KCoNNect2017

KNOWLEDGE SHARING & LEARNING FOR CONTINUOUS IMPROVEMENT

IKI-SEA

THE INSTITUTE FOR KNOWLEDGE & INNOVATION SOUTH-EAST ASIA

BANGKOK UNIVERSITY

Driving Innovation with Communities of Practice

Vincent Ribière (Ph.D)

IKI-SEA Managing Director
Bangkok University - Thailand

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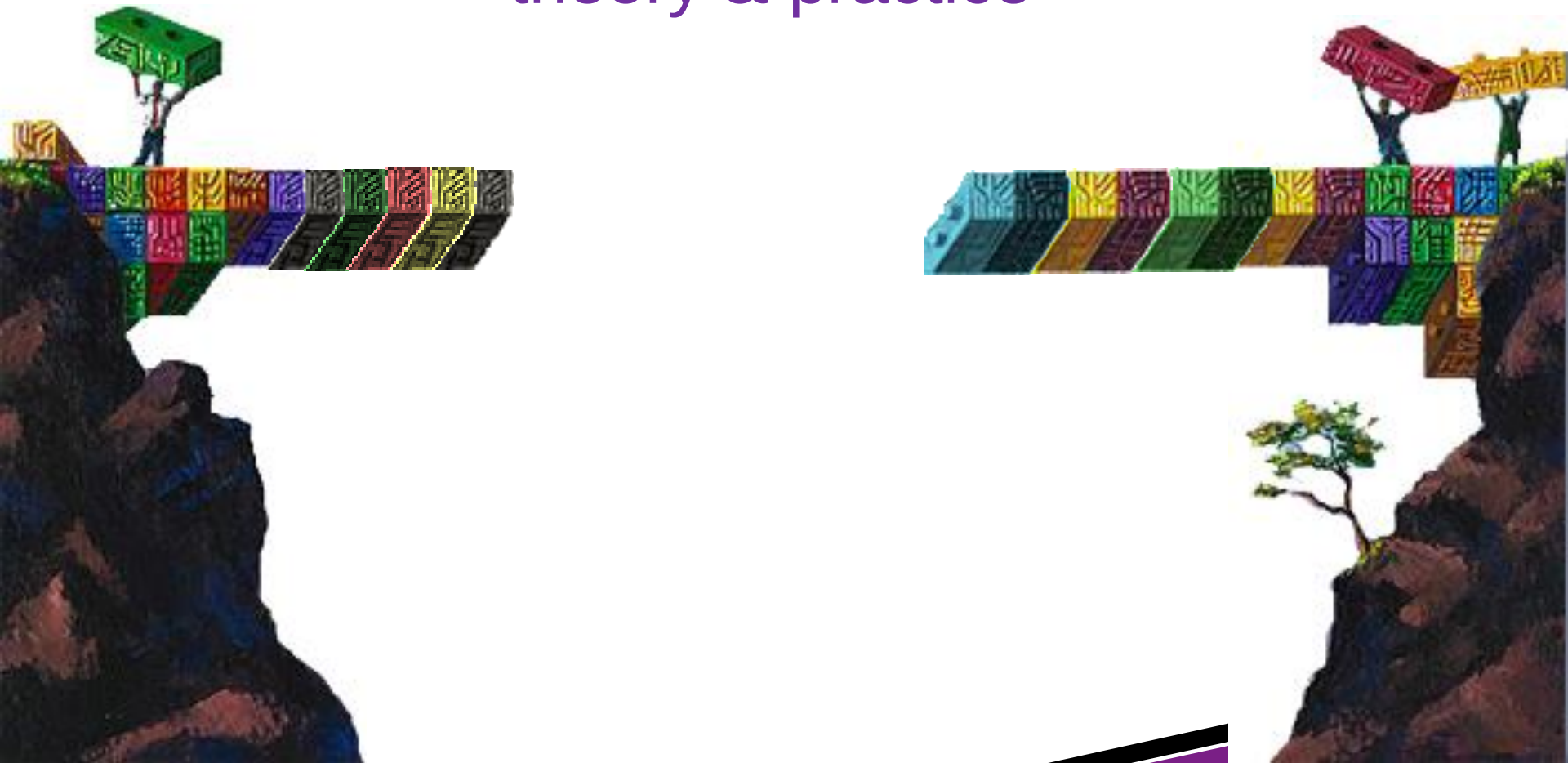
Center of Excellence of Bangkok University specialized in KM and Innovation Management

Bridging the gap between theory & practice



IKI-SEA International Team

IKI-SEA Activities

Knowledge Management
Innovation Management
Creativity Management

BANGKOK UNIVERSITY
THE CREATIVE UNIVERSITY
PhD-KIM
Knowledge and Innovation Management

MBI

ASCIM
ASIAN SYMPOSIUM ON CREATIVITY & INNOVATION MANAGEMENT

CREATIVE MORNINGS
BANGKOK

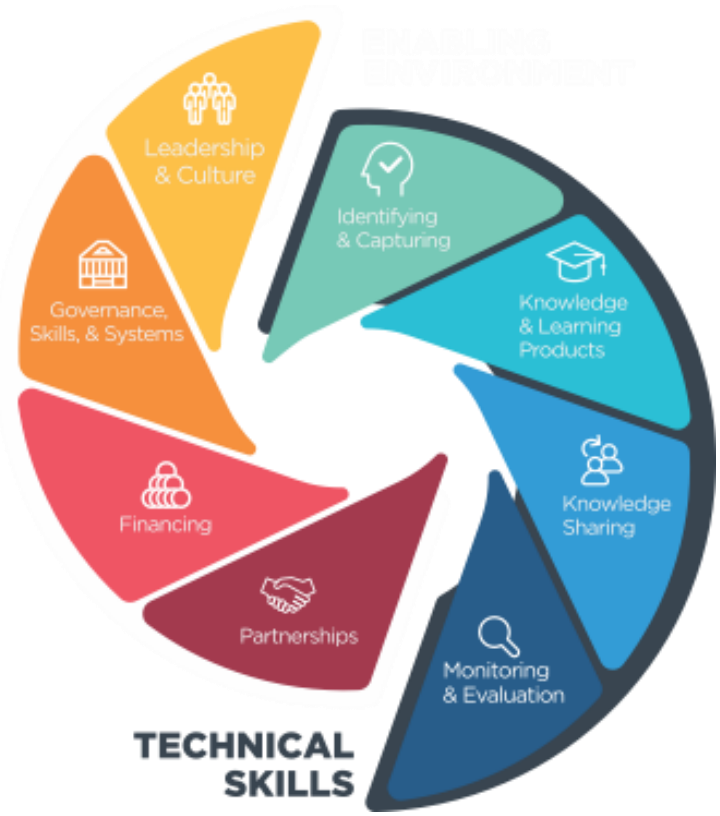
Fuckup
www.fuckupnights.com

KM
GLOBAL NETWORK

iklub
The Innovation and Knowledge Management Club

Organizational Knowledge Sharing Certificates

In partnership with the WORLD BANK GROUP



Becoming a Knowledge Sharing Organization

Two certificates in Bangkok:

- OKS Strategy Certification Program
  May 29th-June 2nd,2017
- OKS Technical Certification Program
  June 5th- June 9th, 2017

