

# Building the capacity to innovate

Katrina Pugh, EY, Columbia University,  
LYRASIS Board Member

<http://sps.Columbia.edu/ikns>

October 24, 2018



# Topics

- ▶ What's innovation?
- ▶ “The what and the we”
- ▶ Exercise
- ▶ Innovation is not linear
- ▶ Innovation ecology
- ▶ Today

## Innovation: What is it?

- ▶ A **combination** of ideas, models, contexts and applications that solves a new or existing problem in a novel way.
- ▶ It persists because it interacts.

# Innovation leaders fail when they fail to collaborate

Language

Process

Practice

Reflection

Politics

“Walk the talk”

Claude Legrand, [“How Leaders can Close the Innovation Gap”](#) *Ivy business Journal*, 2011



# LYRASIS members get it

- Language ▶ “Label” and “translate”
- Process ▶ (Co)generate solutions
- Practice ▶ Mobilize partners
- Reflection ▶ Keep the pulse
- Politics ▶ Cross the boundaries
- “Walk the talk” ▶ Model the way

# Innovation thought leaders

## Bridging the “what”



Andy Hargadon,  
University of California  
Davis Entrepreneurship

## Social Integration the “we”



Vijay Govindarajan, Dartmouth,  
Tuck's Center for Global  
Leadership

# Information Management

*The “what”  
(It’s about  
meaning)*

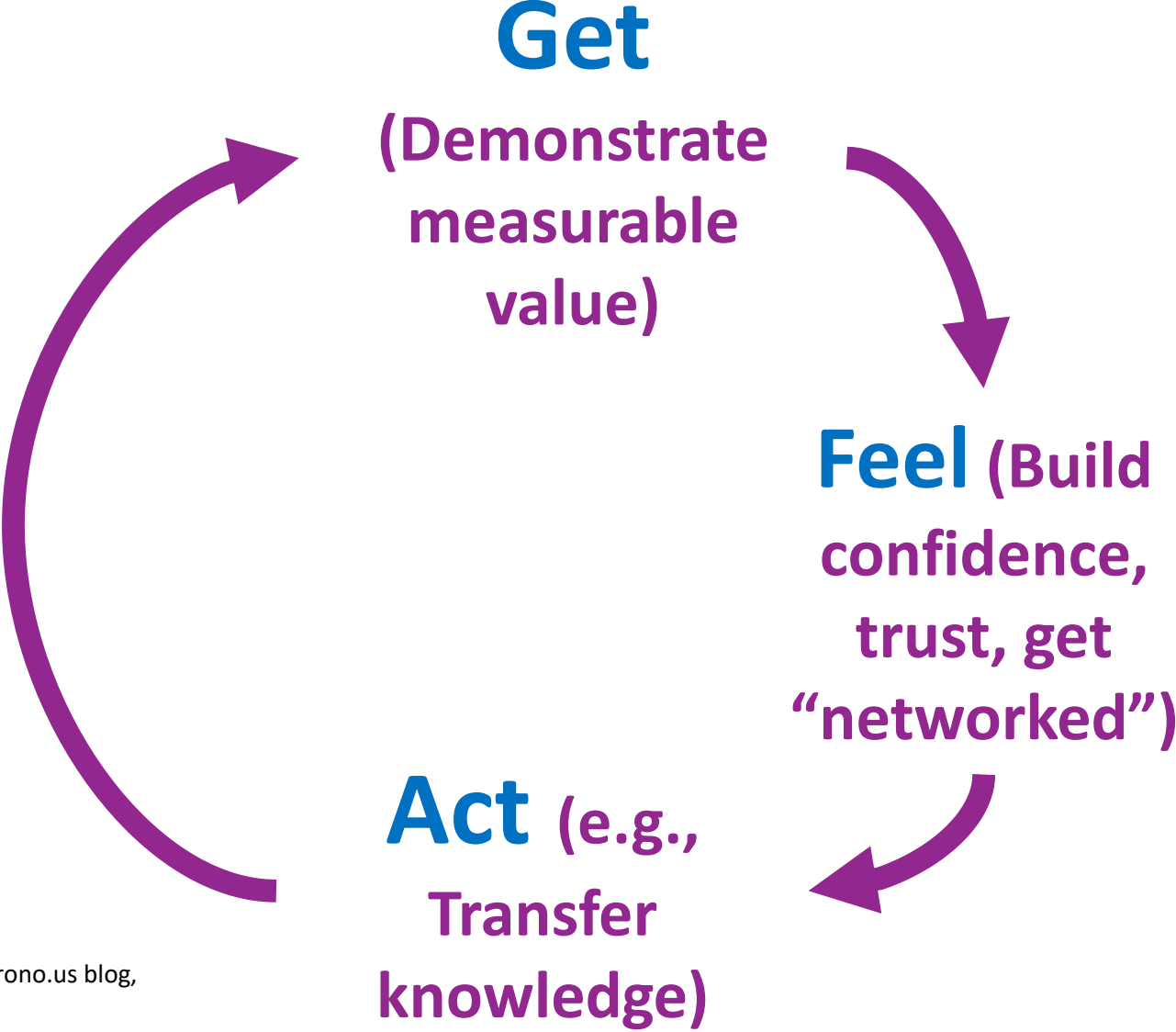


Source: Katrina Pugh, “Sustainable Communities: 10 CSFs for Keeping the Faith,” IBM Syn.chrono.us blog, 2010 <http://synch.rono.us/social/blog.nsf/dx/07192010091946AMSLIHMx.htm>



