COPENHAGEN
INTERNATIONAL
SOFTWARE DEVELOPMENT
CONFERENCE 2014

goto; conference

the lean enterprise

@jezhumble

CHEF
GETCHEF.COM

lean

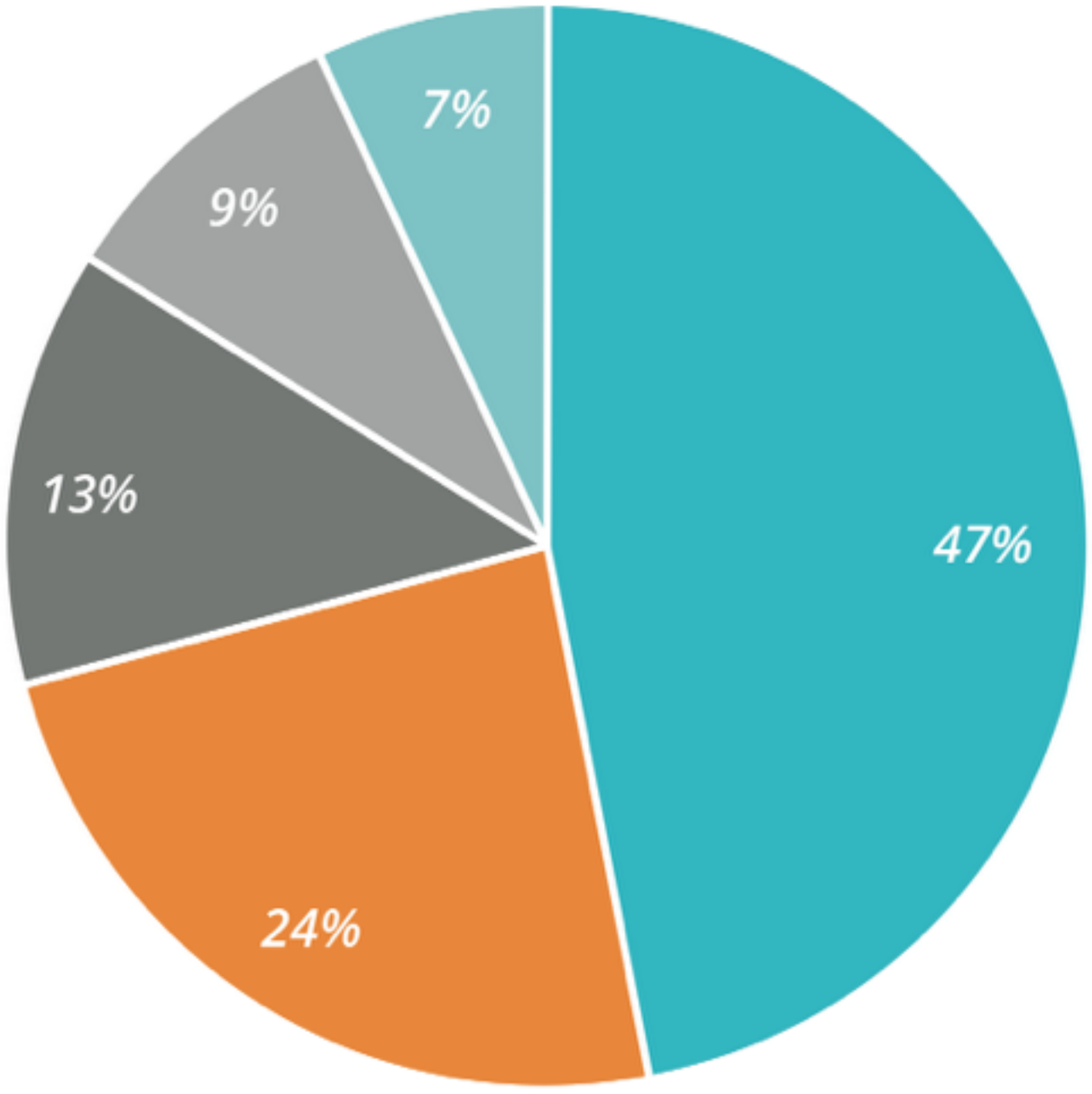
"precisely specify *value* by specific product, identify the *value stream* for each product, make value *flow* without interruptions, let the customer *pull* value from the producer, and pursue *perfection*"

Womack and Jones, *Lean Thinking*

enterprise

a complex, adaptive system

"Please select the statement that most closely aligns with how your company decides which products are built."



- Committee decides from potential options
- Financial modeling (e.g. Economic value optimization)
- Opinion of person with highest salery wins out.
- Product portfolio approach
- No systematic approach

Base: 161 business decision makers

Source: A commissioned study conducted by Forrester Consulting on behalf of ThoughtWorks, September 2012

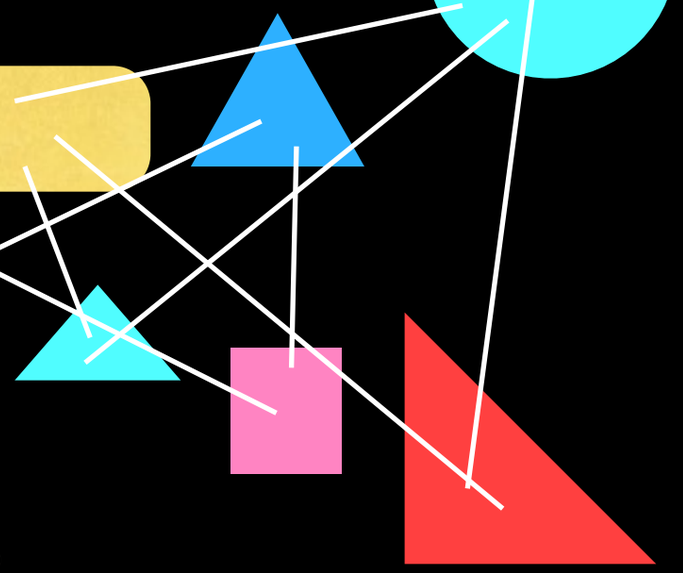
“the enterprise”

Ping!