https://kmglobalnetwork.net

KM Global Network

9 International Communities of KM Practitioners United

http://kmglobalnetwork.net

9 Members of KM Global Network

KM GLOBAL NETWORK

香港知識管理學會 Hong Kong Knowledge Management Society

ikms Information & Knowledge Management Society

AuSKM

LASSIB Society

知 KMSJ 日本ナレッジ・マネジメント学会 Knowledge Management Society of Japan

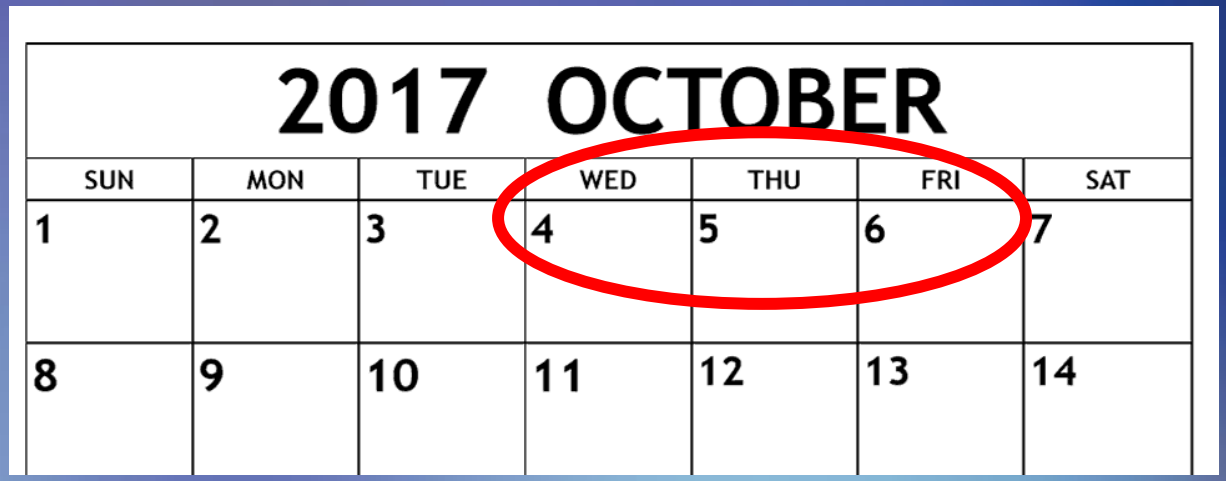
KM RUSSIA

I²KI

iklub The Innovation and Knowledge Management Club

CLUB GESTION DES CONNAISSANCES

Upcoming KMGN Conference in Bangkok



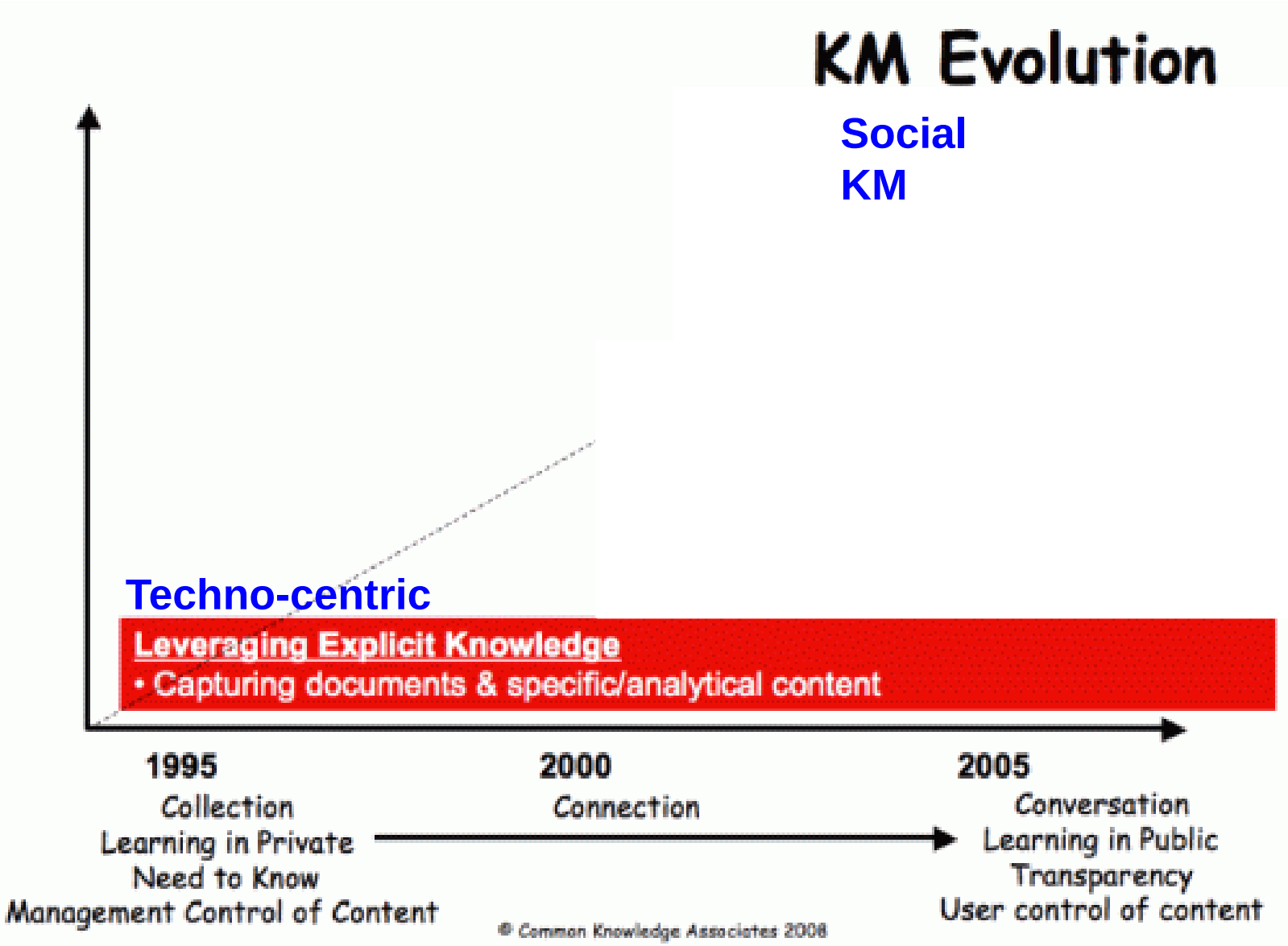
More info coming soon …

IKI-SEA clients

KCoNNect2017

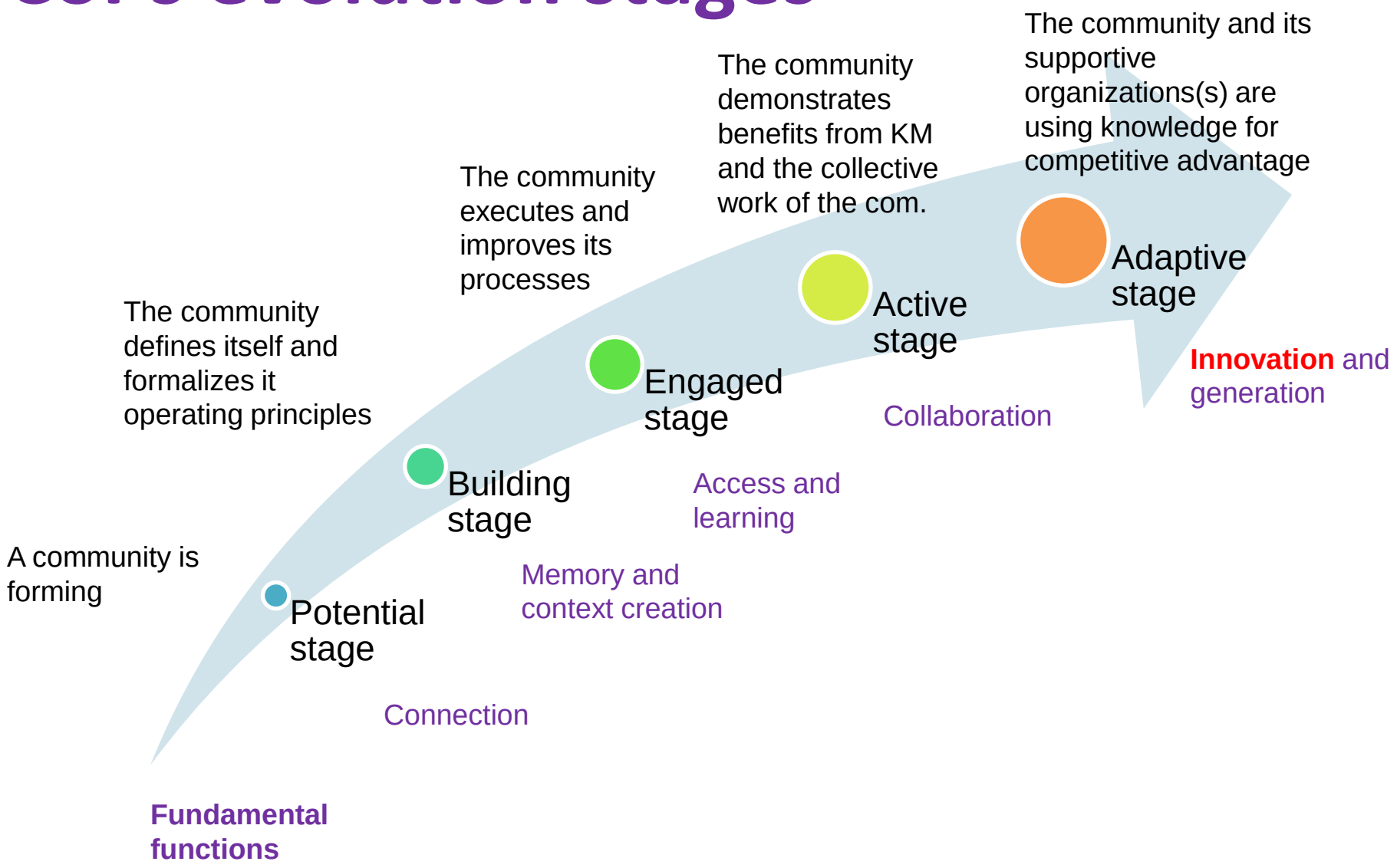
KNOWLEDGE SHARING & LEARNING FOR CONTINUOUS IMPROVEMENT

Driving Innovation with Communities of Practice



Source: Nancy Dixon

CoPs evolution stages

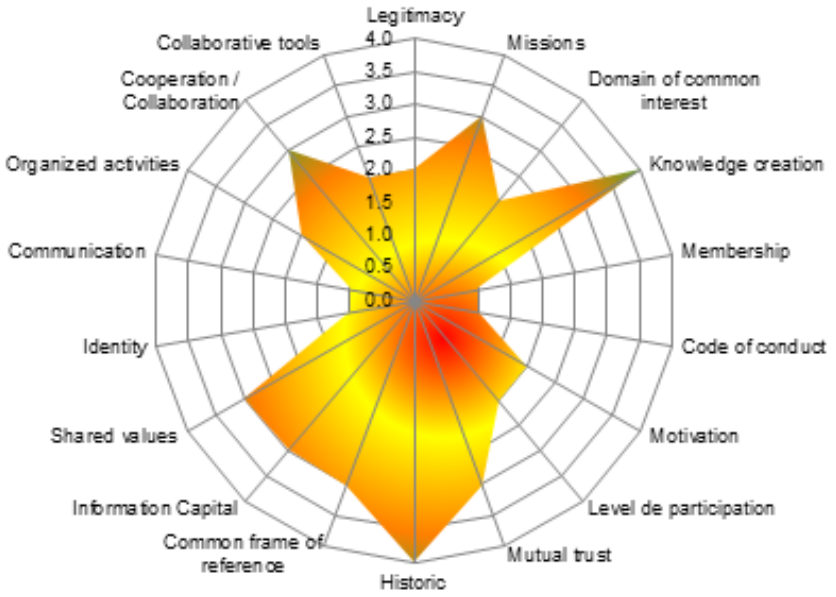


(Gongla, Rizzuto, 2001)

CoMM tool (CoP Maturity Model)

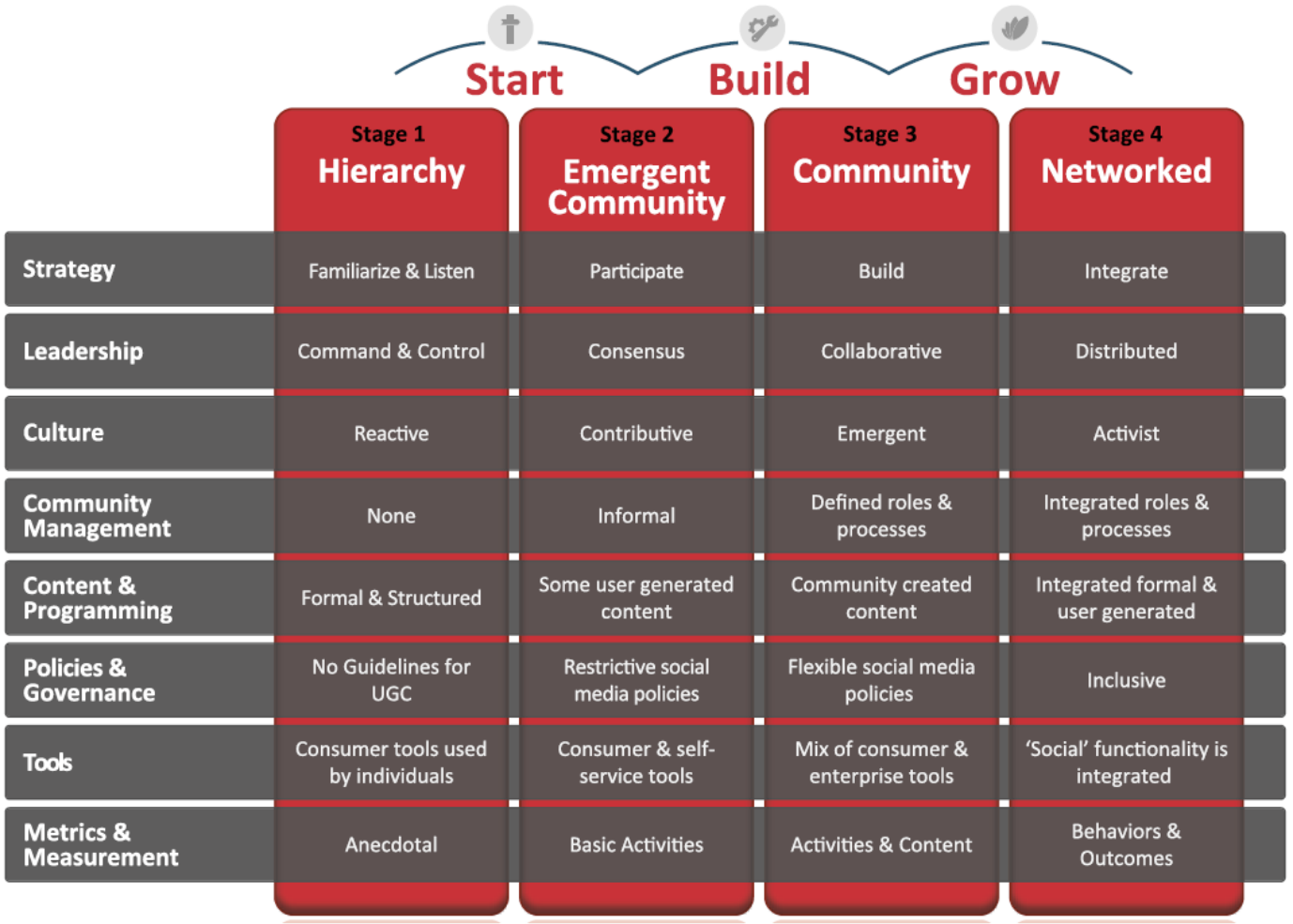
- Based on Etienne Wenger CoP concepts

Theme		Criteria	Level	Average per theme
JOINT ENTERPRISE	1	Legitimacy	2.0	2.8
	2	Missions	3.0	
	3	Domain of common interest	2.0	
	4	Knowledge creation	4.0	
MUTUAL ENGAGEMENT	5	Membership	1.0	1.8
	6	Code of conduct	1.0	
	7	Motivation	2.0	
	8	Level de participation	2.0	
	9	Mutual trust	3.0	
SHARED HERITAGE	10	Historic	4.0	2.8
	11	Common frame of reference	3.0	
	12	Information Capital	3.0	
	13	Shared values	3.0	
	14	Identity	1.0	
COLLABORATIVE WORK	15	Communication	1.0	2.0
	16	Organized activities	2.0	
	17	Cooperation / Collaboration	3.0	
	18	Collaborative tools	2.0	



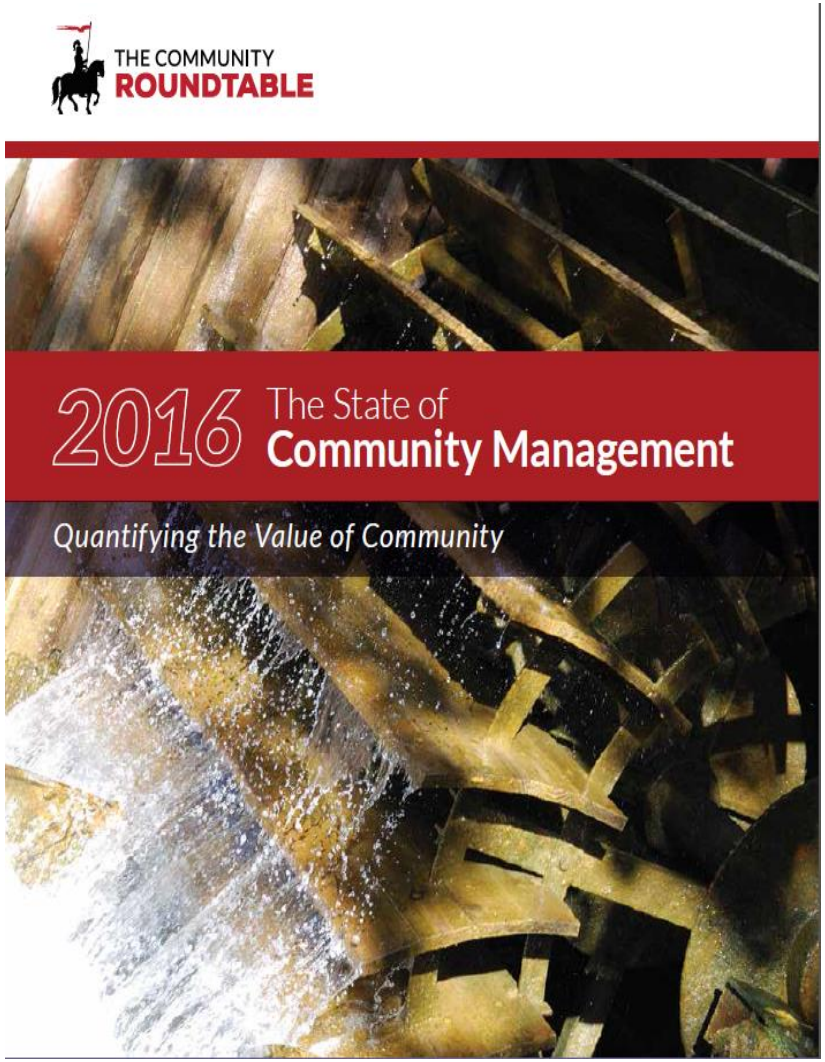
The Community RoundTable Maturity Model

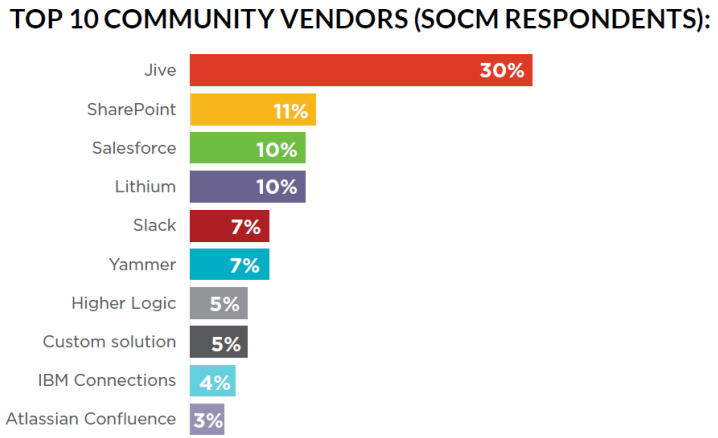
The eight competencies in the model are the building blocks of a productive community.



The four maturity stages track how communities evolve.

