

SPECTRUM OF INNOVATION

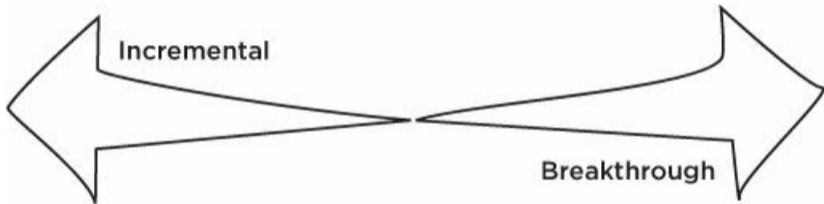


Figure 1.1. Types of innovation

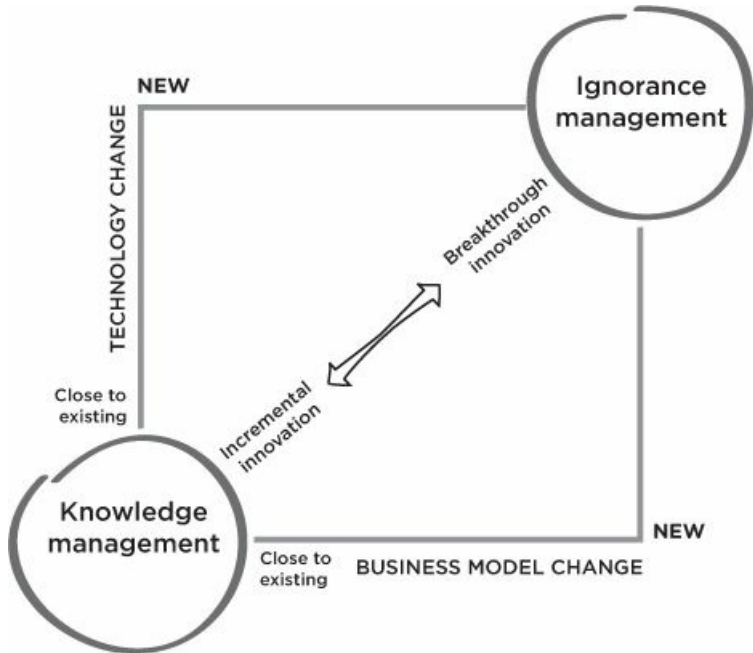


Figure 1.2. The innovation matrix⁶

Table 1.1. comparing incremental and breakthrough innovation

BREAKTHROUGH INNOVATION	INCREMENTAL INNOVATION
Talent combined for discovery and execution	Talent with strong weight on execution
Funding from separate budget	Funding from business units
Staged funding	Funding based on budgets
Low chance of success	Larger chance of success
Large returns on investment	Lower returns on investment
Discovery driven	Execution driven
Qualitative assessment	Financial metrics

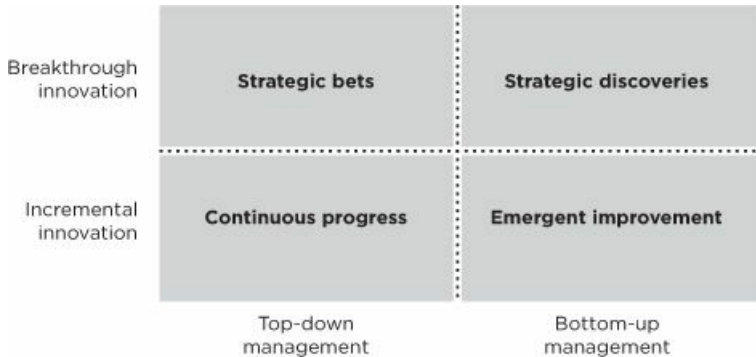


Figure 1.3. Management models for innovation

Table 1.2. comparing innovation management approaches

TYPE OF APPROACH	DESCRIPTION
Continuous progress	Top-down planning and incremental goal setting that induce people to innovate in their effort to meet those goals
Emergent improvements	Results from structured processes to stimulate and capture incremental ideas throughout the organization
Strategic bets	Attempts at breakthrough innovations that depend on a leader's vision and an organization's ability to execute
Strategic discoveries	Breakthrough innovations that result from harnessing the collective genius of the organization and its networks

