



Managing & Structuring R&D and PD Areas to lead Innovation Process

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Pula , Croatia, April 4, de 2019



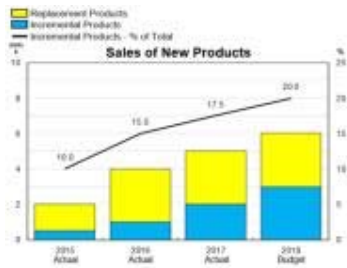
AGENDA

- Why companies need to keep innovating
- Critical components of an innovation strategy
- Leveraging talent that produces ideas.
- How to align and organize talent.
- Prototyping as key tool
- NPD process and PM for flawless execution.
- How keep your innovation talent motivated and energized



Why still Innovation should be key piece companies strategy?

The question is not if companies need to innovate but how make innovation more relevant and effective?



Incremental sales



Higher margins



Attract new consumers / customers



Build brand Value



Build barriers for competitive advantage



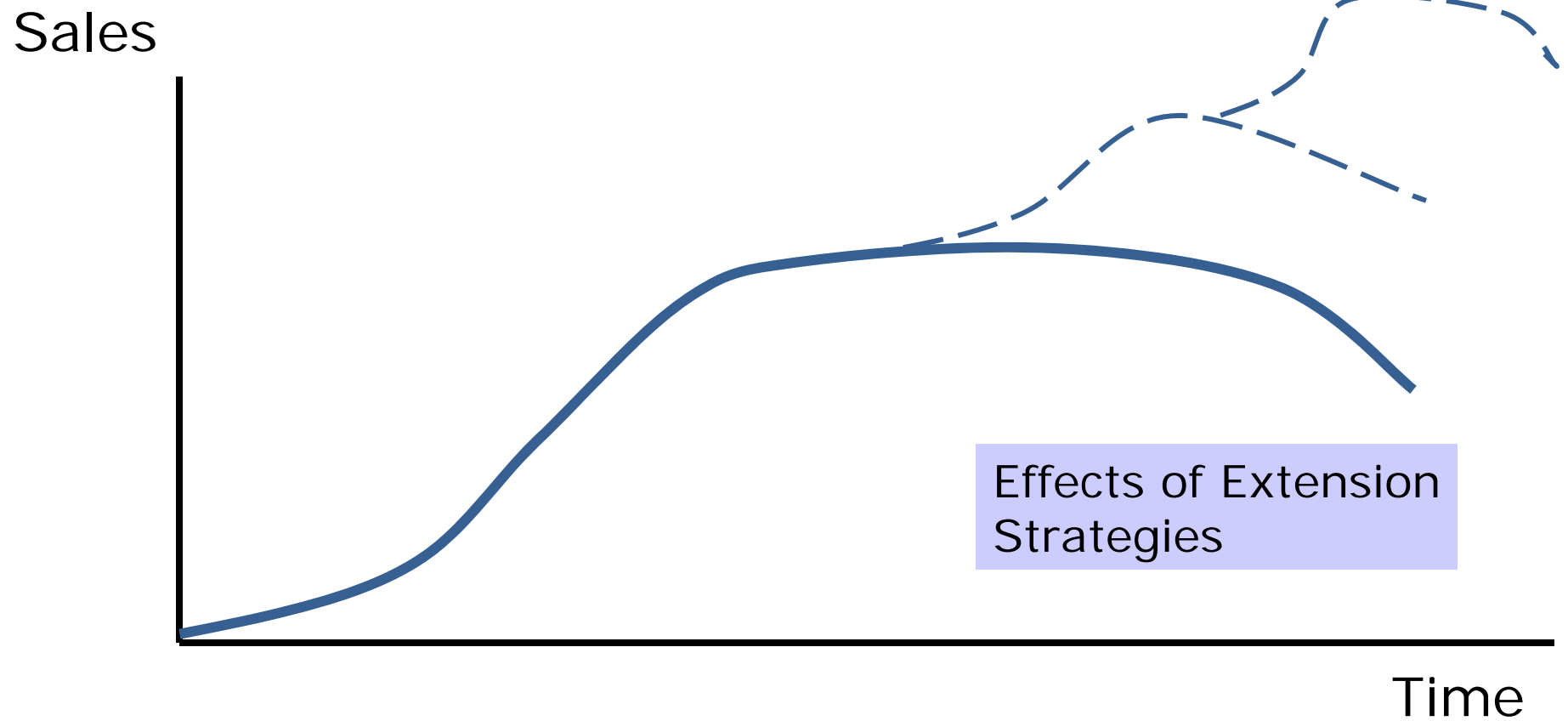
Move out price war



Positive impact in core products

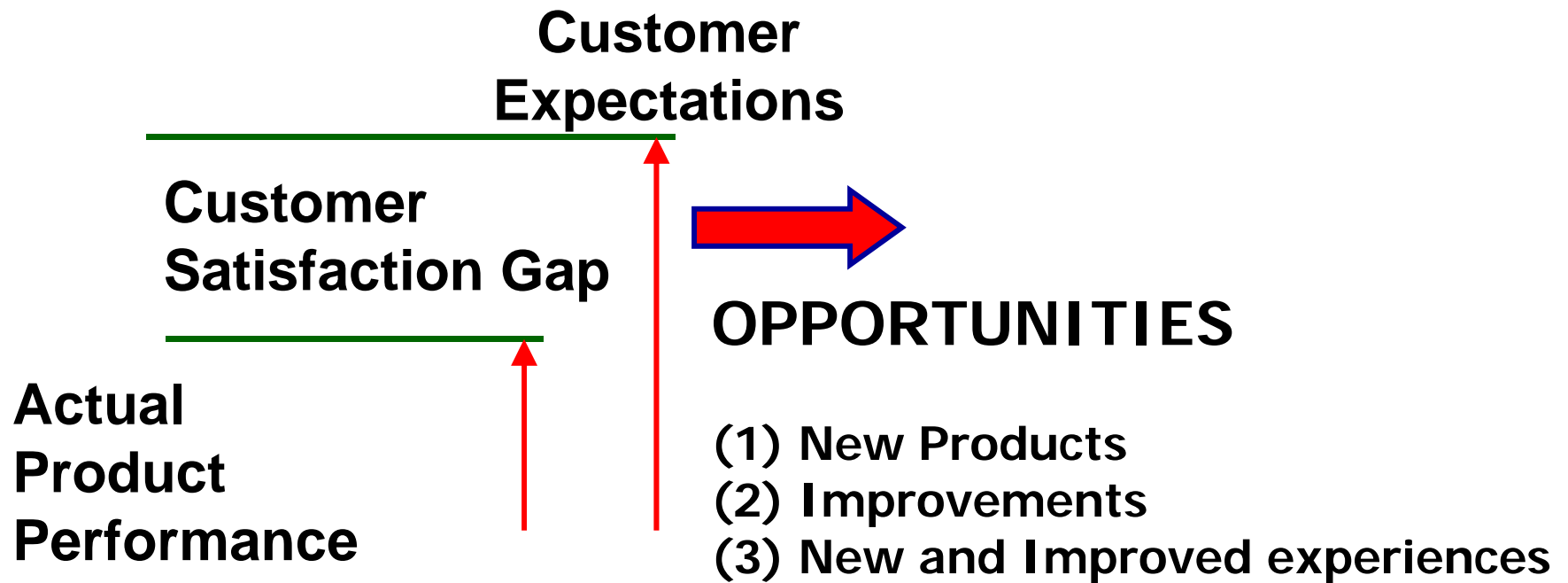


Product Life Cycles and the Boston Matrix





There is always a gap to improve any product or service.

