubin Visualization Gallery](#), Hill Library
- [Data Experience Lab \(DXL\)](#), Hill Library
- [Dataspace](#), Hunt Library
- [Game Lab](#), Hunt Library
- [iPearl Immersion Theater](#), Hunt Library
- [Teaching and Visualization Lab](#), Hunt Library
- [VR Studio](#), Hill Library



Digital Maker Labs

Digital maker labs offer customers the chance to learn and use some of the most cutting-edge technology around.

3D Print of the Month



Rock Lobster

Request Submitted by:

Elvis



November 2022



<https://www.thingiverse.com/thi>



About- Find- Research- Services- Information For-

HCCC Libraries / Technology in Libraries / 3D Printing

Technology in Libraries

Welcome

Technology Home

Computers

WiFi & Network

Print, Scan & Charge

Tech Loan

3D Printing

Virtual Reality (VR)

Get Help

3D Print of the Month

<https://library.hccc.edu/technology/3d-printing>



Robots

A great example is Connecticut's Westport Library, which recently acquired two robots, Vincent and Nancy, that will be used to help **teach coding and computer-programming skills.**



Coding Clubs

Microbits are now being used in libraries across the UK to **teach children how to code**, but also **how to solve problems and design solutions for them**.



BBC micro:bit

Create | Learn | Code

The pocket-sized computer transforming the world

Teacher resources

Digital Storytelling

The British Library is hosting the [Narrative Games Convention](#) in November 2023 to **bring together developers and gamers with a passion for interactive storytelling.**

EXHIBITORS

AdventureX brings together a wide range of narrative-driven indie games. Here's our 2022 selection:



<https://adventureexpo.org/>

Libraries have started offering to their users the **chance to play, learn and explore**. Virtual reality can be used to bring the library closer to the users by creating virtual tours of the library or even virtual workshops and training.

VR Studio

Hours

Today Sat	closed
Jun 11 Sun	closed
Jun 12 Mon	noon–3pm closed 3pm–5pm*
Jun 13 Tue	12am–overnight closed 12pm–5pm*
Jun 14 Wed	noon–5pm
Jun 15 Thu	noon–5pm

*Closed or limited access due to...

[View all VR Studio hours →](#)

News

VR, Innovation Studios featu
Technician

Explore Our VR Collection

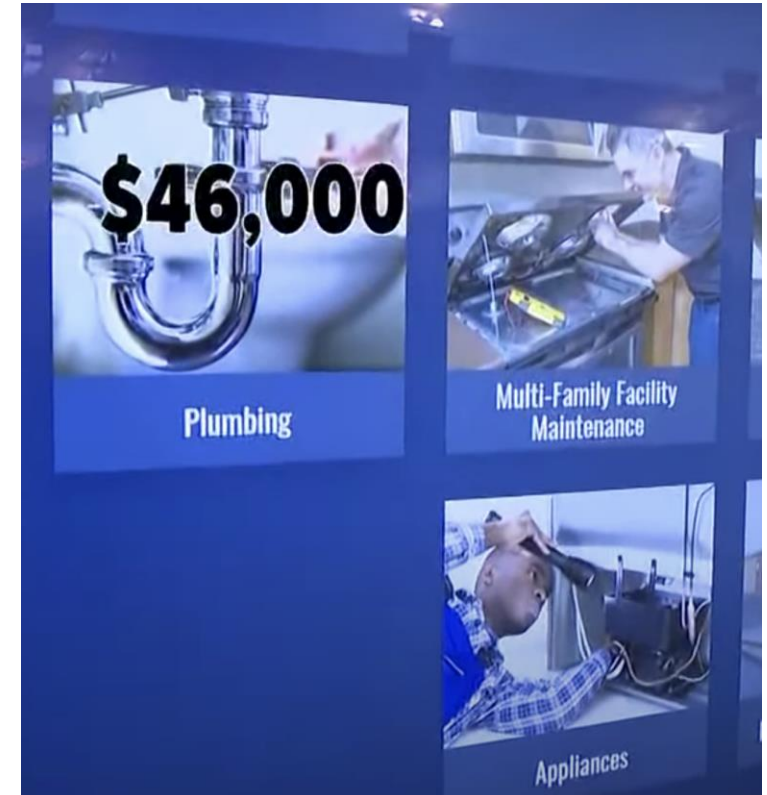
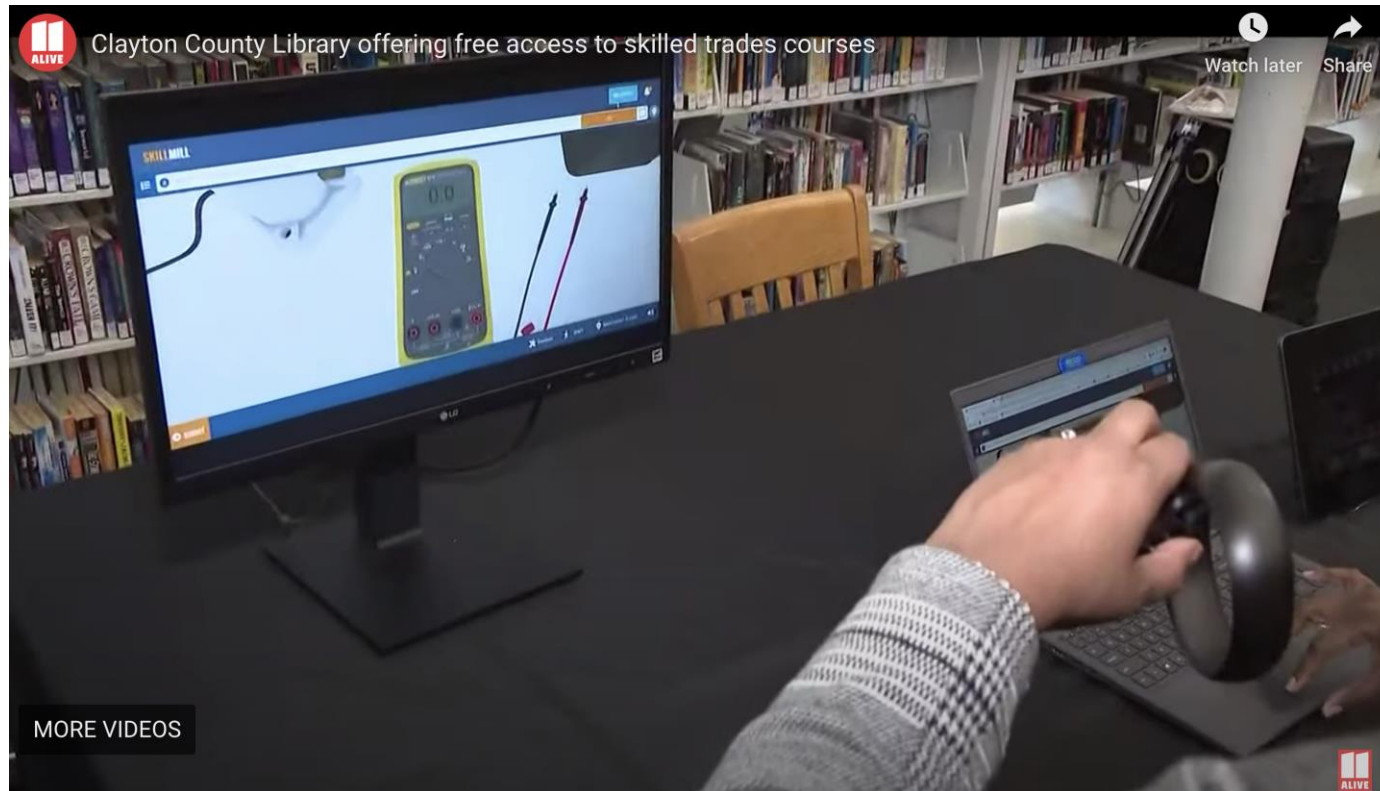


