

People
Innovation
Excellence

HOW TO CONNECT THE DOTS IN INNOVATION MANAGEMENT

COLLABORATE TO STRENGTHEN CAPACITY AND CAPABILITY TO ACHIEVE SUSTAINABLE COMPETITIVE ADVANTAGE

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WHAT IS INNOVATION?

The use of new ideas or current thinking applied in fundamentally different ways that result in significant change and economically successful.
– *IBM Research*

INNOVATION IS MORE THAN INVENTION (1 OF 2)

BOX 1-1. Innovation is More than Invention

Innovation is More than Invention

Jan Fagerberg³

“Invention is the first occurrence of an idea for a new product or process, while innovation is the first attempt to carry it out in practice.”

Howard Smith⁴

“Innovation is the process by which new commercial concepts --- products, services, processes – are brought into being, in order to generate business.”

Elaine Dundon⁵

“...the profitable implementation of strategic creativity.”

John Seely Brown⁶

“By innovation I mean something quite different from invention. To me, innovation means invention implemented and taken to market.”

Michael George, James Works and Kimberly Watson-Hemphill⁷

“Historically, the new product/service department mindset has been one of invention (creating new things) rather than innovation (creating new things that add value to the customer and company). Changing this mindset is the key to speeding up innovative creativity and to delivering the best new offerings to your customers.”

Source:

Innovation Frameworks Survey and Synthesis of Current Innovation Approaches
Leading Edge Forum Technology Grant. Sponsored by the CSC Catalystm Program and the
Leading Edge Forum. Pascal Gambardella. April 2, 2006

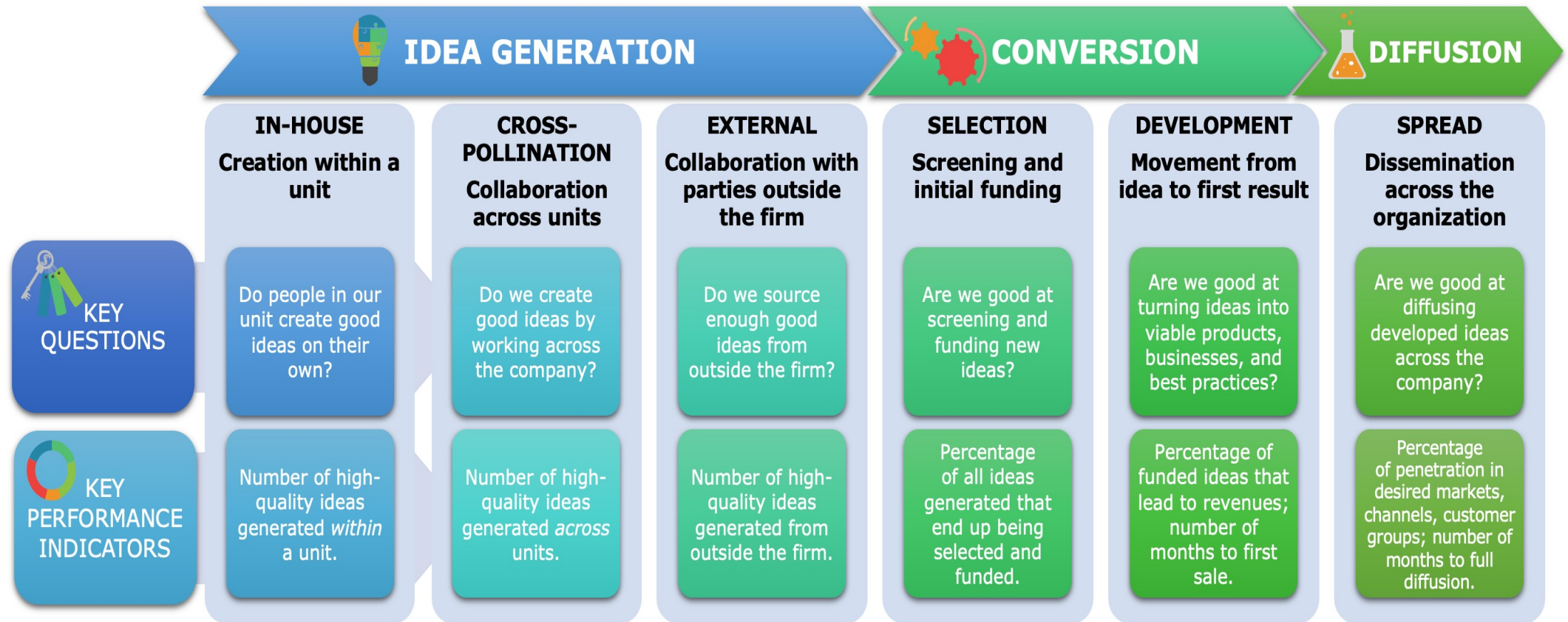
INNOVATION IS MORE THAN INVENTION (2 OF 2)

Innovation isn't the same as invention.