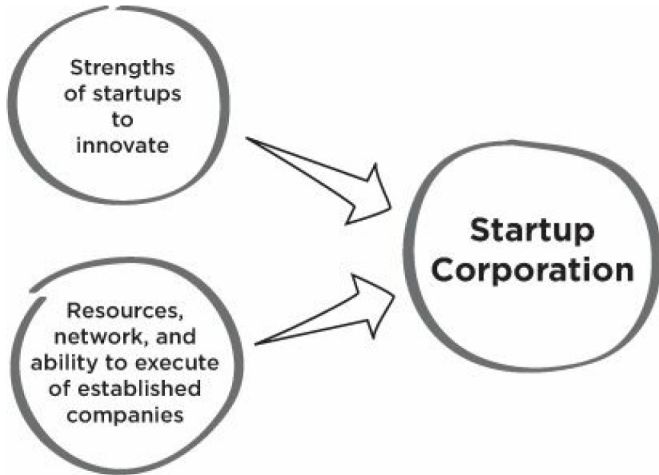


Figure 1.4. The Startup Corporation



INSPIRE ATTRACT COMBINE LEARN LEVERAGE INTEGRATE

Figure 1.5. Managing strategic discoveries with the Startup Corporation



Figure 1.6. Designing for breakthrough innovation

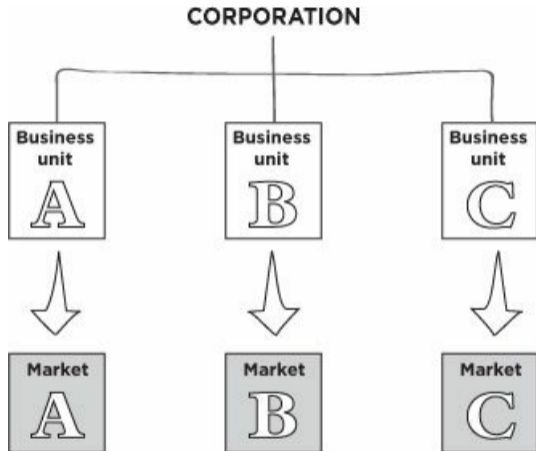


Figure 2.1. The business unit structure

Table 2.1. advantages of the business unit structure

Excels at execution and guiding continuous progress

Encourages incremental innovations that advance existing strategies through targeted resource allocation

Creates economic and social value with demanding cultures while balancing risk and motivation

Manages emergent improvements

Table 2.2. resource allocation for top-down incremental innovation

FOCUS	FUNCTION
Platform technologies	Advance the technologies of the existing business to make it more competitive
Product innovation	Develop manufactured and service products to offer customers a better proposal
Process improvements	Advance processes to enhance customer service and lower costs
Management improvements	Enhance management of the organization to better respond to market shifts
Market positioning	Merge and acquire competitors to consolidate markets

