



Liberating Your IQ:

Creating a Culture of Innovation

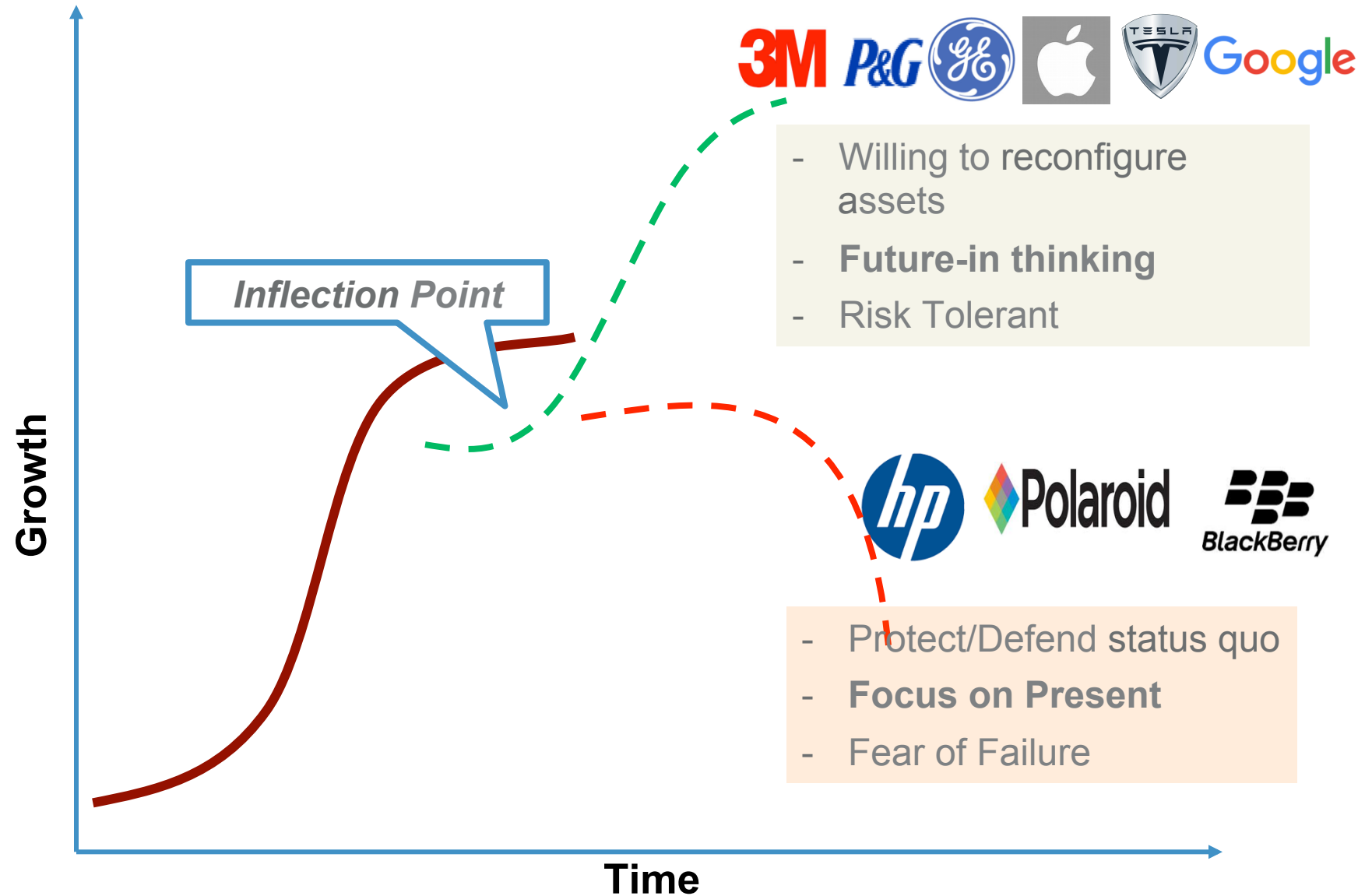
Partha S Ghosh

December, 2016

Agenda

- 1 Innovation: The Essential Requirements**
- 2 Cultivating the right environment: Case studies**
- 3 Engaging with the Possibilities ahead?**

What really drives Innovation?



Agenda

1

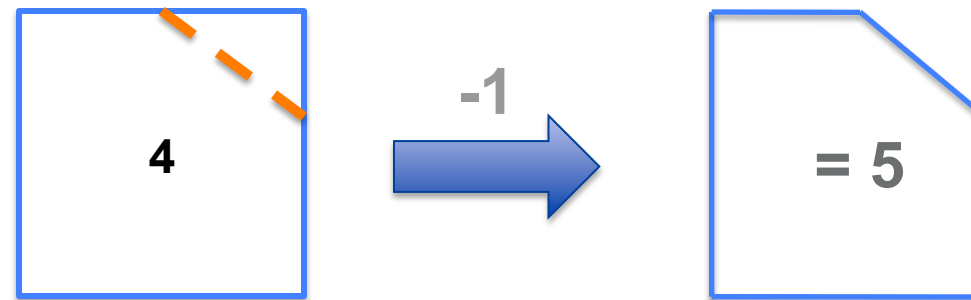
Innovation: The Essential Requirements

Just to get warmed up.....

- Let's think of a situation where:

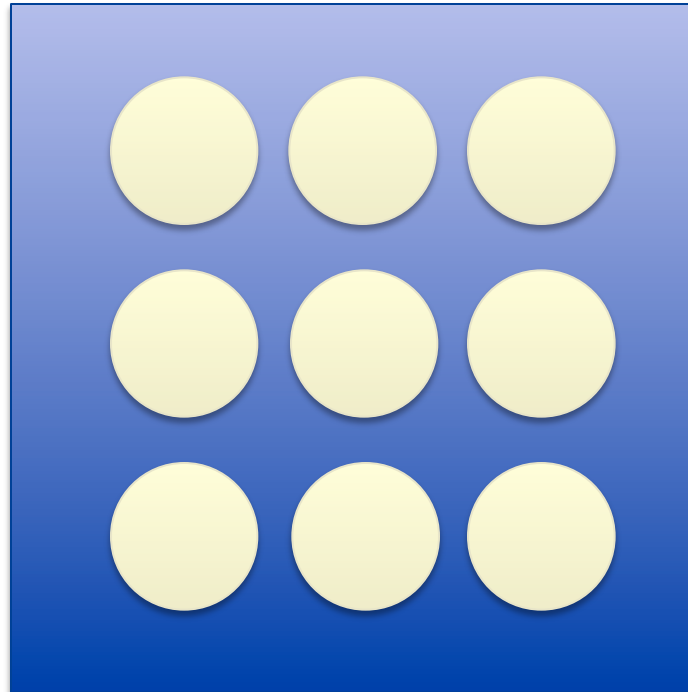
$$4 - 1 = 5$$

- If you cut a corner off a piece of paper with four edges.....?



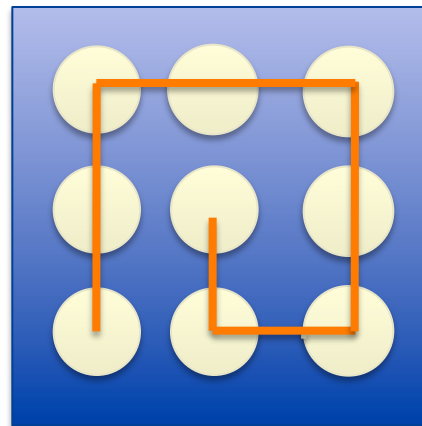
Let's Continue to Experiment

Is it possible to go through through every circle with only ***four*** connected straight lines ?

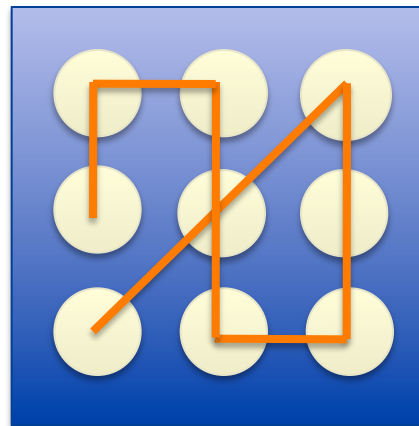


What is Meant by “Thinking Outside the Box”?

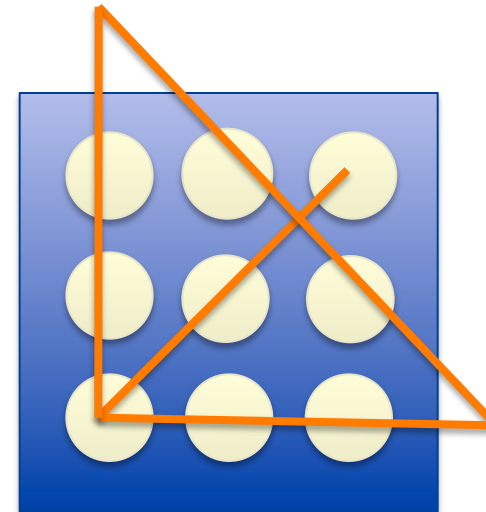
- As an illustrative example, draw *four* connected straight lines that go through every circle



Example #1



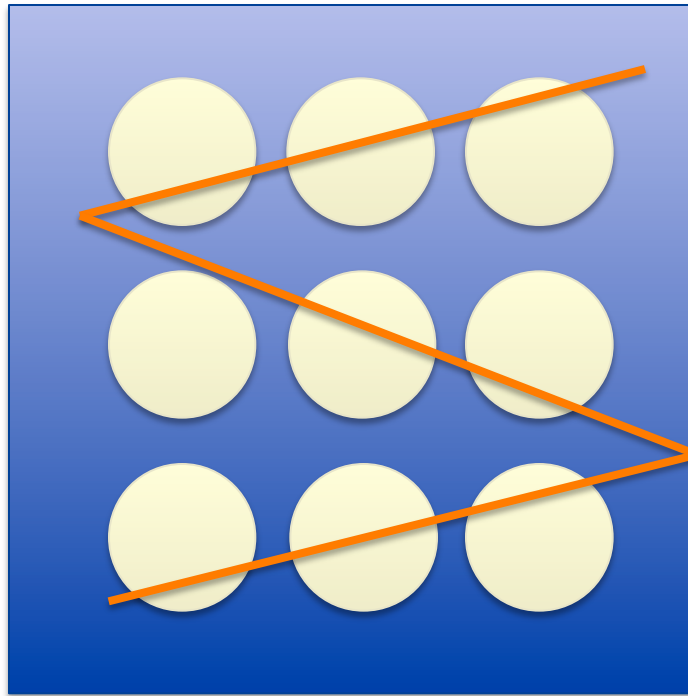
Example #2



Example #3

Let's continue to Experiment

- Is it possible to go through through every circle with only **three** connected straight lines?

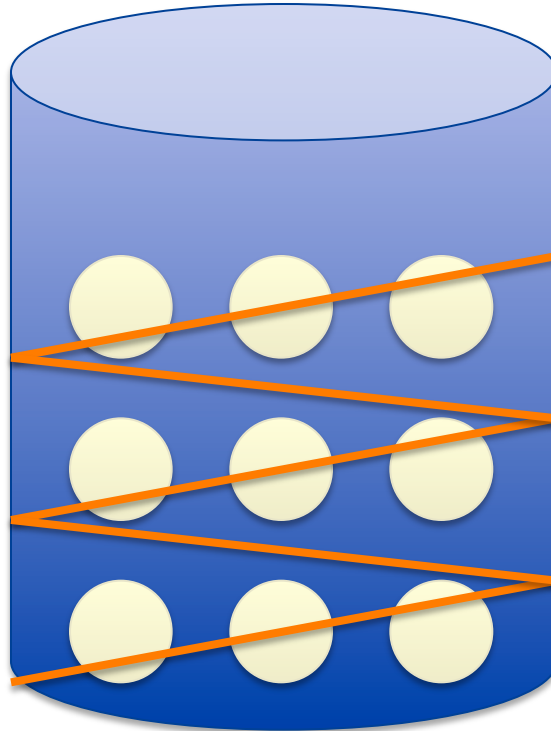


Let's Think Way Outside the Box

- Is it possible for only **one** line to pass through all the circles?
 - *Yes, you can succeed in more than one way. Nothing in the problem defines how thick the line is. With a line as thick as the whole array, one swipe of a paintbrush solves the problem.*
 - *However, if the thickness of the line can't exceed the diameter of a circle, then what?*

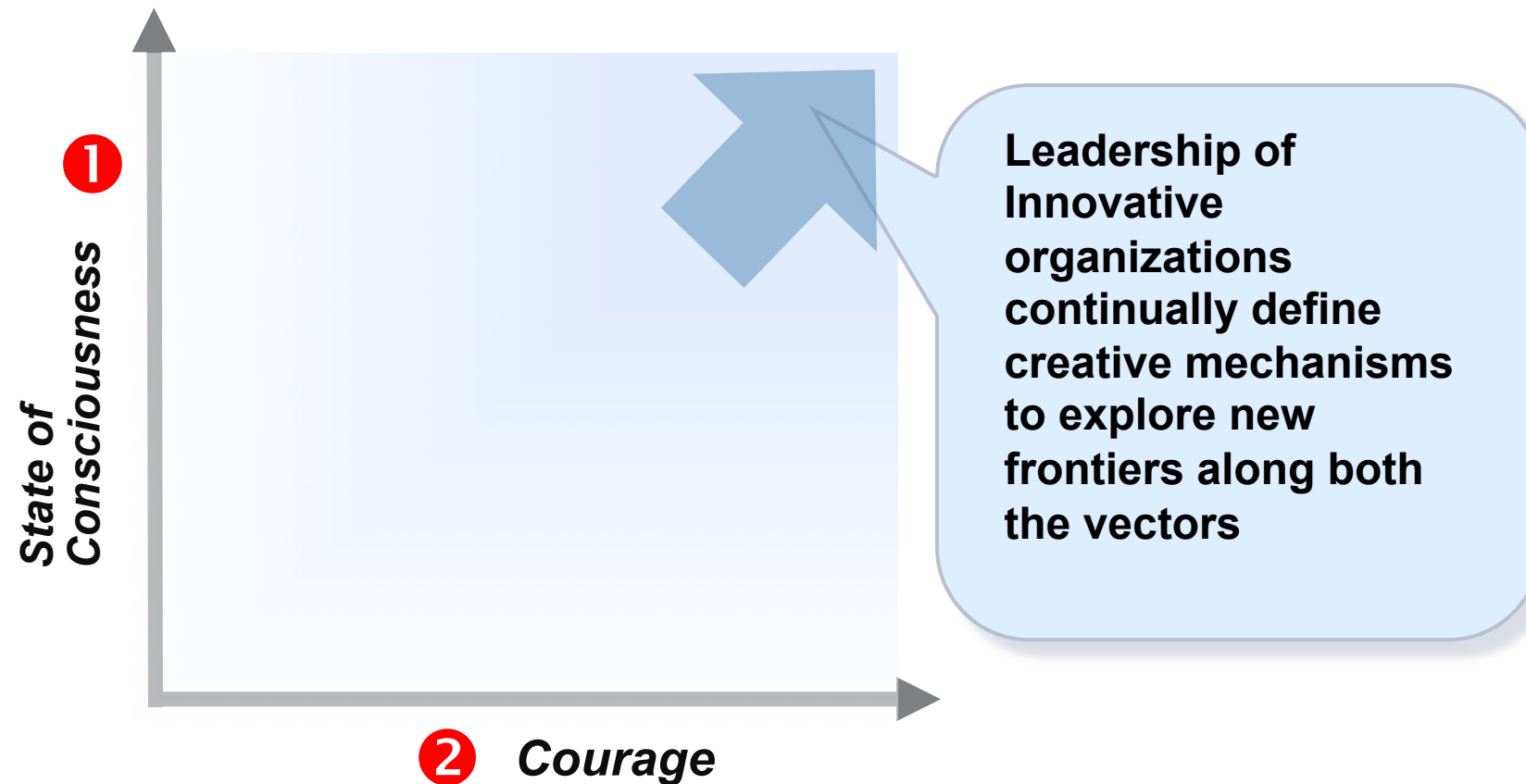
Thinking Way Outside the Box

- If you break out of this constraint, a solution is possible. If the circles are on a cylinder, ***one line*** that spirals around the cylinder can touch each circle.