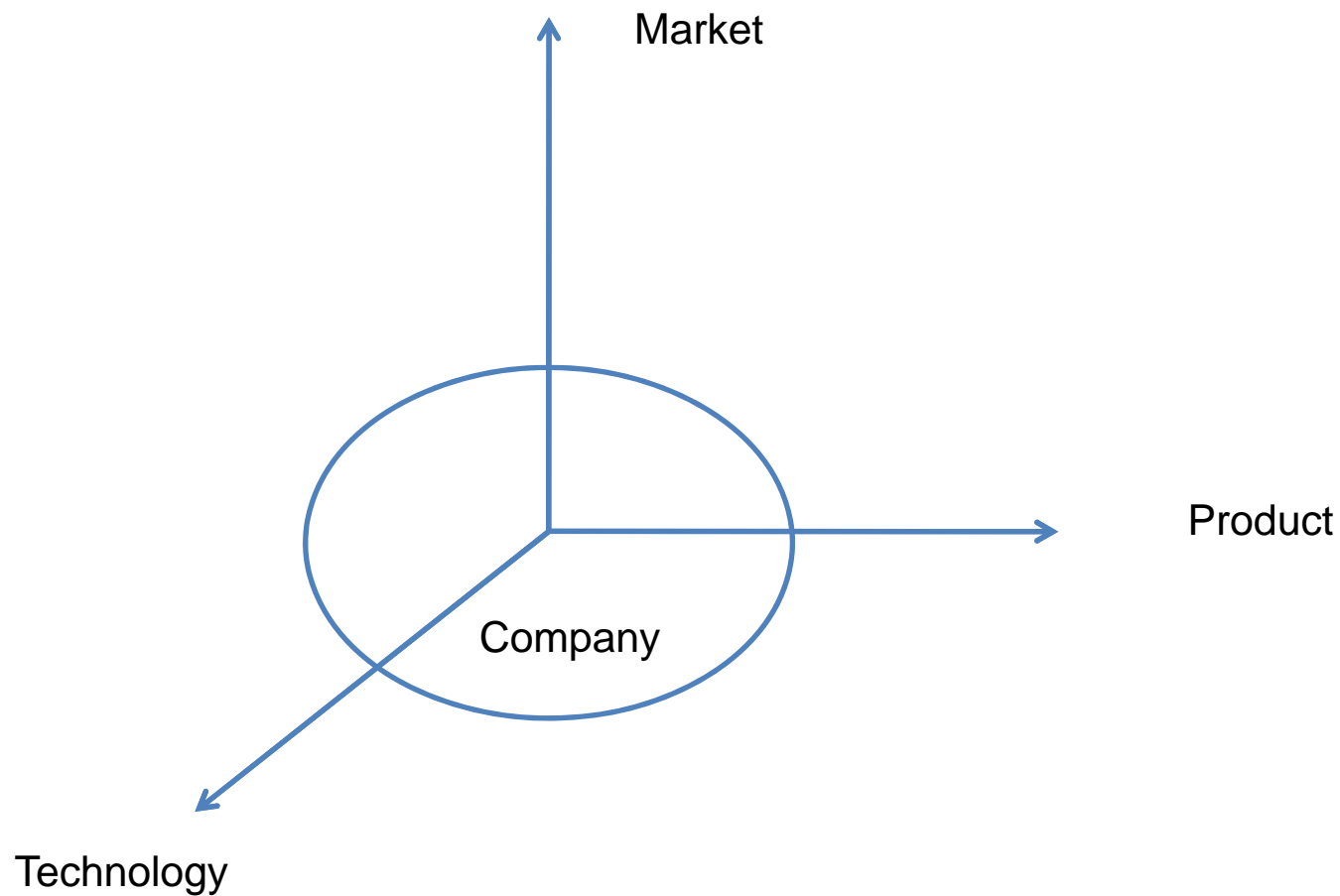


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Balanced approach of market opportunities, technology innovations



..... to create products to please consumers and benefit company performance.



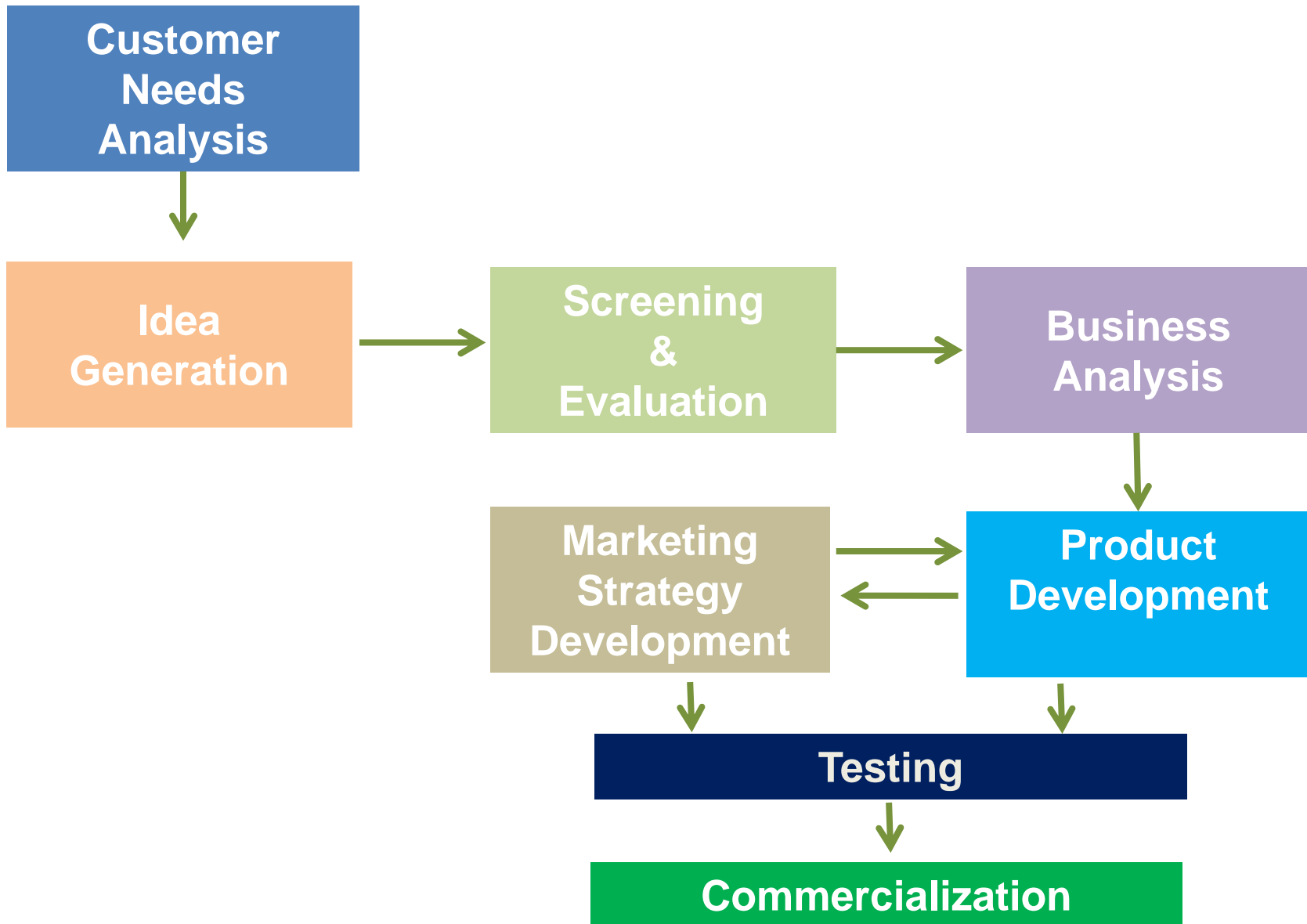
Strategy is about of choice



The decisions you make.... makes you , and making choices is company responsibility



Problems to solve: Select the right things to do.. Then do the things right.