Free Annual Report



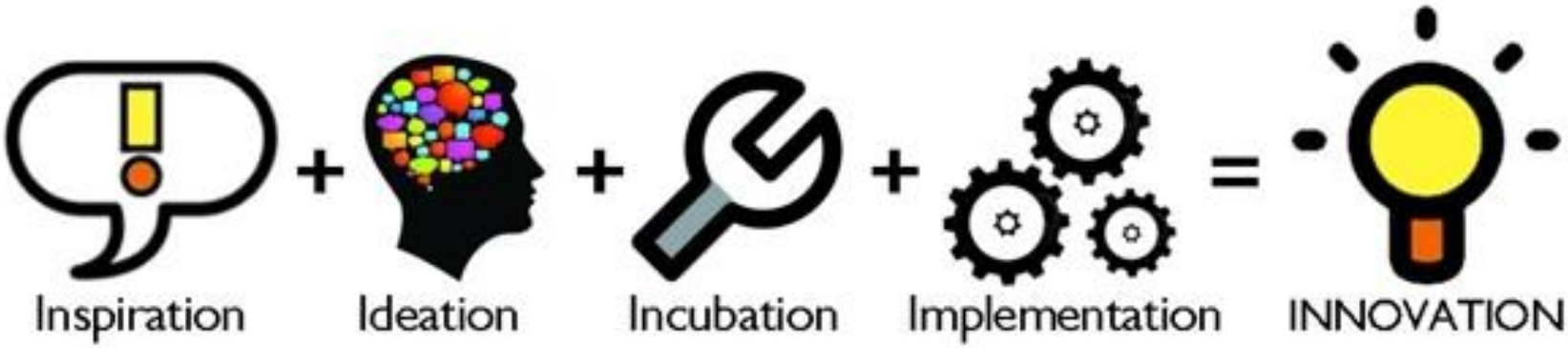


www.Community Roundtable.com

Innovation Definition:

Innovation is
the transformation of an idea
into a successful product, service,
process of business model
that will deliver new business value

Innovation Definition:



2 levels of Innovation:

Core/Incremental Innovation

Improve today's business either by:

- Enhancing existing offerings

or by

- Improving internal operations

or by

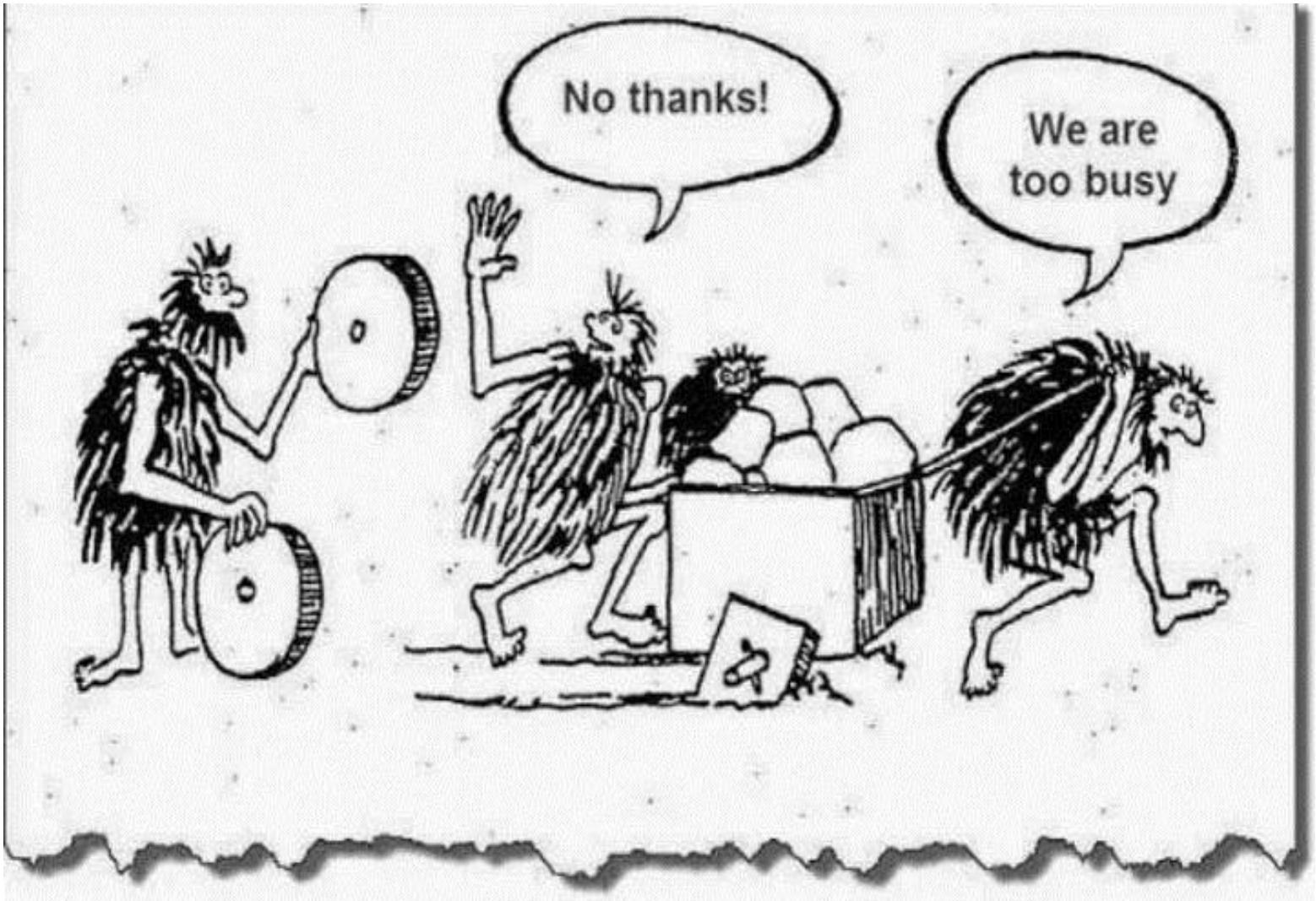
- Adopting/Deploying a breakthrough technology

Transformational innovation

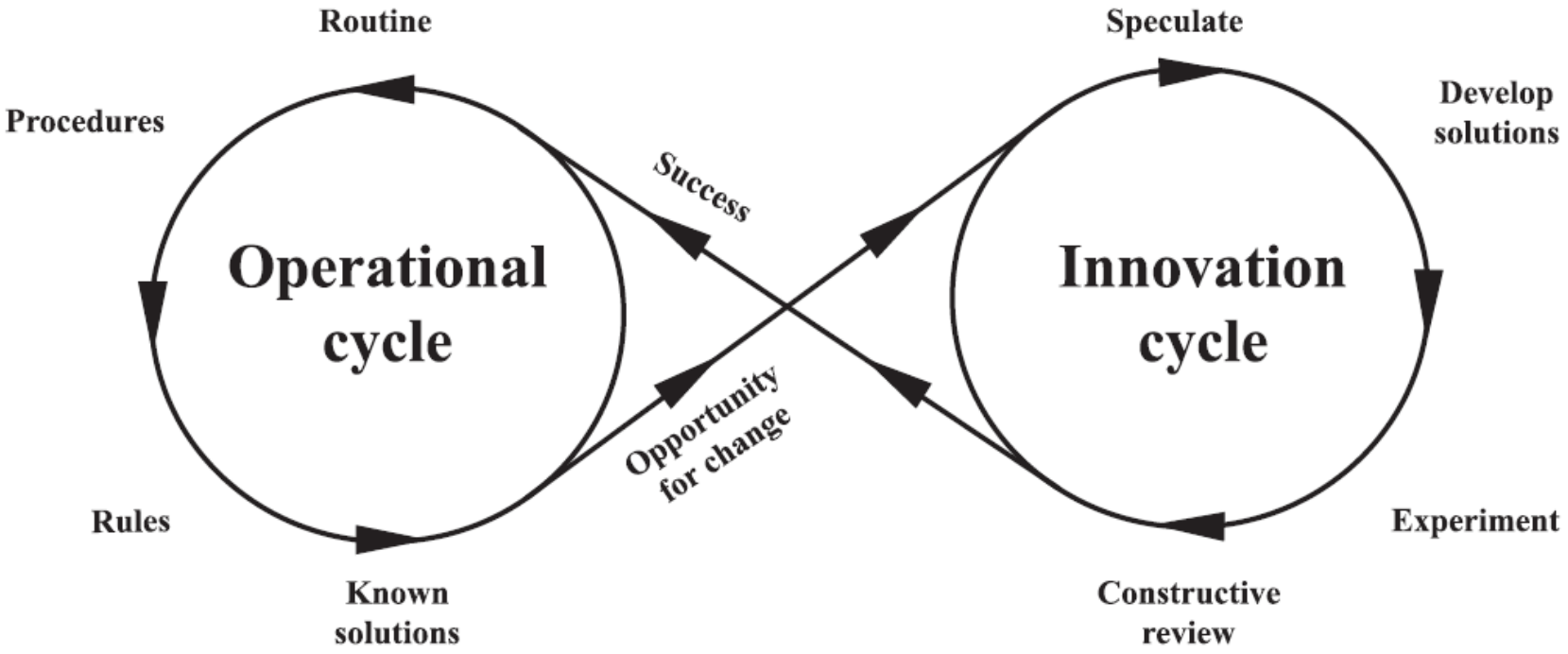
"New to the company business"

Generates new growth by:

- Reaching new customers segments
- New markets
- Developing new business models
- Radical new ways of operating and working
- Adopting/Deploying a disruptive technology


No thanks!
We are too busy

Innovation levels



Continuous improvement
Problem driven (incremental) innovation

Systematic innovation
"transformational"

Adapted from ***JONNE CESERANI***

No one lives long enough to learn everything they need to learn starting from scratch.

- Brian Tracy

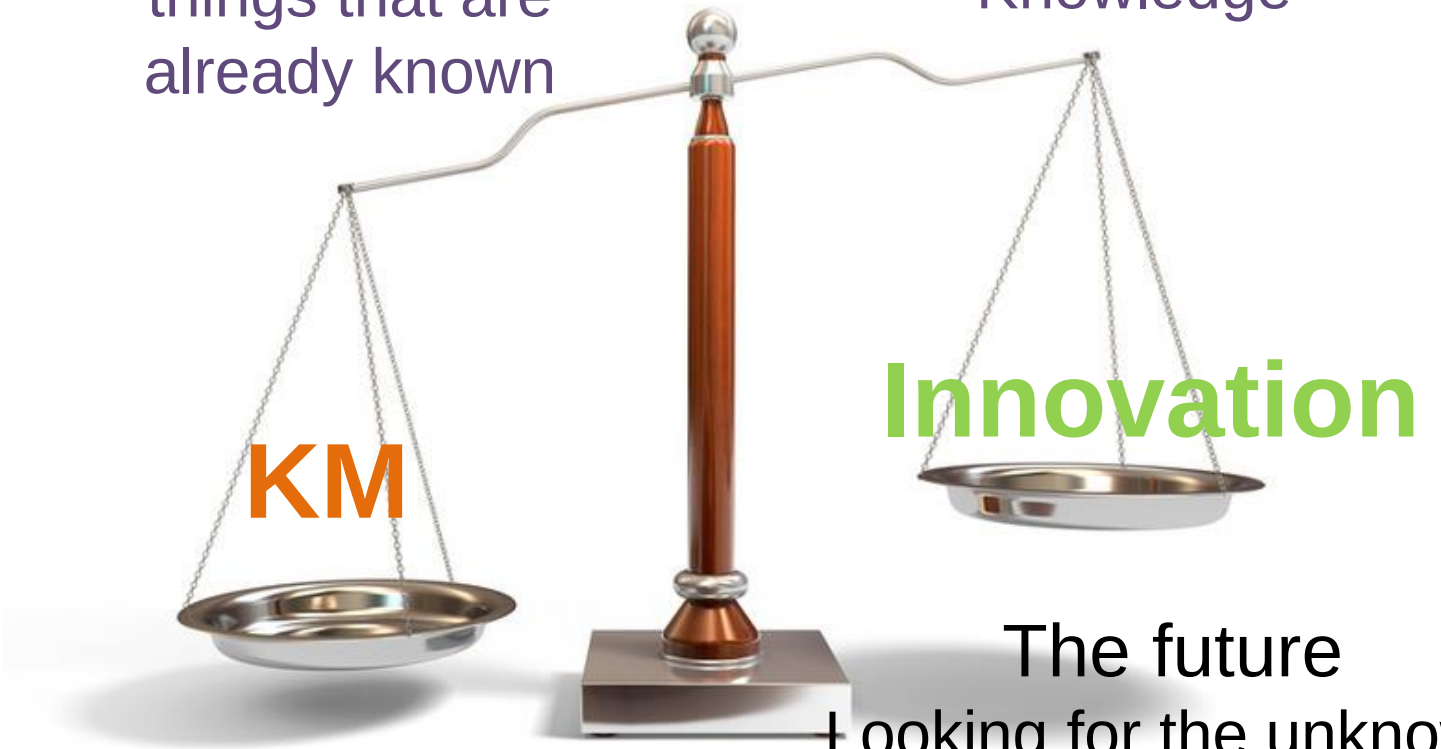
If I have seen further,
it is by standing
ON THE SHOULDERS
OF GIANTS.

- Isaac Newton

KM and Innovation - Contradictory?