[Nature Treks VR](#)

[Panoptich](#)

VR Workshop: Retraining for in-demand jobs

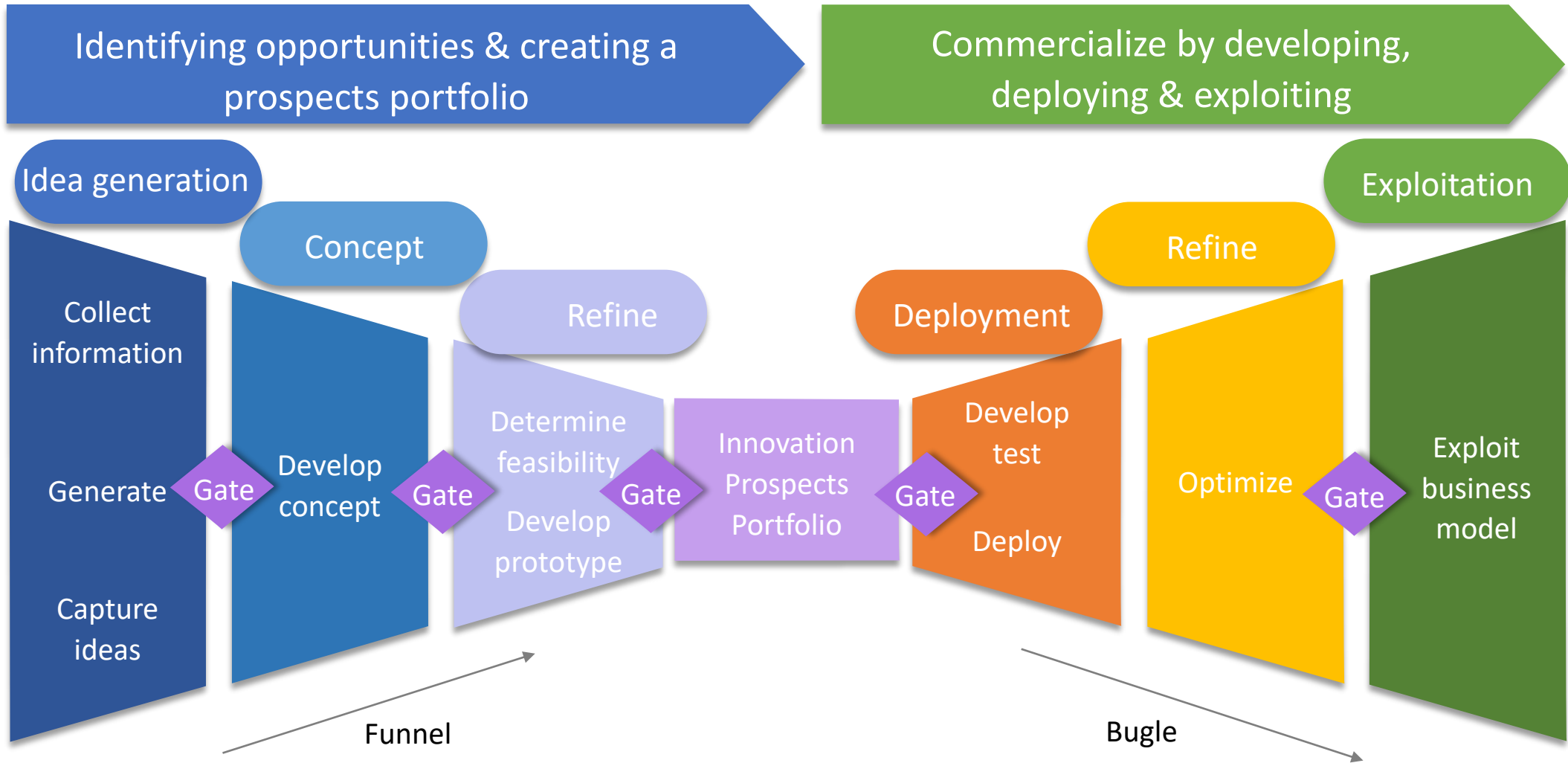
At the Clayton County Library System in Georgia, the library has partnered with Interplay Learning to provide free, immersive VR training for skilled trades, including plumbing, HVAC, and solar.