Innovation is a societal, not a technological, phenomenon, one that arises from the intersection of invention and insight."

Sam Palmisano, Chairman & CEO, IBM

INNOVATION VALUE CHAIN: AN INTEGRATED FLOW



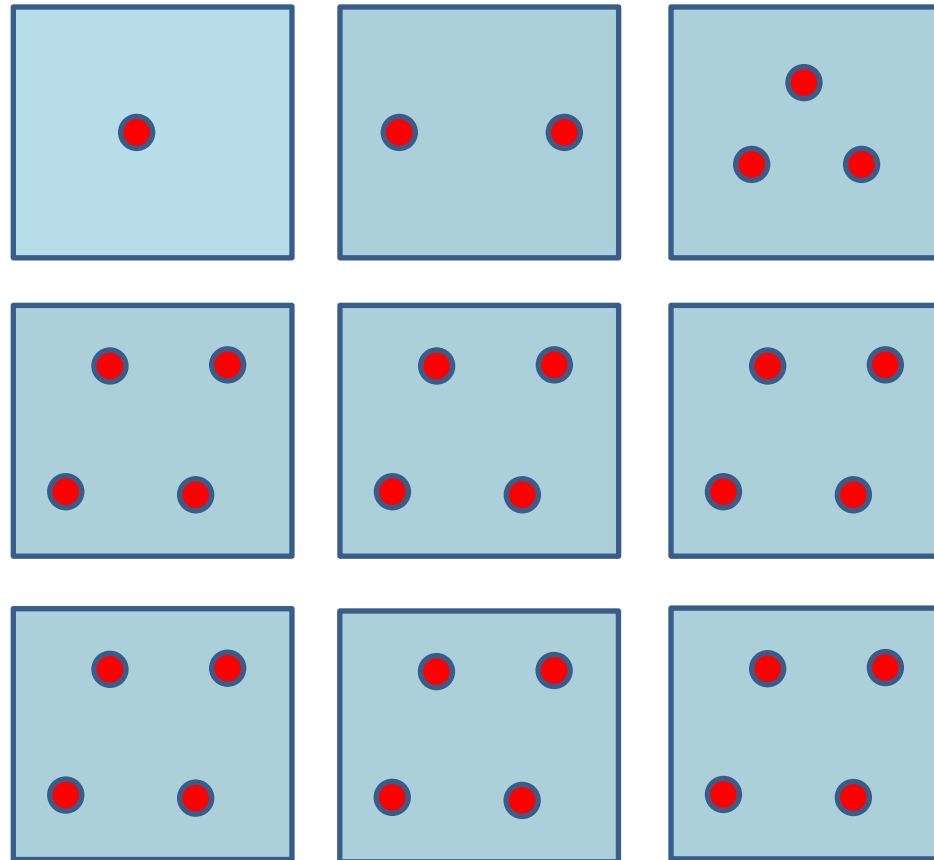
Hansen dan Birkinshaw (2007),), "The Innovation Value Chain", HBR

Pada kenyataannya, tantangan inovasi berbeda dari institusi ke institusi lainnya.
 Tantangan inovasi yang berbeda membutuhkan solusi yang berbeda pula.
 Perlu kemampuan yang seimbang dalam idea generation, conversion, dan diffusion.

HOW TO CONNECT THE DOTS

Connect the dot exercise.

Take a blank piece of a paper write down the picture as follow



HOW TO CONNECT THE DOTS

You need a big idea.

People and teams who generate big ideas usually have more and different dots.

Breakthrough ideas require teams to connect the dots to come up with a big idea.

Breakthrough ideas require teams to connect, disconnect and reconnect the dots differently again and again to get breakthroughs.

Great ideas require

- many and different dots
- resilience to connect and reconnect them in new and different ways

FOUR BASIC INNOVATION FUNDAMENTALS TO THINK AND ACT DIFFREENTLY

There are four basic innovation fundamentals to think and act differently

1. Individual/Groups put disparate information together
2. A structured approach for creative problem solving
3. Different thinking styles at each step
4. Cross functional teams and networks to get different perspectives

CONNECTING THE DOTS IN IDEA GENERATION



Individual
IDEA FRAGMENT



Support and Buy-In
CONCEPT DEVELOPMENT



Project Team
ROBUST CONCEPT

Most Ideas are Idea Fragments and needs input from multiple people to make Idea Fragments into Robust Concepts

<https://hopeandgrowth.pro/welcome/30002859-metallic-human-head-with-one-single-puzzle-piece-illustration/>

<https://www.bluebeyondconsulting.com/thought-leadership/the-9-building-blocks-for-a-successful-remote-team/>

<https://www.pngwing.com/en/free-png-yuujs>

Edward de Bono's Six Thinking Hats Model for Critical Thinking and Problem Solving



WHITE HAT

- Objectivity
- Fact-finding

Wear the white hat to focus objectively on the available facts and figures.