¿What do you need to succeed in product innovation ?

10



Right Choices



Right People



Right Process



The key is having enough clarity of what are the problems to solve for whom



Core products



Underserved consumers



Trends



New consumers



Market Channels



Regulations



Food trends that can influence biscuit and snack business 2019

Factory automation in QSR: Café X / Spice Chicken

Plant based product : 1/3 of population is actively looking for less animal products

Sweetness preference shifting: Regulations changes make people to consume less

Seeds butter: KIND bars

Cannabis compound Callouts : CBD bars

Clean label commoditization drives brand importance: Great innovative product experience

Single serve plastic packaging at risk: Government bans

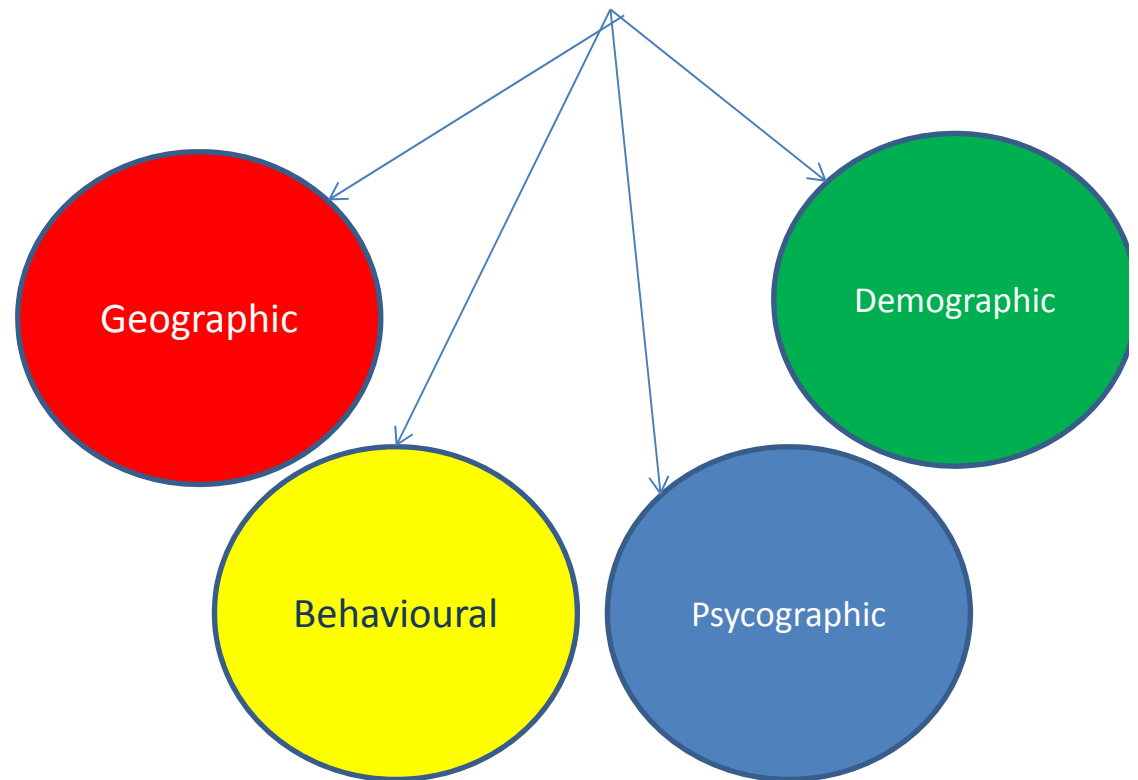
Big Food and \$ Offer motivation to start a new business : PepsiCo offers 20 K in a form of a 6 months grant with a chance to make 100 K more



5W..Need to sweat the details



Market Segmentation

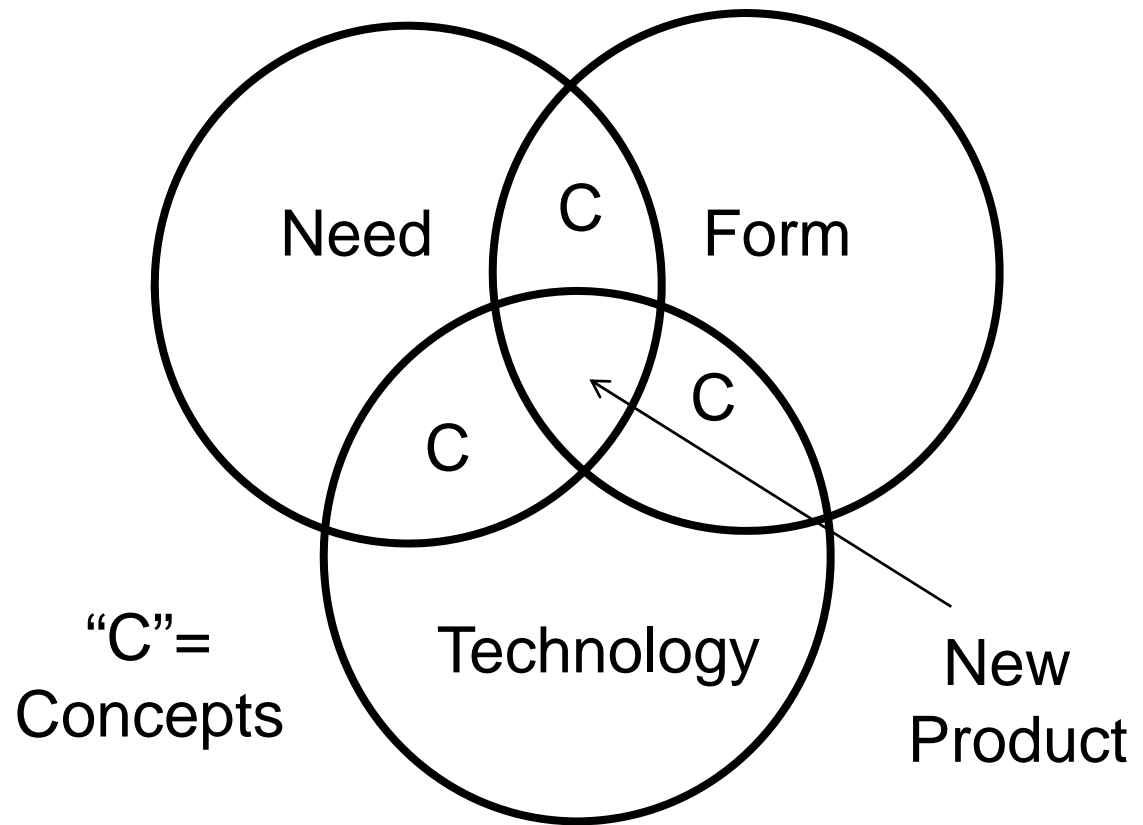


- Serving few needs of many customers
- Serving broad needs of a few customers
- Serving broad needs of many customers in a narrow market



A winner concept contains three major critical components

- Consumer insight
- Product Benefit
- Reason to believe





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There are many potential possible sources of ideas