# Collaboration

*The “we”  
(It’s about  
interaction)*



Source: Katrina Pugh, “Sustainable Communities: 10 CSFs for Keeping the Faith,” IBM Syn.chrono.us blog, 2010 <http://synch.rono.us/social/blog.nsf/dx/07192010091946AMSLIHMx.htm>



**Information  
management  
breeds  
innovation**



# Innovation as information (re)classification

FORETHOUGHT BEST PRACTICE

## Don't Just Capture Knowledge—Put It to Work

by Katrina Pugh and Nancy M. Dixon

What's the point of capturing organizational knowledge if it's going to be tossed into some file and forgotten? That's all too often what happens to lessons from postmortems and after-action reviews. One way to make sure such knowledge will benefit the people who need it is to engage them in what we call a *knowledge harvest*: a systematic, facilitated gathering and circulation of knowledge. Our approach—piloted by Intel Solution Services (ISS), Intel's IT consulting arm—has helped the company speed collection and transmission, and has improved the likelihood that knowledge gets productively and creatively reused.

The key is to identify, before the harvest begins, others in the organization who could use the knowledge (the "knowledge seekers") and involve them in gathering valuable lessons. Consider how an ISS health-care consulting team in Germany conducted a harvest. It viewed knowledge reuse as critical to the success of the company's Future Hospital program, involving 160 subprojects that the team participated in. For one of those projects, it had developed an innovative medical dashboard that graphically displayed emergency room activities by aggregating transmissions from Wi-Fi tags on rooms, equipment, and patients. Encouraged by initial successes in the ER, Oliver Mark—principal enterprise architect at Intel Germany and chief architect for this program—brought in Katrina Pugh as a harvest facilitator to help the team surface tacit knowledge and transfer it to the larger program.

As facilitator, Pugh recruited knowledge seekers from other departments and project teams at Intel. Because seekers are self-interested, they ask tough, exploratory questions of knowledge originators, extracting important nuances—not only about how a project was

executed but also about how costs built up, how knowledge might be applied elsewhere, what worked and what didn't, and so on.

From the outset, the ISS team thought that Intel's marketing department and solution delivery department (which develops consulting methods) might be able to apply what it had learned to creating and promoting future products. In a series of teleconferences, the team members—probed by the facilitator and the knowledge seekers—recounted how they had designed, adapted, and deployed the technology and worked with new third-party software vendors. The harvest surfaced important Wi-Fi innovations that were developed by the Intel Germany engineers; it allowed seekers from solution delivery to explore how ISS structured its work with clients to reach consensus early and speed project delivery; and it helped the marketing department examine the potential for comarketing between ISS and the software vendor.

To circulate harvested knowledge, the facilitator conducted follow-up interviews with knowledge seekers, published summaries with links to source documents on the ISS home page, and distributed these to selected people throughout ISS. Meanwhile, marketing developed and disseminated a case study for the medical dashboard, and solution delivery circulated the medical dashboard architecture, implementation strategy, and collaboration methods. These innovations took root immediately in other parts of the program and in Intel Solution Services' U.S. offices. Having seen the success of its first harvest, the German ISS team was eager to hold a variety of subsequent harvests that resulted in methodology improvements in health-care consulting products, data-center design, and project and operations staffing.

INTRA

INTRA\_NET\_WORK

@INTRA\_NET\_WORK

@katrinapugh talks about innovation, neuroscience and the future digital workplace #IntrelUS #Innovation #Boston

02:40 AM - 09 Apr 15



Favorited by

!Fla

!Flab @IFlabEU

*Interactive factual storytelling refers to the creation of factual narratives*

# Innovation as information (re)classification

FORETHOUGHT

Don't Just Capture Knowledge to Work

by Katrina Pugh and Mark

What's the point of capturing knowledge if it's going to be some file and forgotten? What happens to lessons learned and after-action reviews to ensure such knowledge will be used by those who need it to engage

a **knowledge harvest**: a systematic, facilitated gathering and circulation of knowledge. Our approach—piloted by Intel Solution Services (ISS), Intel's IT consulting arm—has helped the company speed collection and transmission, and has improved the likelihood that knowledge gets productively and creatively reused.