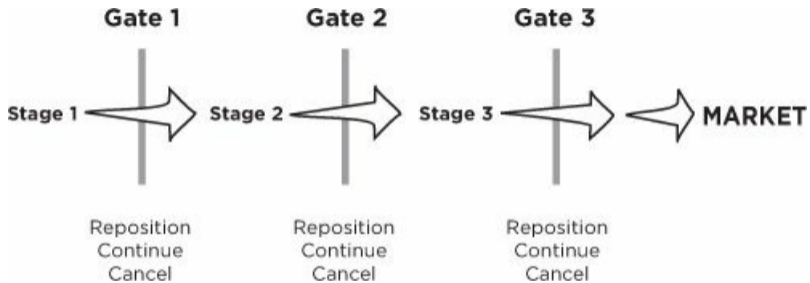


figure 2.2. The stage-gate process

Table 2.3. Limits of the business unit structure

Defensive attitudes reinforce existing models

Assumes steady and predictable industry evolution

Existing power structures can be sticky

Measures short-term results

Demands predictable and stable results

Execution routines reject radical ideas

Table 3.1. Copying and combining in startups

Be exposed to different environments

Copy to learn and combine to invent

Translate existing ideas into a new context

Link people and ideas

Communicate and share

Take risks

Play around with new combinations

Leverage networks

Business Plan



APPROACH FOR STARTUPS

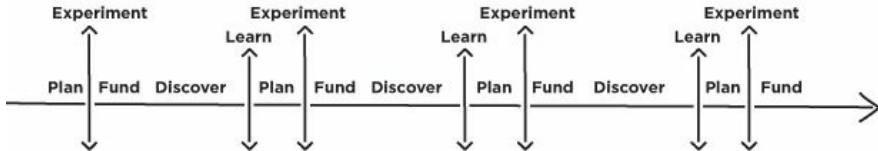


Figure 3.1. Established companies' versus startups' investment management

Table 3.2. Learning fast and cheap in startups

Identify critical uncertainties

Design experiments to reduce critical uncertainties for the lowest cost

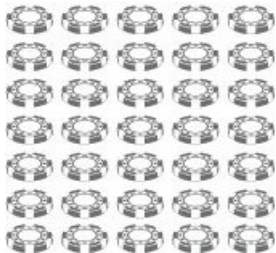
Be sensitive to the results

Use the results to adapt the innovation and inform future experiments

Cycle through experiment-learn-experiment as quickly and as cheaply as possible

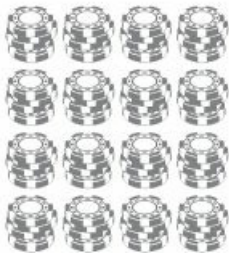
DIVERSIFY

Many small bets
in exploration



CONCENTRATE

Fewer medium bets
in discovery



FOCUS

Few large bets
in ramp up



Figure 3.2. The numbers game of innovation

Table 3.3. managing risk in startups

Diversify risk

Understand risk: what is critical to the innovation

Plan to manage risk

Test main assumptions fast; move on or pivot if they don't work

Don't let passion blind you to reality

Be alert—opportunities may lie on the sidelines of results

Table 3.4. Governing startups

Focus on success

Have transparent objectives

Communicate frequently

Provide access to networks

Plan detailed experiments, not targets to be accomplished

Give discovery priority over plans

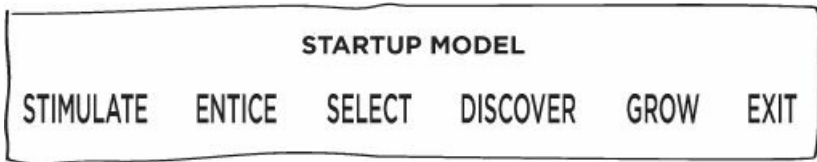


Figure 3.3. Activities of startup innovation

Table 3.5. Learning from the activities of startup innovation

Stimulate creativity—a rich environment is more likely to generate great ideas