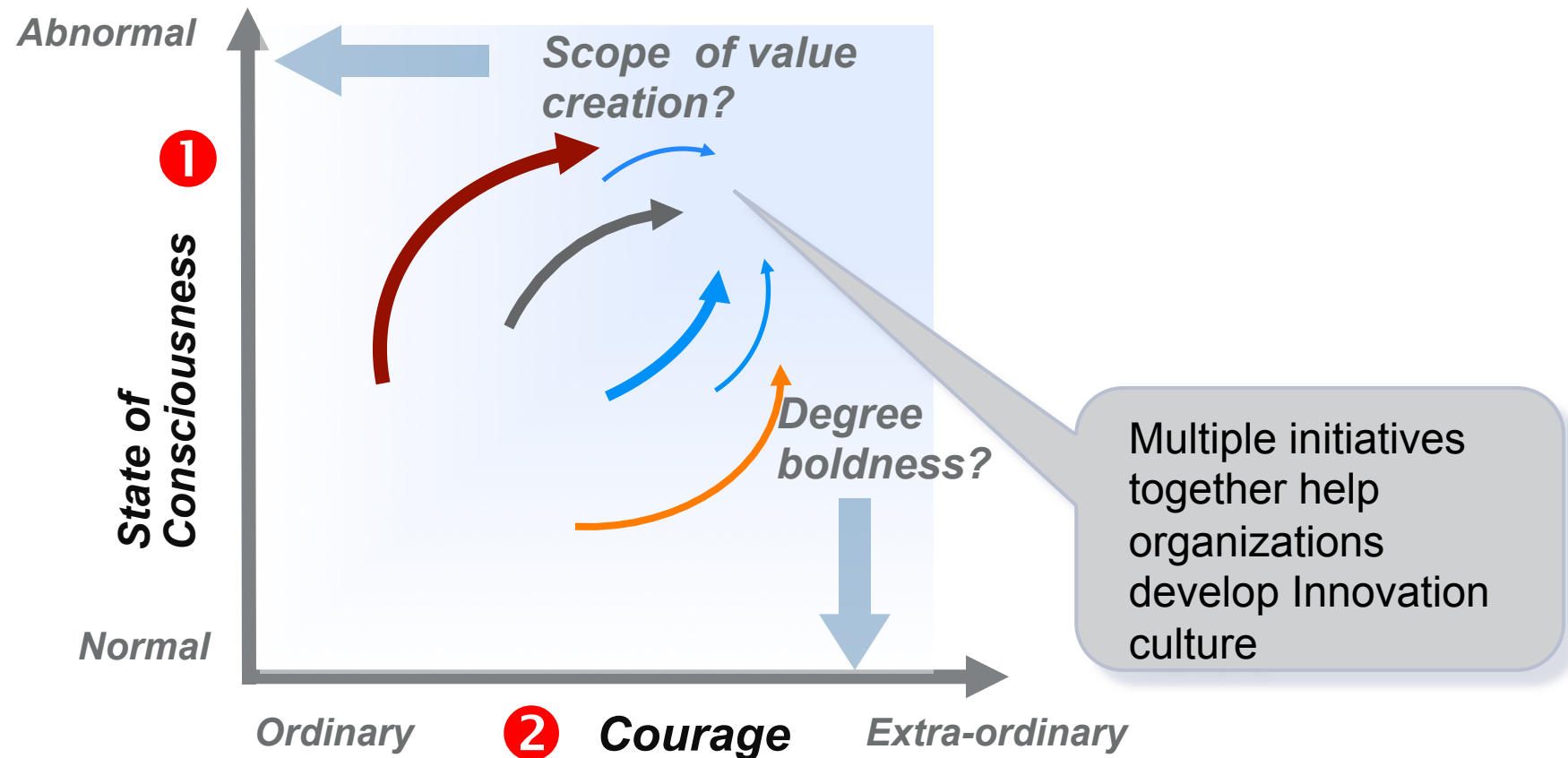
Innovation: Essential Requirements

The Two Critical Vectors



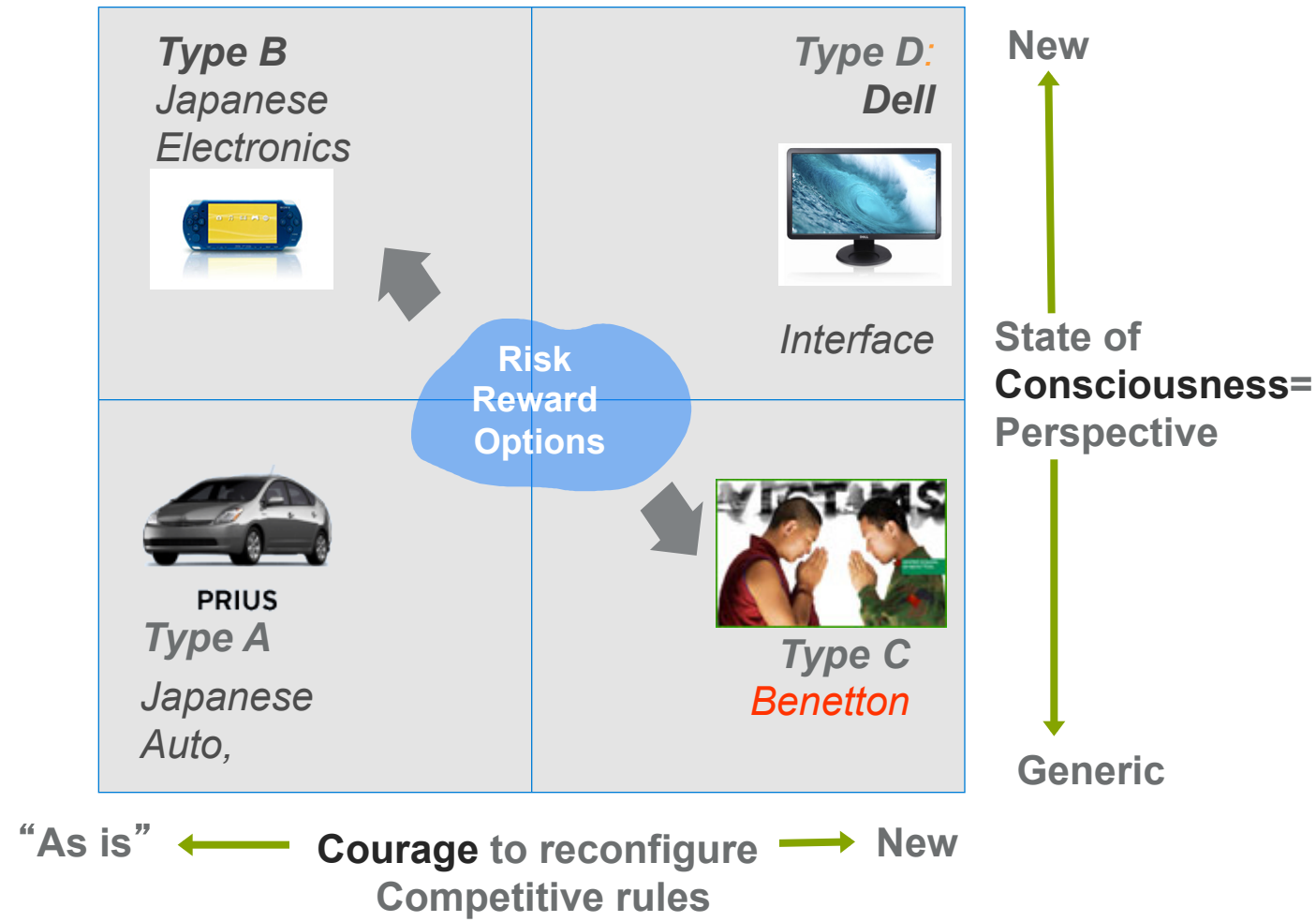
Innovation: Essential Requirements

The Two Critical Vectors

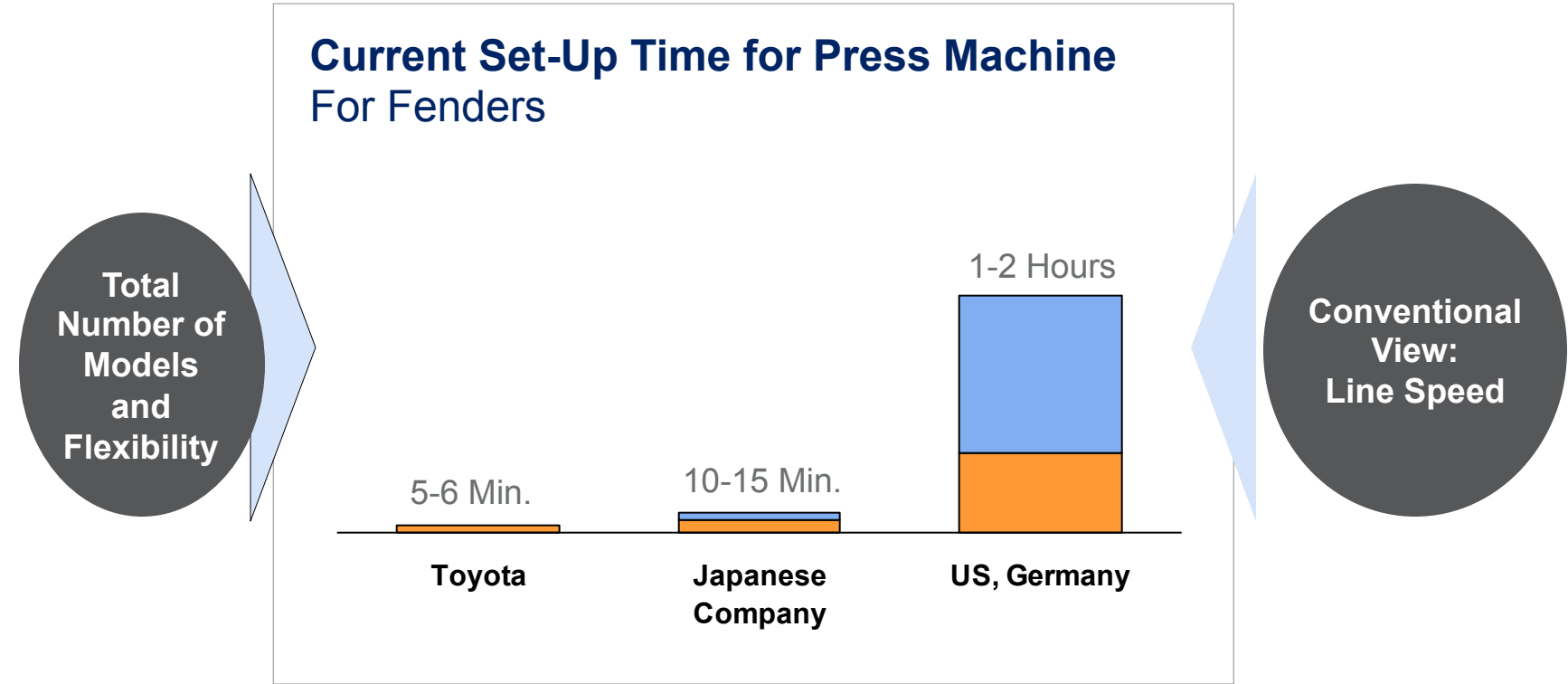


Innovation Framework will explore and enable multiple possibilities

Innovation Game board: Likely Strategic Plays

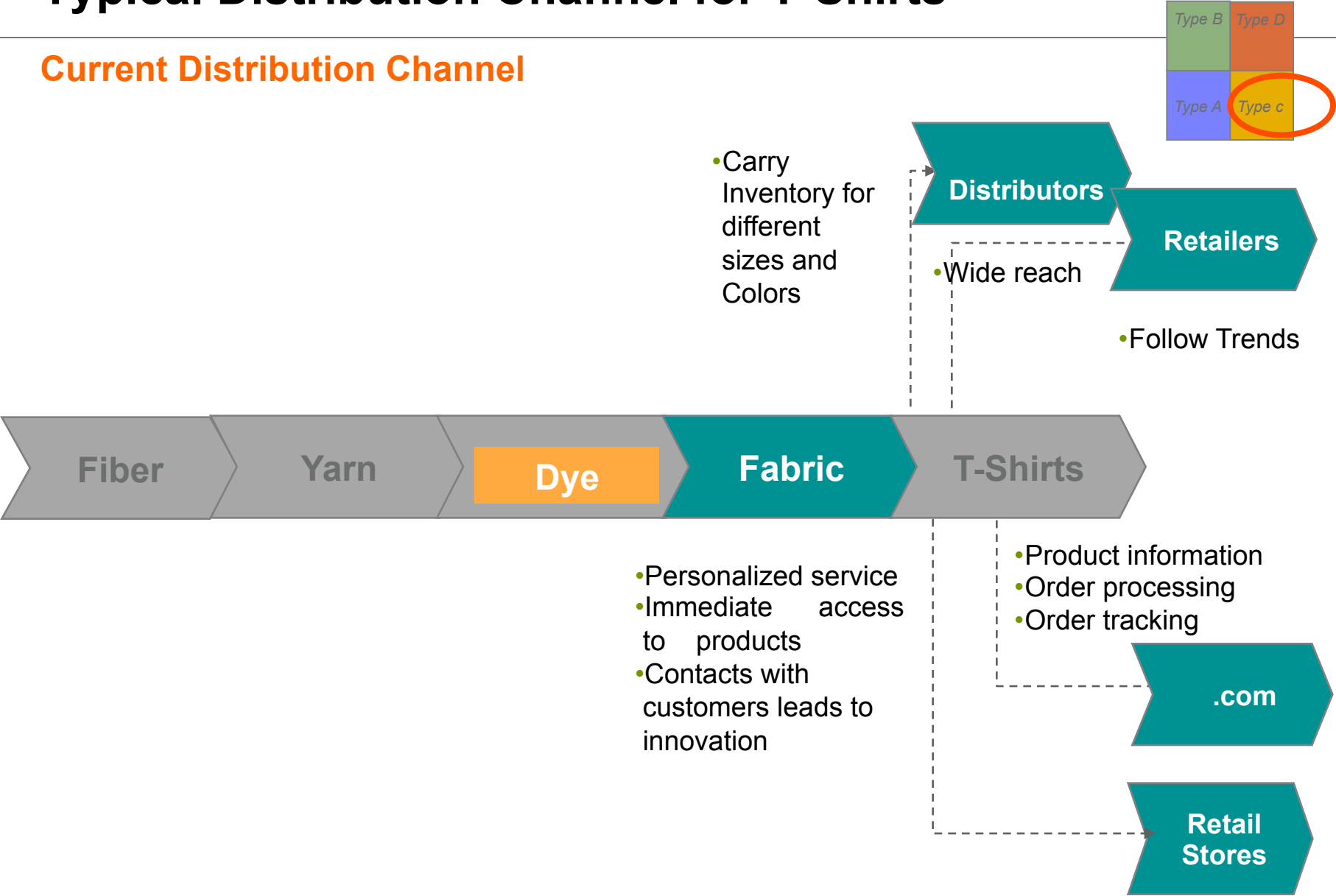


When Conditions change (?).. *Opportunities are created..*