The use and development of things that are already known

Doing something different, attain new Knowledge

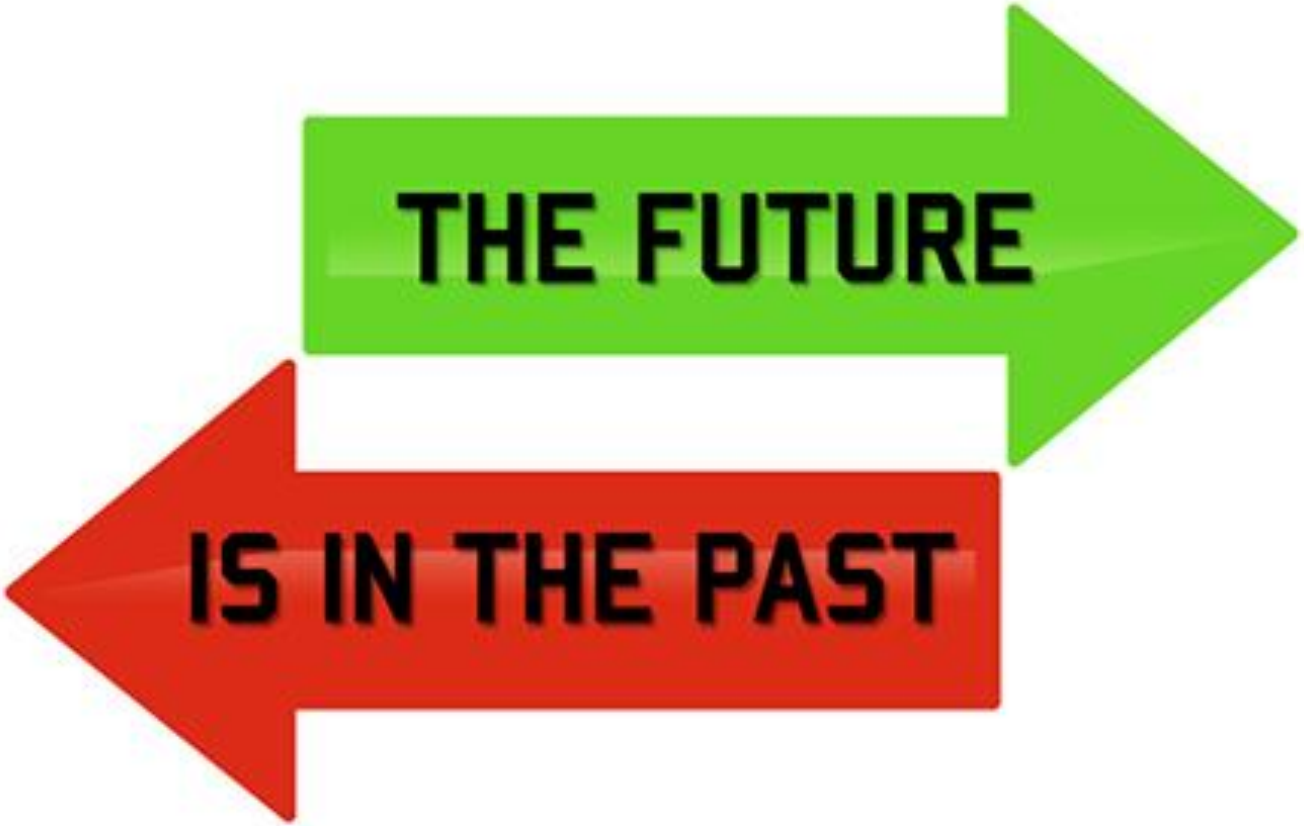


The Past

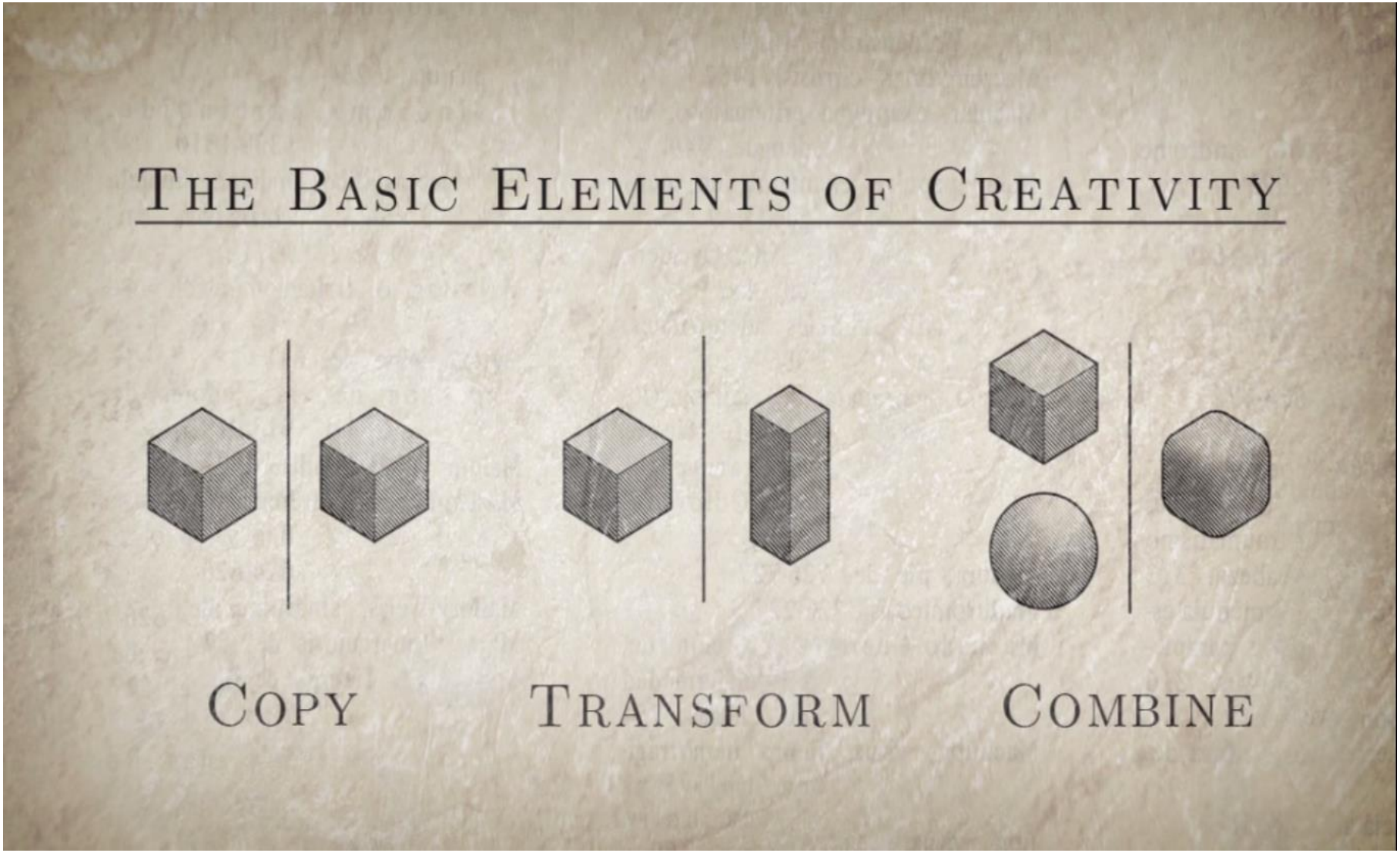
Managing “Old” knowledge

The future

Looking for the unknown “New” knowledge

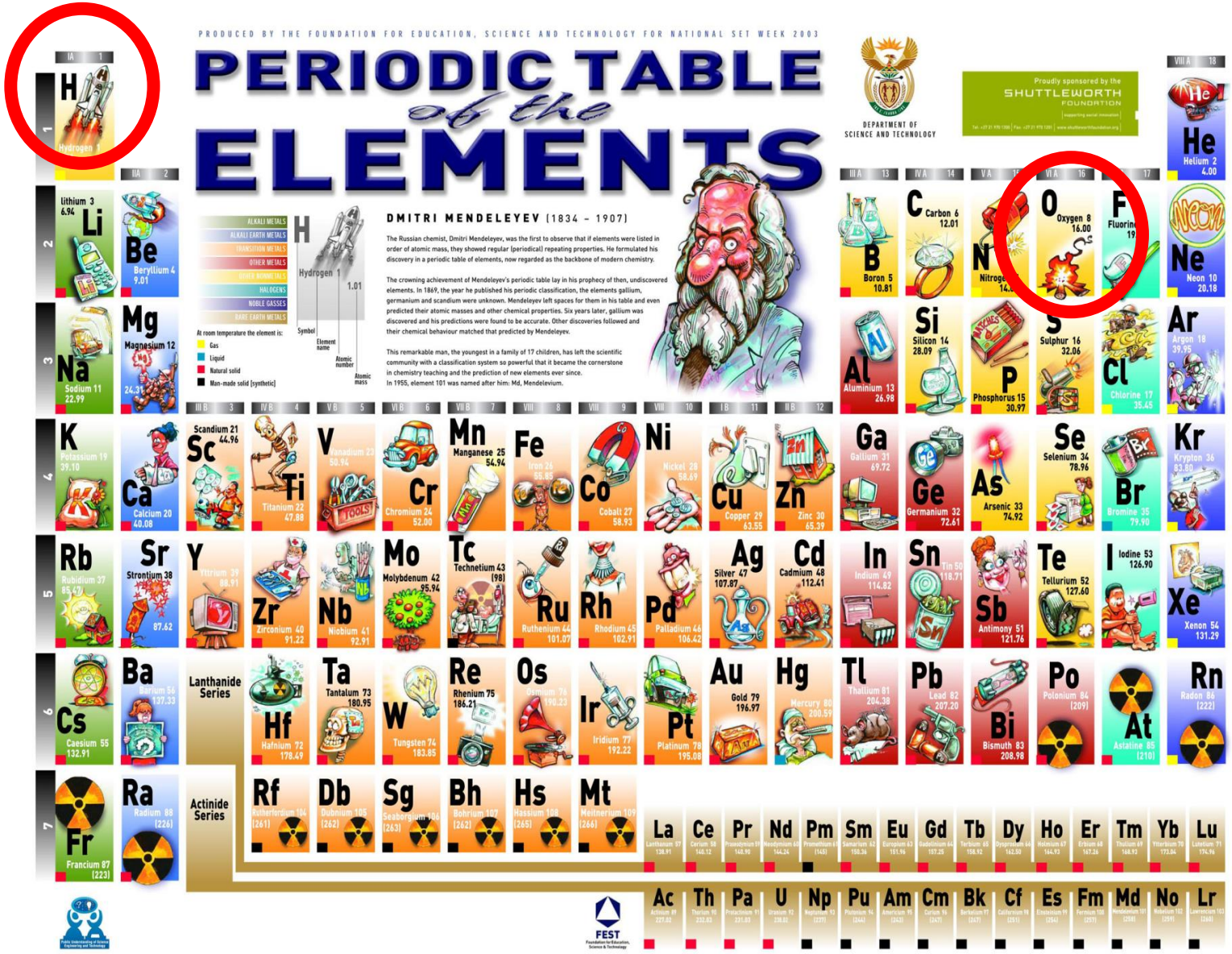

THE FUTURE
IS IN THE PAST

Is everything a remix?