Make resources available to experiment

Reward people who take risks

Let market forces select the winners

Don't stop discovering too soon

Adapt management talent to the needs of the company

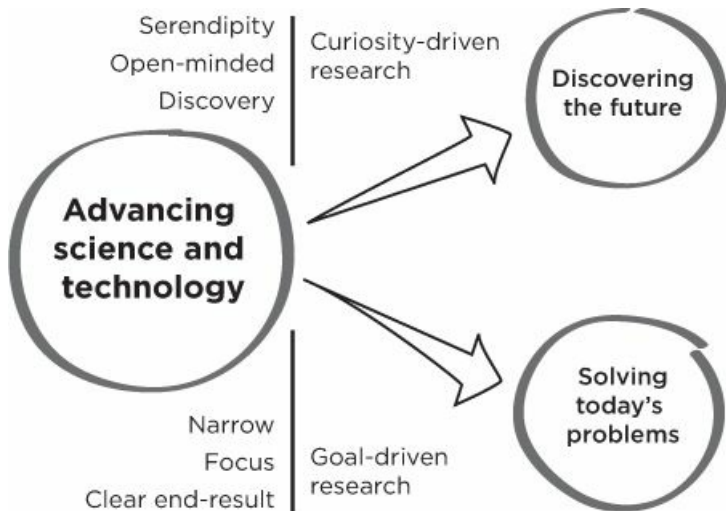


Figure 3.4. Two approaches to research in science

Table 3.6. comparing curiosity-driven and goal-driven innovation

CURIOSITY-DRIVEN RESEARCH (breakthrough innovation)	GOAL-DRIVEN RESEARCH (incremental innovation)
The result is the discovery	The goal is the result
Solve the problems of the future	Solve today's problems
Don't underestimate serendipity	Don't underestimate focus
Constantly ask why	Constantly pursue the end goal
Mistakes are learning opportunities	Avoid mistakes
Share the value generated	Reward meeting the goal
Hire talented, passionate, and curious people	Hire talented, passionate, and focused people
Provide as many resources as possible	Closely monitor resources
Assess progress through experts' evaluation	Assess progress through milestones

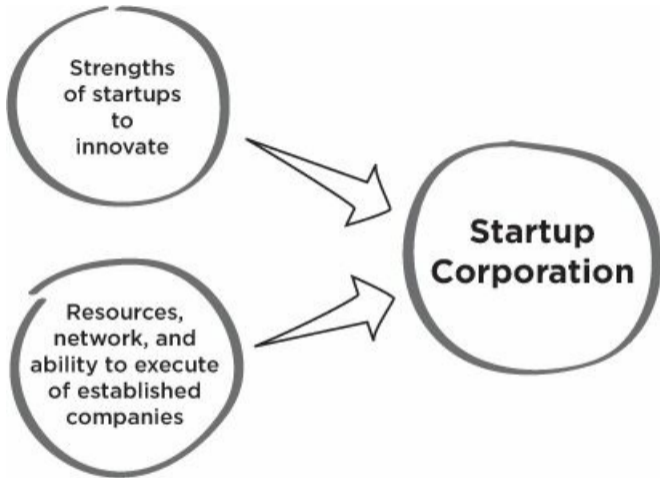


Figure 4.1. The Startup Corporation

Table 4.1. Comparing the Startup and the Startup Corporation

STARTUP	STARTUP CORPORATION
Copies and combines from people around founders to identify ideas that will lead to creating and redefining products	Leverages internal insights and rich networks around the company to generate ideas that will change industries
Learns as fast and as cheaply as possible through smart experiments to lower uncertainty	Sets up structures to support experimentation by leveraging internal resources and external networks
Focuses governance on the success of the startup, with constituencies bringing their assets to support the company	Receives support from top management through attention, funding, and high-quality resources
Adapts a management approach appropriate to the particular needs of the startup stage	Combines market and internal forces throughout the innovation process
Executes flawlessly and quickly once the foundations of the innovation are fully defined	Integrates into the established company to leverage its global presence and networks