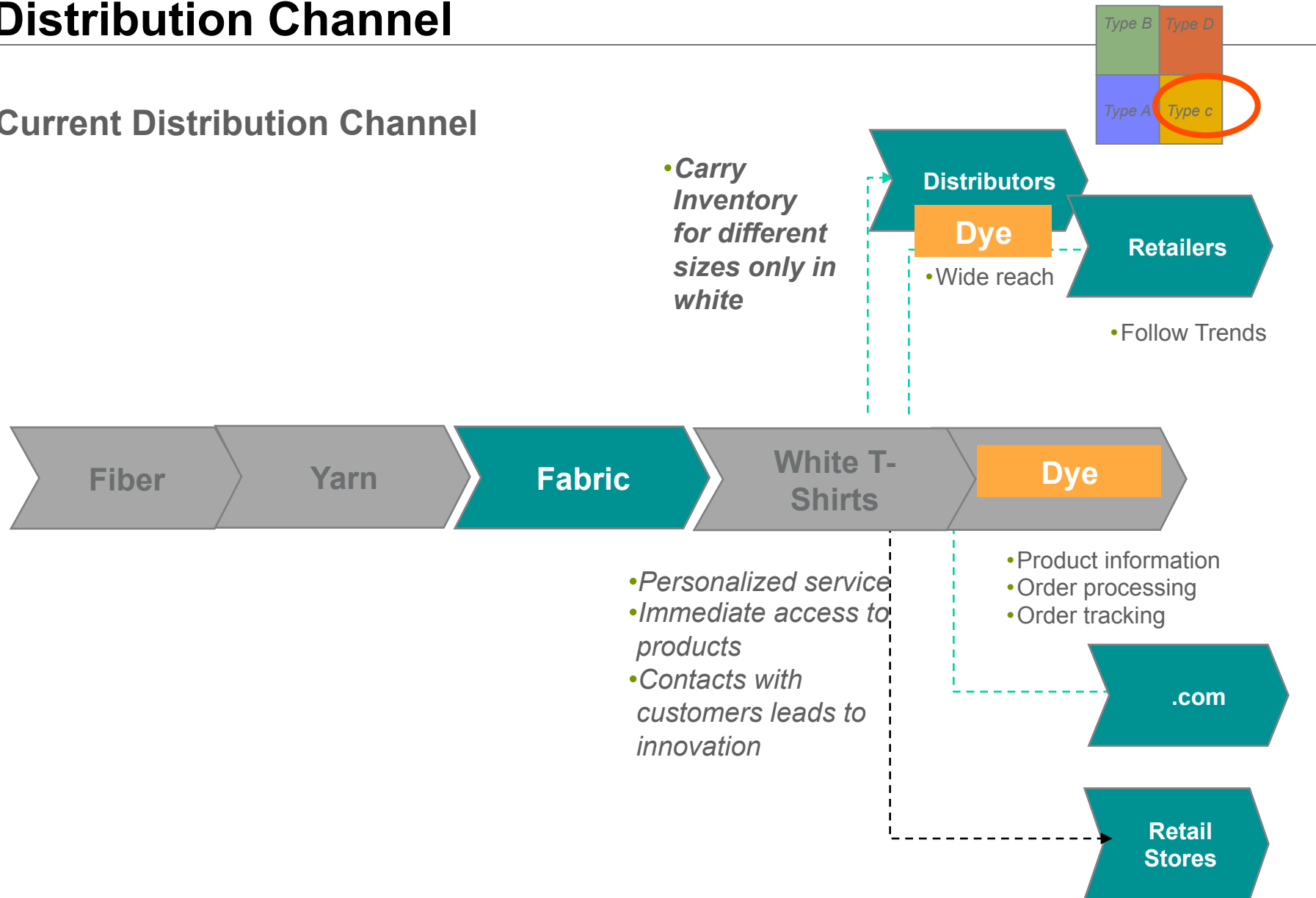
Typical Distribution Channel for T-Shirts

Current Distribution Channel

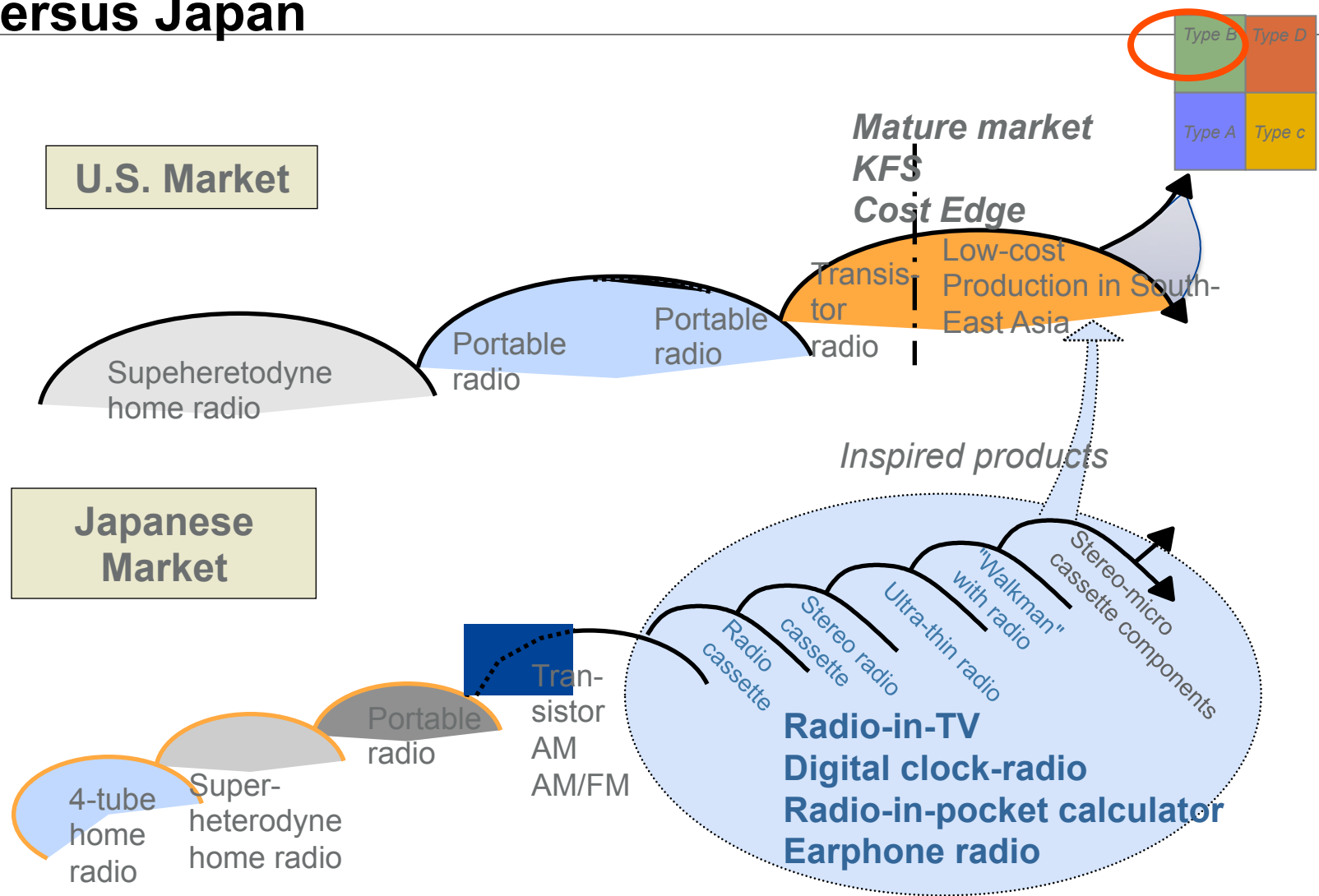


Benetton: Creating More Value out of the Distribution Channel

Current Distribution Channel



Product-Development History of Radio: US versus Japan



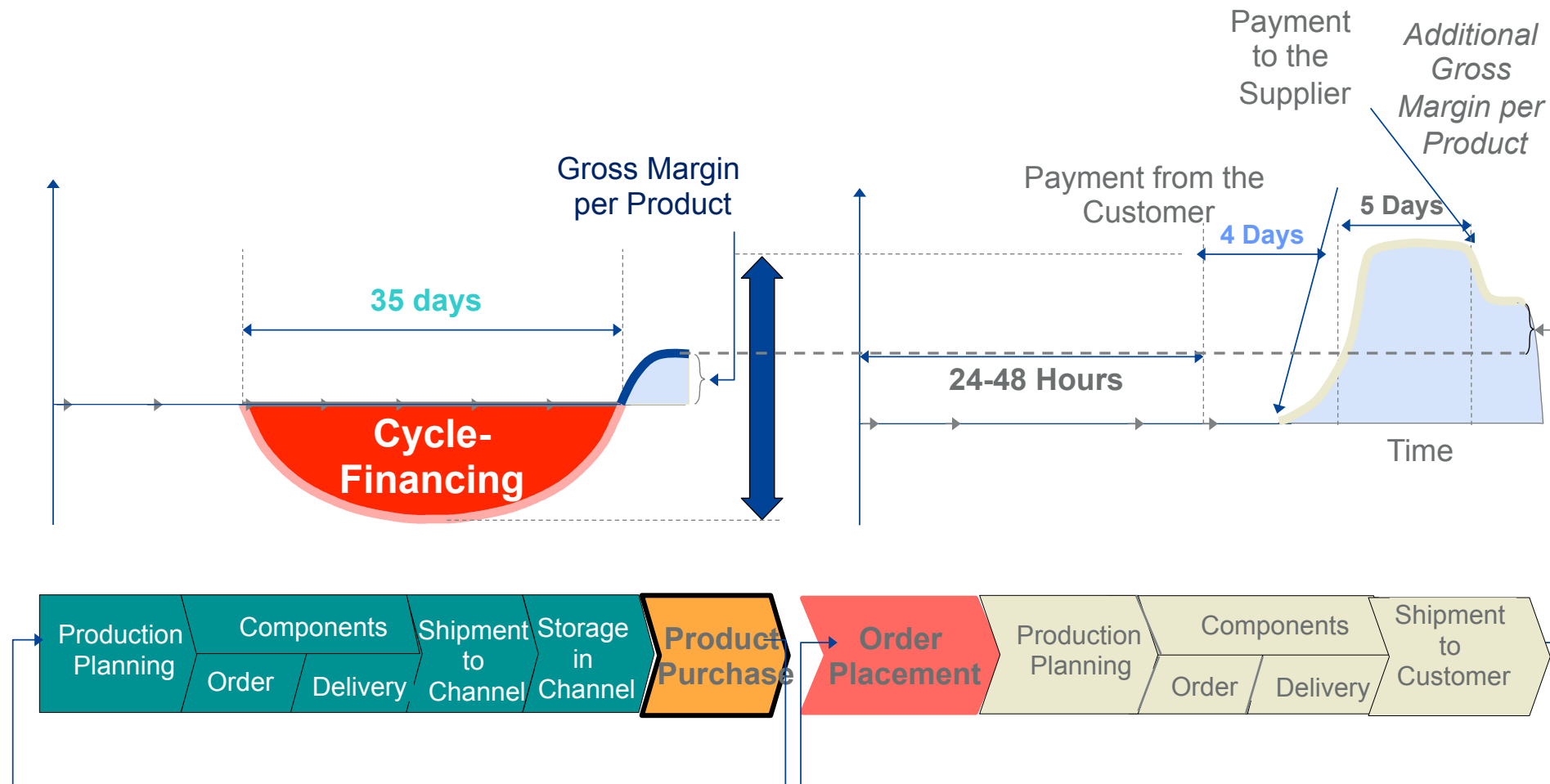
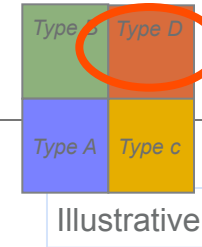
Process Simplification & Re-sequencing = *Network Manufacturing: Capital Efficiency Advantage*