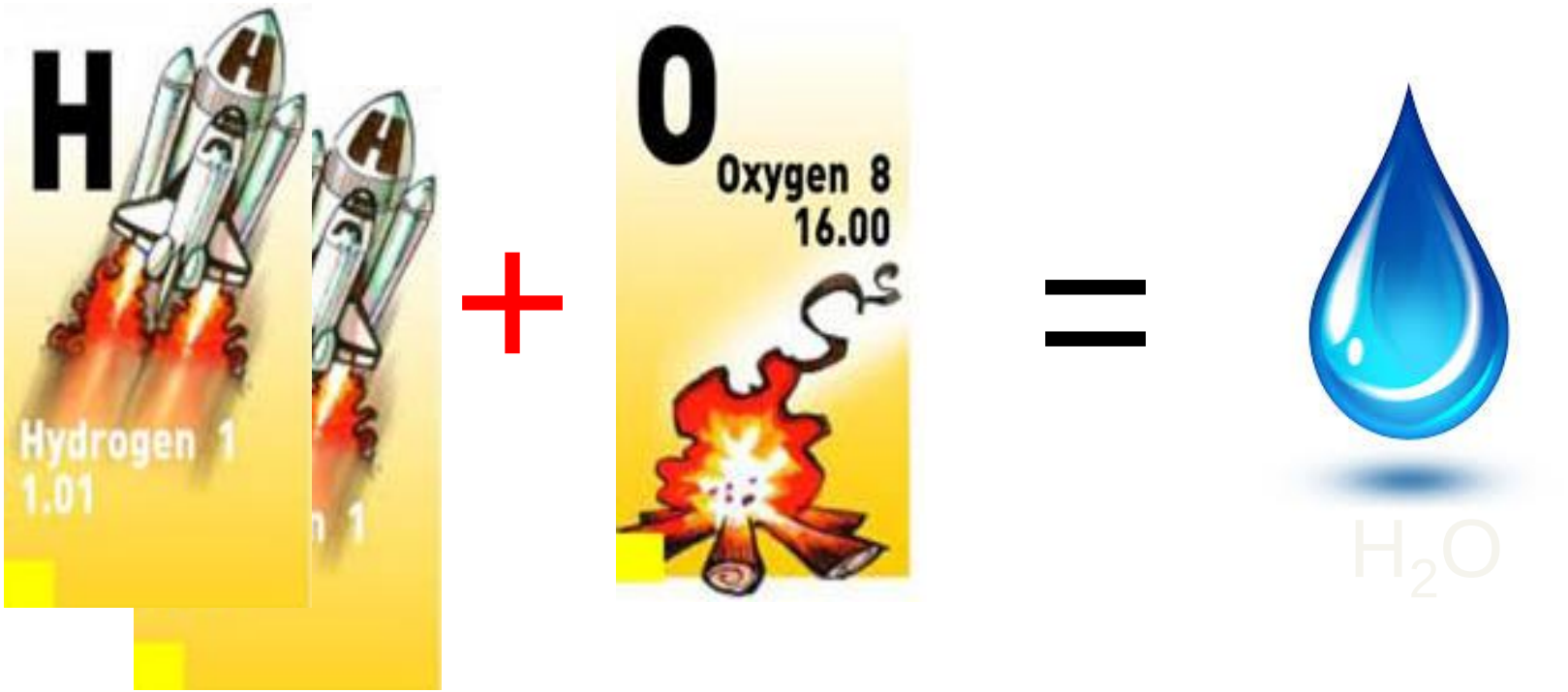


http://everythingisaremix.info/watch-the-series/

Periodic Table of Elements



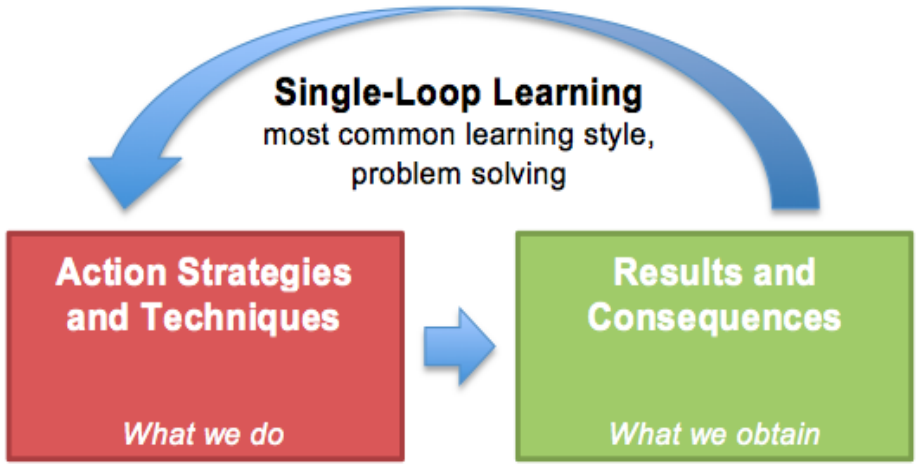
Periodic Table of Elements



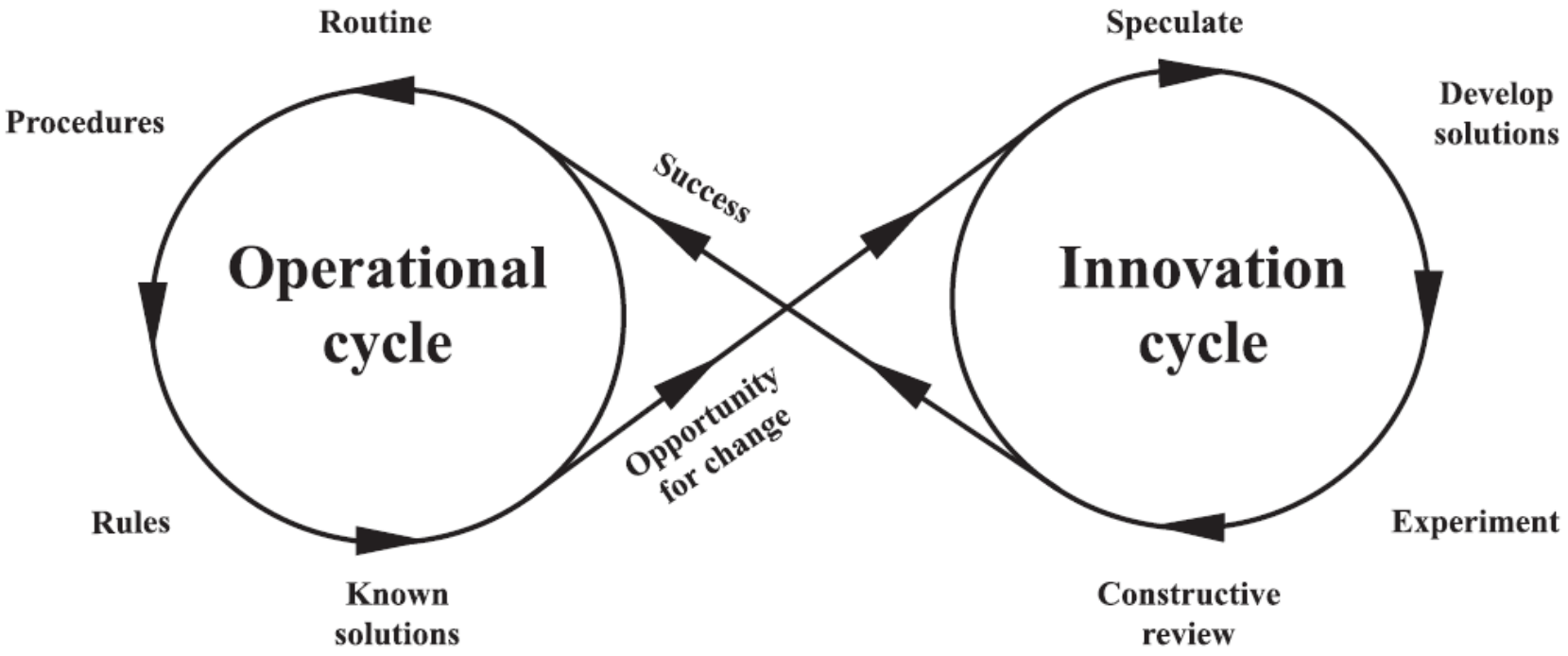
The Muppet Show

Sesame Street

Single and Double Loop Learning



Cycling Worlds

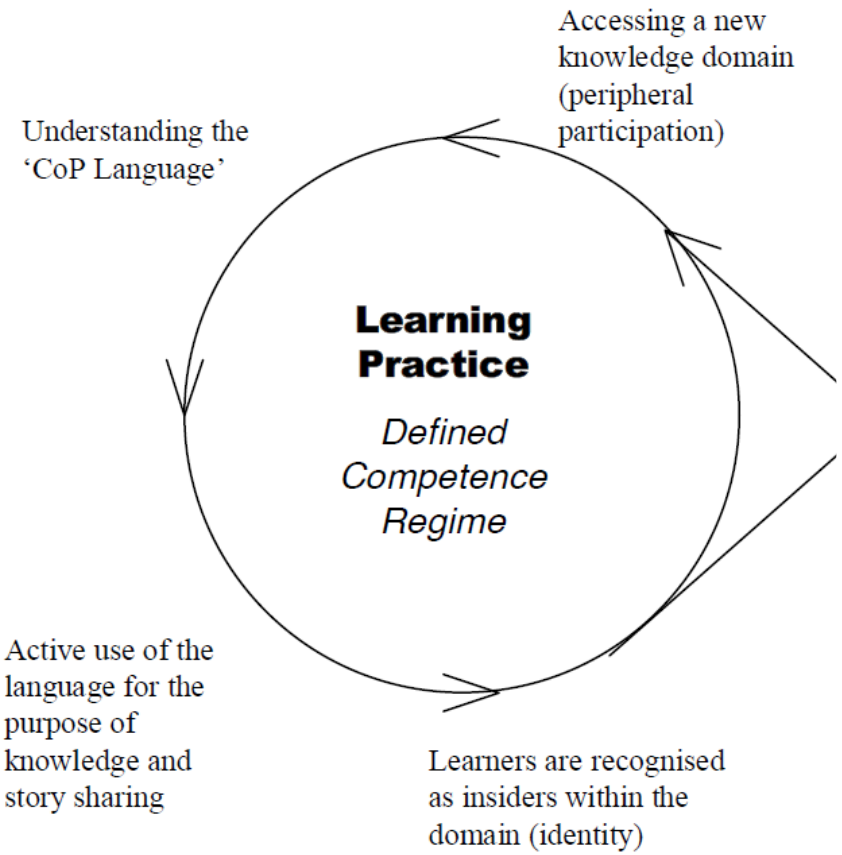


Single loop learning

Double loop learning

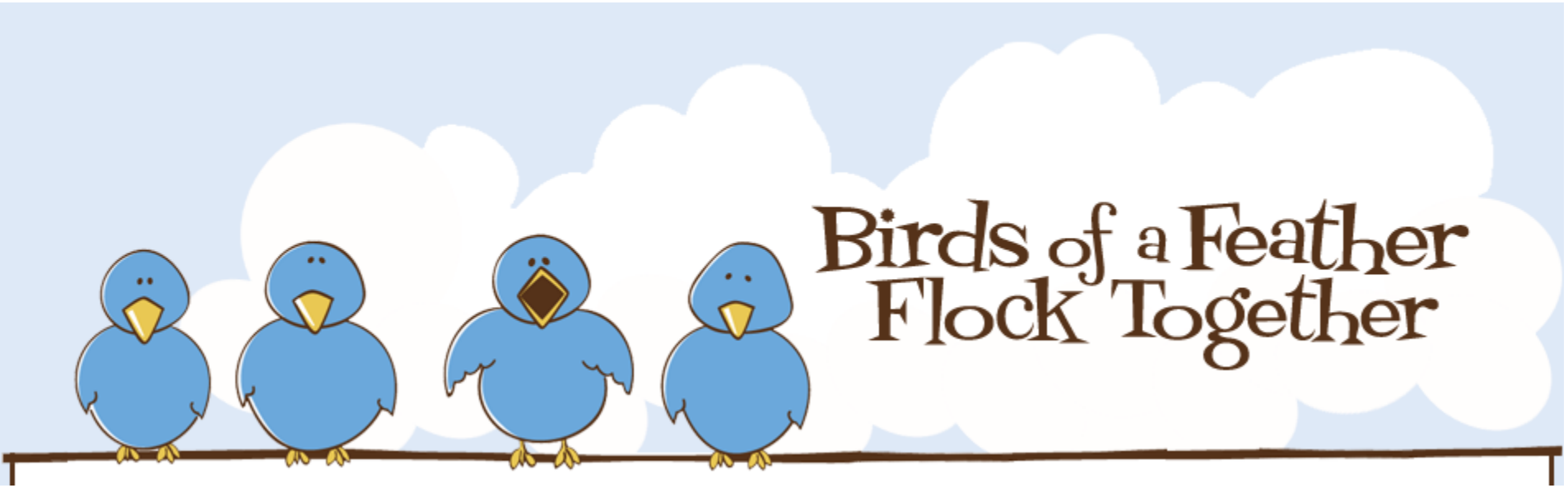
Source: JONNE CESERANI

Learning and Innovation in CoPs



(Justesen, 2004)

CoP Homophily



A need for members diversity in CoPs

Skills

Abilities

Cognition

5 Innoversity drivers for CoPs

- **Absorptive capacity** (Cohen Levinthal, 1990)

  Ability to recognize the value of new, external information, assimilate it and apply it.

- **Requisite Variety**

  Ability to control discontinuities/perturbations

- **Network Variety**

  Ability to tap into broad networks of contacts

- **Creative Destruction** (Levitt, 1962)

  Being willing to destroy the old in the heart of innovation and the means to profits

- **Problem Solving**

  Diversity of perspectives and points of views

(Justesen, 2004)

CASE STUDIES

BOMBARDIER OVERVIEW

Bombardier Aerospace Activities
(Fiscal year ended December 31, 2014)

- Revenues: $10.5 billion
- Customers in more than 100 countries
- Presence in 26 countries
- Employees: 34,100
- Headquarters in Montréal, Canada

Bombardier Transportation
(Fiscal year ended December 31, 2014)

- Revenues: $9.6 billion
- Customers in more than 60 countries
- Presence in 41 countries
- Employees: 39,700
- Headquarters in Berlin, Germany