Inside



Engineering



R&D



Manufacturing



Commercial

Outside



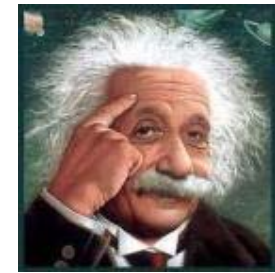
Shoppers



R&D Centers



Competitive Arena



Consultants



Consumers



Syndicated Info



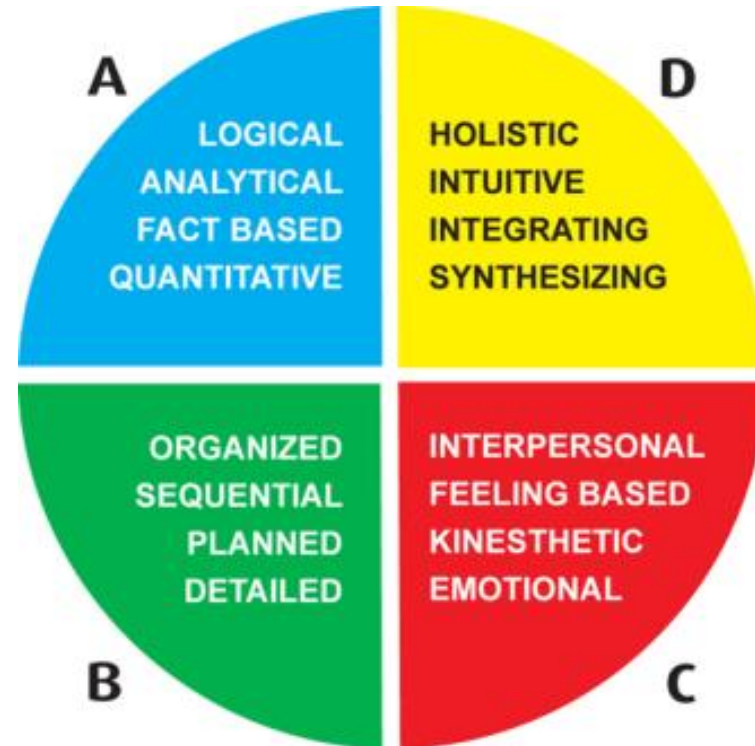
Universities



Mkt Agencies

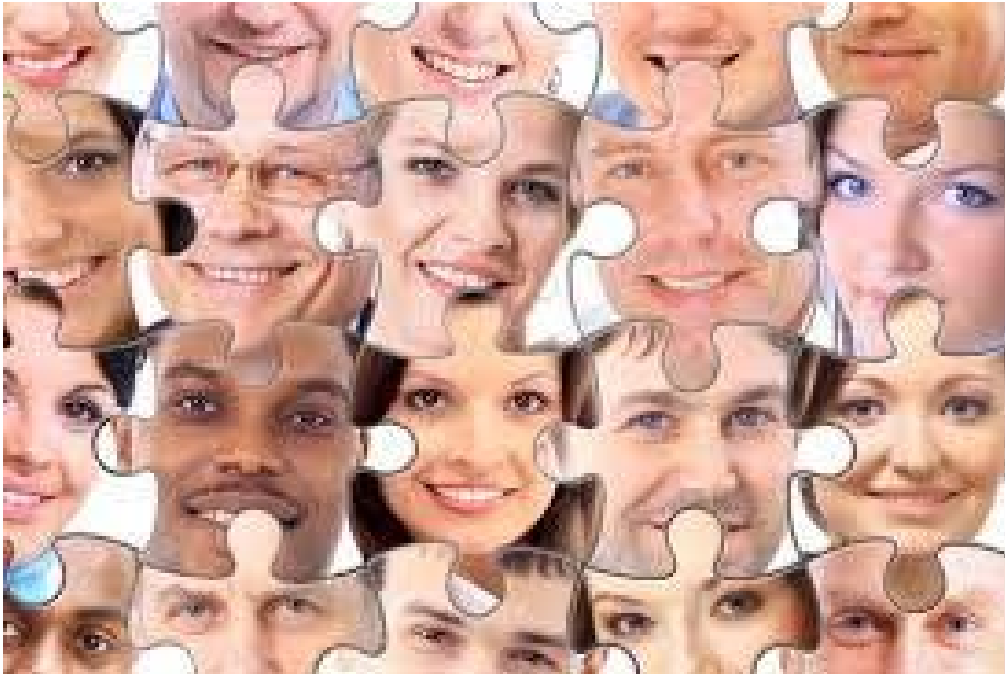


What is the brain dominance of team members?



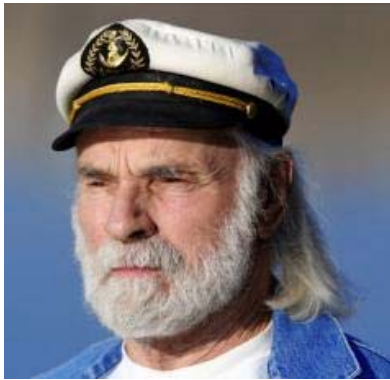


Diversity of talents helps also to have different points of view





We need the right captains that can lead the idea efforts and nail down in actionable projects



- Communication
- Leadership
- Negotiation
- Organization
- Risk Mgmt





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R&D works in companies has evolved significantly adapting to new business models and needs

R&D Generation	Context	"Process Characteristics
First Generation	Black Hold Demand (1950-1960)	Ivory tower, technology push oriented, little interaction with rest of the company
Third Generation	Rationalization efforts (Mid 70's to mid 80's)	R&D as portfolio, moving away from individual projects, linked with both business and corporate strategies
Fifth Generation	System integration (Mid 90's and onwards)	R&D as network, focusing on collaboration in a wider systems (open innovation, suppliers, external collaboration, speed is an imperative, separate R from D)



The four key activities of R&D

Research

Track
Market

- Reduce uncertainty
- Foresight business needs
- Build competences for future
- Proof outside tech principles

Service
Market

Development

- Create NP efficiently
- Improve process
- Product upgrades

Innovation

Shape
Market

- Launch smart ideas
- Disrupt in target markets
- Create new markets
- Solve problems in new ways

Maintain
Market

Brand maintenance

- Reduce product cost
- Solve process and line problems
- Product regulatory changes



Both models shows pros and cons

Strengths

Centralized

- Encourages risk taking and long term thinking
- Support fundamentals technology advances
- Emphasizes research
- Attract top talent

Des-Centralized

- Encourages alignment project – business
- Incremental development
- Accountability for budget
- Leverage efficiencies in BU processes

Weakness

Centralized

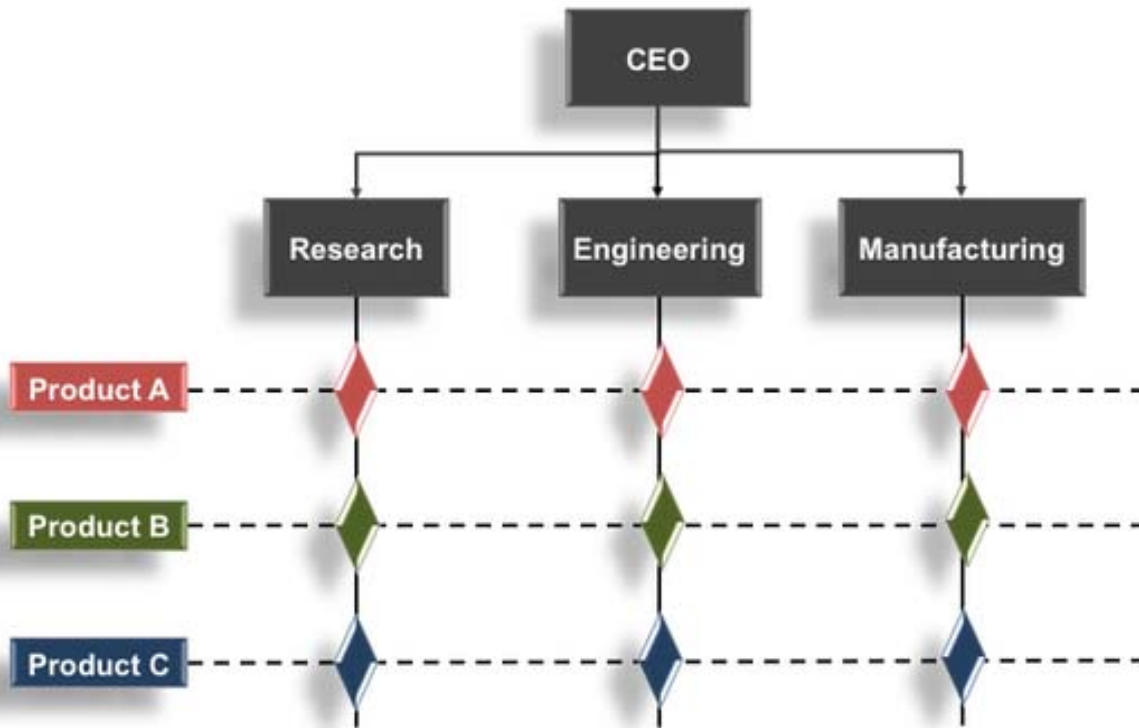
- Disconnect R&D vs company needs
- Slow PD cycles
- Accounting benefits of R&D programs difficult
- Valley of death can stop Tech deployment