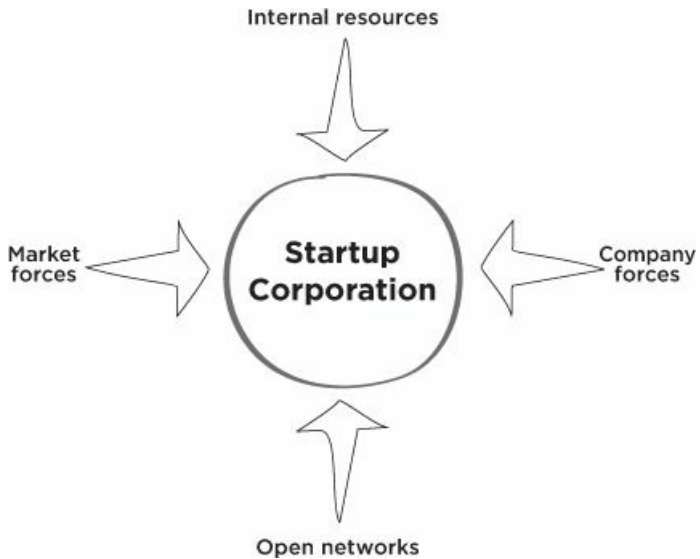


Figure 4.2. Balancing competing forces

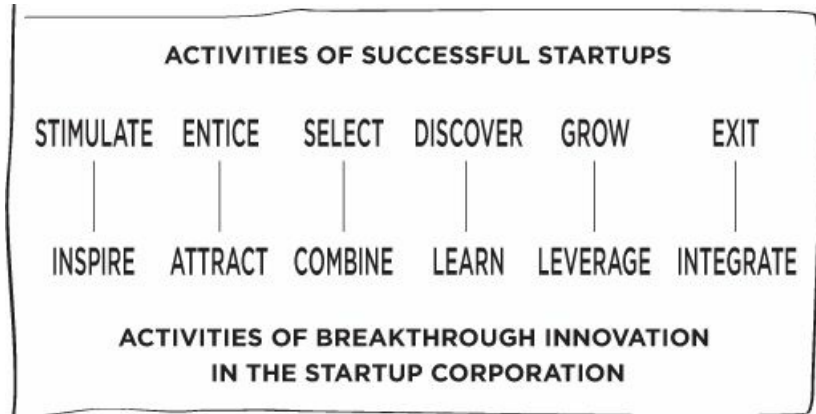


Figure 4.3. The activities of breakthrough innovation

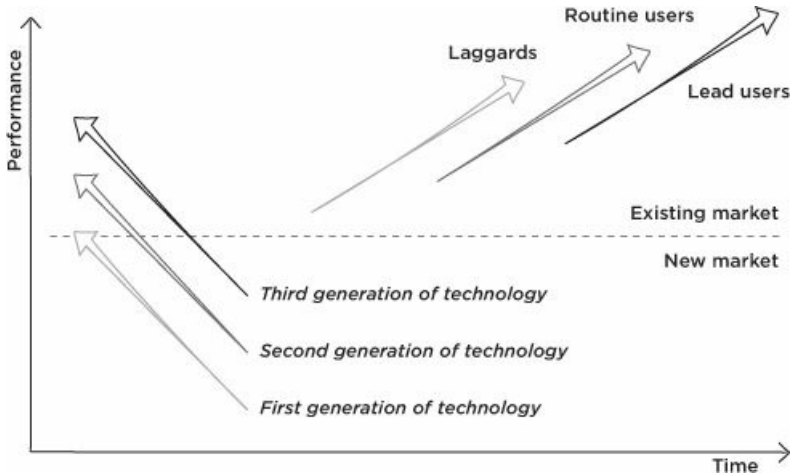


Figure 4.4. The reverse logic of frugal innovation



Figure 5.1. Activities of breakthrough innovation

Table 5.1. solutions for inspiring

Design units

Stealth innovation

Bounded innovation

Table 5.2. tools to
stimulate innovation

Import-in innovation

Design thinking

Lead-user innovation

Value innovation

Future life

Big data

Table 5.3. solutions for attracting

Corporate venturing

Discovery units

Competitions and tournaments

DESIGN DECISIONS	INCREMENTAL INNOVATION	BREAKTHROUGH INNOVATION
Population	Internal employees	Open to the public
Group size	Unlimited	Limited
Prize	Several prizes	Winner takes all
Size of reward	Small	Large
Rounds	Several	Few
Participants	Many—wisdom of crowds	Few—wisdom of experts
Goals	Specific	Broad
Stages	Few	Multiple
Collaboration	Group presentations	Interim milestones
Occurrence	Recurring	One-time
Feedback	Frequent and open to other players	Limited

Table 5.5. Solutions for combining

Incubators and accelerators

Collaboration

Corporate venturing

Table 5.6. solutions for learning

Incubators and accelerators

Experimenting

Prototyping

**Design the
experiment**

**Run the
experiment**

**Learn from the
experiment**

Figure 5.2. Discovery

Table 5.7. Solutions for leveraging

Culture

Growth

Infrastructure.