The key is to identify, before the harvest begins, others in the organization who could use the knowledge (the "knowledge seekers") and involve them in gathering valuable lessons. Consider how an ISS health-care consulting team in Germany conducted a harvest. It viewed knowledge reuse as critical to the success of the company's Future Hospital program, involving 160 subprojects that the team participated in. For one of those projects, it had developed an innovative medical dashboard that graphically displayed emergency room activities by aggregating transmissions from Wi-Fi tags on rooms, equipment, and patients. Encouraged by initial successes in the ER, Oliver Mark—principal enterprise architect at Intel Germany and chief architect for this program—brought in Katrina Pugh as a harvest facilitator to help the team surface tacit knowledge and transfer it to the larger program.

As facilitator, Pugh recruited knowledge seekers from other departments and project teams at Intel. Because seekers are self-interested, they ask tough, exploratory questions of knowledge originators, extracting important nuances—not only about how a project was

work would proceed to creating and promoting future products. In a series of teleconferences, the team members—probed by the facilitator and the knowledge seekers—recounted how they had designed, adapted, and deployed the technology and worked with new third-party software vendors. The harvest surfaced important Wi-Fi innovations that were developed by the Intel Germany engineers; it allowed seekers from solution delivery to explore how ISS structured its work with clients to reach consensus early and speed project delivery; and it helped the marketing department examine the potential for comarketing between ISS and the software vendor.

To circulate harvested knowledge, the facilitator conducted follow-up interviews with knowledge seekers, published summaries with links to source documents on the ISS home page, and distributed these to selected people throughout ISS. Meanwhile, marketing developed and disseminated a case study for the medical dashboard, and solution delivery circulated the medical dashboard architecture, implementation strategy, and collaboration methods. These innovations took root immediately in other parts of the program and in Intel Solution Services' U.S. offices. Having seen the success of its first harvest, the German ISS team was eager to hold a variety of subsequent harvests that resulted in methodology improvements in health-care consulting products, data-center design, and project and operations staffing.

Title	Asset type	Call to action	Domain	Vehicle
"Don't just capture knowledge, put it to work!"	"HBR article"	"The group helps us put all our content to work"	"knowledge sharing"	Harvard Business Journal

**Multi-dimensional thinking**

INTRA INTRA\_NET\_WORK  
@INTRA\_NET\_WORK  
@katrinapugh talks about innovation, neuroscience and the future digital workplace  
#IntelUIS #Innovation #Boston

Title	Asset type	Call to action	Domain	Vehicle
"Conversation is yoga for the brain"	"Conference Tweet"	"The group helps us each put our whole brain to work"	"Neuroscience"	Twitter

# Innovation as information (re)classification

FORETHOUGHT

Don't Just Capture Knowledge to Work

by Katrina Pugh and M

What's the point of capturing knowledge if it's going to be some file and forgotten? What happens to lessons learned and after-action reviews to ensure such knowledge will be used by those who need it to engage

a *knowledge harvest*: a systematic, facilitated gathering and circulation of knowledge. Our approach—piloted by Intel Solution Services (ISS), Intel's IT consulting arm—has helped the company speed collection and transmission, and has improved the likelihood that knowledge gets productively and creatively reused.

The key is to identify, before the harvest begins, others in the organization who could use the knowledge (the "knowledge seekers") and involve them in gathering valuable lessons. Consider how an ISS health-care consulting team in Germany conducted a harvest. It viewed knowledge reuse as critical to the success of the company's Future Hospital program, involving 160 subprojects that the team participated in. For one of those projects, it had developed an innovative medical dashboard that graphically displayed emergency room activities by aggregating transmissions from Wi-Fi tags on rooms, equipment, and patients. Encouraged by initial successes in the ER, Oliver Mark—principal enterprise architect at Intel Germany and chief architect for this program—brought in Katrina Pugh as a harvest facilitator to help the team surface tacit knowledge and transfer it to the larger program.

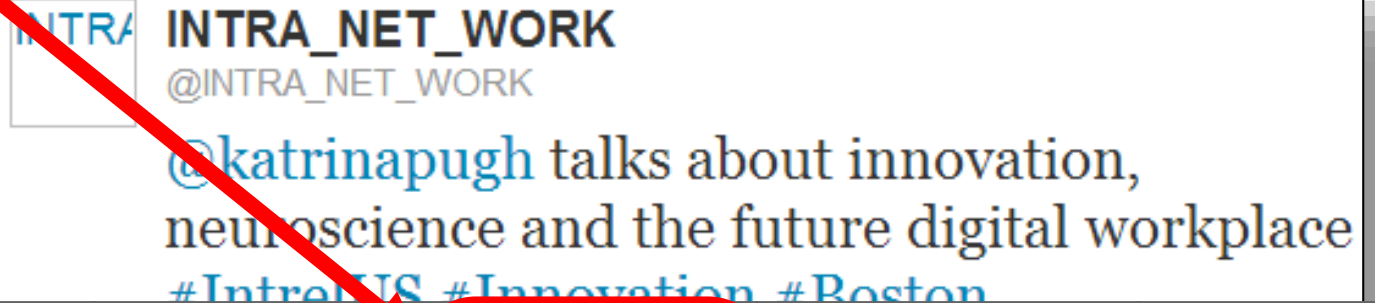
As facilitator, Pugh recruited knowledge seekers from other departments and project teams at Intel. Because seekers are self-interested, they ask tough, exploratory questions of knowledge originators, extracting important nuances—not only about how a project was