BOMBARDIER
the evolution of mobility

BOMBARDIER OVERVIEW

We offer a broad aircraft portfolio

Business Aircraft

Learjet Family

Challenger Family

Global Family

Commercial Aircraft

Q-Series Turboprops

CRJ Family

CSeries Family

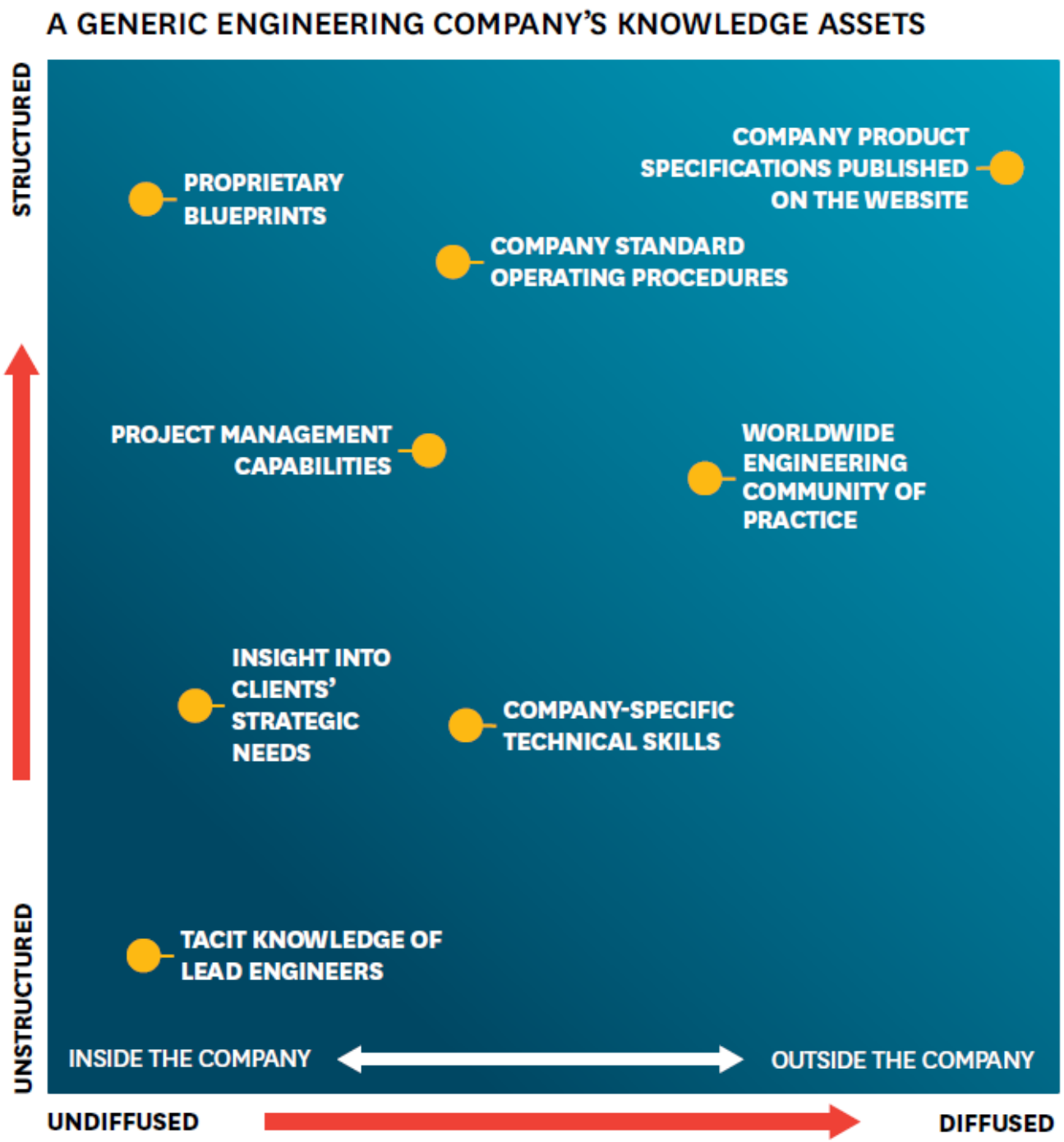
Specialized Aicraft

Amphibious

KNOWLEDGE DOMAIN SUPPORT

28 Engineering Communities of Practice

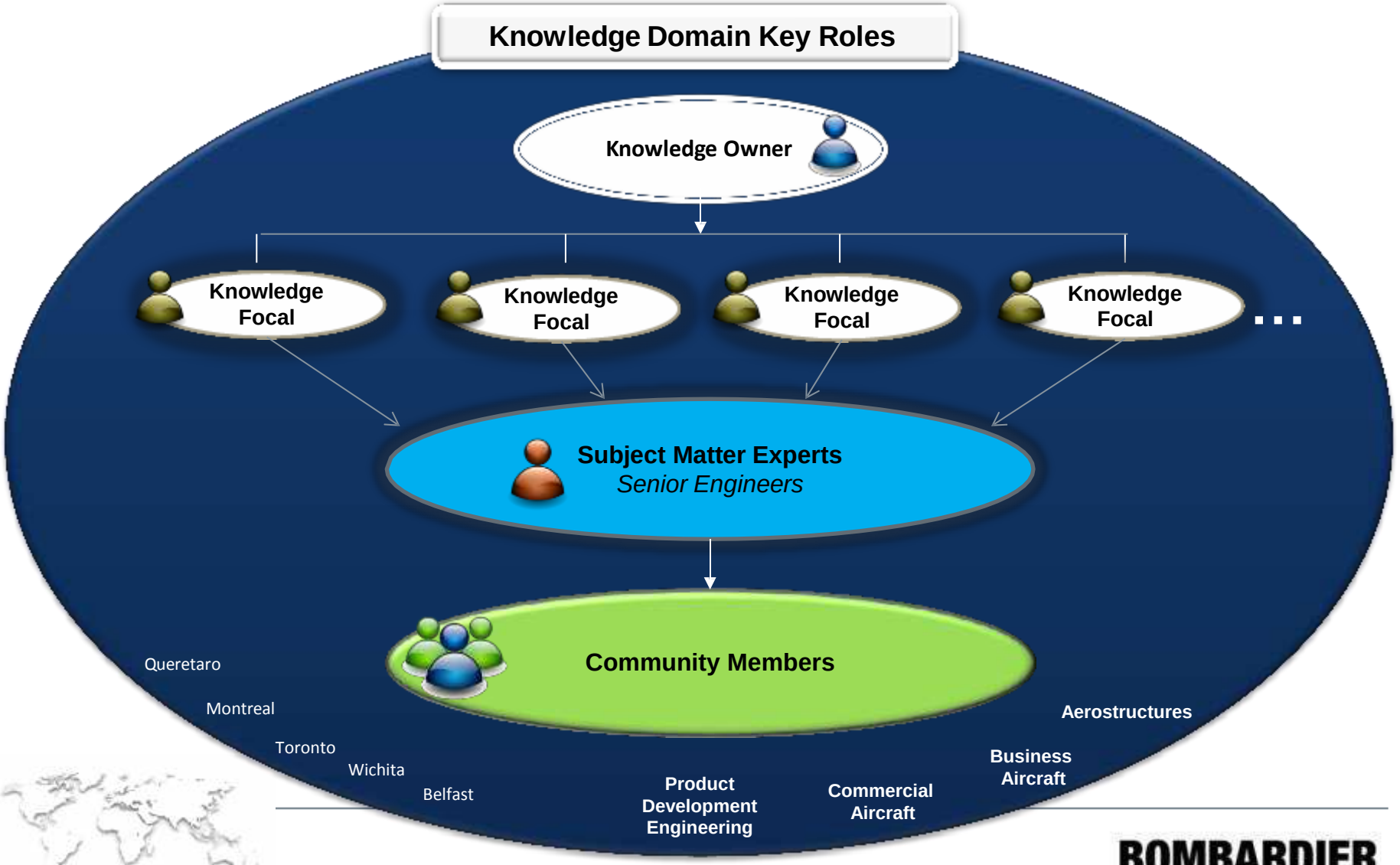
KNOWLEDGE DOMAINS	
Acoustics	Flight Test
Aerodynamics	Flight Deck Design
Aircraft Configuration	Loads & Dynamics
Airworthiness	Mass Properties
Airframe Structure	Materials and Processes
Avionics	Pneumatics
Cabin Interior	Product Integration
Cabin Systems	Program Management
Configuration Management	Project Management
Control Systems	Propulsion
Electrical	Reliability Maintenance & Safety
Electronic Equipment Design Assurance	Stress
Electromagnetism	System Simulation
Experimental	Thermodynamics



The Knowledge domains Cops serve as a catalyst to develop Patents and IP

Managing Your Mission Critical Knowledge (HBR 2015)

KNOWLEDGE DOMAIN SUPPORT
Structure

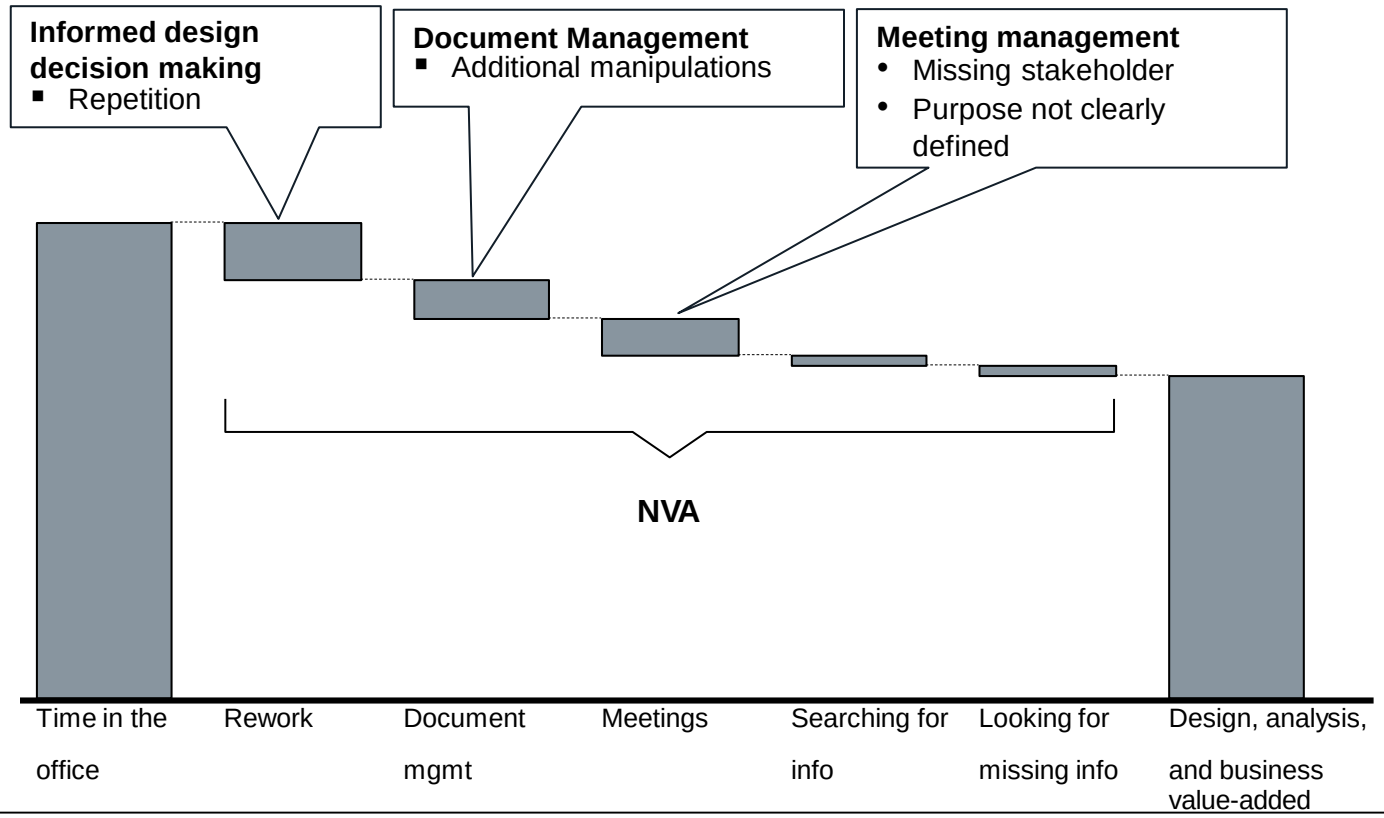


BOMBARDIER
the evolution of mobility

KNOWLEDGE MANAGEMENT JOURNEY

Case for change

Engineers report more than 30% of their time in office is spent on non value-added (NVA) tasks



KNOWLEDGE MANAGEMENT JOURNEY

Case for change

BEFORE:

1. Multiple uncoordinated databases
2. Poor search functionalities
3. A loose network of engineers
4. Experts fire fighting on programs
5. Existing knowledge that is not shared
6. Poor incentives to create new knowledge

REOCCURRING DESIGN ISSUES AND TIME LOSS IN SEEKING KNOWLEDGE AND EXPERTISE

NOW:

Efficient knowledge marketplace :

- Knowledge communities
- Detailed company directory
- One-stop search tool
- Codification systems for reusable knowledge

REDUCED REPEATED MISTAKES AND INCREASED EFFICIENCY FOR OUR EMPLOYEES

BOMBARDIER
the evolution of mobility

KNOWLEDGE MANAGEMENT JOURNEY

How do we support BOMBARDIER's priorities?

ACHIEVE FLAWLESS EXECUTION

Harness collective knowledge

Increase communication alignment and efficiency

Improve professional networking between experts

Provide high quality end-products

Improve organizational effectiveness & productivity

BOMBARDIER
the evolution of mobility

BOMBARDIER
the evolution of mobility

KNOWLEDGE DOMAIN SUPPORT

What's in it for knowledge domain community members?

Easily **find experienced individuals** with the most appropriate expertise across BOMBARDIER

Have **BOMBARDIER wide knowledge** documents and links at the end of your fingertips

Work through the barriers to your productivity by **reusing "what we know"**

Improved communication and bridge silos around you

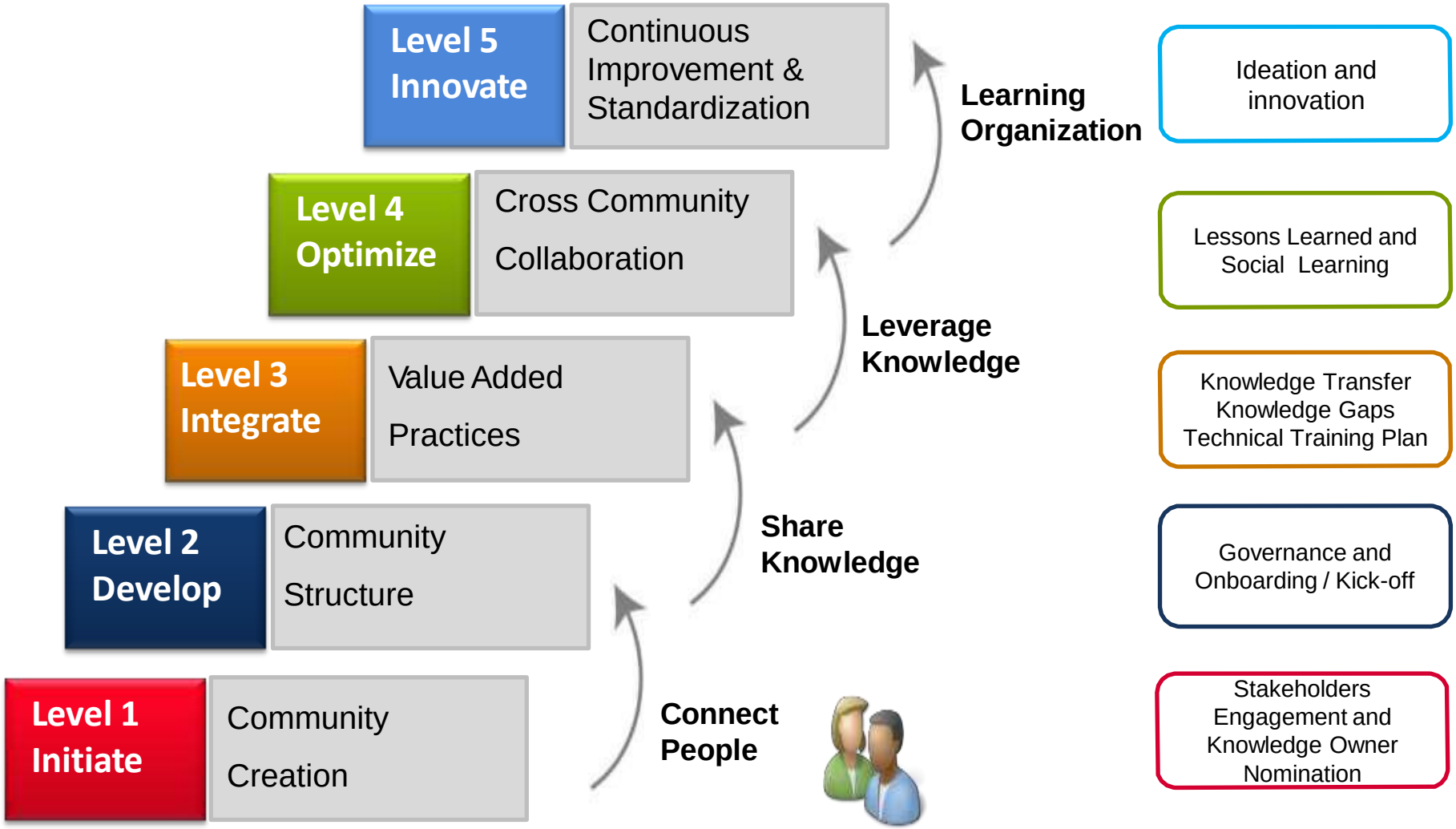
BOMBARDIER
the evolution of mobility

COLLABORATION PLATFORM
High level scope

BOMBARDIER
the evolution of mobility

KNOWLEDGE DOMAIN SUPPORT

How did the APQC's maturity model help us structure our reality?