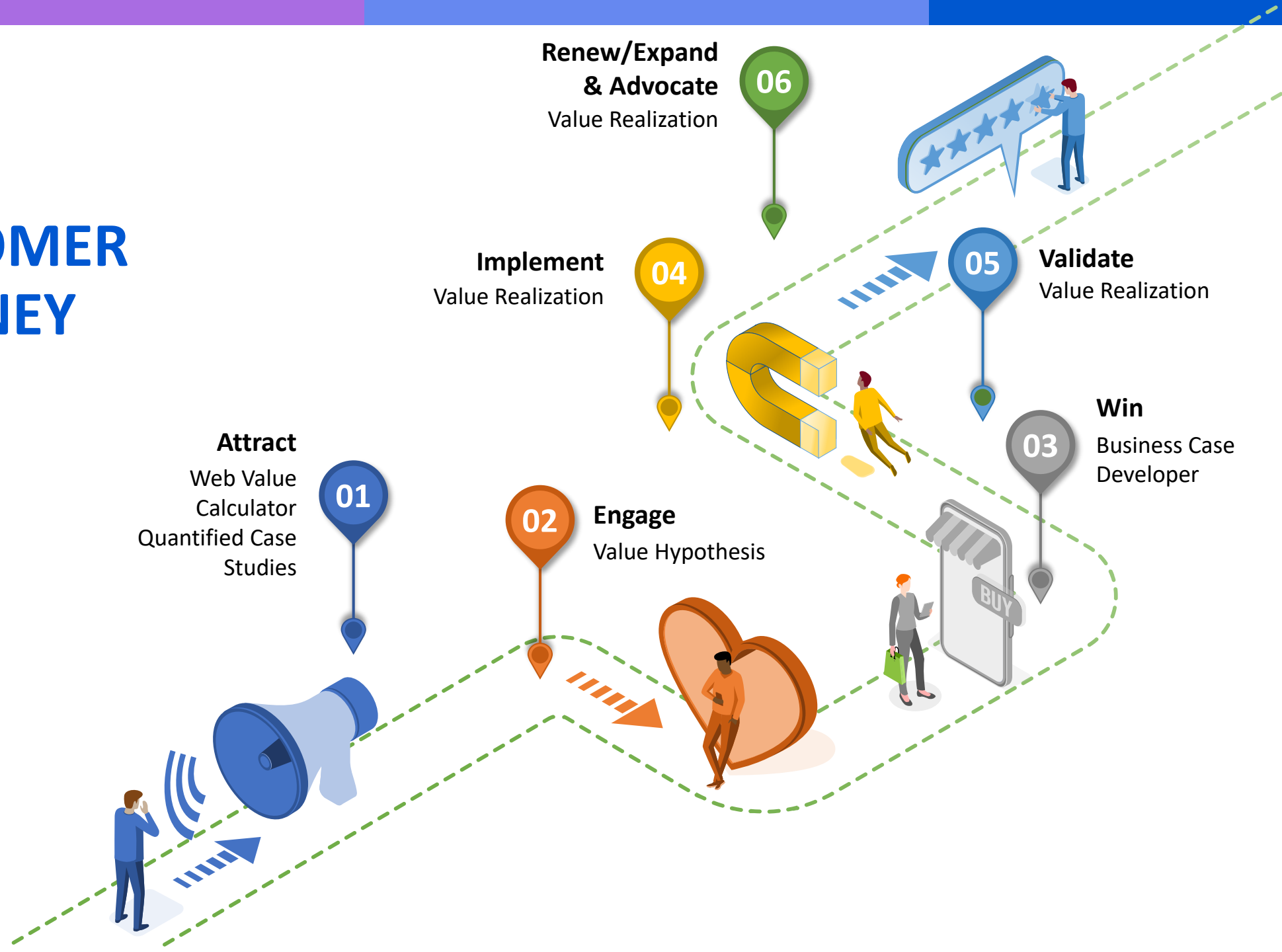
3

Agile Innovation Methodologies and Outcomes

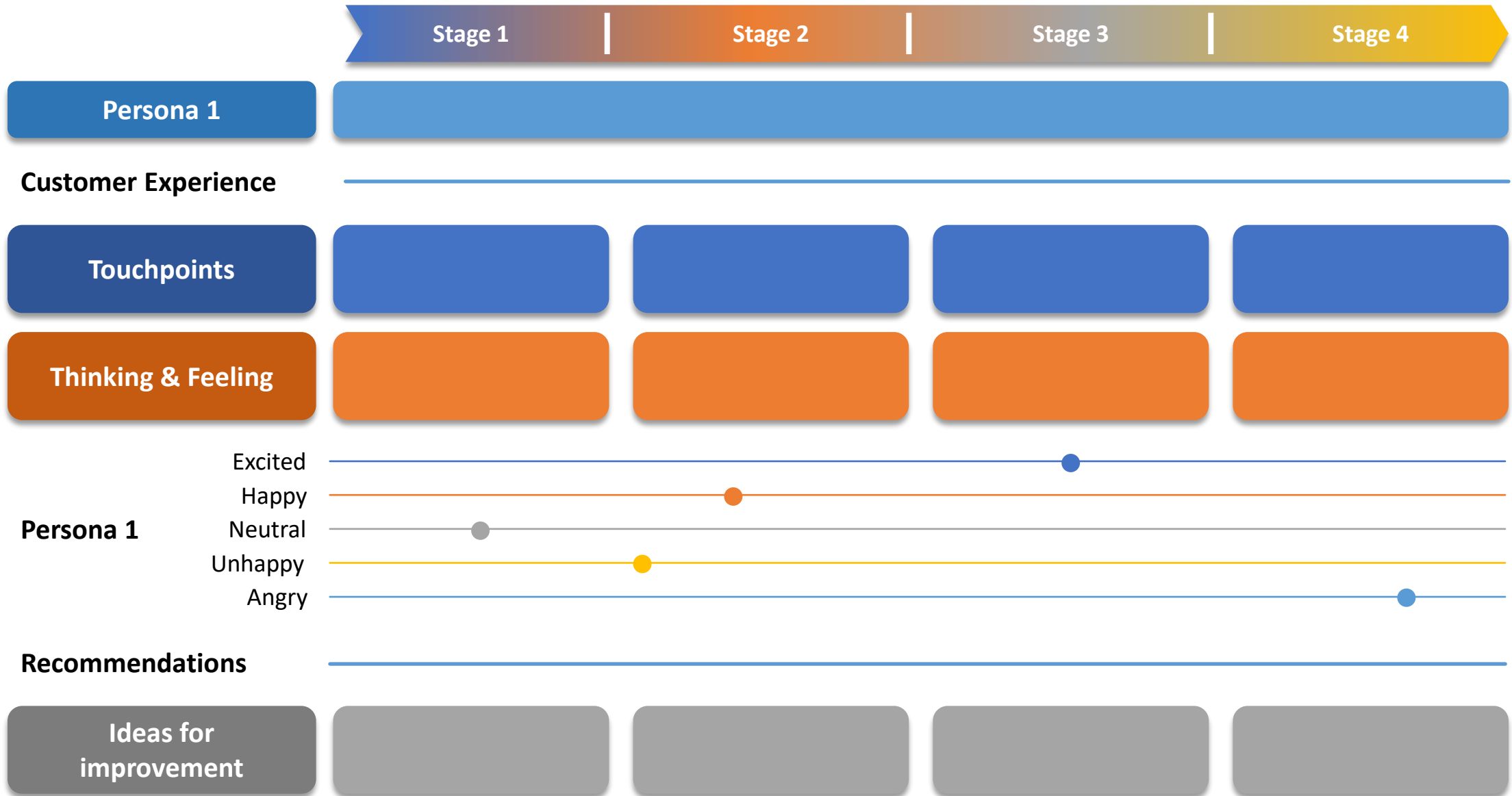
AGILE INNOVATION



CUSTOMER JOURNEY



Customer Touchpoints and Pain Points



AGILE MINDSET

แนวคิดการทำงานที่ให้ความสำคัญกับ
การปรับตัวอย่างคล่องแคล่วว่องไว
สื่อสารและทำงานเป็นทีม
เพื่อพัฒนาสินค้าและบริการ
ให้ตรงใจลูกค้าได้มากที่สุดและเร็วที่สุด