Financial Flow/Production Cycle
Dollars

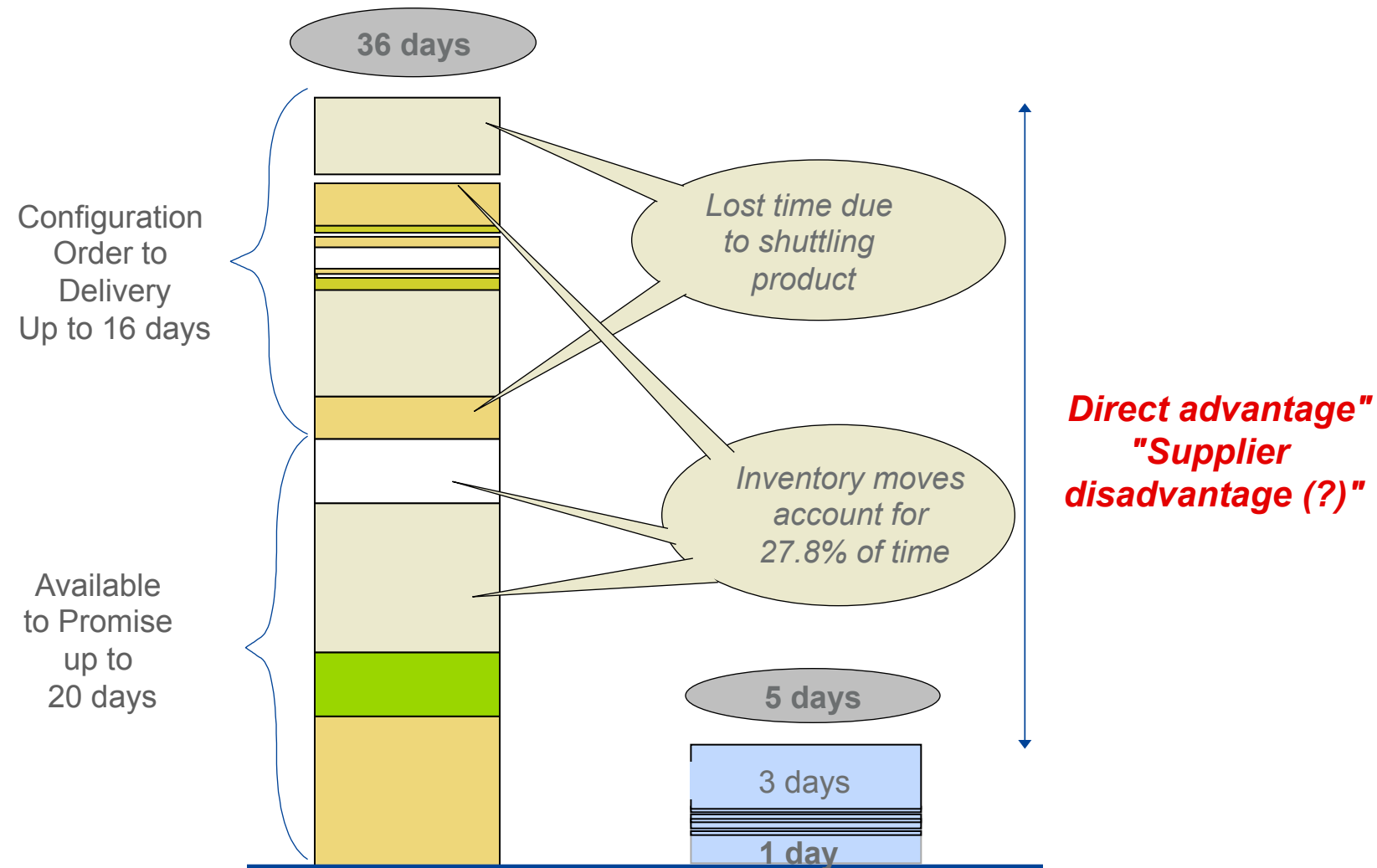
Conventional Model

Financial Flow/Production Cycle
Dollars

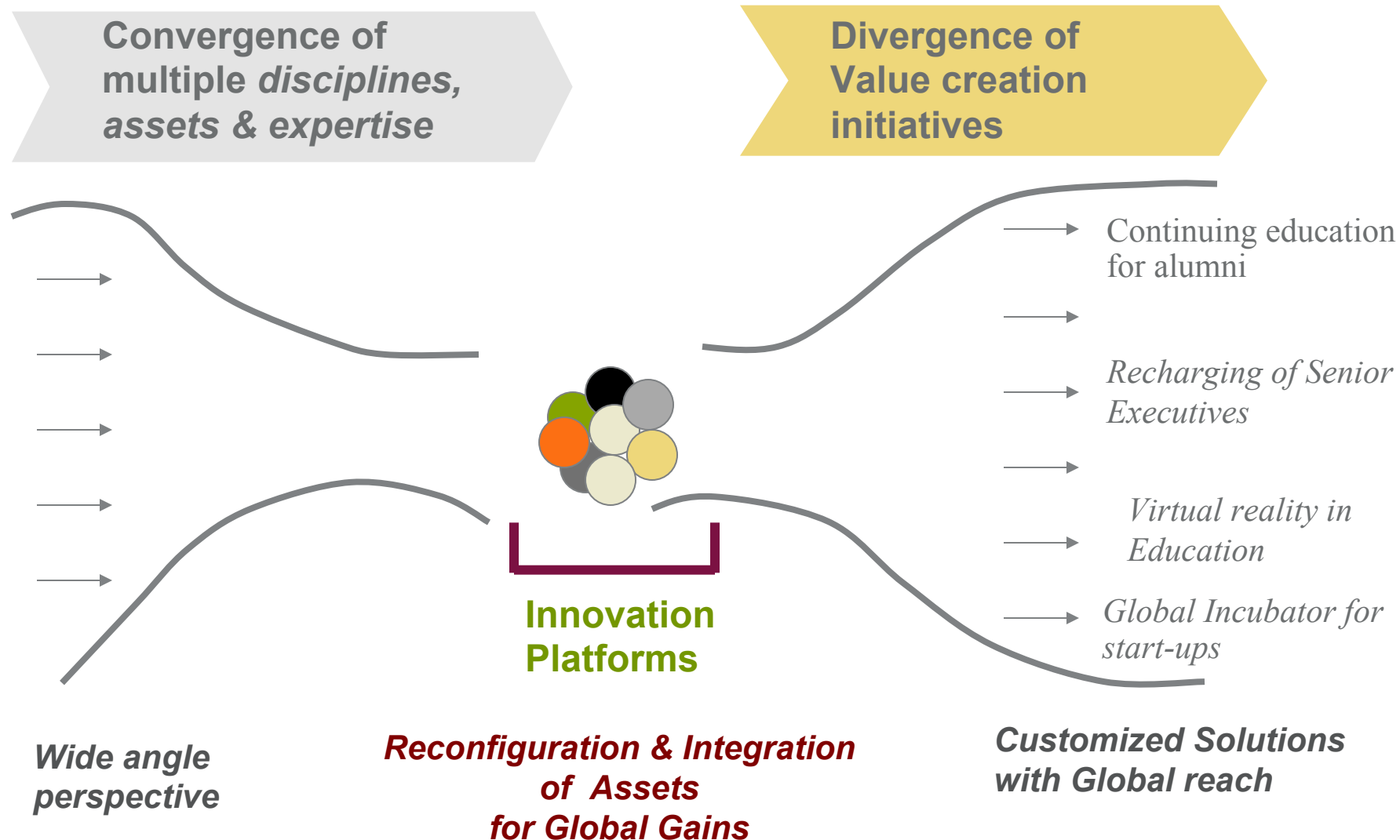
Direct/Internet Model



Cycle Time was dramatically reduced



In the process innovative organizations manage flow of imagination....



Source: Partha S Ghosh Innovation Framework

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Agenda

1

Innovation: The Essential Requirements

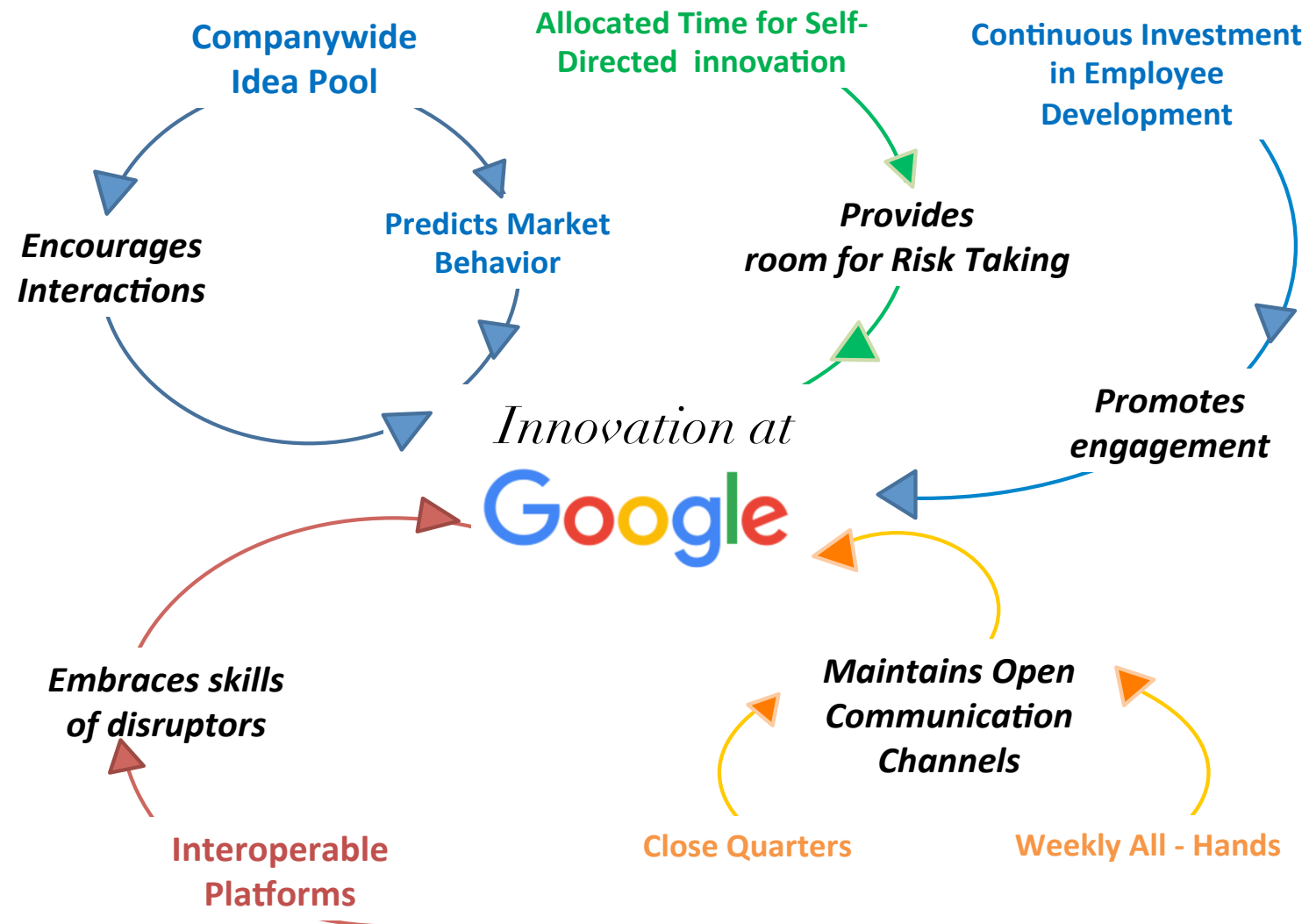
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Cultivating the right environment: Case studies

Innovation Dominated by a Few Key Players

#1	Apple	“Steady Innovators”
#2	Google	
#3	Tesla	“Mover”
#4	Microsoft	
#5	Samsung	
#6	Toyota	
#7	BMW	
#8	Gilead	
#9	Amazon	
#10	Daimler	
#20	Johnson & Johnson	“Returnee”

For example at Google multiple initiatives are at work to stimulate Innovation



Similarly Innovation Engine at 3M is driven by multiple initiatives

3M Innovative Culture

Capital sparks
Possibilities

Monetary Support for Internal New Ventures, across and outside business groups

Annual Genesis Grants to support disruptive innovations
Embracing skills of disruptive innovators & risk ...

Interactions
Multiply
Knowledge Impact

Internal Knowledge Sharing and Networking Forums

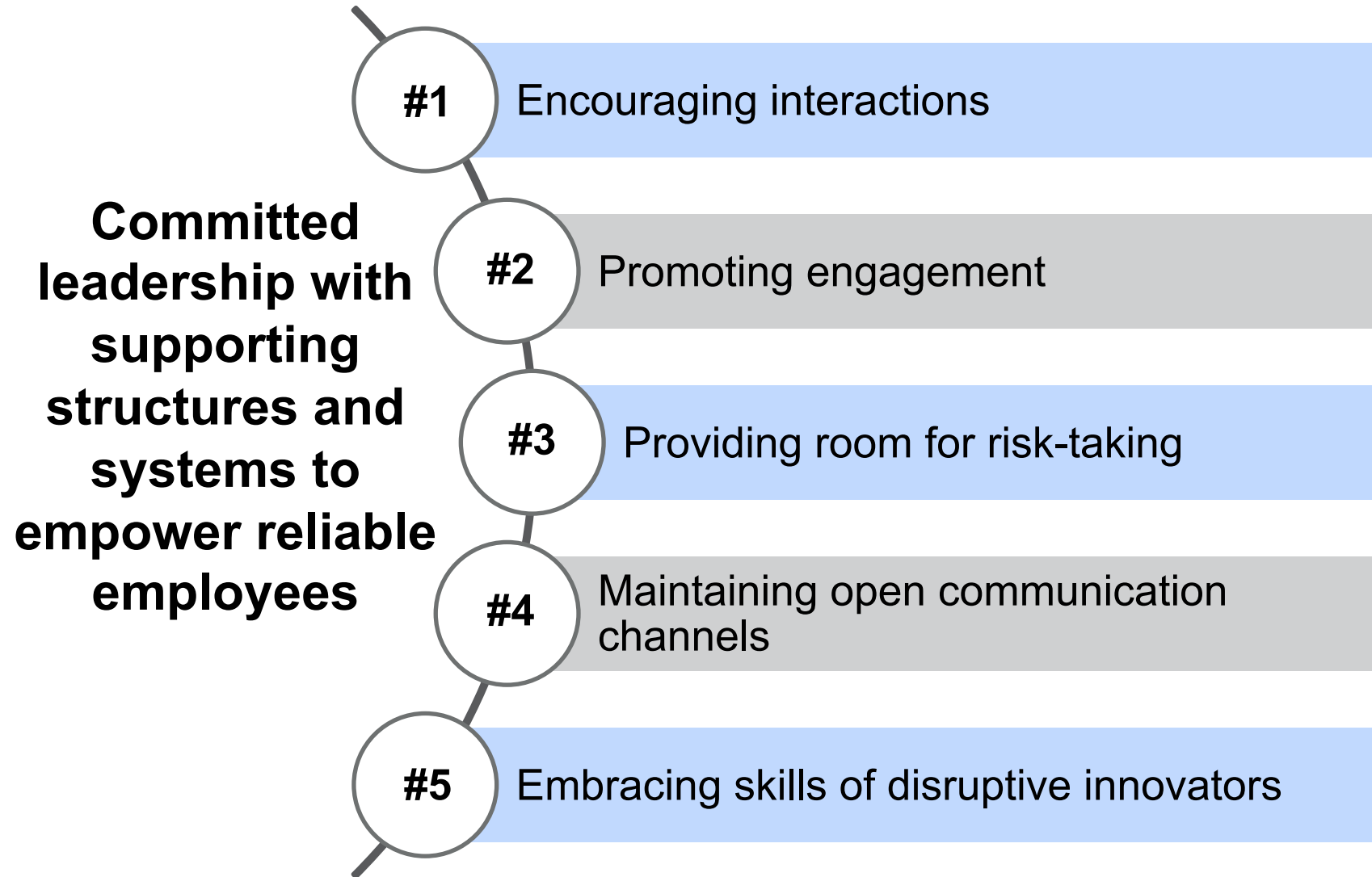
800+ technical forum events globally and 30+ active special –interest chapters
Encouraging interactions....