Des-Centralized

- Short term goals compromise long term needs
- Organic growth focused
- Efforts unintentionally duplicated
- Narrow focus on research
- Little funds to build core competences

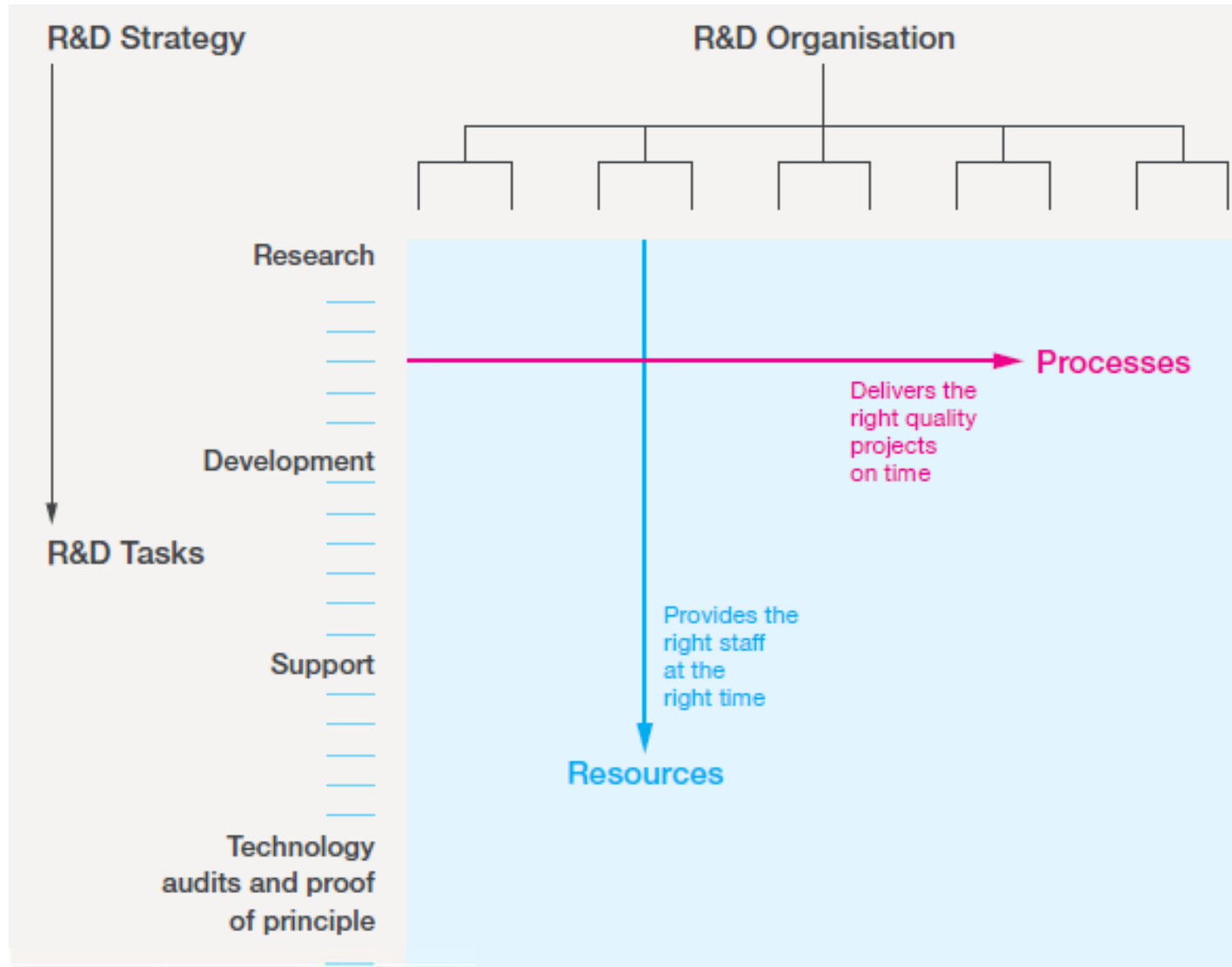


Matrix structure