AGILE MINDSET

แนวคิดการทำงานที่ให้ความสำคัญกับ

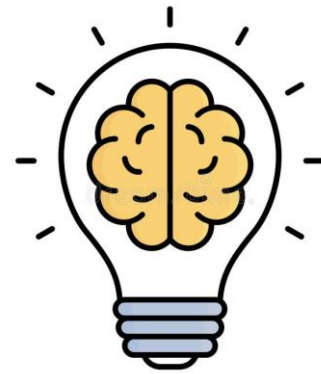
การปรับตัวอย่างคล่องแคล่วว่องไว

สื่อสารและทำงานเป็นทีม

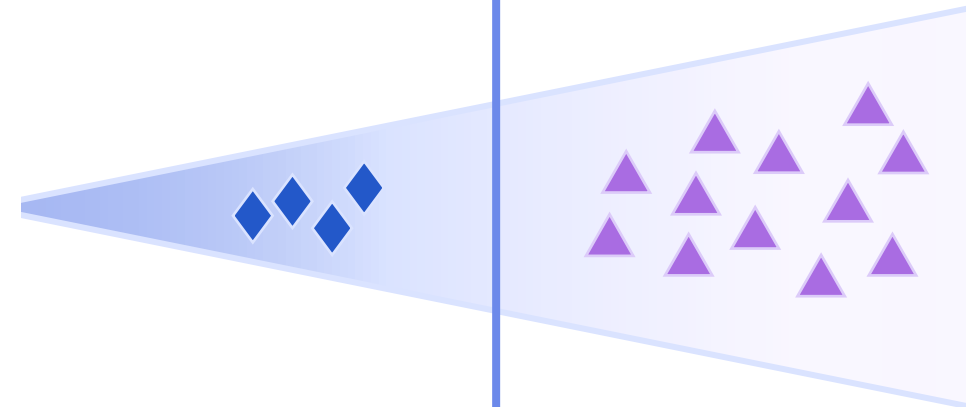
เพื่อพัฒนาสินค้าและบริการ

ให้ตรงใจลูกค้าได้มากที่สุดและเร็วที่สุด

AGILE IS A
MINDSET



DESCRIBED BY
4 VALUES



DEFIND BY
12 PRINCIPLES

The 4 Values of the Agile Manifesto



ความสามารถของคนและทีมเวิร์ค
Individuals and Interactions

OVER

กระบวนการและเครื่องมือ
Processes and Tools



ผลิตภัณฑ์ / ผลงานที่นำไปใช้ได้จริง
Working Product

OVER

การจัดทำเอกสารที่ซับซ้อน
Comprehensive Documentation



ทำงานร่วมอย่างใกล้ชิดกับลูกค้า
Customer Collaboration

OVER

เจรจาต่อรองการดำเนินงานตามสัญญา
Contract Negotiation



ตอบสนองต่อการเปลี่ยนแปลง
Responding to Change

OVER

มุ่งมั่นทำตามแผนที่กำหนดไว้
Following a Plan



That is, while there is value in the items on the right, we value the items on the left more.

The 12 Principles of the Agile Manifesto

01 สร้างความพึงพอใจให้กับลูกค้าเป็นสิ่งสำคัญที่สุด
(Customer Satisfaction is Highest Priority)

02 ร่วมกันปรับเปลี่ยนพฤติกรรมให้ดีขึ้นต่อเนื่อง
(Reflect & Adjust Regularly & Accordingly)

03 ให้อำนาจในการตัดสินใจกับทีมงาน
(The Best Results Come Self-Organizing Teams)

04 รู้ว่าต้องเลือกทำสิ่งที่สำคัญ และกล่าละสิ่งที่ไม่สำคัญ
(Maintain Simplicity)

05 ยอมรับความเปลี่ยนแปลง
(Changing Requirements are Always Welcomed)

06 พัฒนาความเป็นเลิศต่อเนื่อง
(Continuous Attention to Technical Excellence & Good Design)

ทำงานร่วมกันทุกวัน
(Working Together on Daily Basis) **07**

เชื่อใจและสนับสนุนซึ่งกันและกัน
(Trust & Support the Team to Get the Job Done) **08**

สัมพันธ์คุยกันจริงๆ หน้า
(Face to Face Conversation Between the Team) **09**

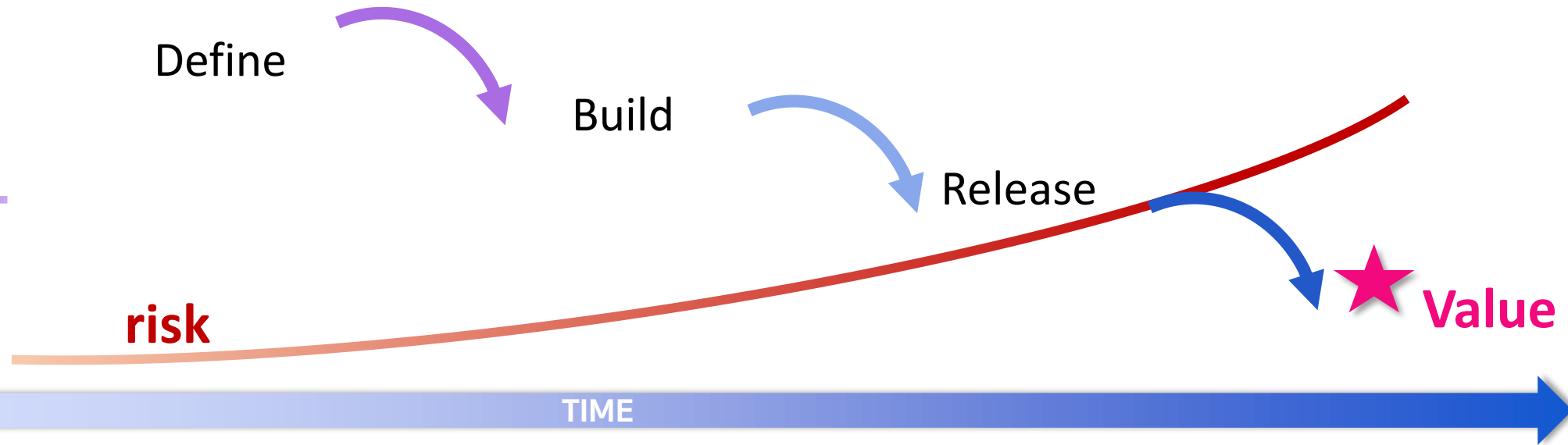
ความคืบหน้าวัดผลจากงานที่ใช้ได้จริง
(Working Software is the Primary Measure of Process) **10**

ส่งมอบบ่อยๆ ลดความเสี่ยง
(Frequent Delivery of Working Software) **11**

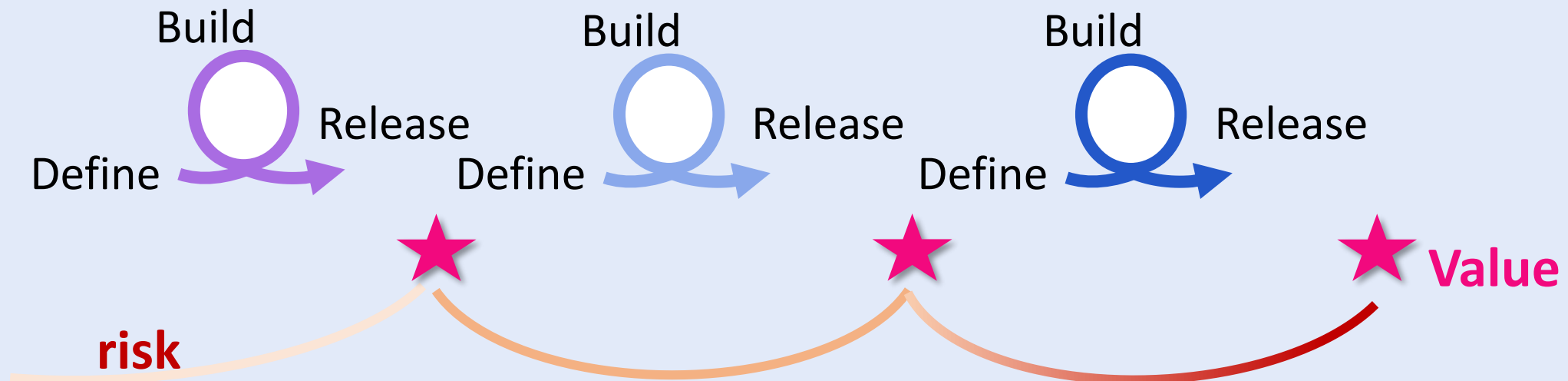
พัฒนา (งาน) อย่างยั่งยืน
(Sustainable Development) **12**