Recognition
Underpins Norms

Dual career ladders open growth potential to all

Innovation celebrated and honored by the Carlton Society
Promoting engagement...

Key Success Factors for an Innovative Culture



Success in Promoting Collaboration Internally

Encouraging interactions

Promoting engagement

Providing room for risk-taking

Maintaining open communication channels

Embracing disruptive innovator skills

IDEO's Weekly Innovation Challenges (WIC)

Challenge	Description	C	I	E
Puzzle	Complete a set of puzzles	X		
Newspaper	Build tallest table using newspaper to support a ream of paper		X	
Gmail	Pitch improvements to Gmail			X

Creativity = Ideas

Judged by novelty

Innovation = Ideas + Action

Judged by both novelty and usefulness

Entrepreneurial mindset = Ideas + Action + Value

Judged by novelty, usefulness, and value proposition

Source: *Work in Progress: Weekly Innovation Challenge*, Parks College of Engineering

Fig. 1. Three concepts - Creativity, innovation and entrepreneurial mindset

Open Concept as a Way of the Future

Encouraging interactions

Promoting engagement

Providing room for risk-taking

Maintaining open communication channels

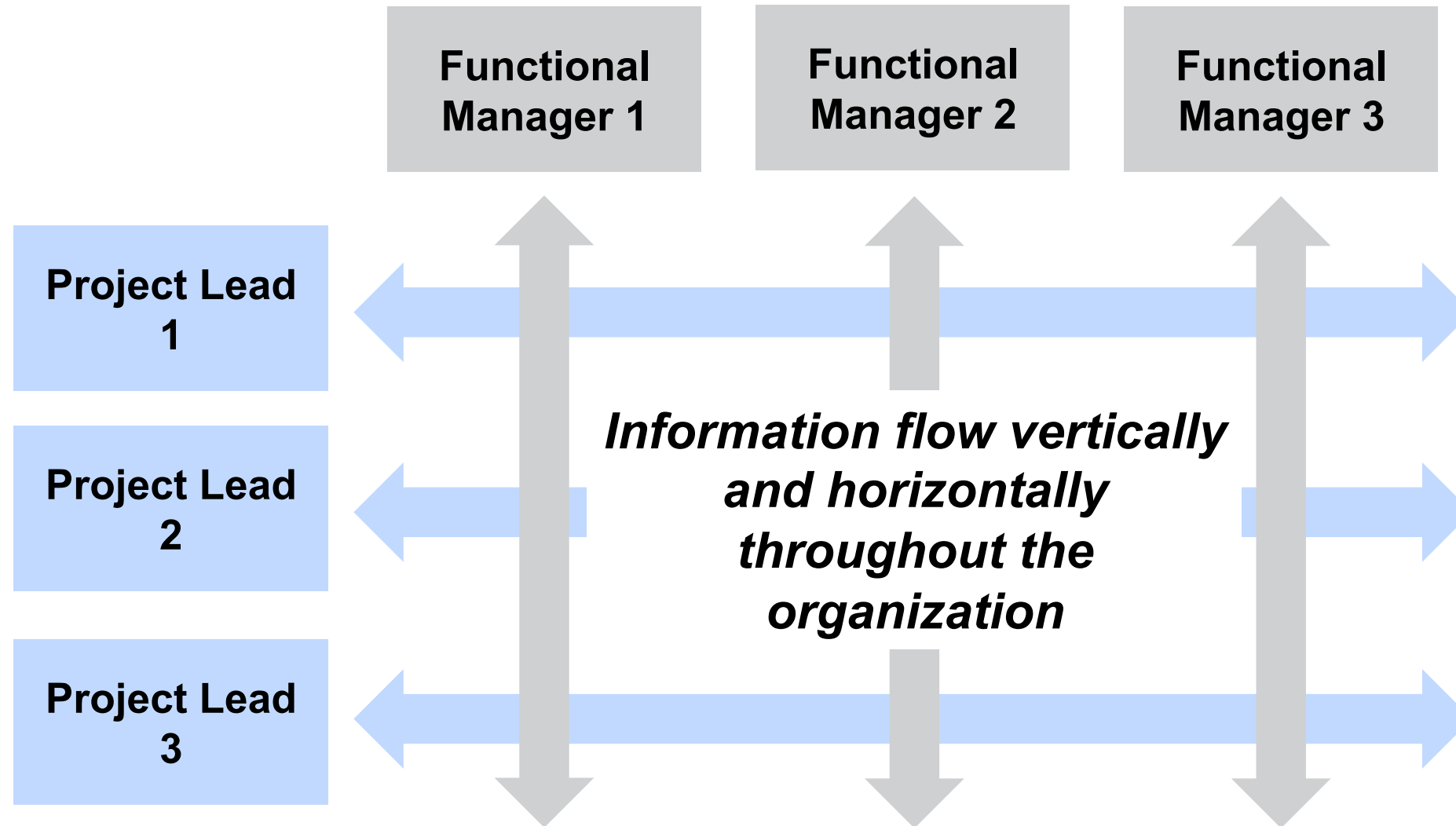
Embracing disruptive innovator skills

Google's Open Offices & Cafes

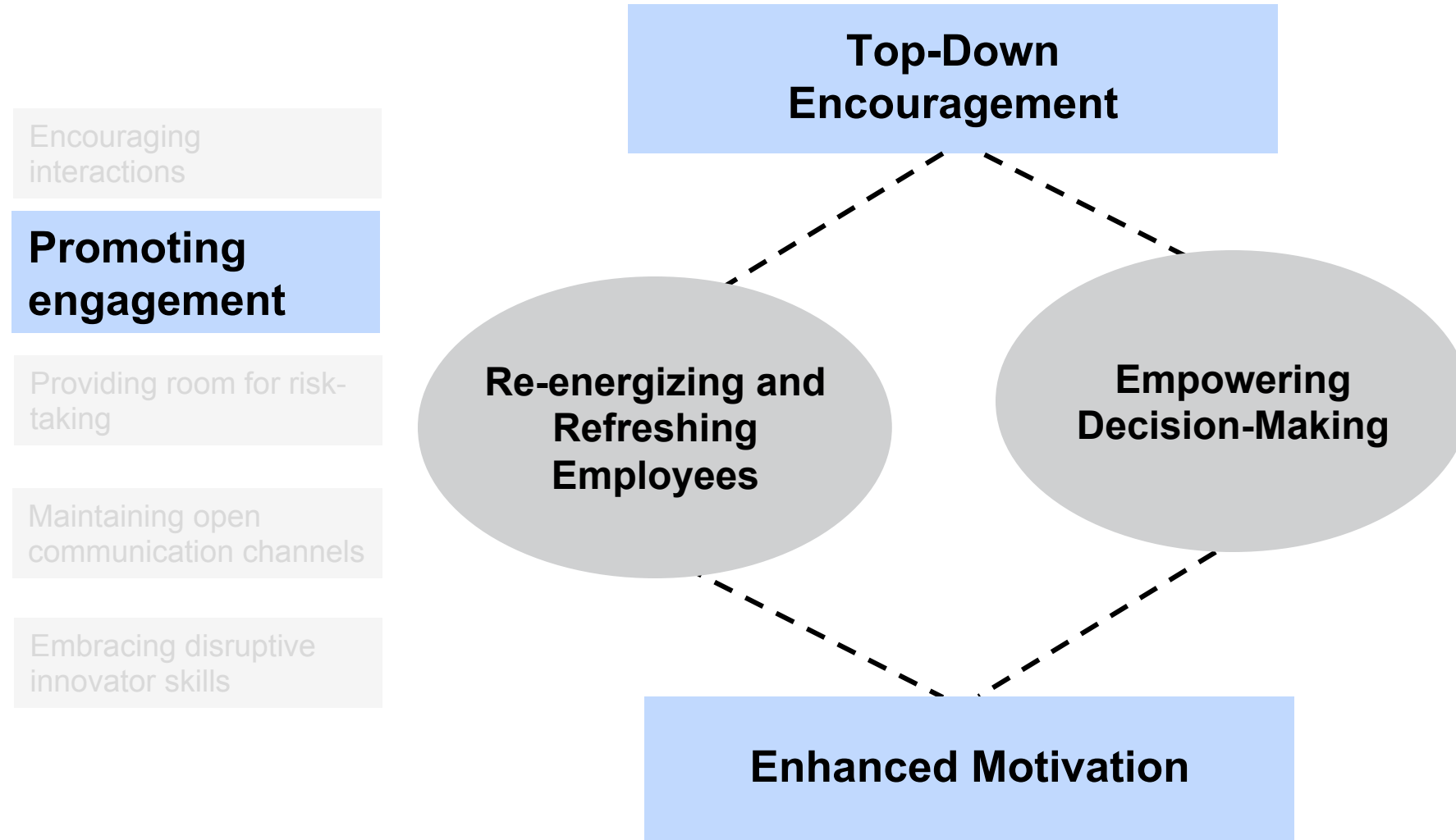


Google, Ireland

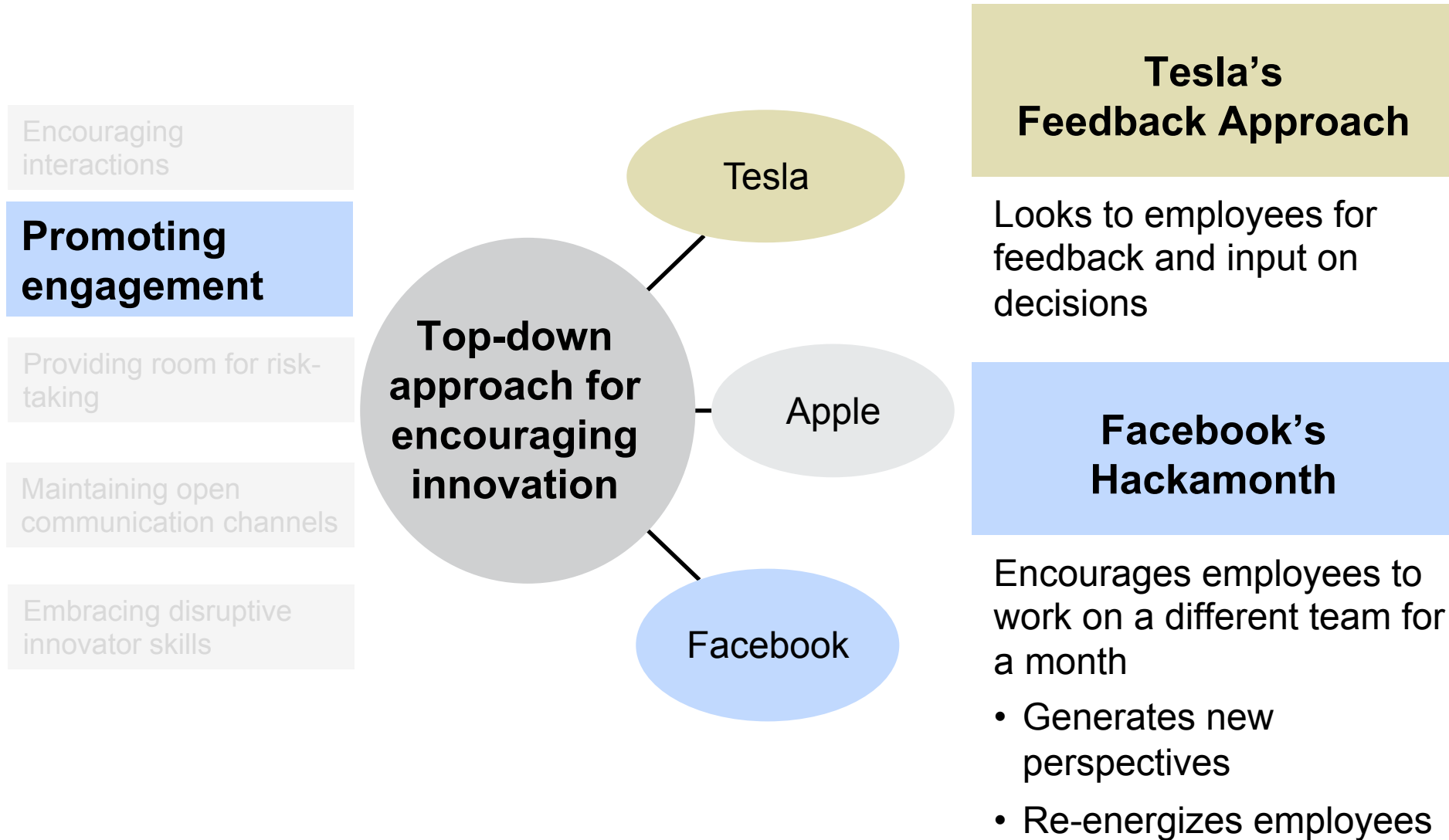
Matrix Organizations Foster Networking Opportunities