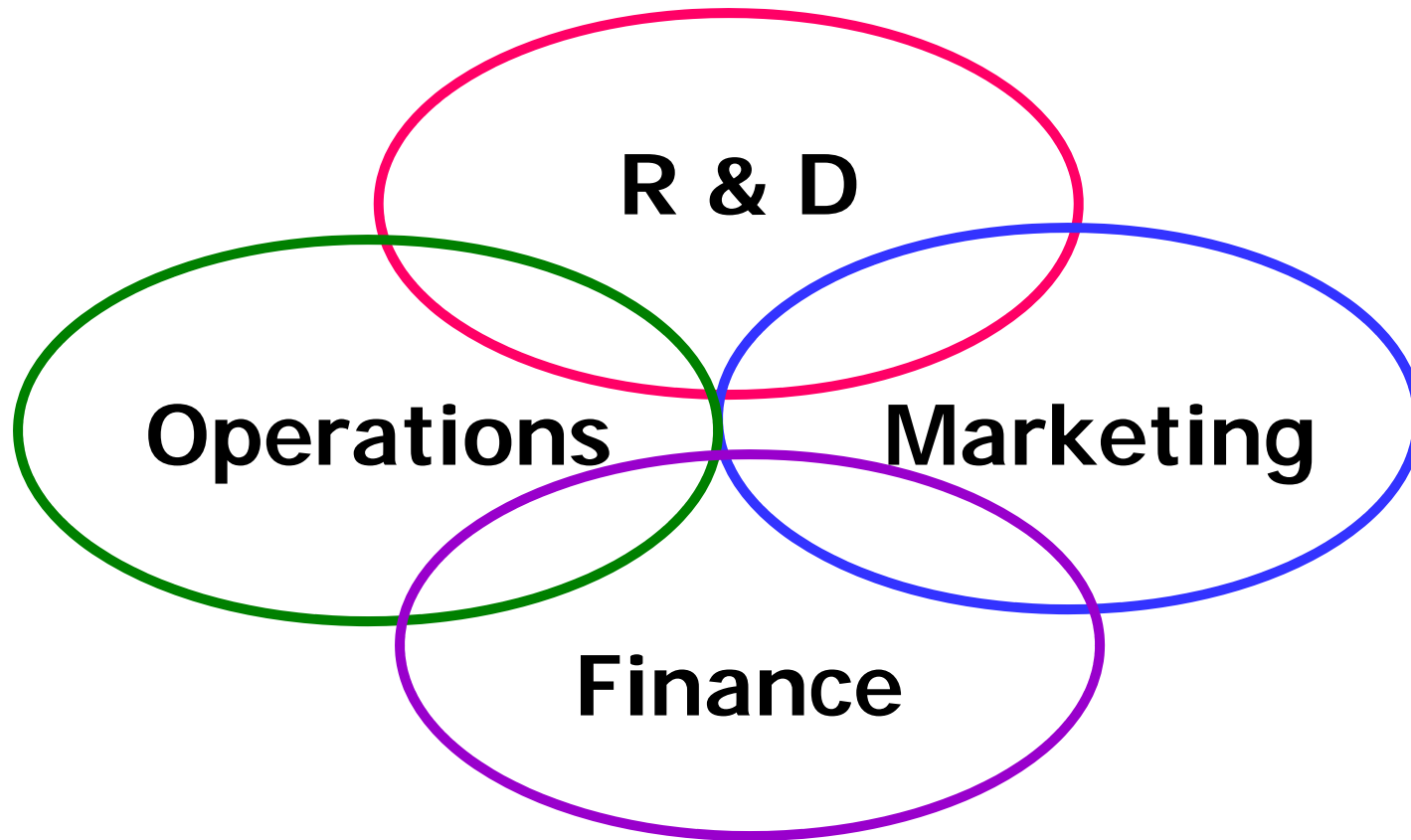


Product team move the projects across the company





Achieving Cross-Functional Interaction and Coordination



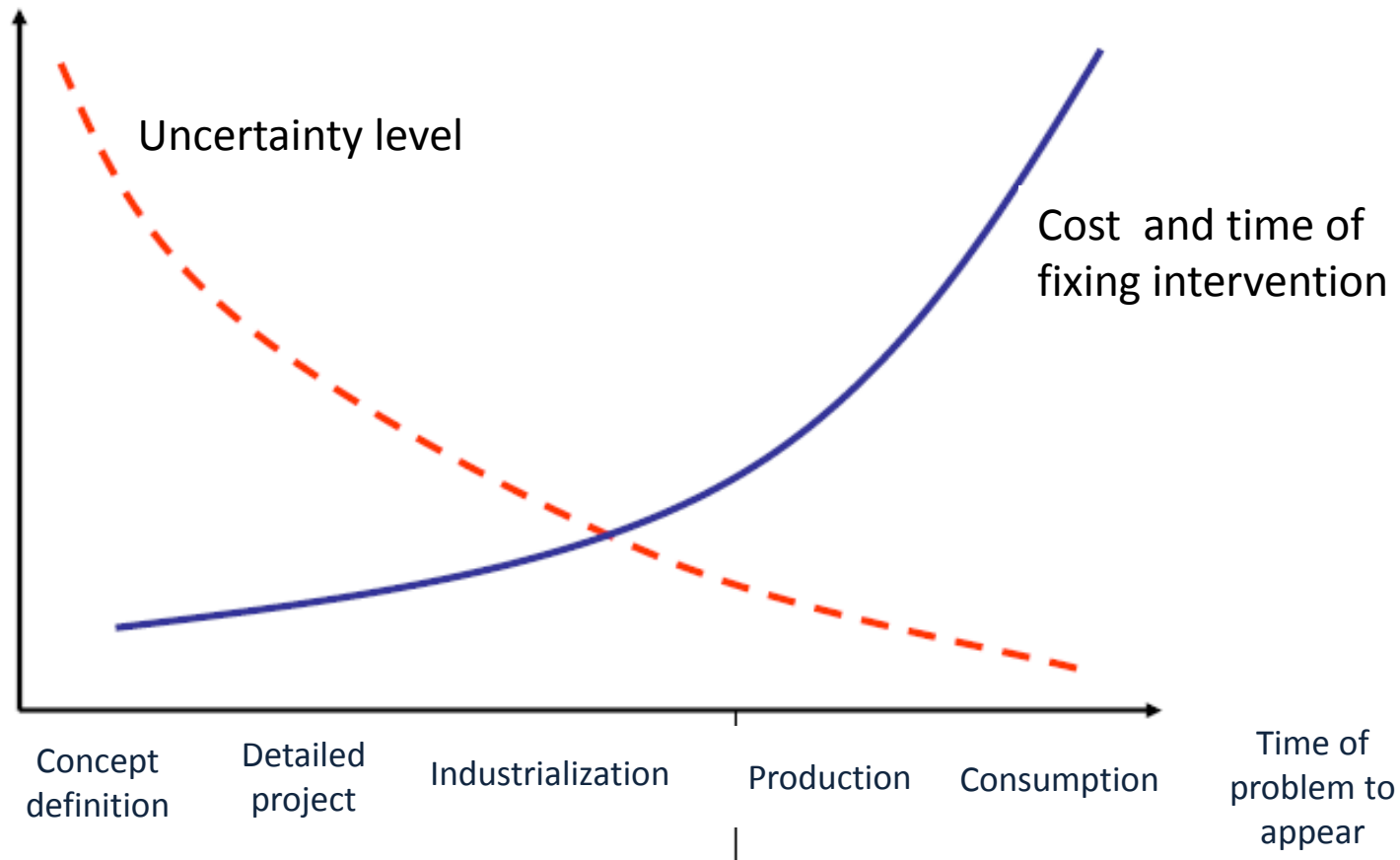


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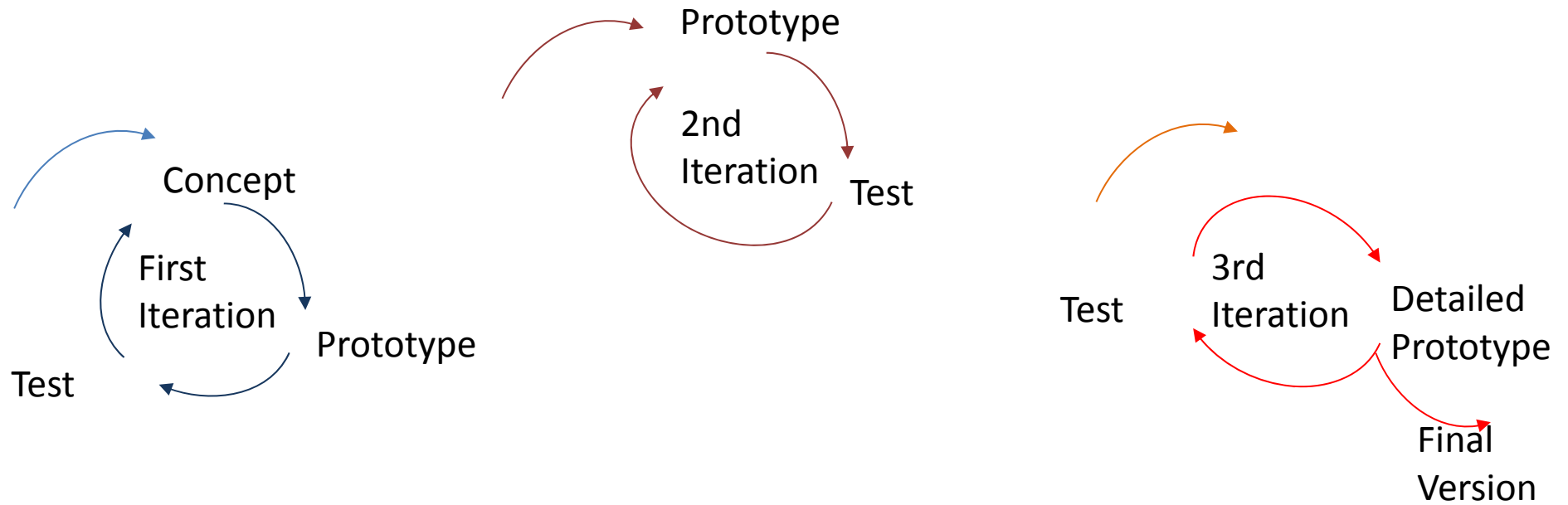