AGILE VS WATERFALL

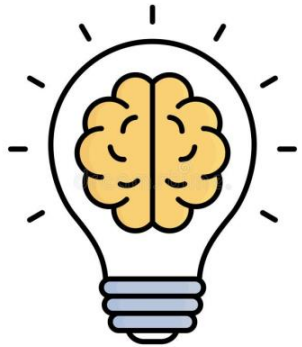
WATERFALL



AGILE



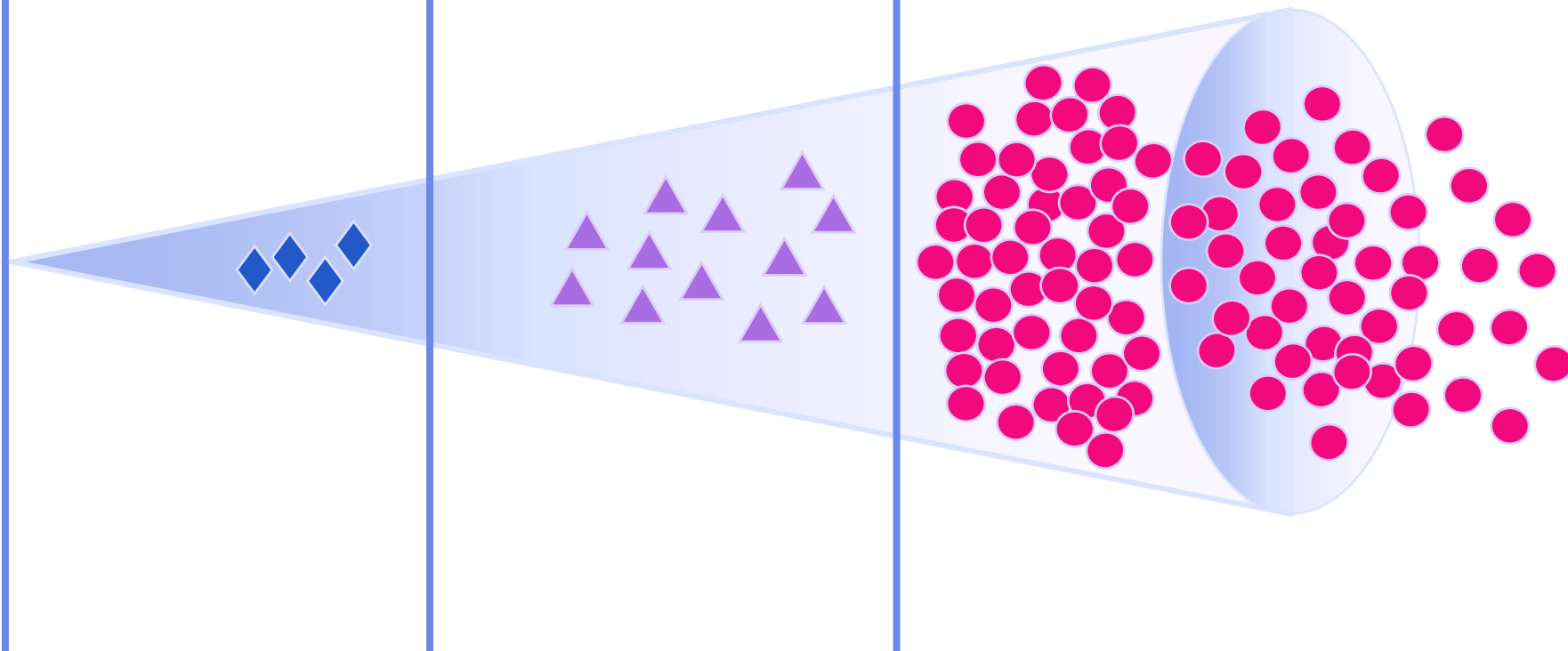
AGILE IS A
MINDSET



DESCRIBED BY
4 VALUES

DEFIND BY
12 PRINCIPLES

MANIFESTED THROUGH
Unlimited Number of Practices /