Two-Fold Approach to Engagement



Engaging Employees While Empowering Decision-Making



Encourage Employees to Challenge the Status Quo

Encouraging interactions

Promoting engagement

Providing room for risk-taking

Maintaining open communication channels

Embracing disruptive innovator skills

**3M's
15% Time**

Time to engage new risky ideas



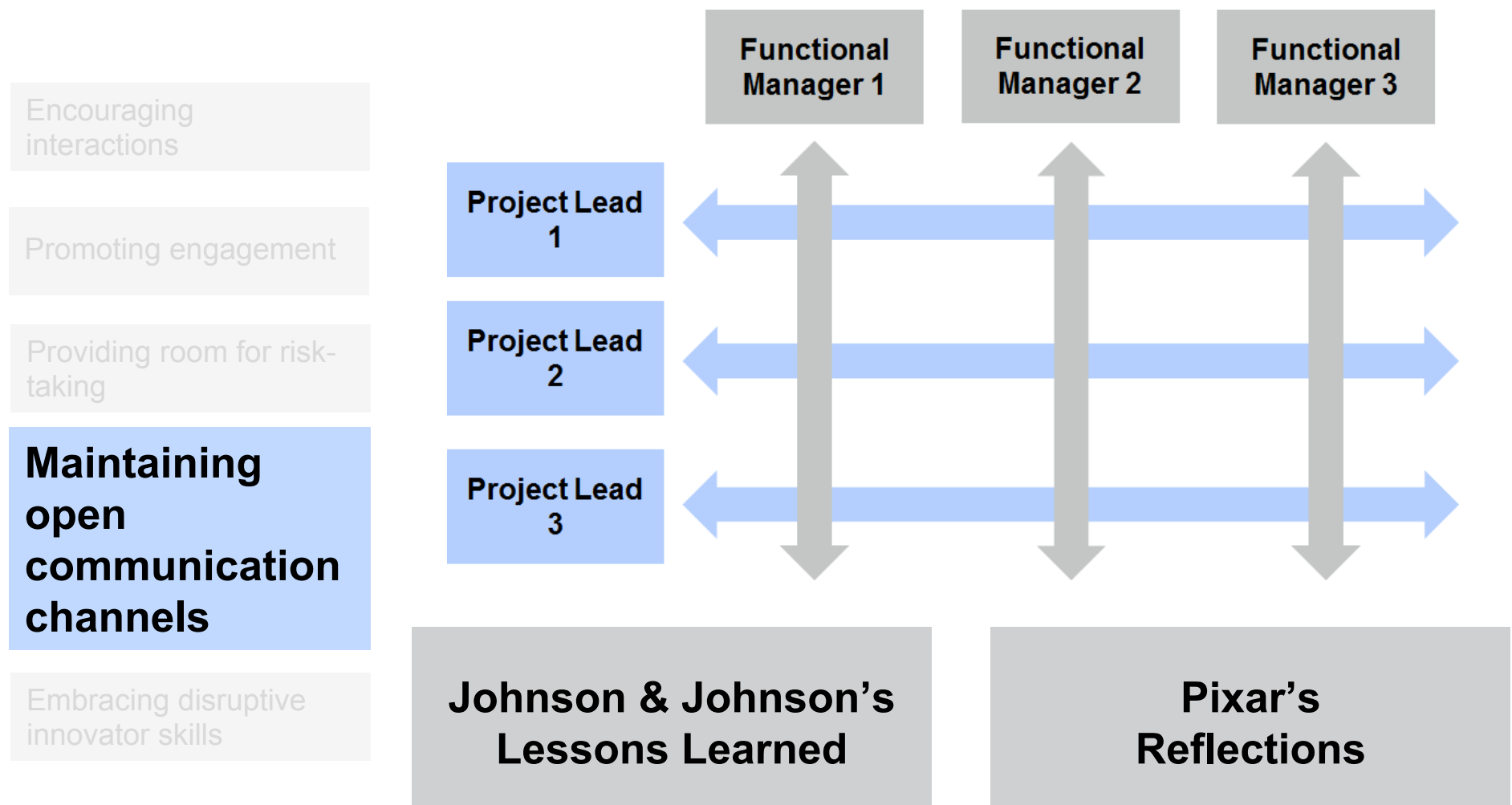
**Google's
Fixlts**

24-hour problem-solving sprints



- Give talented people time and resources to prove the worth of their ideas
 - Promote and reward intrapreneurship

Cross-functional Team Structures Provide New Insights



Sparking Authentic Discussions

Encouraging interactions

Promoting engagement

Providing room for risk-taking

Maintaining open communication channels

Embracing disruptive innovator skills

IDEO's Brainstorming Sessions

A GREAT PLACE TO WORK

What IDEO, BlackRock, and Netflix know about building high-performance cultures

PAGE 53

Source: HBR

- Promotes a culture of helping
- Induces transparency
- Evokes trust
- Encourages interactions and collaboration
- Improves performance

Google's TGIF Meetings

"Our team is split across multiple time zones which is killing us. We're up at crazy hours all the time"

The Key to Success

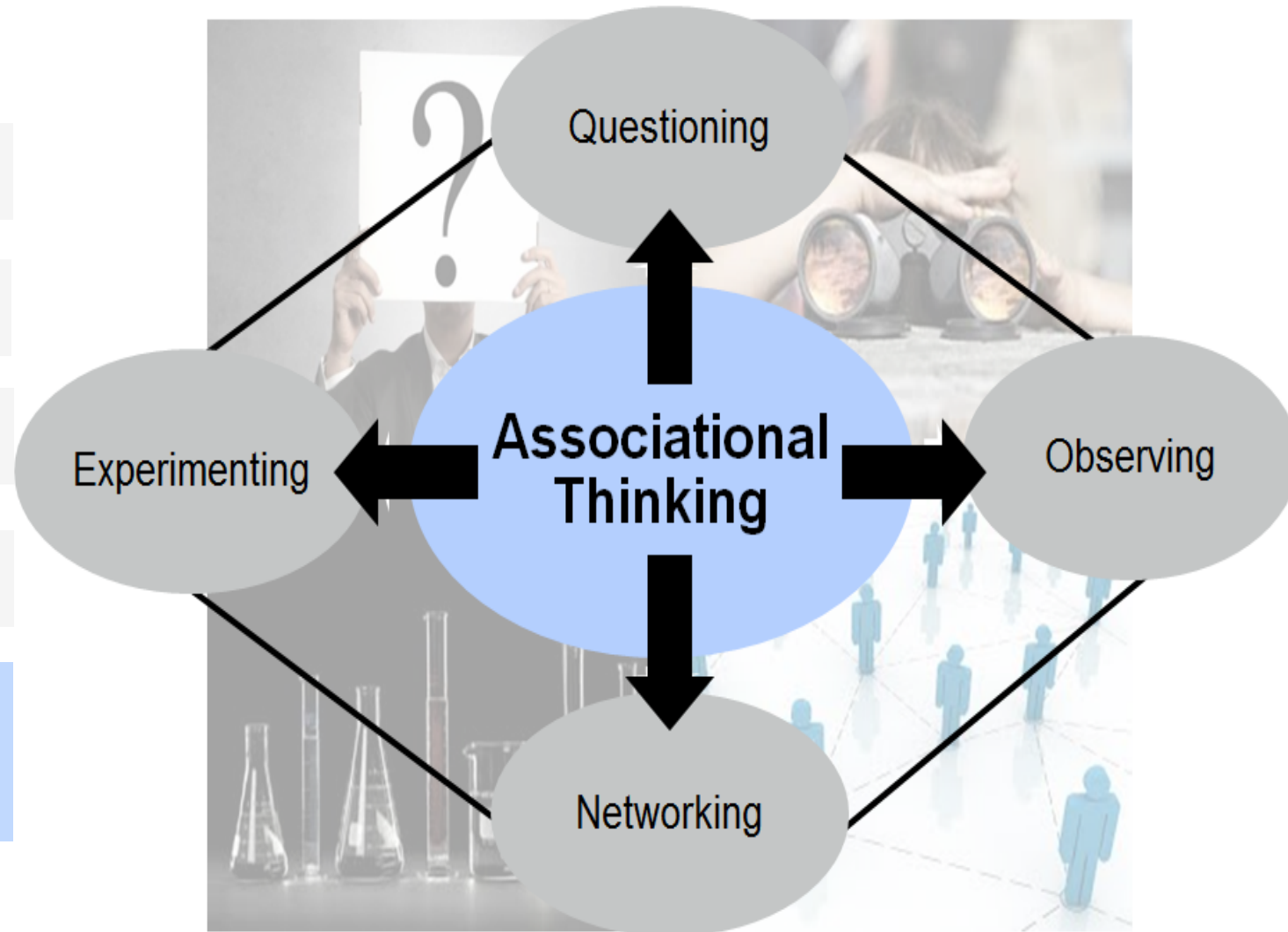
Encouraging interactions

Promoting engagement

Providing room for risk-taking

Maintaining open communication channels

Embracing disruptive innovator skills



TED Style Events Help Improve Associational Thinking

Idea sharing platform

Drives connections to ideas

Provides networking opportunities

**= CREATIVITY
&
INNOVATION**

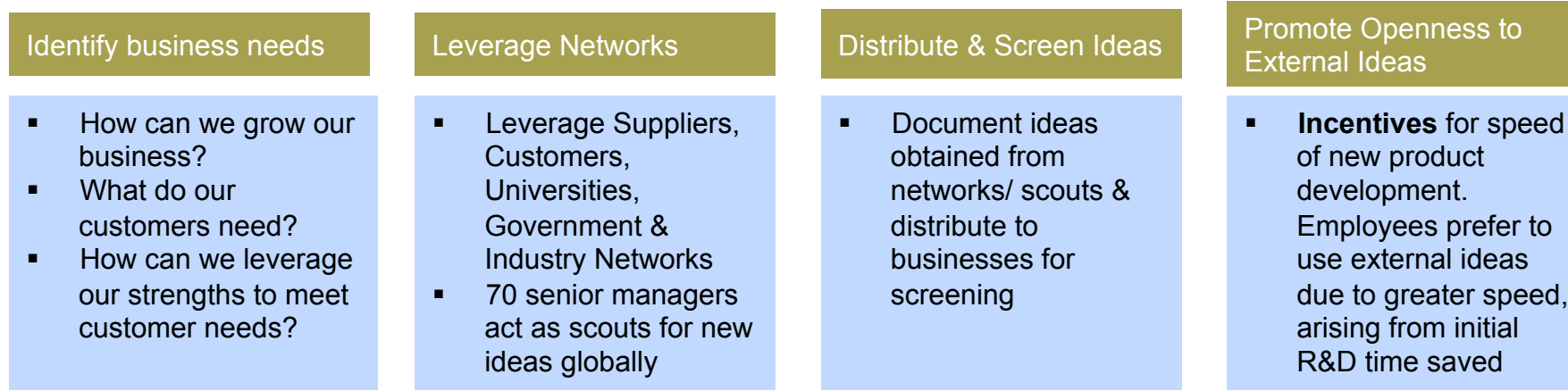
**a space
for ideas**

Source: Johnson & Johnson

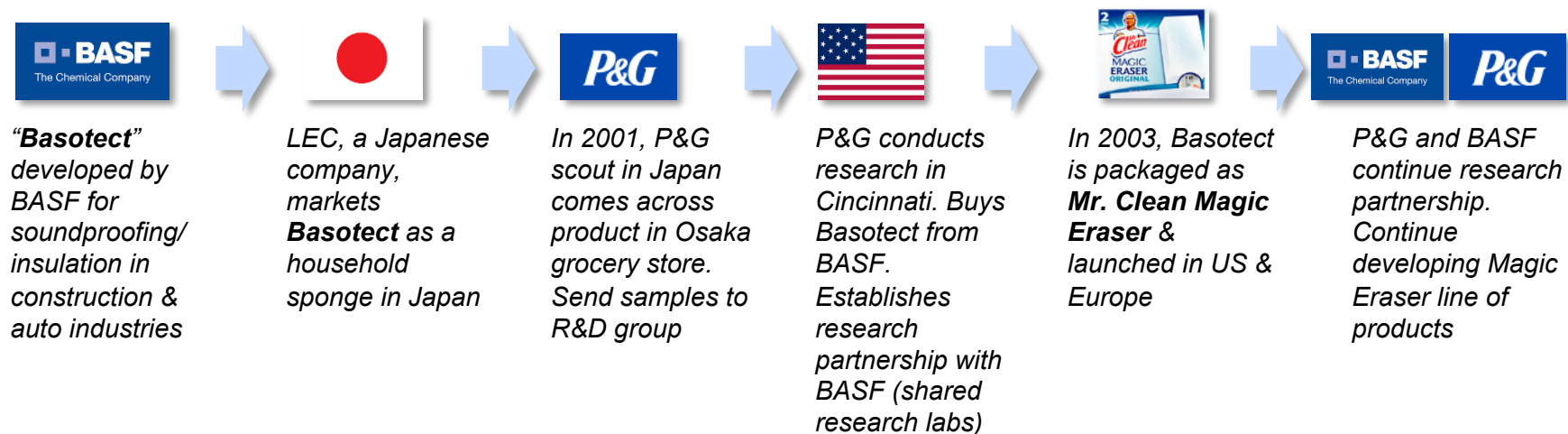
Power of Interactions...