work would proceed to creating and promoting future products. In a series of teleconferences, the team members—probed by the facilitator and the knowledge seekers—recounted how they had designed, adapted, and deployed the technology and worked with new third-party software vendors. The harvest surfaced important Wi-Fi innovations that were developed by the Intel Germany engineers; it allowed seekers from solution delivery to explore how ISS structured its work with clients to reach consensus early and speed project delivery; and it helped the marketing department examine the potential for comarketing between ISS and the software vendor.

To circulate harvested knowledge, the facilitator conducted follow-up interviews with knowledge seekers, published summaries with links to source documents on the ISS home page, and distributed these to selected people throughout ISS. Meanwhile, marketing developed and disseminated a case study for the medical dashboard, and solution delivery circulated the medical dashboard architecture, implementation strategy, and collaboration methods. These innovations took root immediately in other parts of the program and in Intel Solution Services' U.S. offices. Having seen the success of its first harvest, the German ISS team was eager to hold a variety of subsequent harvests that resulted in methodology improvements in health-care consulting products, data-center design, and project and operations staffing.

Title	Asset type	Call to action	Domain	Vehicle
"Don't just capture knowledge, put it to work!"	"HBR article"	"The group helps us put all our content to work"	"knowledge sharing"	Harvard Business Journal

*Bridging*



Title	Asset type	Call to action	Domain	Vehicle
"Conversation is yoga for the brain"	"Conference Tweet"	"The group helps us each put our whole brain to work"	"Neuroscience"	Twitter

# Bridging Exercise

output	Size	power source	human role	what substance it transforms
a fastening	about 6 inches long	Human	close the stapler by closing a grip	Metal gets input and transformed





# Information management: Bridging

output	Size	power source	human role	what substance it transforms
a fastening	about 6 inches long	Human	close the stapler by closing a grip	Metal gets input and transformed



output	Size	power source	human role	what substance it transforms
a fastening	about 6 inches long	Human	close the stapler by closing a grip	<b>A green bean gets input and stapled</b>

## Information management: Bridging

*“What if it weren’t metal in the appliance, but string beans? The western world is full of ‘foodies.’ Bean staples are a thing (now).”*

- So, what does that new bean stapler do?
- And how does it fundamentally change your view of the appliance?
- What problem would it solve?
- What else would need to change?



# Exercise

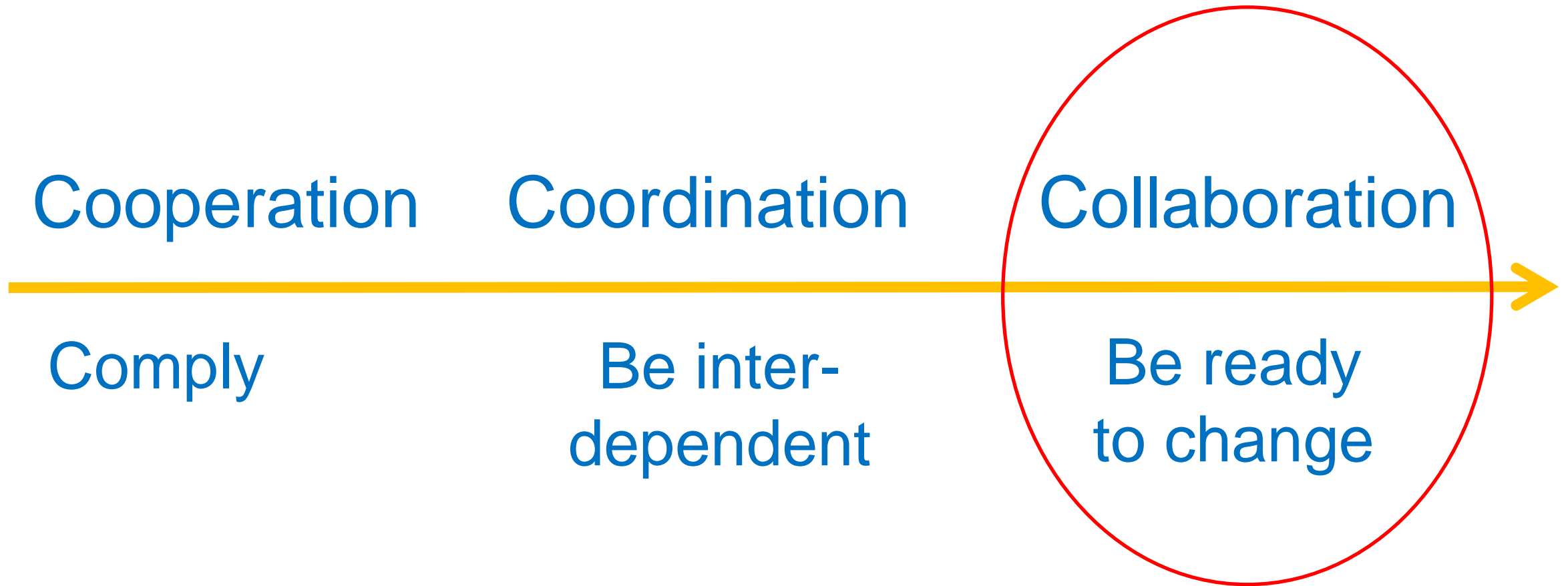
1. Pick a partner
2. Each choose your favorite appliance.
3. Describe it in five facets:
  1. Output
  2. Size
  3. Power source
  4. Human role
  5. What substance it transforms
4. Hand it to a partner.
5. Partner changes one dimension.
6. Discuss: What transformed?