METHODOLOGIES



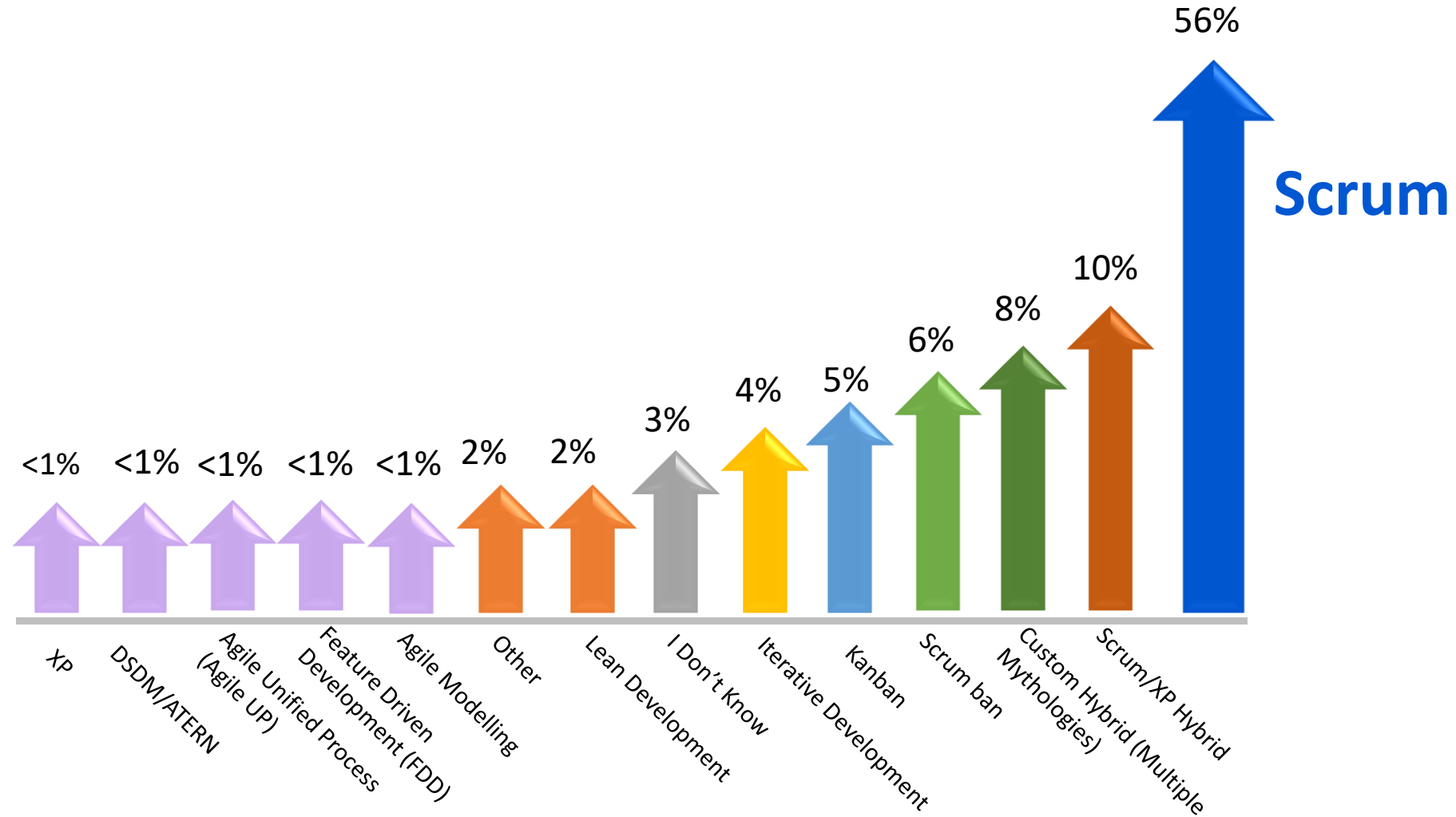
SCRUM



KANBAN



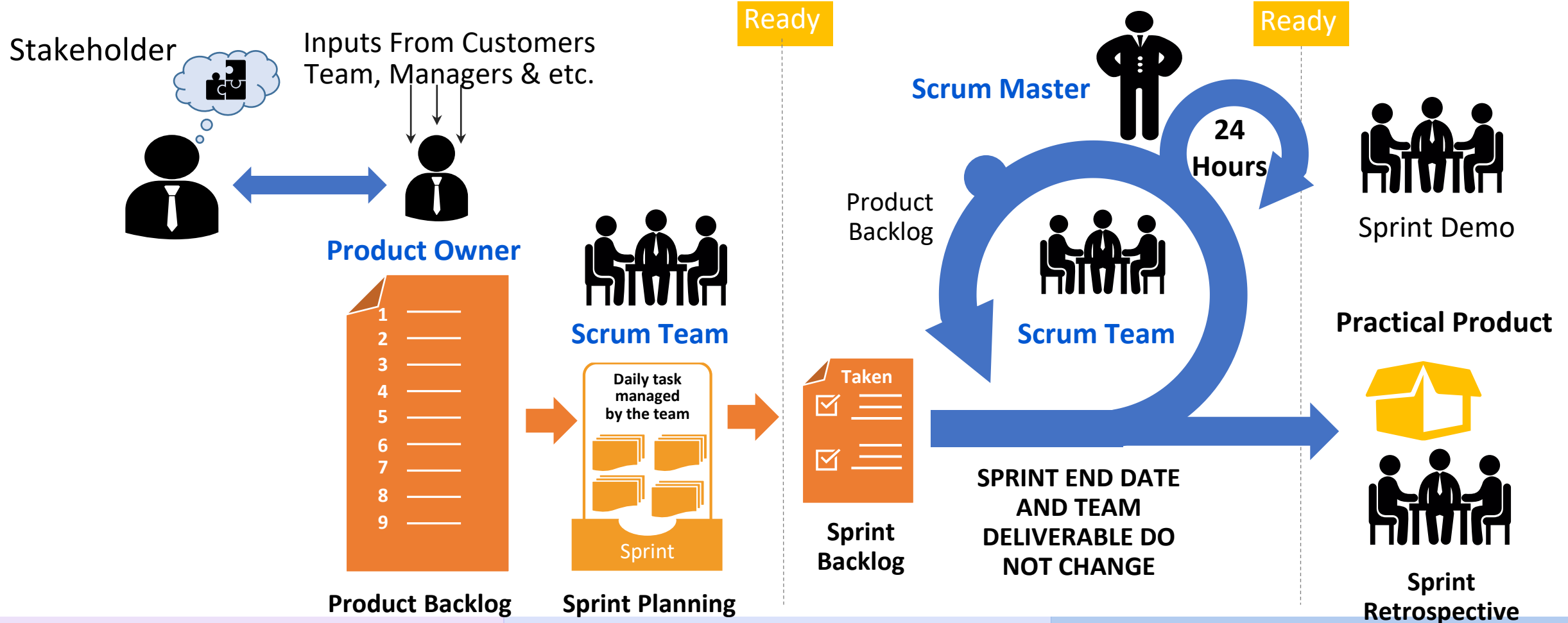
AGILE METHODOLOGY USED



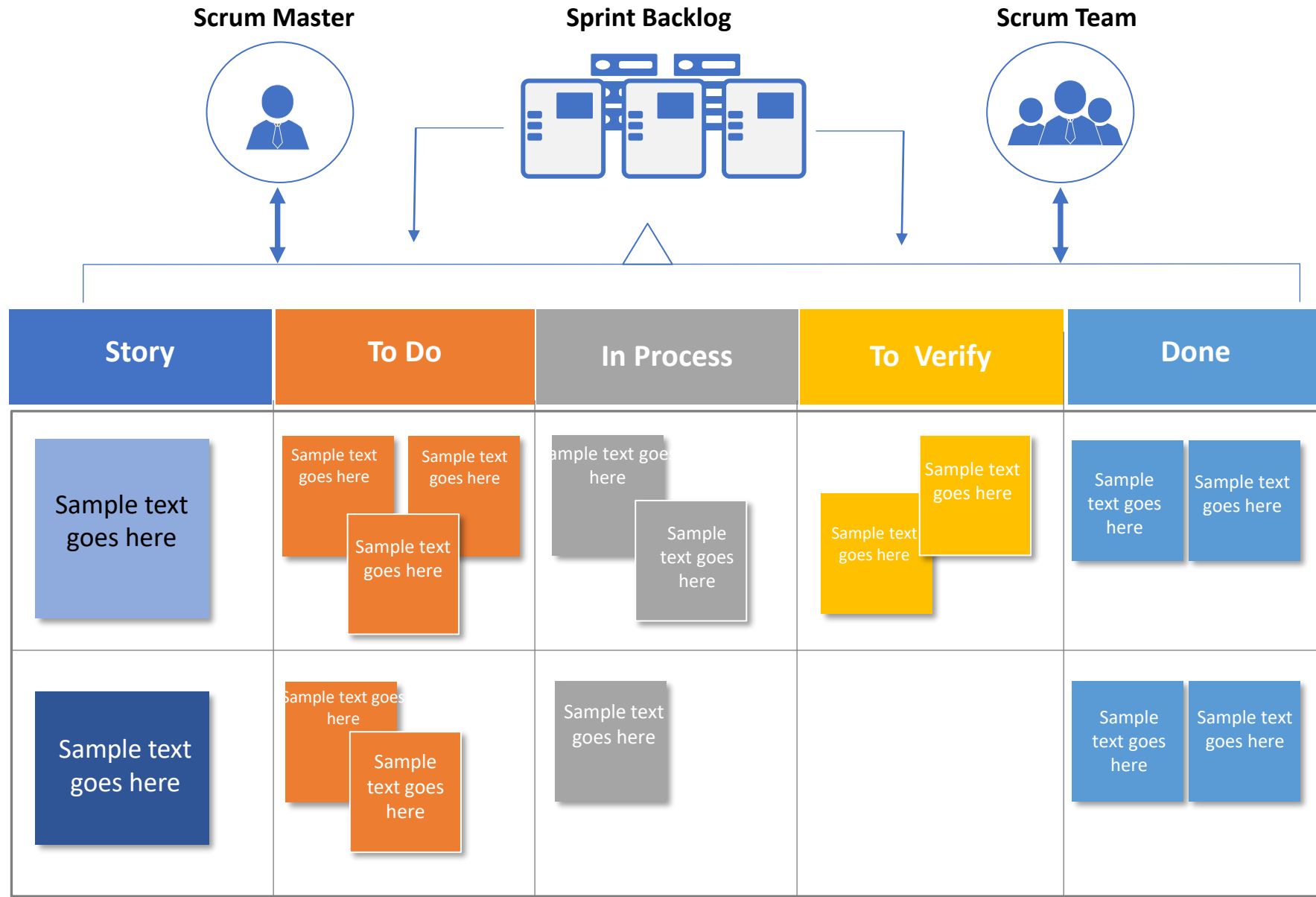
SCRUM PROCESS

Vision