RED HAT

- Passion
- Intuition
- Emotions

Wear the red hat to look at the problem using intuition, gut reaction, and emotion.



BLACK HAT

- Caution
- Pessimism
- Somberness

Wear the black hat to be vigilant and consider the negative sides of the event, issue, or problem.



YELLOW HAT

- Hope
- Optimism

Wear the yellow hat to think positively. Consider all the benefits of the circumstances.



GREEN HAT

- Creativity
- Inventiveness

Wear the green hat to get creative and invent new approaches.



















BLUE HAT

- Direction
- Synthesis
- Organization

Wear the blue hat to perform meta thinking. Scrutinize and direct discussion. Synthesize all viewpoints.

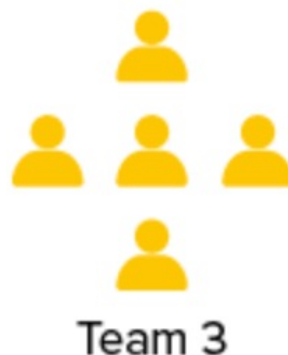
DIFFERENT THINKING STYLE AT EACH STEP OF A STRUCTURED APPROACH FOR CREATIVE PROBLEM SOLVING

Setup	Diverge	Connect	Converge	Emerge
Set the Goal	Reframe the Problem + Generate Ideas	Organize + Connect the Dots	Prioritize + Refine Solutions	Set the Action Plan
				
				
				
				
				
				

CROSS-FUNCTIONAL TEAMS AND NETWORKS TO GET DIFFERENT PERSPECTIVE

Functional

Common functional expertise



Cross-Functional

Representatives from the various functions



Individuals with different
skill-sets

LET'S FIND YOUR TEAM THINKING PROFILE

1. Identify your 2 main thinking hats
2. Write them down and give your reasoning why
3. Analyze the colors with the rest of the class

CREATIVE PROBLEM SOLVING WITH BRAINSTORMING (1 of 4)

Classical Brainstorming

A form of brainstorming was practiced in Asia over 3,000 years ago; however, in modern times its popularization has been attributed to Alex Osborn in the 1940s and 1950s (Rickards, 1988).

Most brainstorming techniques fall into two categories: unstructured and structured.

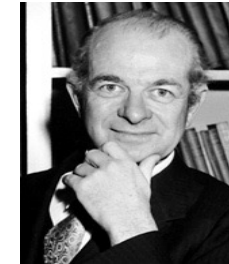
Unstructured brainstorming is not guided by any agreed-upon set of procedures. The result is often an unproductive session.

A good example of structured brainstorming is *classical brainstorming*.

CREATIVE PROBLEM SOLVING WITH BRAINSTORMING (2 of 4)

Osborn had four basic rules for brainstorming:

- Criticism is not permitted
Adverse judgement of ideas must be withheld.
- Free-wheeling is welcome
The wilder the idea the better
One should not be afraid to say anything that comes into one's mind
This complete freedom stimulates more and better ideas.
- Quantity is required
The greater the number of ideas, the more likelihood of winners.
- Combinations and improvements should be tried out
In addition to contributing ideas of one's own, one should suggest how ideas of others can be improved, or how two or more ideas can be joined into a still better idea.



"The best way
to have a good idea
is to have a lot of ideas."
Linus Pauling (two Nobel Prizes Winner)

CREATIVE PROBLEM SOLVING WITH BRAINSTORMING (3 of 4)

Brainstorming can be used to help find solutions to many different kinds of open-ended problem: for example, trouble-shooting problems (how to reduce downtime on the production line; how to reduce shoplifting in the store) and problems where a large number of ideas are required (identifying new product concepts; new market/segment concepts; names for products or companies).

Unsuitable problems might include those which require technical or professional expertise beyond the capability of the members of the group or those which have only one.

Good brainstorming is part of a creative cycle of expansion and contraction. The first phase, expansion, relies on unleashing one's creativity. The second, contraction, demands the use of judgment to focus on the best or most relevant ideas.

CREATIVE PROBLEM SOLVING WITH BRAINSTORMING (4 of 4)

Brainstorming is a tool to generate ideas, and some ground rules are needed to maintain order.

Following four rules will maximize productivity:

- Evaluate later
- Encourage wild ideas
- Go for quantity
- Build on other ideas



THANKS!

Knowledge Management & Innovation Directorate