Uncertainty and corrective cost level change according with the stage of the project





Prototyping facilitate the interaction with product stakeholders and most important with consumers



- Fail early and inexpensively
- Gather more accurate requirements
- Understand technical implications
- Align stakeholders
- Early Cost implications and financial feasibility
- IP claims

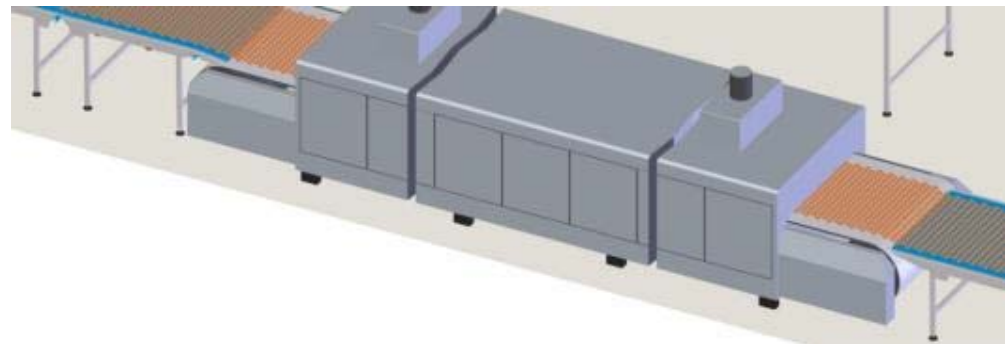


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Early Phase
Bench level



Pilot Level



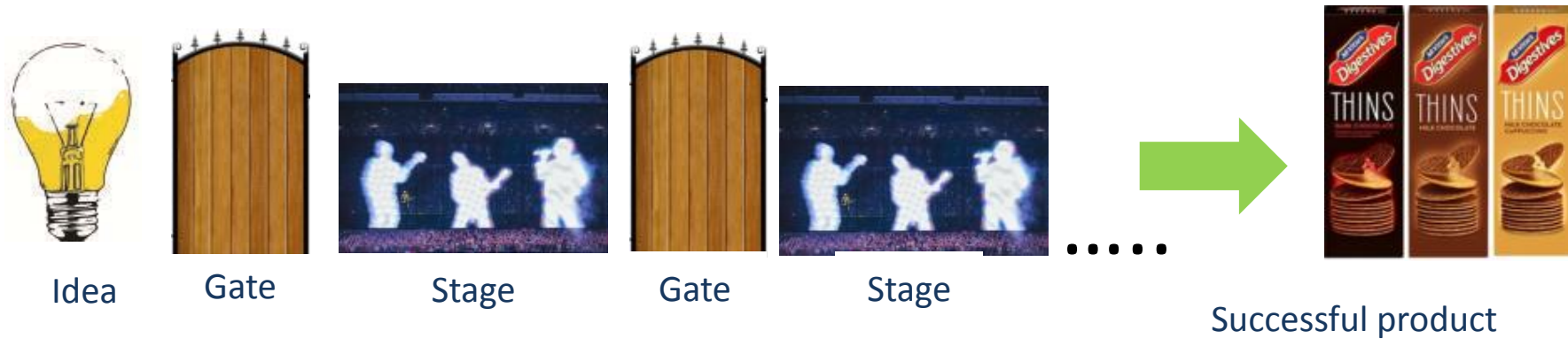


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Stage gate approach : Work methodology



Key SG Actors





Divide the process in phases to manage time , resources and deliverables



- Stage 1
- Small team
- Low \$



- Stage 2
- Medium size team
- Cost \$\$

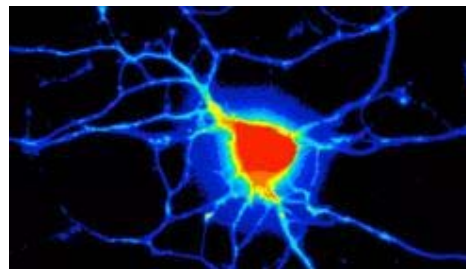


- Stage 3
- Large size team
- Cost \$\$\$

Stages have a common format



Work



Integrated
Analysis



Deliverables



Gates function and format



- Quality
- Project deliverables and alignment assessment
- Approve action plans and resources

Gates have also a common format



Deliverables



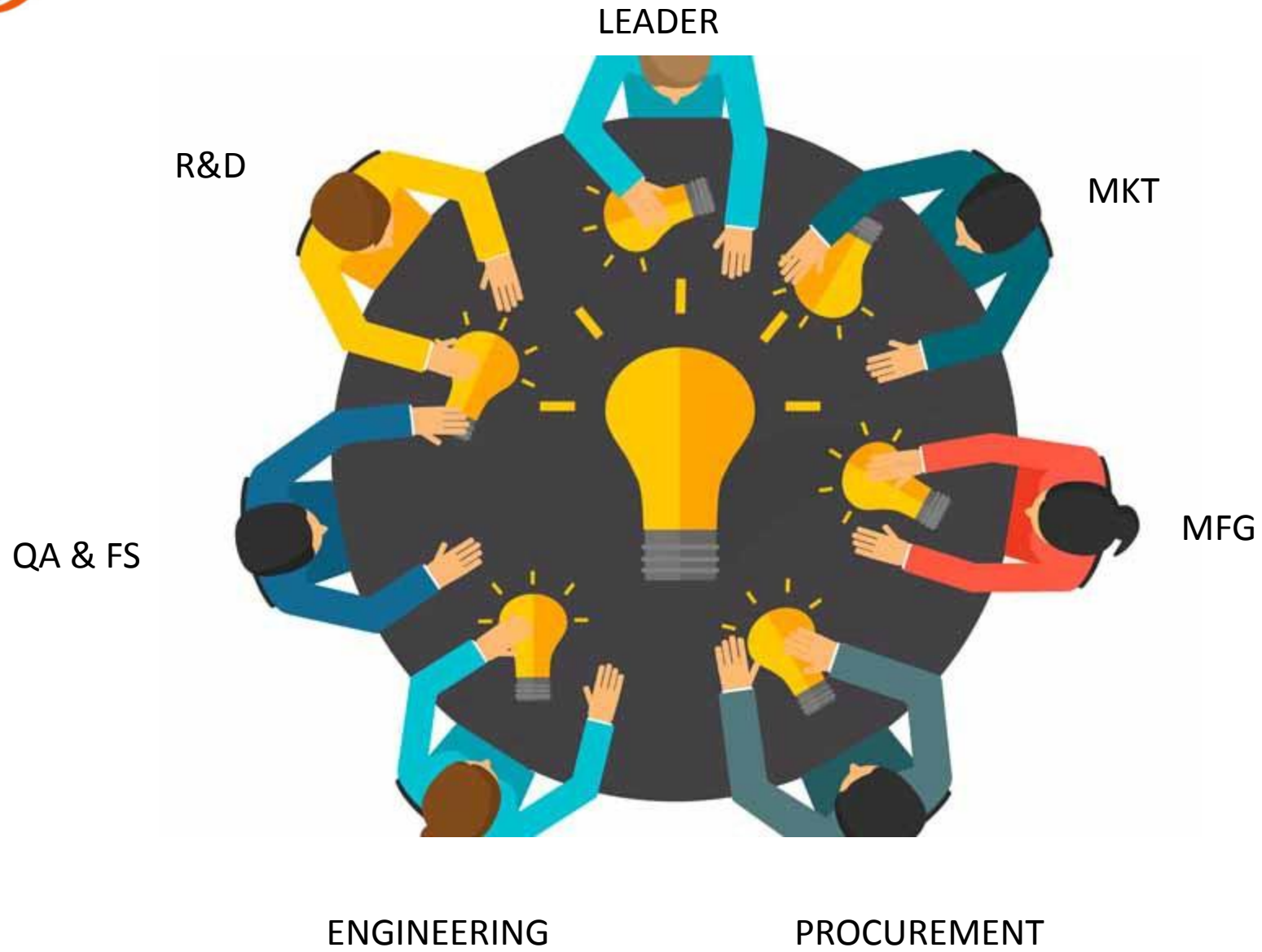
Criteria



Results



Teams are multifunctional



R&D

LEADER

MKT

QA & FS

MFG

ENGINEERING

PROCUREMENT



Dismantle hierarchy & Empower Cross functional teams

- Define required work
- Identify key interdependencies
- Parse the innovation sub task to small interlocking teams with defined leaders
- Agree on goals, schedule and accountability
- Provide resources but stay out of each team task unless it is not meeting its major commitments
- Craft the company's overall shape, keep the subtask together and link non-adjacent sub task as necessary.