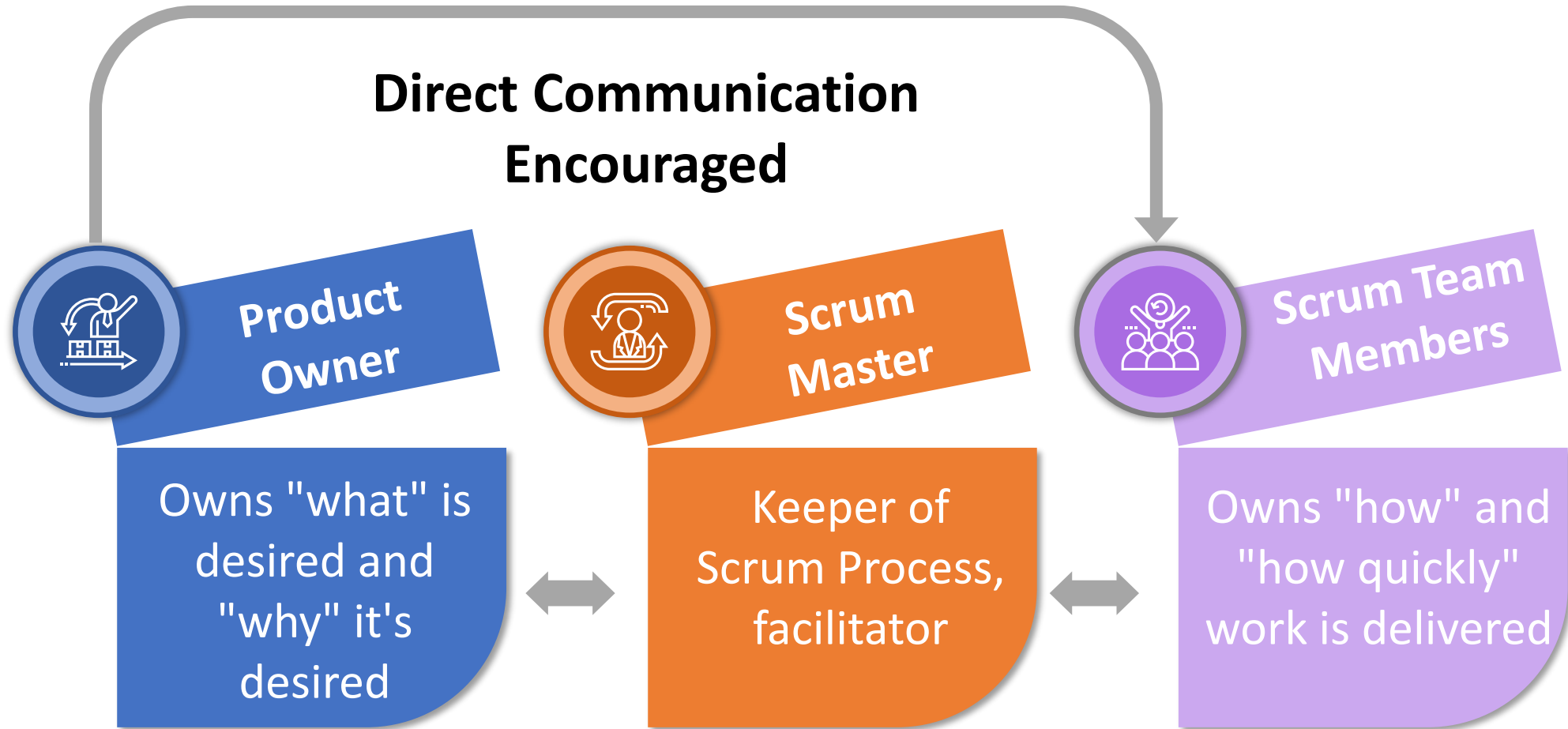
Sprint



SCRUM BOARD

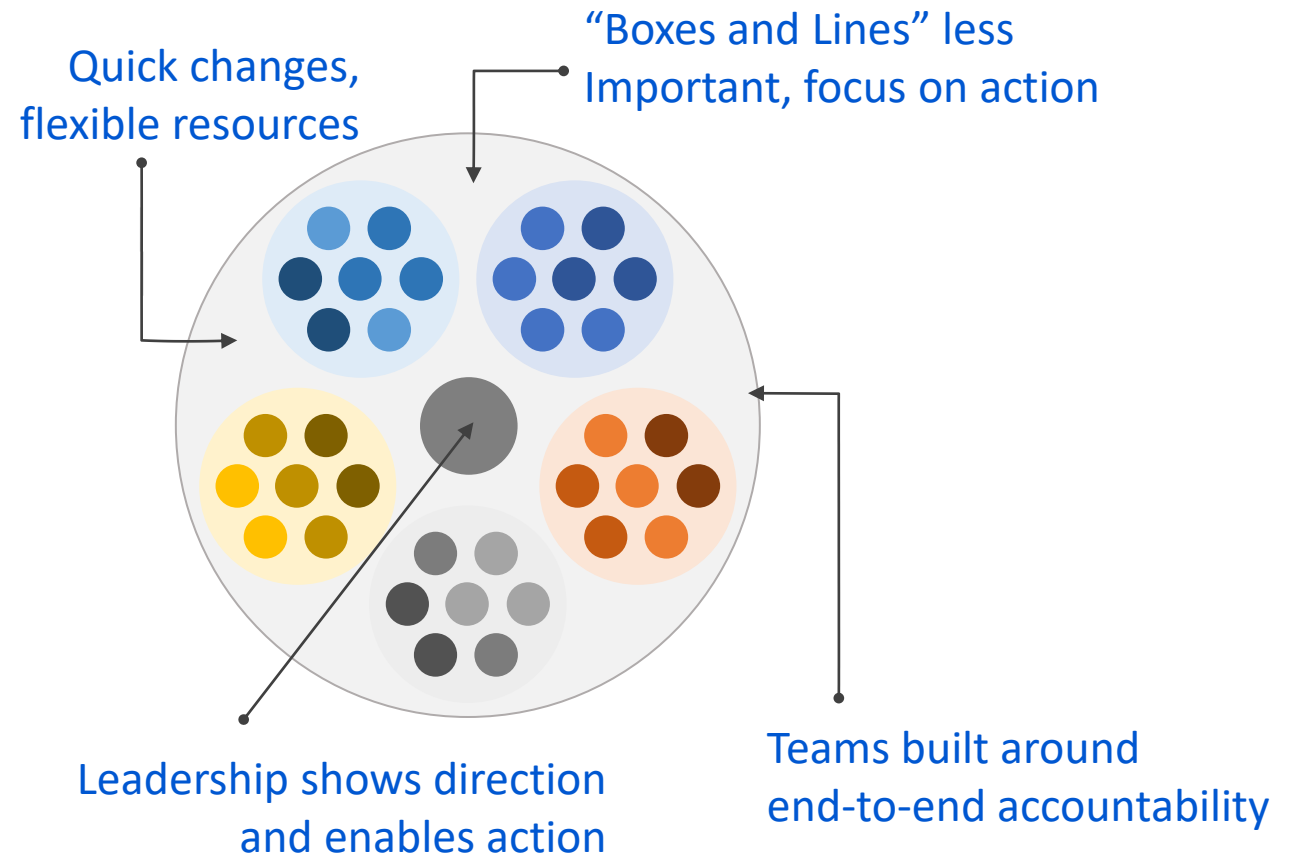
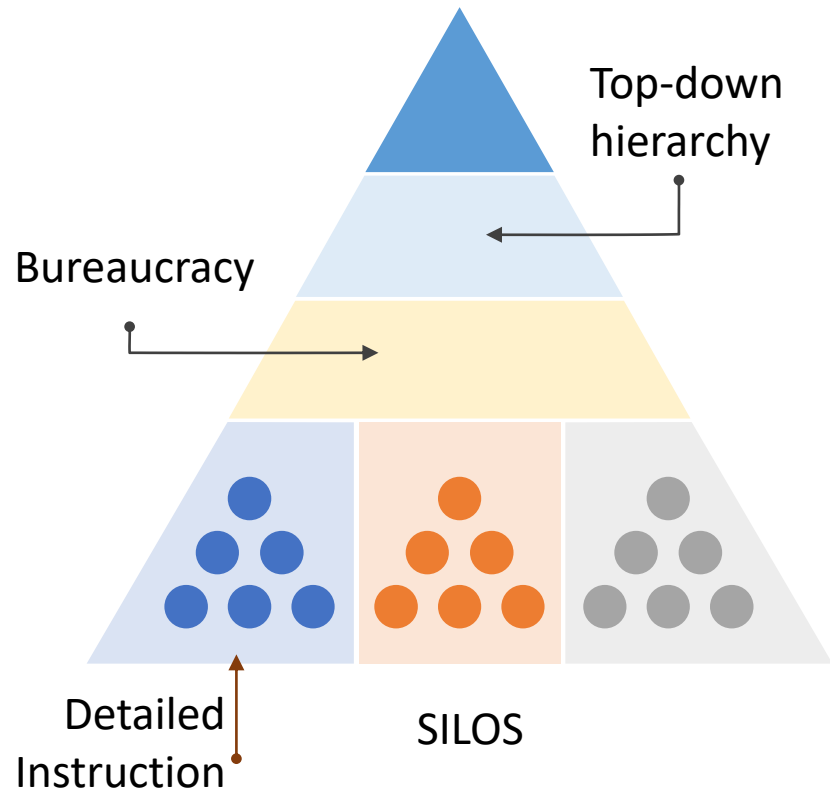


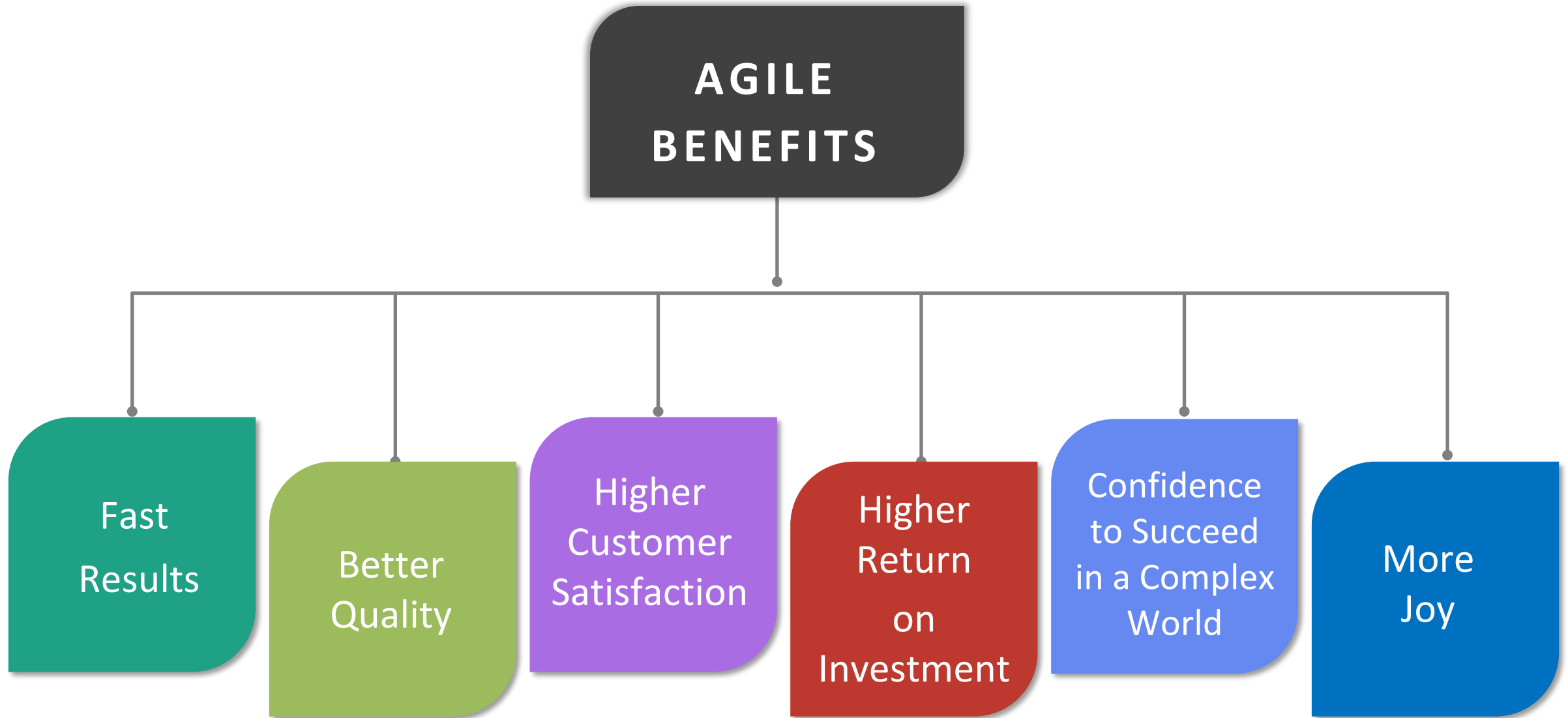
SCRUM TEAM: Roles and Communication



From organizations as “machines” ...

...to organizations as “organisms”





Agile Innovation:

Methodologies and Outcomes



รองศาสตราจารย์ ดร.อรพรรณ คงมาลัย

รองผู้อำนวยการสายบริการและส่งเสริมการเรียนรู้
หอสมุดแห่งมหาวิทยาลัยธรรมศาสตร์