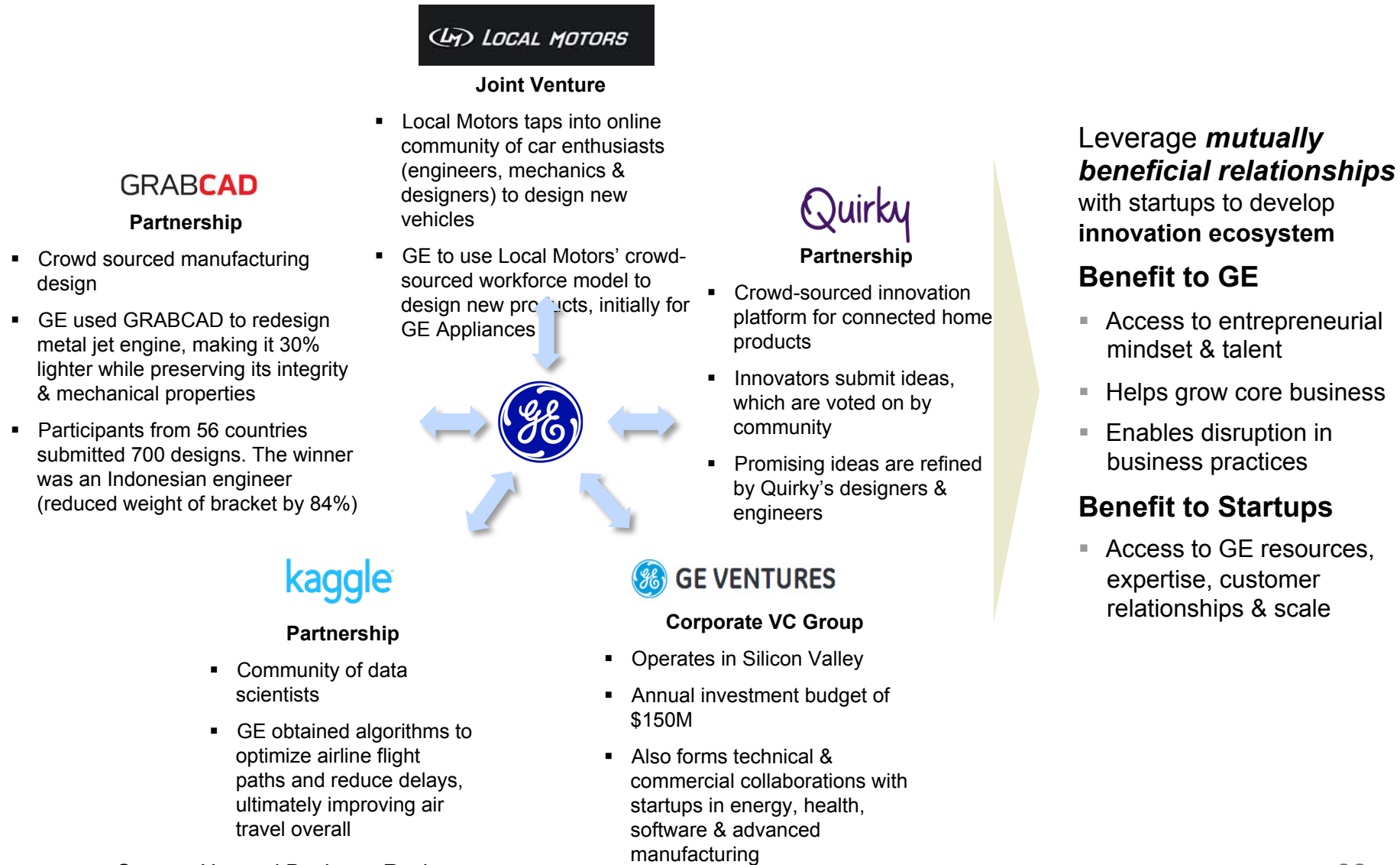
“Connect & Develop: P&G’s model for innovation through external partnerships”



“Connect & Develop: Creating a blockbuster product”



Similarly GE which has successfully created an innovation ecosystem by leveraging external partnerships with start-up companies



• Source: Harvard Business Review

Agenda

1

Innovation: The Essential Requirements

2

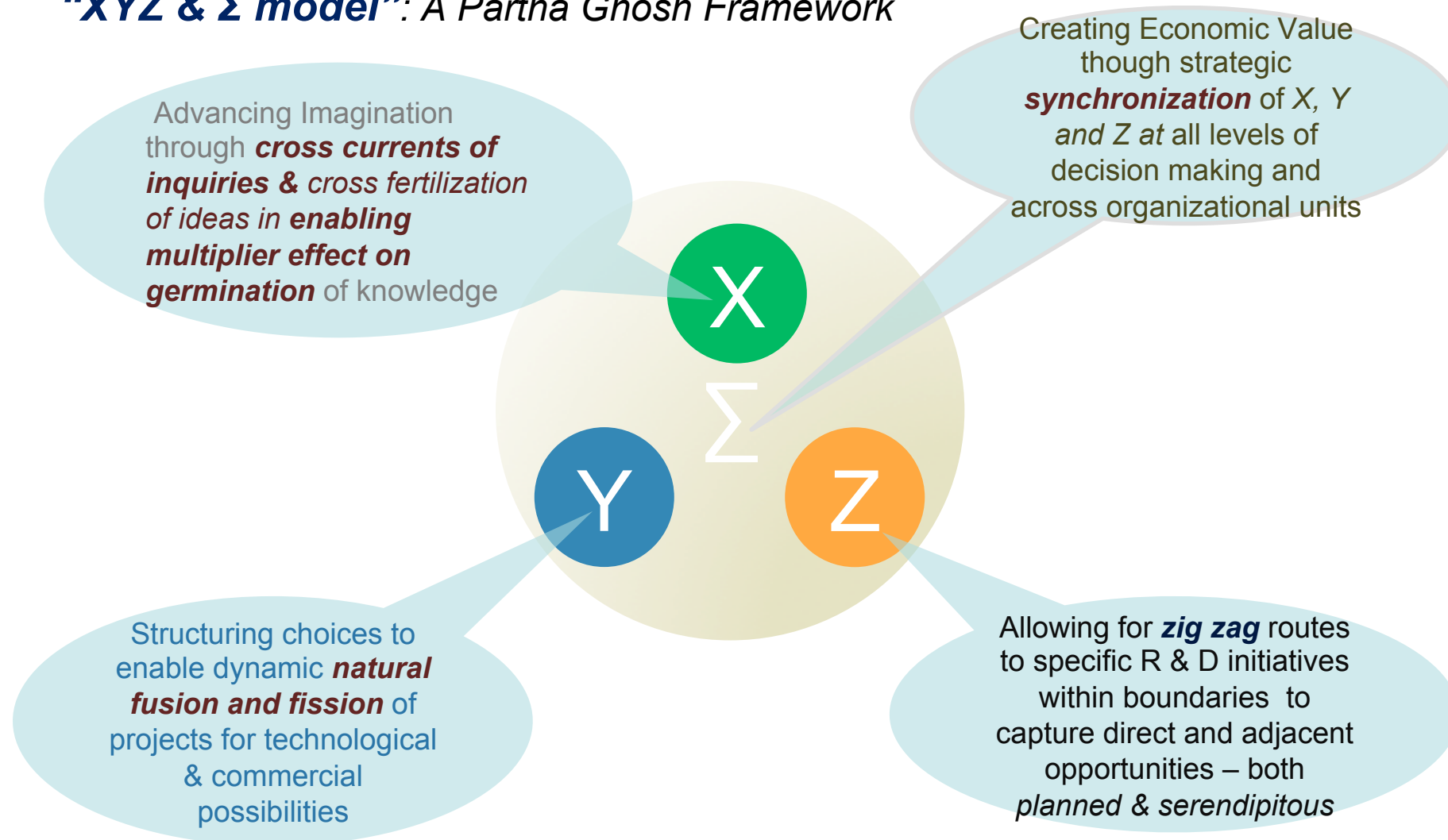
Cultivating the right environment: Case studies

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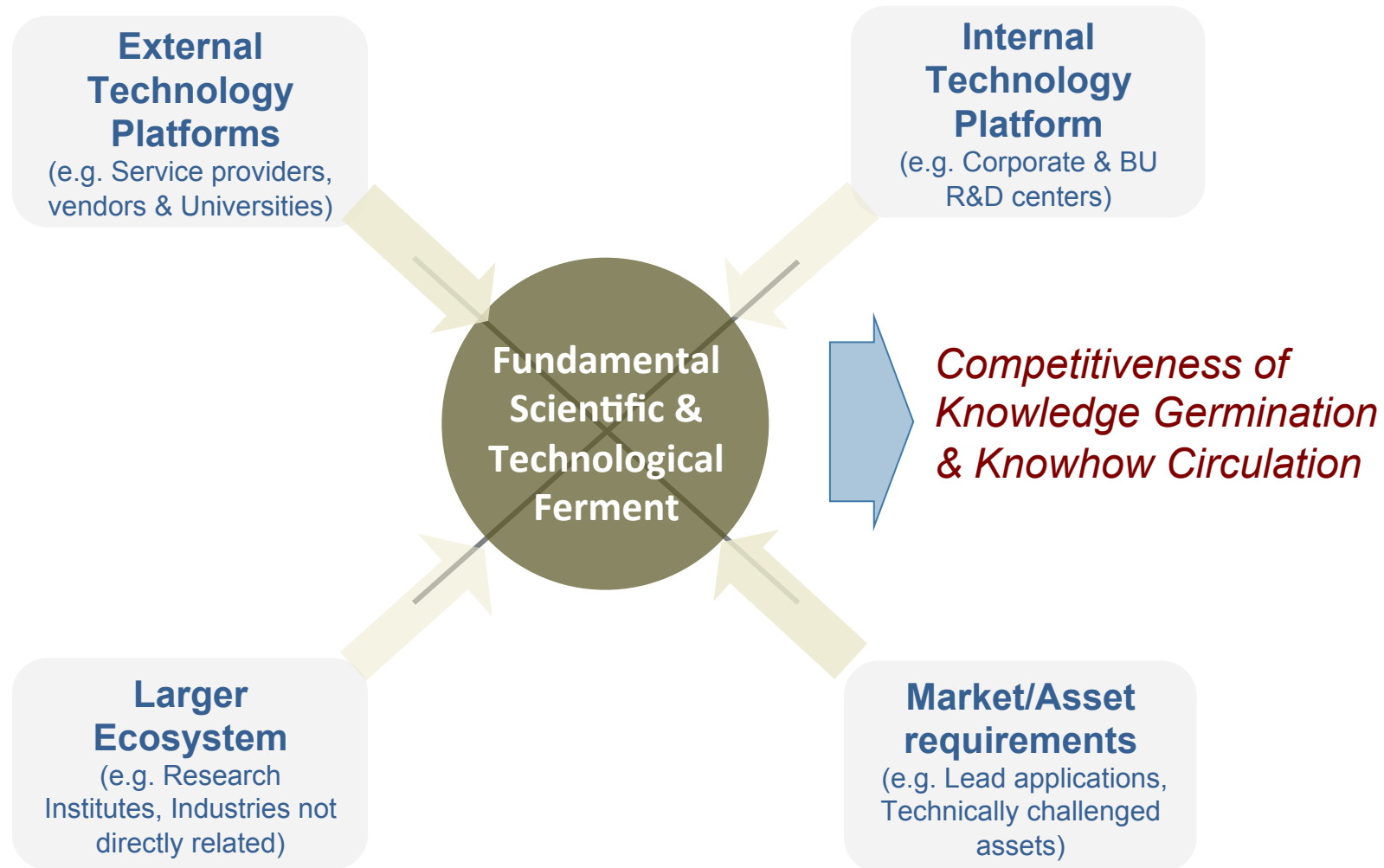
Engaging with the Possibilities ahead?

Innovation Process Framework

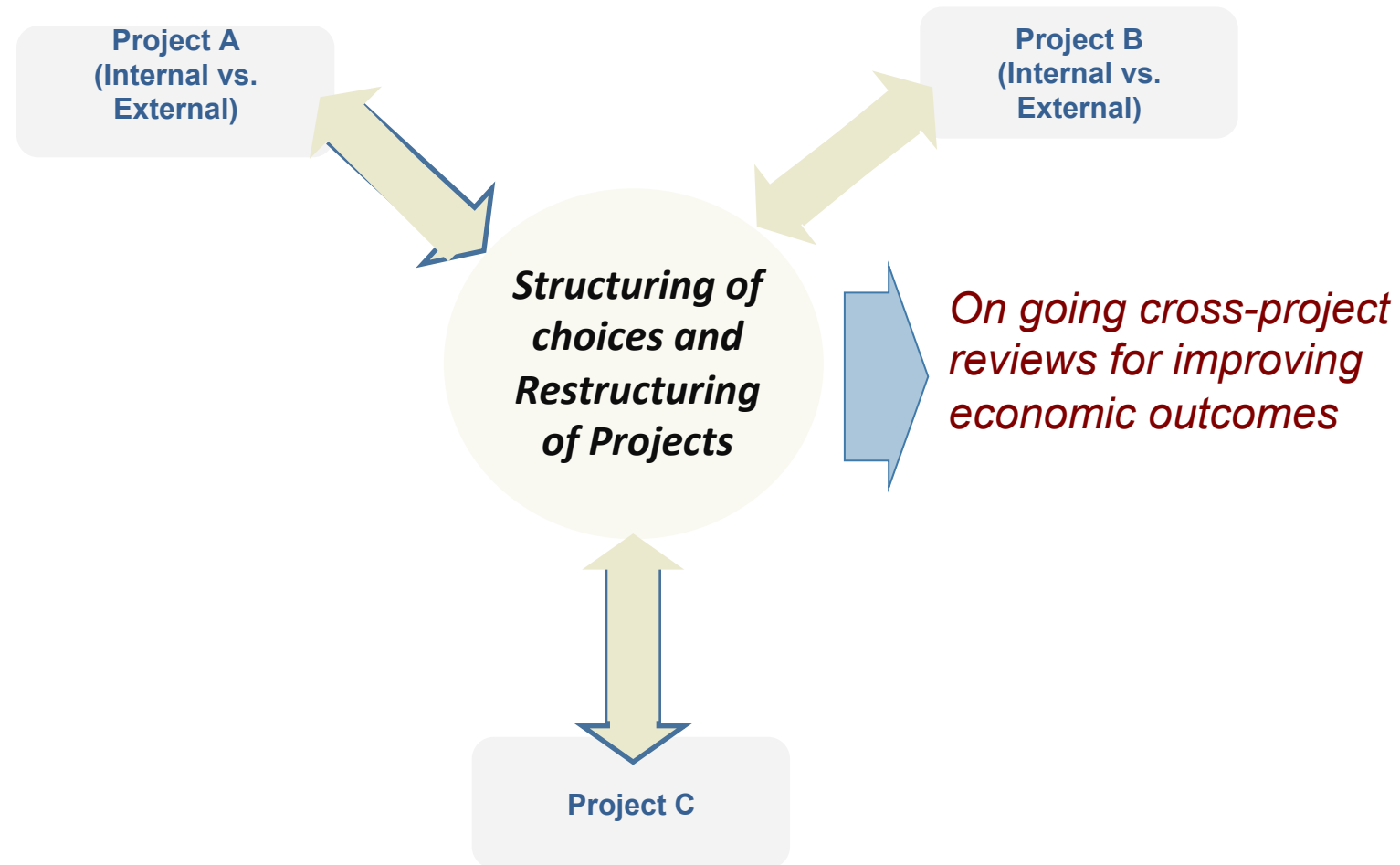
“XYZ & Σ model”: A Partha Ghosh Framework