* APQC:American Productivity & Quality Center

BOMBARDIER
the evolution of mobility

Innovation Units (IU) and CoPs

- IU closely work with knowledge owners and their community to get the latest knowledge
  - What do we know and don't know about a particular technology (knowledge gaps)?
  - What will be the level of maturity of this new technology in 24-36 months from now?

- The knowledge owners help to validate ideas/hypotheses from innovation teams

Innovation Units and CoPs

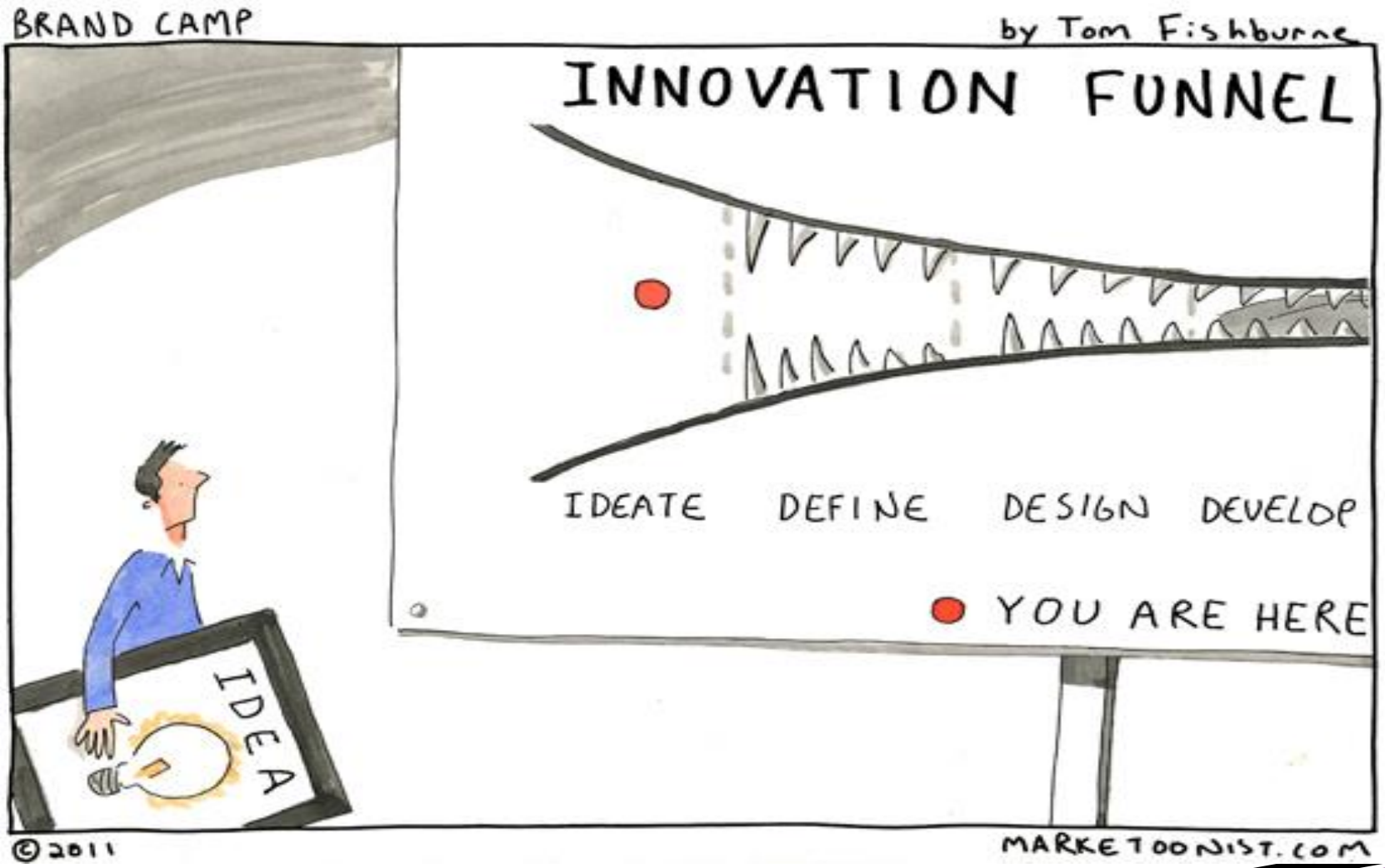
- Innovation teams ask CoPs **where improvements should be made?** (Since CoP members attend various conferences, they know what competitors are doing, read publications, …) so they can suggest new technology choices.

- CoPs serve to **crowdsource ideas** form different locations and shortlist the best ideas

Case Study #2

- Hydro-Québec is a public utility that manages the generation, transmission and distribution of electricity in Quebec (Canada)
- 20,000 employees
- Research Institute 500 employees (300 Researchers and technicians)
- CoPs has a way to manage Knowledge and to Innovate

Challenge faced



New ideas (tacit or explicit) are now first submitted to a CoP (remains confidential to the CoP)

The idea is discussed, improved, strengthened and potential markets/projects usage identified

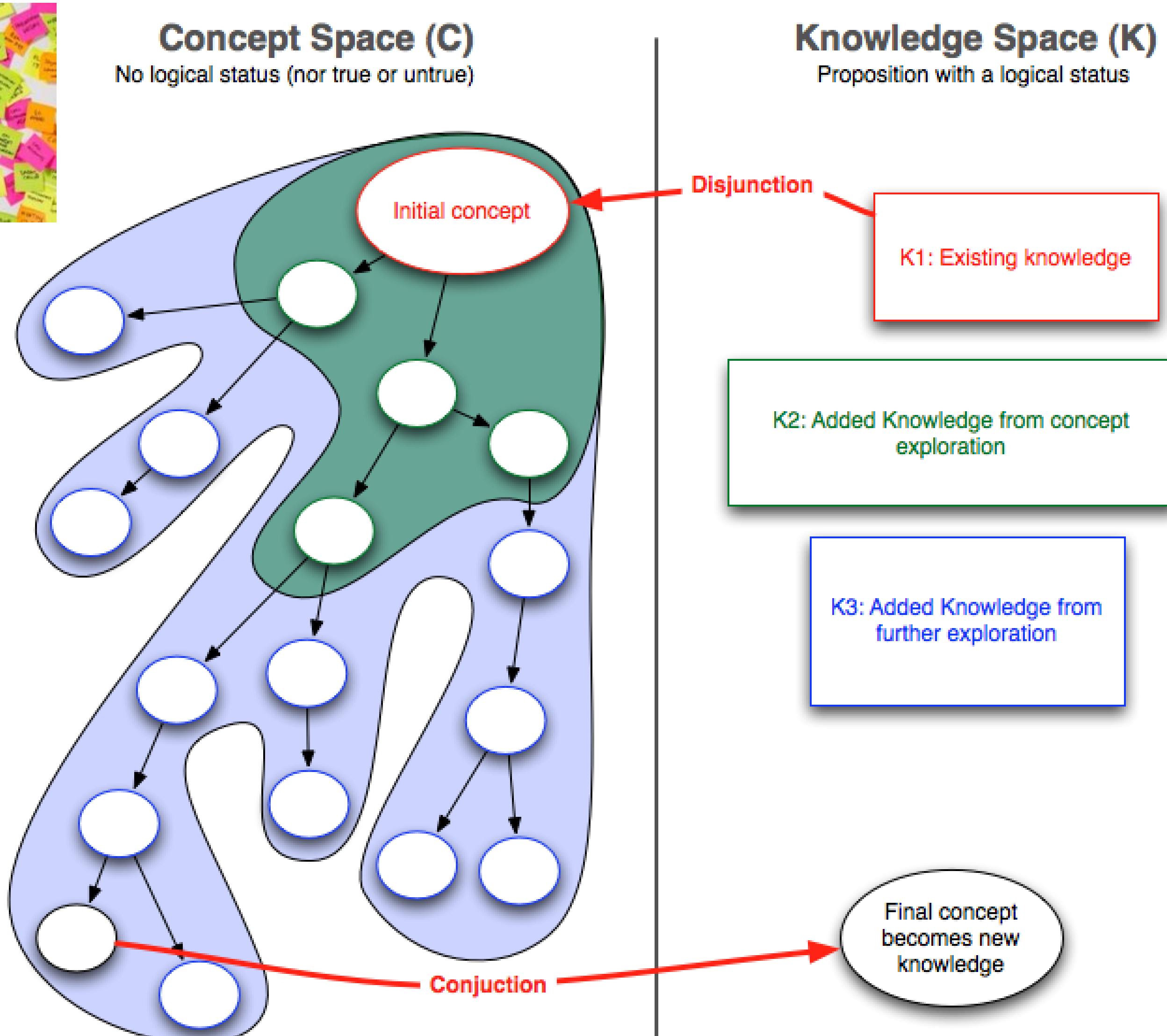
The idea is stored in an idea database

Flow between
Idea <--> Knowledge

Back to basics!
The Flow of Knowledge

SECI Model - Nonaka

C-K Theory



Concept Space (C)
No logical status (nor true or untrue)
Knowledge Space (K)
Proposition with a logical status
Initial concept
Disjunction
K1: Existing knowledge
K2: Added Knowledge from concept exploration
K3: Added Knowledge from further exploration
Conjuction
Final concept becomes new knowledge

scientific
experimental
topic
data
question
knowledge
fact
society
survey
answer
discuss
develop
tests
subject
research
testing
sample
support
development
structure
idea
practical
work
expansion
write
information
practice
understanding
law
step
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C-K Theory

Concept space

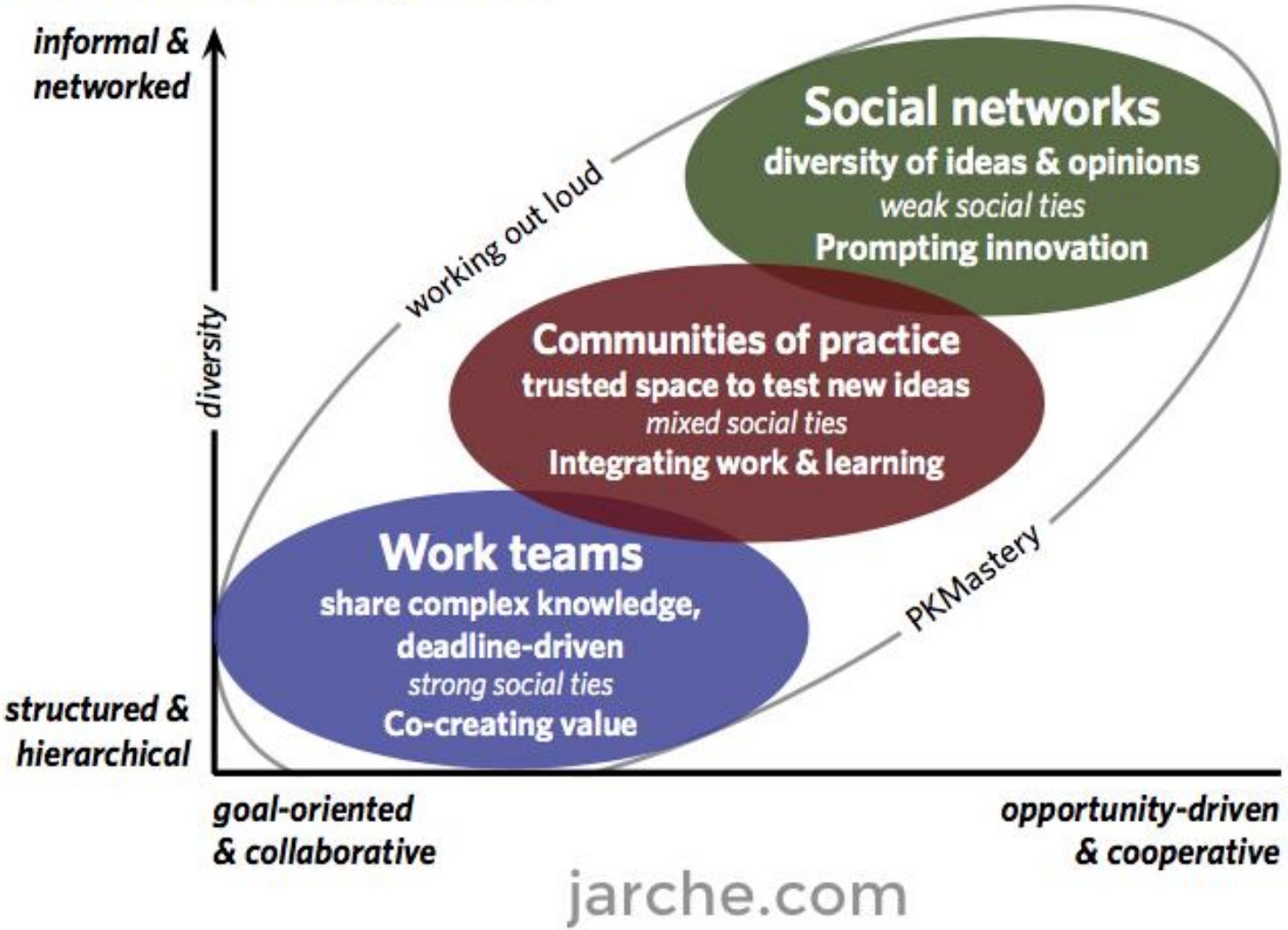
Could we place electric lines under sidewalk in the streets?

Knowledge space

Is it dangerous to do so?
How much will it cost?
How deep should we place them?
Is there any risk of explosion?