Table 5.8. Solutions for integrating

Reconfiguration

Spin-off

New division

Table 6.1. Tools for attracting

	DESIGN UNITS	STEALTH INNOVATION	BOUNDED INNOVATION
Boundaries	Medium	Weak	Strong
Inspiration	New interpretations of the world	New-to-the-world solutions	Bottom of the pyramid
Open networks	Study ethnographic relationships to uncover hidden needs	Identify solutions to address challenges never tackled before	Reconfigure business model using new networks

Common factors

Resources and protection from early evaluation

Supportive organizational design

Experimentation

Internal resources accessible when needed

Isolation from market and company forces

Table 6.2. tools for attracting

	CORPORATE VENTURING	DISCOVERY UNITS	INNOVATION TOURNAMENTS
Mechanisms to attract ideas	Investments and acquisitions	Collaboration and partnerships	Prizes
Role of managers	Identify relevant startups	Identify innovation hubs	Design and market tournaments
Role of networks	Provide access to a large number of interesting startups	Bring together a valuable set of partners	Provide ideas to the tournament

Common factors

Financial resources for prizes and investments

Strong belief in outside networks as fertile soil for ideas

Deep involvement and collaboration with outside networks

Table 6.3. Tools for Combining

	INCUBATORS	COLLABORATION	CORPORATE VENTURING
Relevance of external networks	Medium; needed to design the business model	High; needed to access knowledge	Needed to access a large number of interesting startups
Relevance of internal links	More relevant as the incubator is embedded in the company	Relevant, although more critical in future stages	Relevant to serve the needs of business units and innovation efforts
Complexity of strategic discovery	Addresses less complex discoveries	Addresses complex discoveries with many partners	Helps bring together the pieces needed for a complex discovery

Common factors

Bring together the elements that make the breakthrough possible

Combine internal and external networks

Table 6.4. Tools for learning

	INCUBATORS	DISCOVERY	PROTOTYPES
Location of resources	Separate structures	Separate or within existing structures	Within existing structures
Staff	Full-time	Part-time dedication common	Part-time dedication

Common factors

Access to resources at business units, headquarters, or their networks

Heavy use of prototyping to learn

Table 6.5. Tools for leveraging

	CULTURE	GROWTH	MANAGEMENT INFRASTRUCTURE
Part of an existing business	Aligned with the existing business	Use the business unit's infrastructure to quickly enter markets	Fully integrated
New division or separate company	Share core values but develop local culture	Leverage certain parts of the company	Set up common interfaces
Spin-off or sale to another company	Develop own culture	Leverage but also create its own	Have independent infrastructure

Common factors

Transition from an entrepreneurial to a
management attitude

Proactive management of these elements

Table 6.6. Tools for integrating

	RECONFIGURE INTO AN EXISTING BUSINESS UNIT	SPIN OFF OR MAKE A TRADE SALE	CREATE A NEW DIVISION
Characteristics of the business model	Leverages the existing business model	As trade sale, leverages existing business model in another company	Requires a new business model
Characteristics of the technology	Breakthrough technology for the business unit	Technology does not fit with current or future strategies	Technology requires a new business model
Strategic fit	Fits with the strategy of a business unit	No fit with the strategy of the company	Fits with the strategy of the company but not within an existing business unit

Common factors

Transform the management of the innovation from breakthrough to incremental

Business-unit structure becomes more adequate

Focus on capturing value

Table 7.1. culture as a foundation of strategic discoveries

Making resources available to innovators

Supporting people to take risks, whether they succeed or fail

Seeing breakthrough efforts as necessary to long-term survival

Balancing technology and business insights for innovation

Understanding the needs and challenges of breakthrough innovation

Openly communicating within the organization and its networks

Table 7.2. mechanisms for shaping cultures

Employee abilities shape what individuals can do. organizations can acquire people with specific skills, eliminate redundant ones, and train people.

Innovation activities, which focus on understanding current and future customers as well as innovative competitors (often startups), support and circulate ideas.

Goals and rewards provide the incentive to take risks and a sense of fair compensation for doing so.

Top management behavior models the important aspects of the organization and supports particular behaviors throughout the organization.

Organizational structure describes each individual's boss, peers, clients, and suppliers, clarifying individuals' organizational identity.

Access to time and resources allows people to be effective. the more resource constraints they face, the less likely employees will display expected behavior.