**Collaboration  
breeds  
innovation**

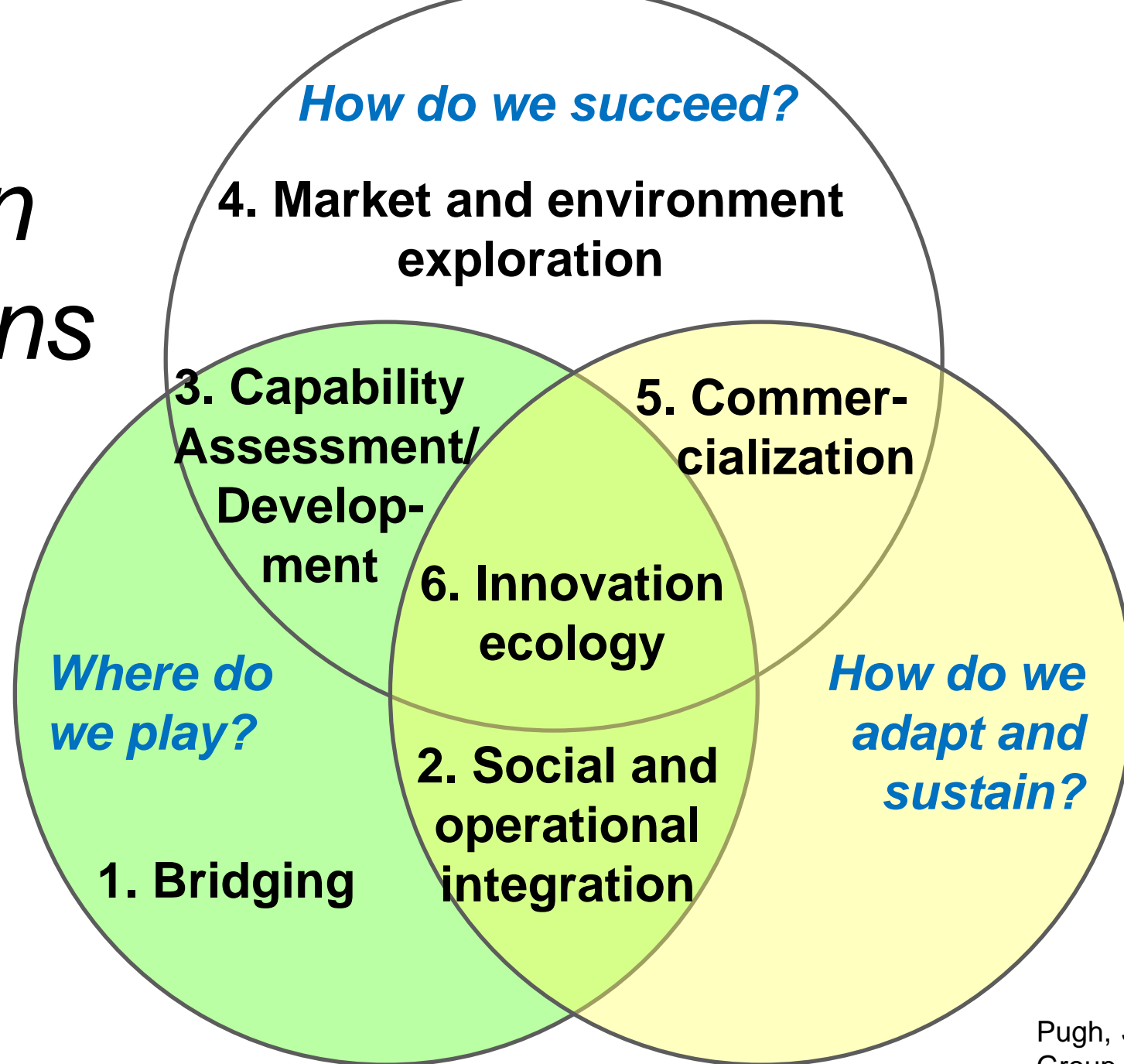


# Are we wired for collaboration?



Source: Columbia University IKNS

# Smarter Innovation Dimensions



# #1. Bridging



Ex: Motorola  
Solutions'  
(4 discussion  
disciplines)