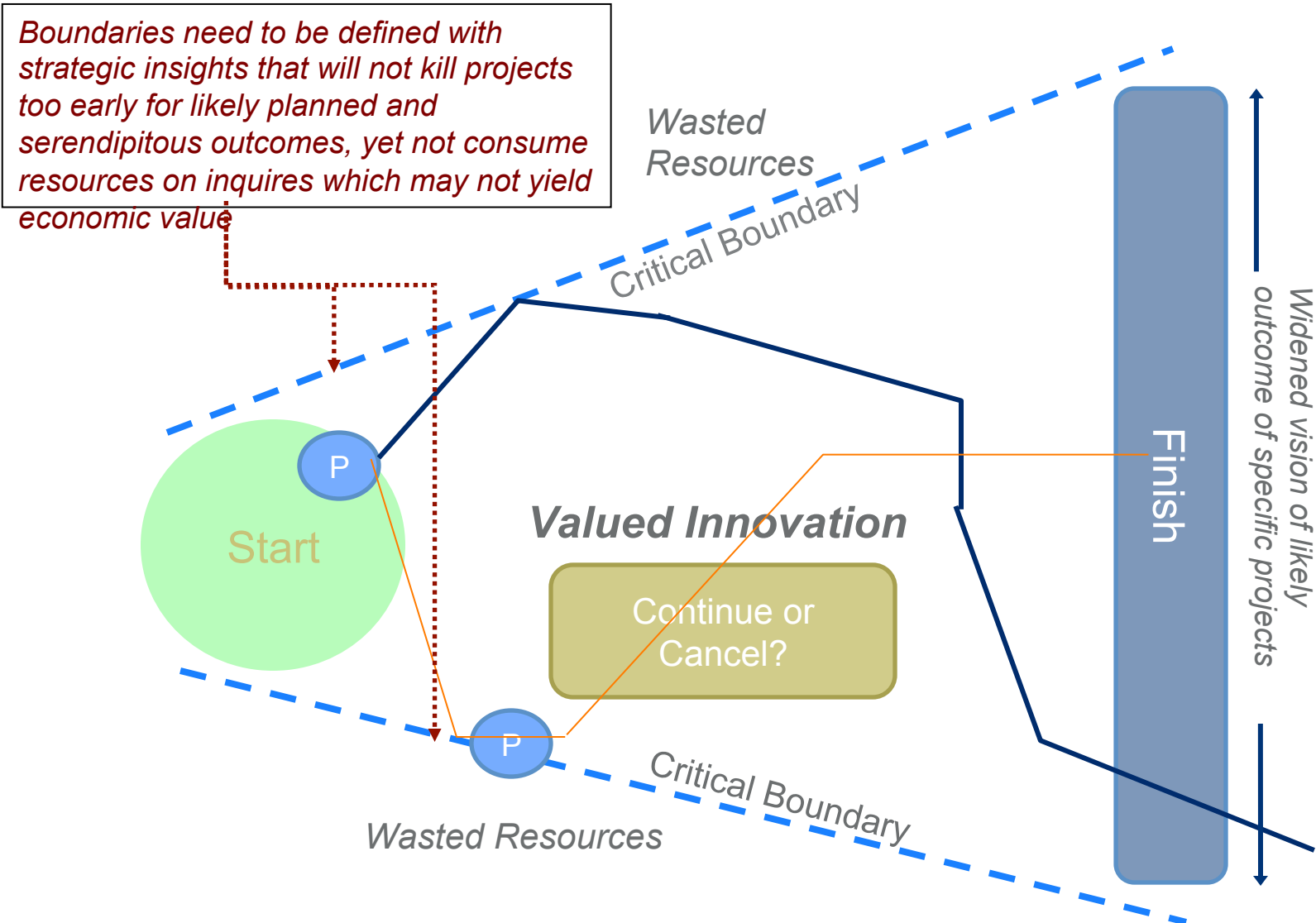
X: Knowledge creation through Cross Fertilization of Multiple lines of inquiries and disciplines



Y: Regular structuring of Choices to enable dynamic re-scoping of projects to improve likely economic outcomes

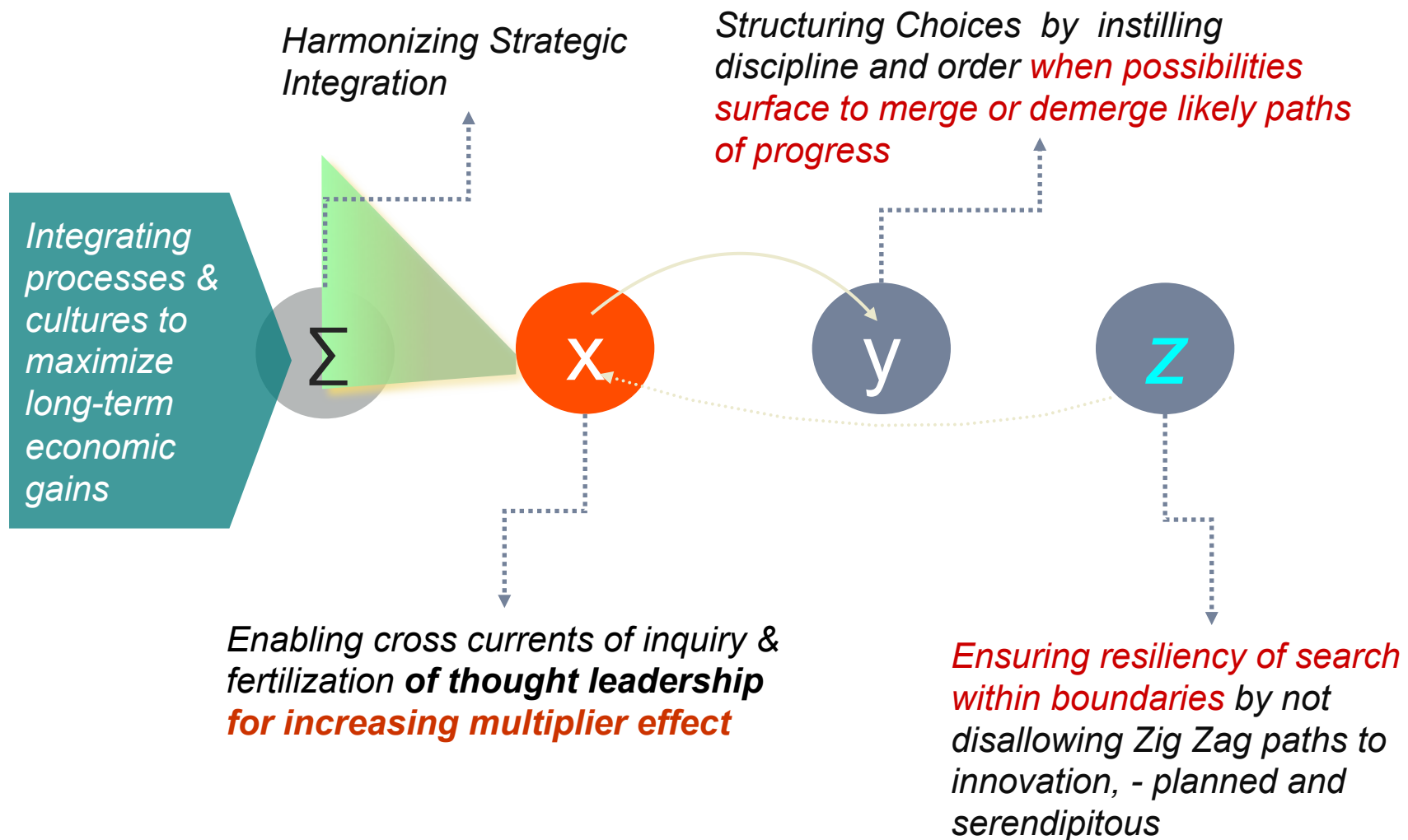


Z: Zig- Zag Path of research within certain boundaries to capture planned or serendipitous outcomes

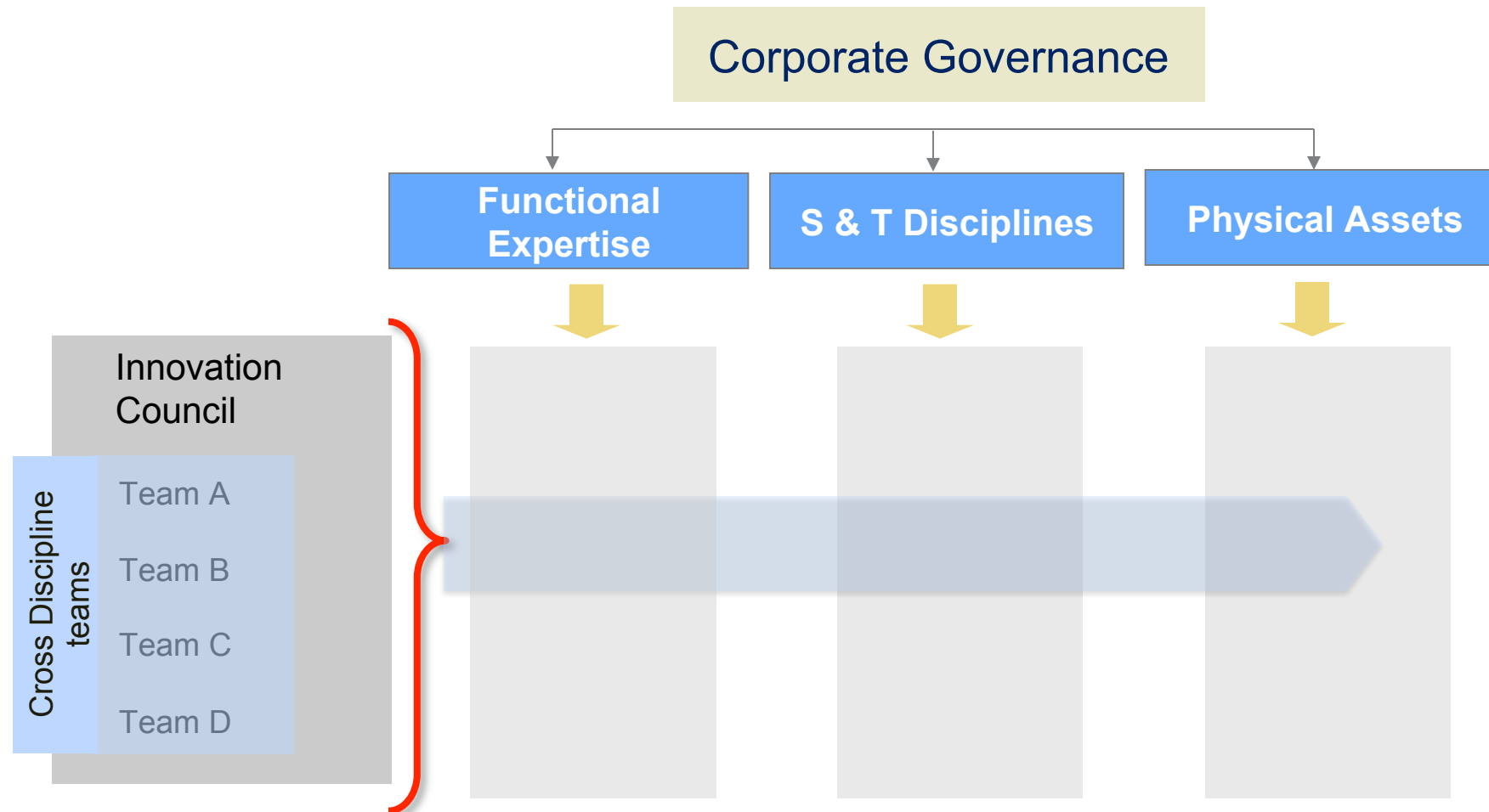


Uncovering New Pathways to Innovation

Innovation Culture = Σ of $X+Y+Z$



New Framework for Innovation Governance



$$\text{Quality of Governance} = f(\text{View, Sensing, Action})$$

Key Activity: Innovation week will enable high level of engagement across the organization



- Four days of innovation-focused events
- Focus on raising the profile of innovation and engaging employees from across the organization

Physical Presence

- Visible, innovation-themed decoration in rotunda
- Innovation information session
- Presentations on innovation-related topics in auditorium by:
 - Academic Researchers
 - Industry Leaders
 - Emerging Innovators

Online Presence

- Online innovation quiz on STRATA
 - Winners to be recognized during EPIC
- Leadership articles highlighting Columbia's commitment to innovation
- CEO Video Release: Video highlighting Devon leadership's commitment to innovation
- Launch of communication campaign: "Everyone can be an innovator"

Ideation Sessions with select assets could lead to a healthy innovation pipeline



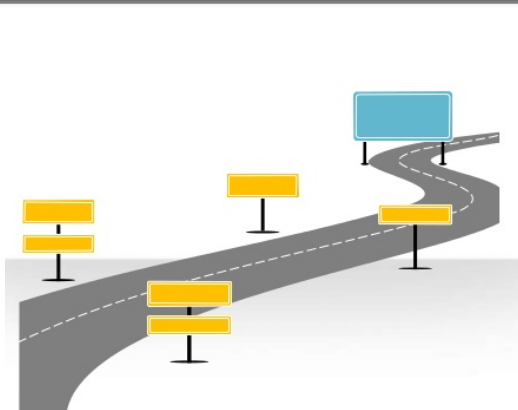
- Short, focused ideation sessions to identify innovation opportunities for specific Assets
- Goal is to identify 2-3 actionable innovation opportunities, define high level roadmap for each opportunity

Identify Innovation Opportunities



- Identify 2-3 opportunities to create value across departments through new initiatives
- Define problem statement for each new initiative

Define High-Level Roadmap



- Define high-level timeline for addressing opportunity
- Prioritize external innovation organizations for possible partnerships

Form Teams



- Identify Project Leader to pursue opportunity
- Identify team members to be engaged in future discussions

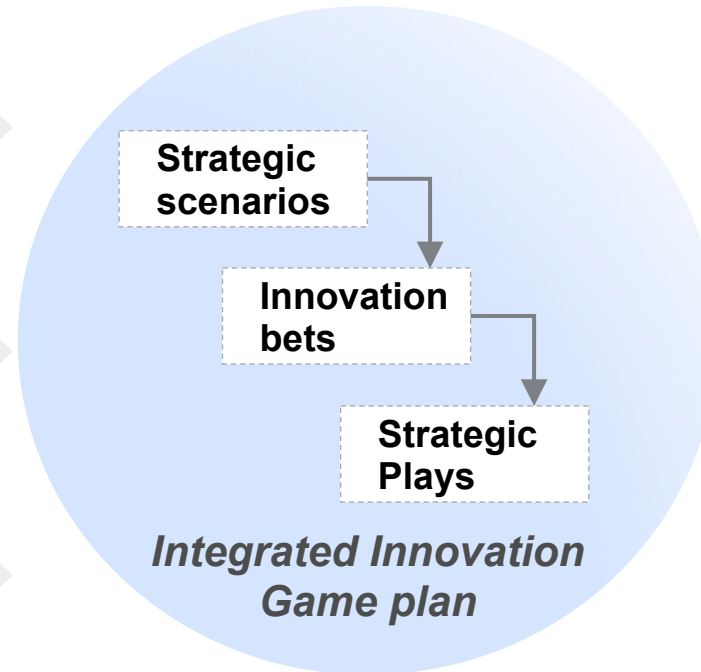
Towards an Integrated Innovation Game Plan..

Internal Prerequisites

1. Clear definition & Understanding assets

2. Cross functional teams with **XYZ & Σ** at work

3. Well structured accountabilities & incentives



External essential requirements

1. Perspectives on Mega trends

2. Requirements of likely clients and partners

3. Competitive moves & Strategic alliances

....Strengthened and renewed *through Uncommon connections*.....