Table 8.1. Leadership as a foundation of strategic discoveries

Inspiring people to explore and experiment

Trusting people to craft new businesses

Encouraging people to trust you as a leader

Recognizing people for their efforts

Table 9.1. Further hard foundations of strategic discoveries

STRATEGY

Identifying the role of incremental and breakthrough efforts

Developing open networks to innovation hubs

Setting boundaries that define fields to explore

INCENTIVES

Developing fair economic incentives

Inspiring vision that will motivate people to take risks and face uncertainty

MANAGEMENT SYSTEMS

Establishing hiring processes that bring passionate people into the company

Maintaining this passion through performance management systems

Linking rich management information systems with external networks

Governing clearly

Creating structures to support breakthrough innovation

Setting up budgeting processes that provide enough resources for breakthrough initiatives

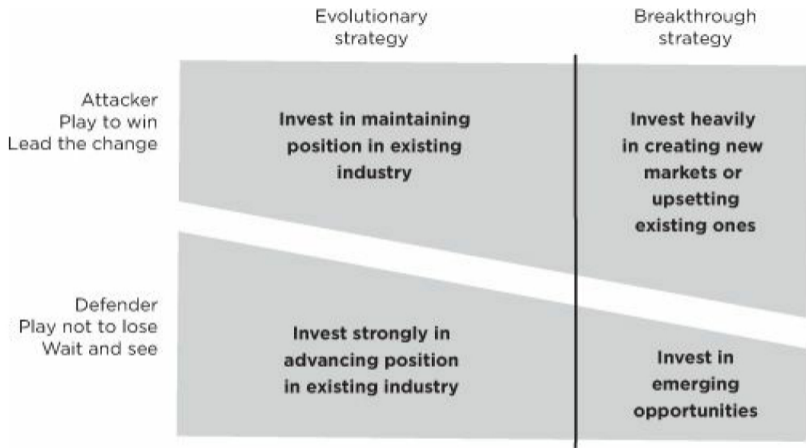


Figure 9.1. Budget proportions of play-to-win and play-not-to-lose strategies

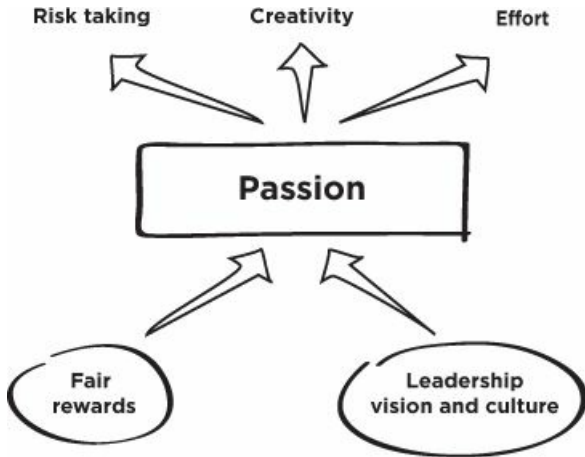


Figure 9.2. Rewards for supporting passion

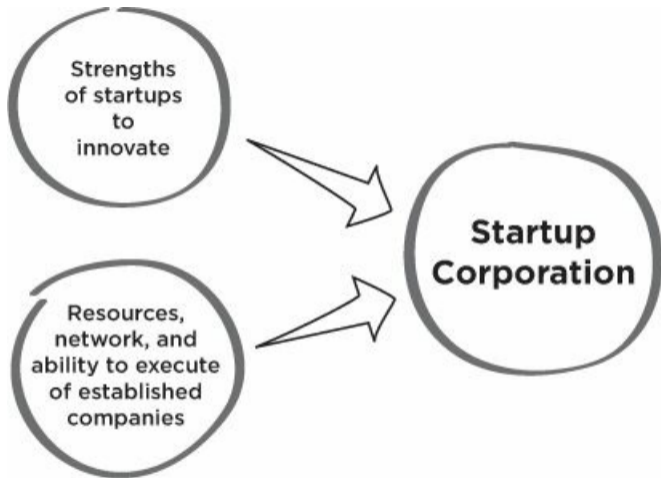


Figure 10.1. The Startup Corporation



Figure 10.2. Designing for breakthrough innovation



INSPIRE ATTRACT COMBINE LEARN LEVERAGE INTEGRATE

Figure 10.3. Managing strategic discoveries with the Startup Corporation