Pugh, *Smarter Innovation*, Ark Group, 2014



# Bridging: Building online discussion skills



**Integrity**



**Courtesy**



**Inclusion**



**Translation**

Source: Katrina Pugh, Columbia University Information and Knowledge Strategy Masters Program, 2013-6

## #2. Social and operational integration

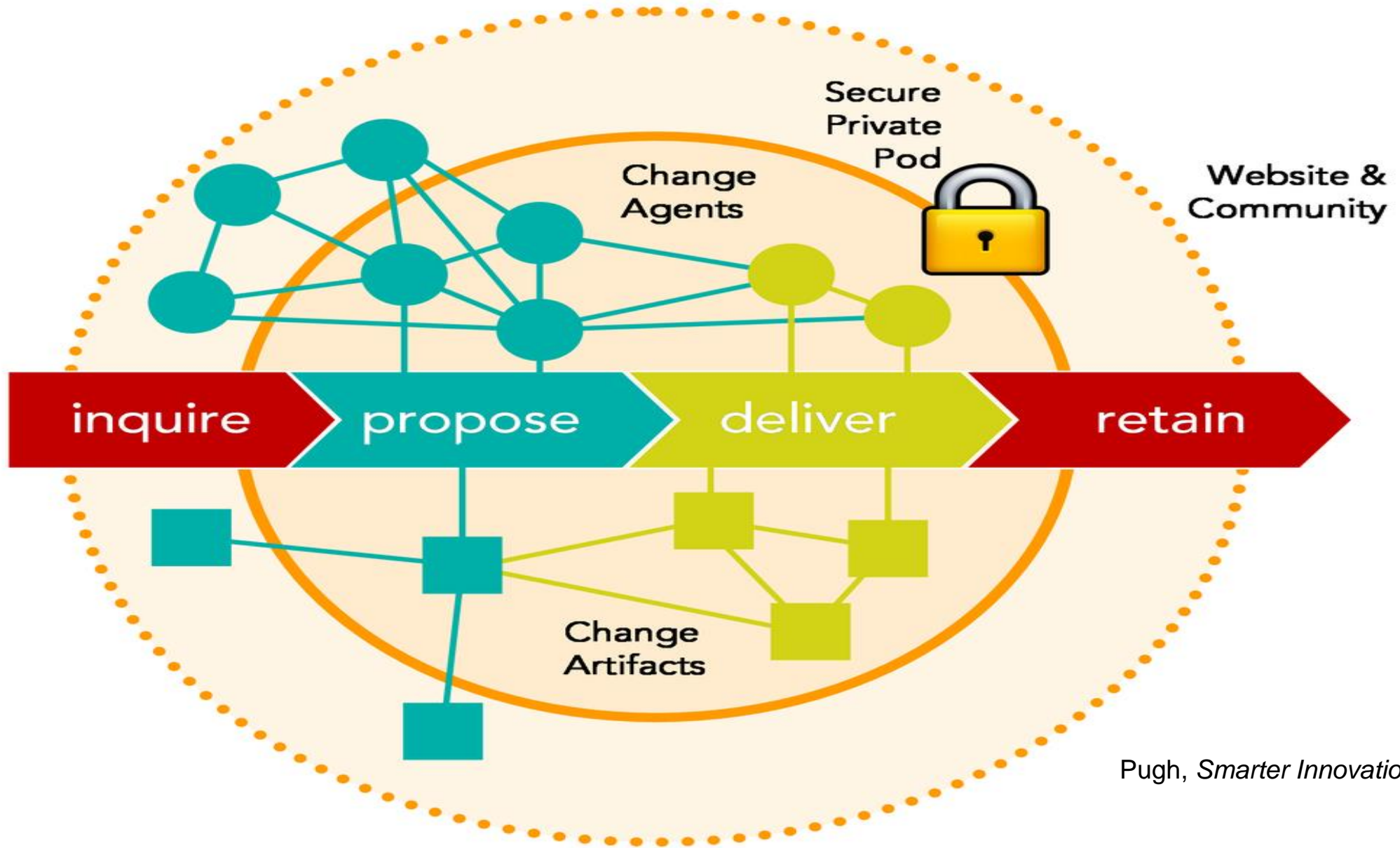


Ex: Change Agents  
Worldwide (virtual  
networked  
organization)