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- **Keeping talent motivated and energized**



People are the driver that make the things happen





Making the work more inner rewarding has demonstrate is a great motivator for R&D people

Inner positive motivation generators

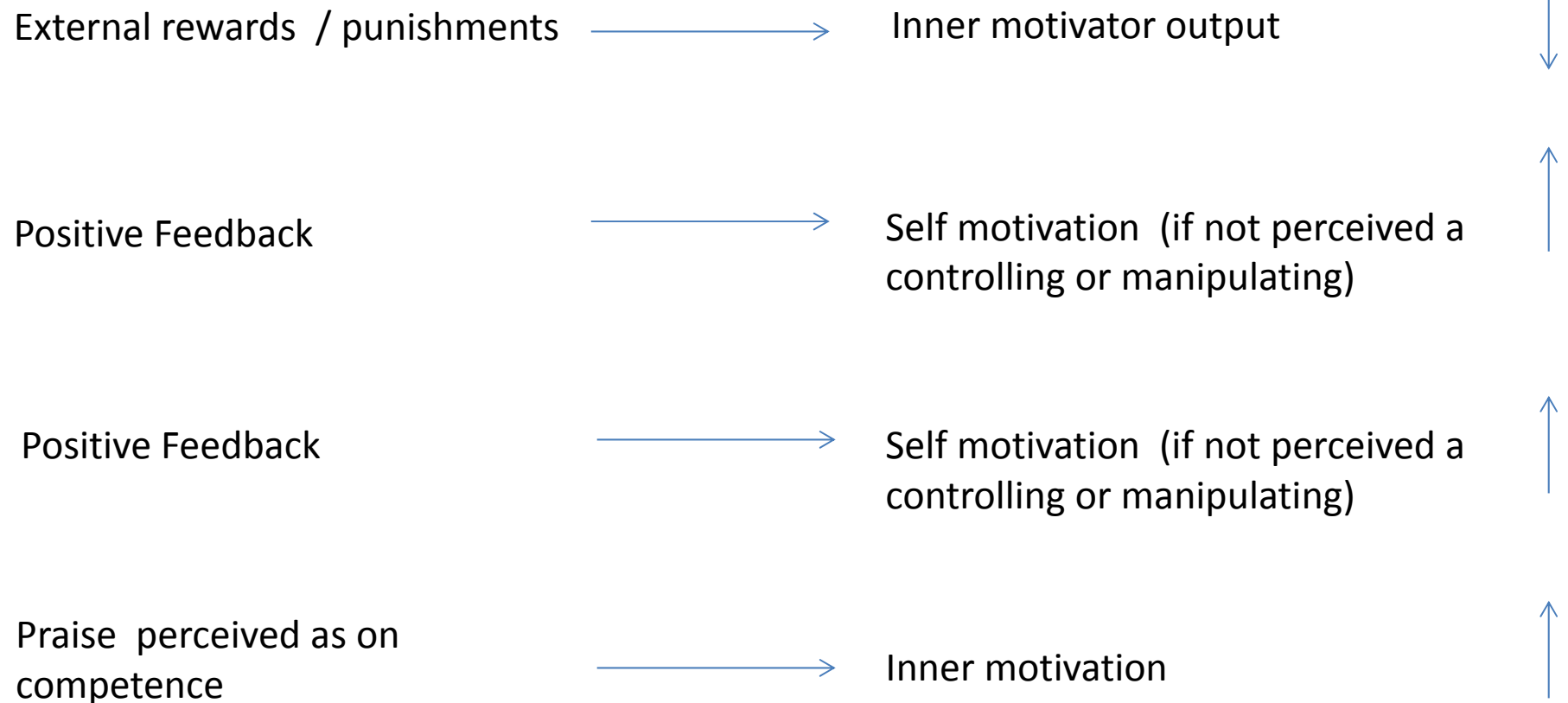
- Feeling competent and self directed
- Work in a challenging problem
- Building daily respect
- A sense of playing rather than working

External motivation Rewards and punishment practices could turn in negative feelings

- Tenseness
- Fear
- Resentment
- Irritation



Dual effect on external motivation





Best management practices that impulse R&D people motivation

- Provide challenging but reachable jobs
- Delegate effectible and expect self direction
- Match the activity to worker interest and involvement.
- Encourage self evaluation , self direction and self satisfaction at work
- Stress inner reasons for doing things (daily enjoyment, joy, fun, excitement, pleasure).
- Clear and actionable feedback
- Help people reduce the feelings (resentment, fear) generated by visible external constraints.
- Offer some free choice about whether or how to do an assignment.
- Avoid obvious intrusions and minimize performance evaluations.
- Make work self-rewarding so it increases the desire to produce creative outcomes.
- Provide novelty at the work
- Feeling of playing rather than working
- Provide job stability to encourage risk taking

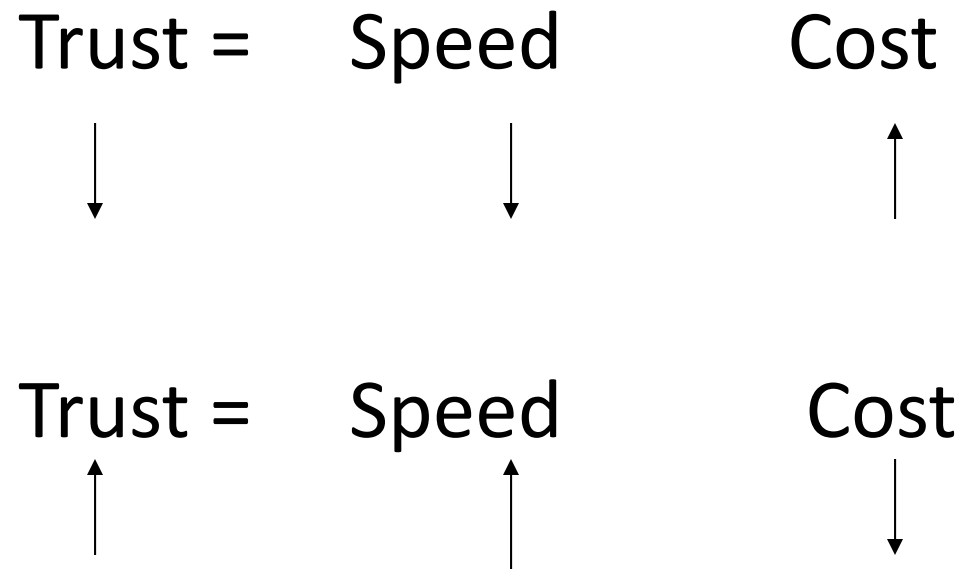


Generate forums to show talent and ideas





The economics of trust





BIG THANKS

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