In order to lead to innovation knowledge has to Flow inside and outside the CoPs

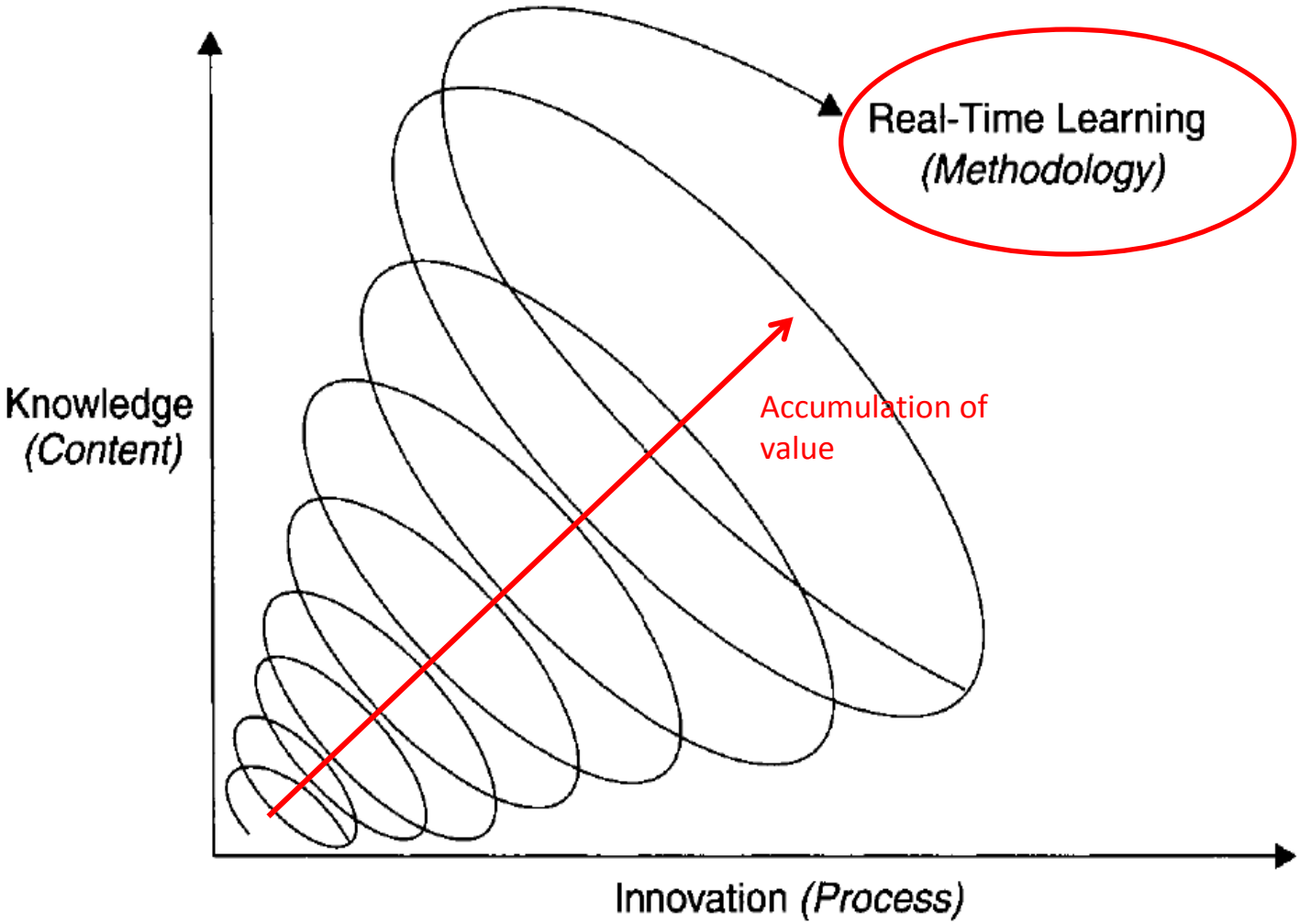
The Network Learning Model



Implementing the Network Learning Model

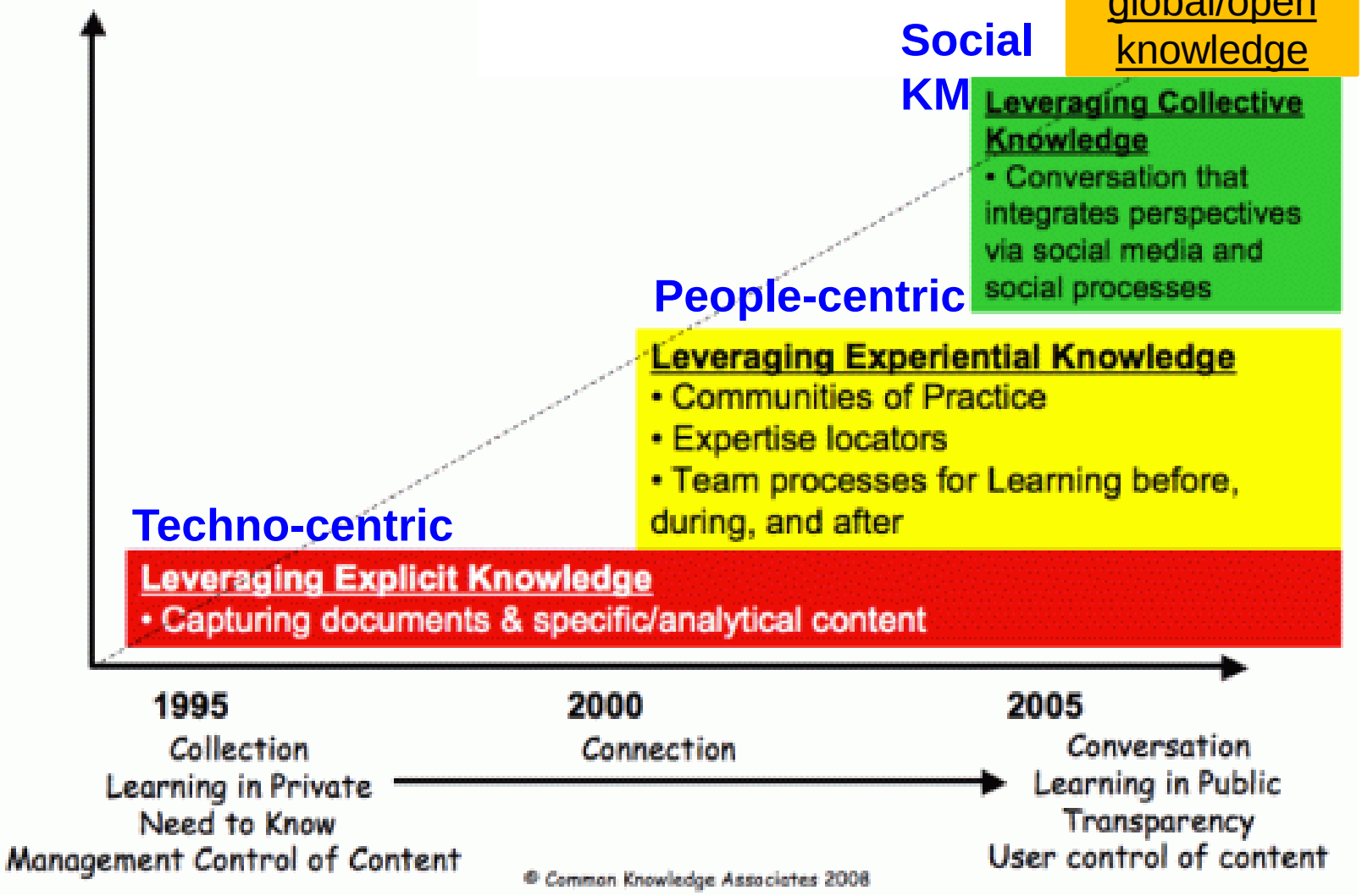
jarche.com	Work Teams	Communities of Practice	Social Networks
Experience	Share Your Work	Discuss Lessons in Context	Share General Lessons
Ideas	Incorporate Ideas	Test Ideas	Share Ideas
Opinions	Make Opinions Clear	Discuss & Debate Opinions	Connect to Diverse Opinions
Relationships	Reinforce Social Ties	Develop Social Ties	Find New Social Ties
Models	Test New Models	Develop New Models	Share Working Models
Value	Co-create Value	Test New Value Creation	Explore Value Networks

Integrated focus: Knowledge and Innovation



Source: D. Amidon

KM Evolution



Adapted from Nancy Dixon

ขอบคุณ ครับ!

Do not hesitate to contact me for more information!

vribiere@gmail.com

Distinction between CoPs and other Structures

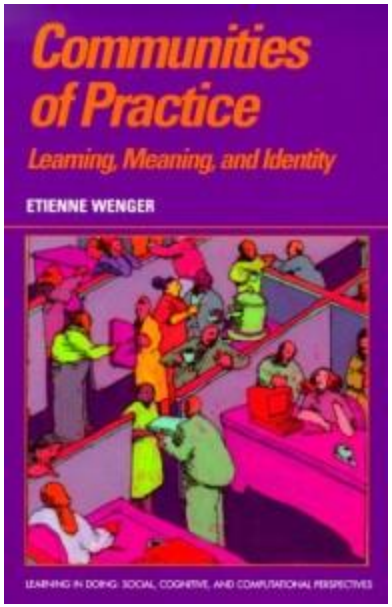
	WHAT'S THE PURPOSE?	WHO BELONGS?	HOW CLEAR ARE THE BOUNDARIES?	WHAT HOLDS THEM TOGETHER?	HOW LONG DO THEY LAST?
Communities of Practice	To create, expand, and exchange knowledge, and to develop individual capabilities	Self-selection based on expertise or passion for a topic	Fuzzy	Passion, commitment, and identification with the group and its expertise	Evolve and end organically (last as long as there is relevance to the topic and value and interest in learning together)
Formal Departments	To deliver a product or service	Everyone who reports to the group's manager	Clear	Job requirements and common goals	Intended to be permanent (but last until the next reorganization)
Operational Teams	To take care of an ongoing operation or process	Membership assigned by management	Clear	Shared responsibility for the operation	Intended to be ongoing (but last as long as the operation is needed)
Project Teams	To accomplish a specified task	People who have a direct role in accomplishing the task	Clear	The project's goals and milestones	Predetermined ending (when the project has been completed)
Communities of Interest	To be informed	Whoever is interested	Fuzzy	Access to information and sense of likemindedness	Evolve and end organically
Informal Networks	To receive and pass on information, to know who is who	Friends and business acquaintances, friends of friends	Undefined	Mutual need and relationships	Never really start or end (exist as long as people keep in touch or remember each other)

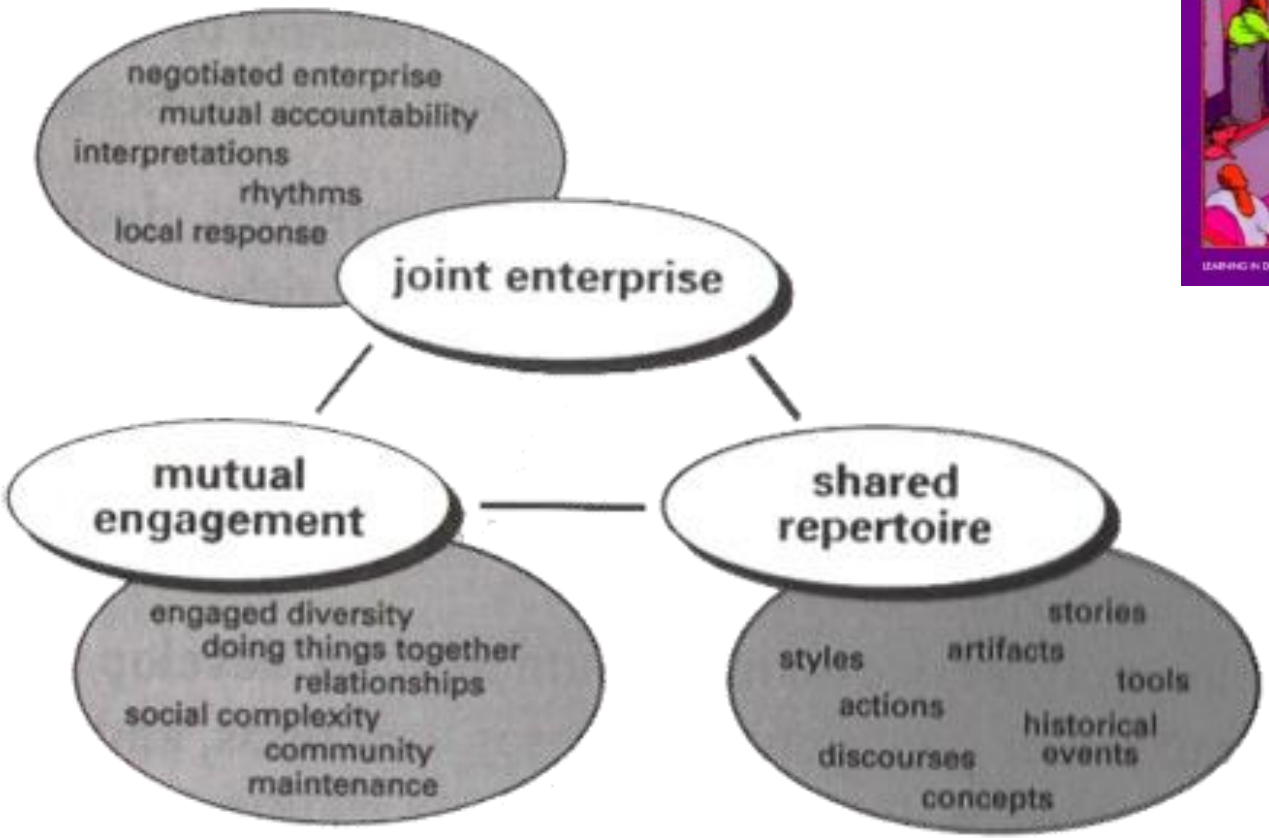
(Wenger, McDermott, Snyder, 2002)

Three CoP characteristics are crucial:

- **The domain** (minimum level of knowledge of domain)
- **The community** (engage in joint activities, help each others, share info, interactions and discussions)
- **The practice** (develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems)

Three dimensions of CoP





Wenger, E. (2008) *Communities of Practice: Learning, Meaning, and Identity*, New York. USA, Cambridge University Press, p. 73.

It’s all about connecting the dots!