Pugh, *Smarter Innovation*, Ark Group, 2014



# Social and Operational Integration: “Swarming” the client



Pugh, *Smarter Innovation*, Ark Group, 2014

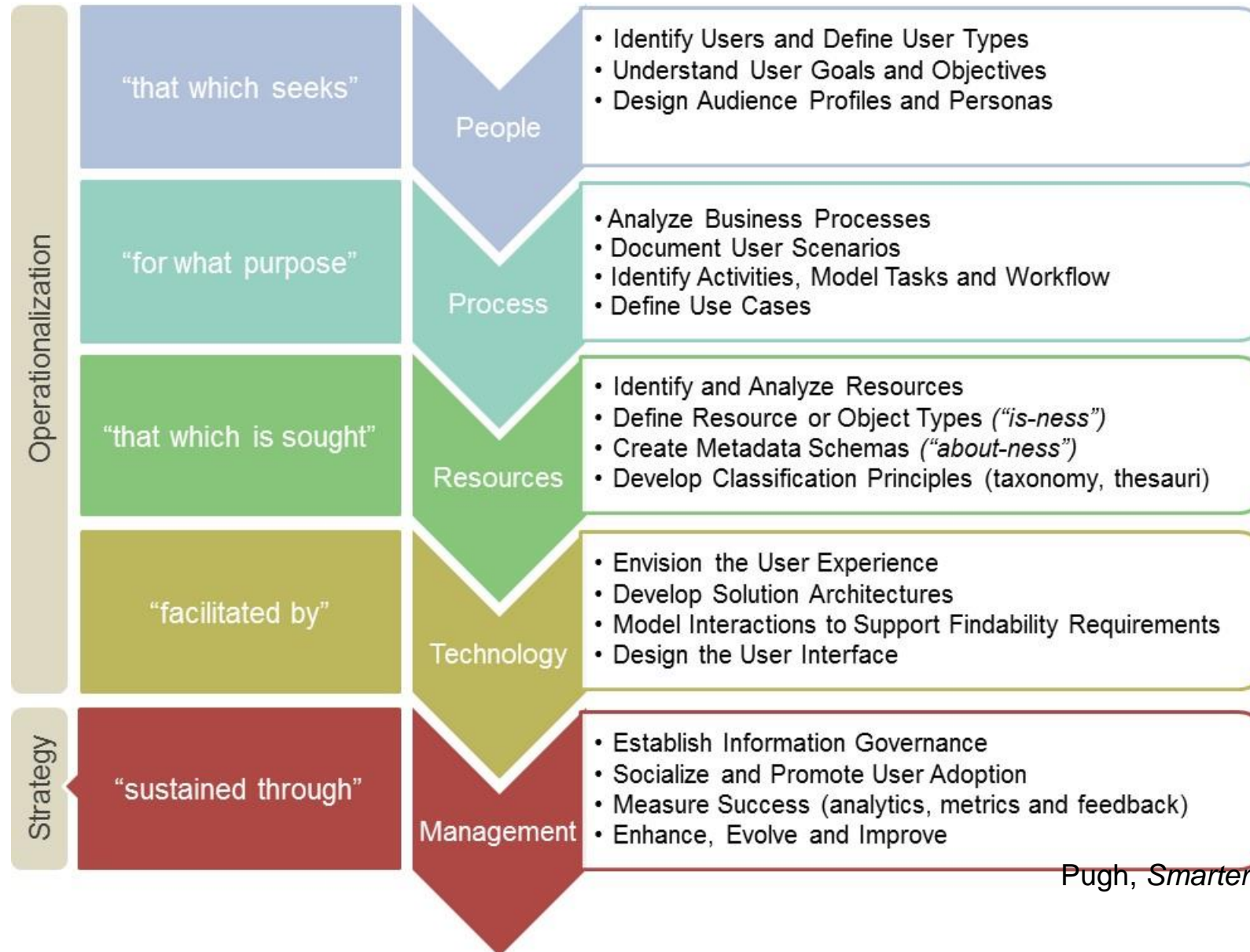
## #3. Capabilities Assessment/Development



Ex: Columbia/  
Microsoft  
(Findability  
framework)

Pugh, *Smarter Innovation*, Ark Group, 2014

# Capabilities Assessment/Development: Findability Framework



Pugh, *Smarter Innovation*, Ark Group, 2014



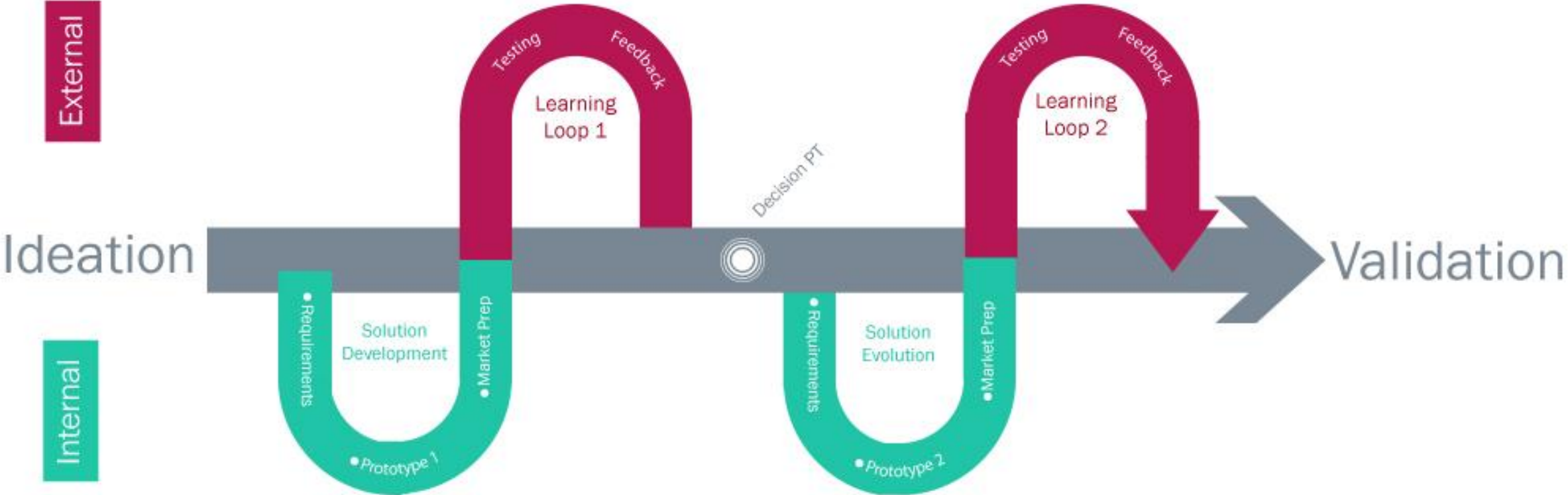
# #4. Market and environment exploration



Ex: Consulting firm helps lumbering big organizations act like entrepreneurs

Pugh, *Smarter Innovation*, Ark Group, 2014

# Market and environment exploration: “Agile execution”



“Usage is like oxygen for ideas.”

# #5. Launch



Ex: Bain&Co.  
(Net Promoter  
Score)

# Net Promoter Network: Launch

UNITE: Net Promoter Conference | 3 Weeks Left - \$400 off for you & EVERYONE you refer

Net Promoter Network®

WHY NET PROMOTER ▾

COMMUNITY ▾

BENCHMARKS

ACADEMY

SOFTWARE



## Evolve with Your Customers

Changing Perspective for a Better Customer Experience

Software for transforming your customers' experience.

Request A Demo

BENCHMARKS

# 2015

## Net Promoter Benchmarks

# 40,000

Consumers

# 330

Brands

See How Your Company Compares

ONLINE CERTIFICATION

## Get Certified, Get Ahead

Learn the Skills to Manage a  
World-Class Net Promoter Program

Gain Insights and Training to Drive Profits Now

Become a Member





# Building the Ecology for bridging and collaboration



# TJ Elliott, ETS



TJ Elliott, former ETS VP Chief Learning and Innovation Officer

## Individual Practices

- ▶ Nexus skills
- ▶ Sense making
- ▶ Systems thinking

## Organization practices

- ▶ Shared language
- ▶ Consensus innovation “process”
- ▶ Multidimensional
- ▶ Benchmarking

# Herman D’Hooge, Intel



Herman D’Hooge, Innovation Strategist,  
former Intel Sr. Principal Engineer

## Individual Practices

- ▶ Mindfulness
- ▶ “Desire-to-know,” not “need-to-know”

## Organization practices

- ▶ “Open-space” v hyper-programmed
- ▶ Inter-org swaps, sabbaticals, laterals, org mash-ups

# Madelyn Blair, Columbia, Taos Institute



## Individual Practices

- ▶ Sitting in the “white space”
- ▶ Mastering
- ▶ Deeply curious
- ▶ Attracted to the foreign
- ▶ Comfortable with ambiguity

## Organization practices

- ▶ “Essays in two voices”

Madelyn Blair, Ph.D., author of *Riding the Current*

**Today**





# Innovation is collaborative and non-linear – but discipline helps!



1. Bridge (find your bean)

2. Road test with the help of people who are different

3. Assess capabilities (and build them)

5. Launch (and do it again)!

4. Scan the market (know the stapler)



# Kate Pugh, EY, Columbia University



## *Smarter Innovation: Using interactive Processes to Drive Better Business Results*

(Ark Group)

## *Sharing Hidden Know-How (Jossey-Bass, Wiley)*

[www.sps.Columbia.edu/ikns](http://www.sps.Columbia.edu/ikns)

Twitter: katrinapugh