Business

Engineering

Operations



Project C

Project A

DBAs

Project B

Service desk

Infrastructure team

Value stream

enterprise projects

Ping!

Business

Let's create a new product

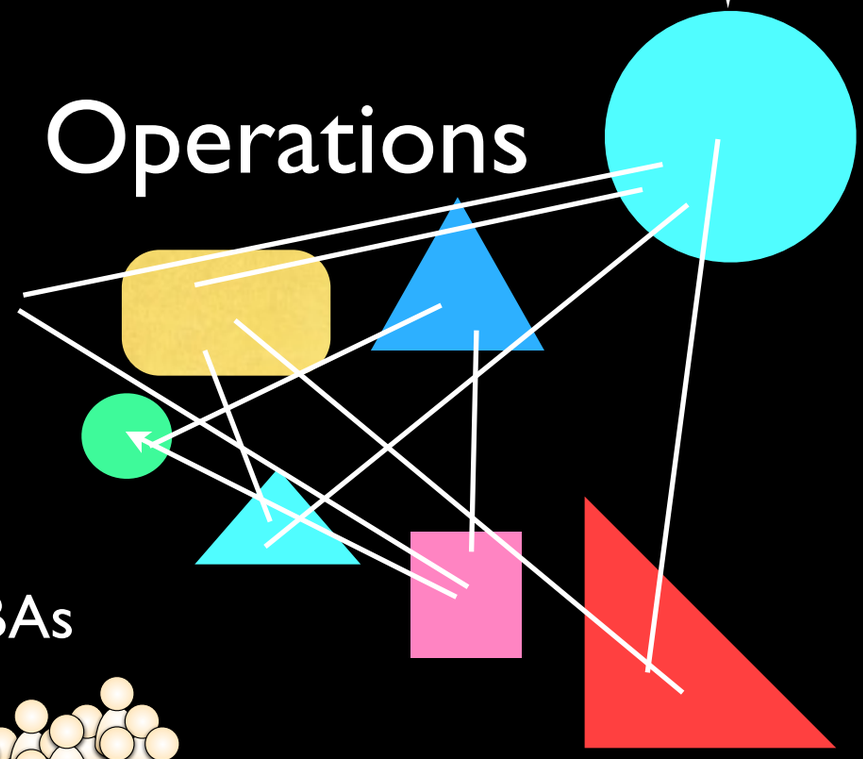
Engineering

Project C
Project D

Project A

Project B

Operations



DBAs

Service desk

Infrastructure team

Value stream

Oh shit!

We're going agile!

Oh shit!

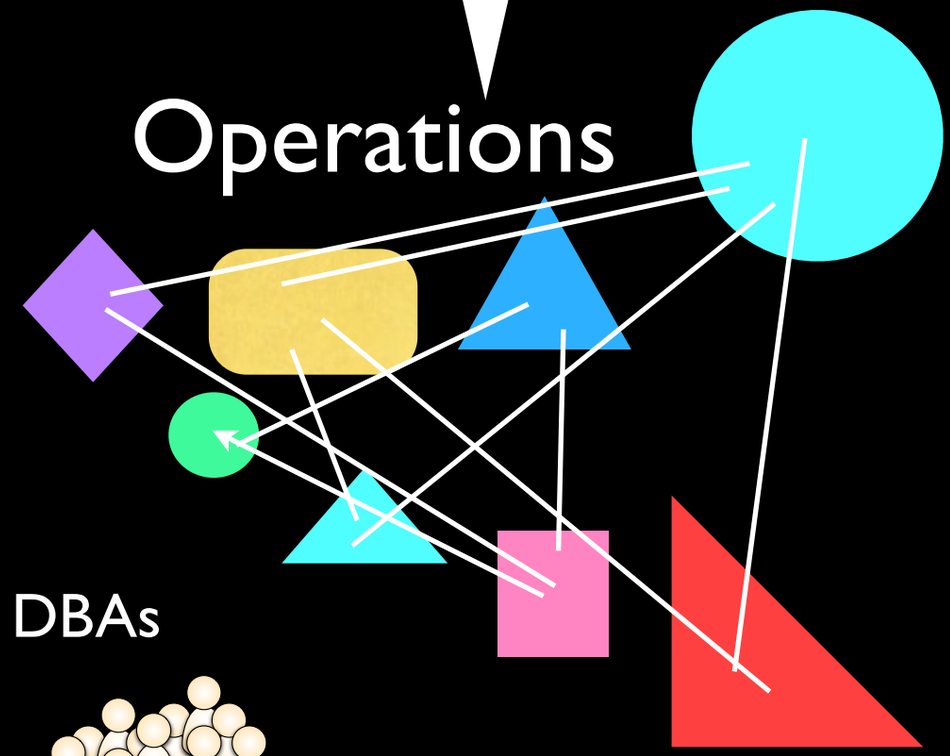
Business

Engineering

Operations

Project D

Project A



DBAs

Project B

Service desk

Infrastructure team

Value stream

agile principles

our highest priority is to satisfy the customer through early and *continuous delivery* of *valuable software*

shareholder value

the directors of a public corporation have a *fiduciary duty* to maximize profits

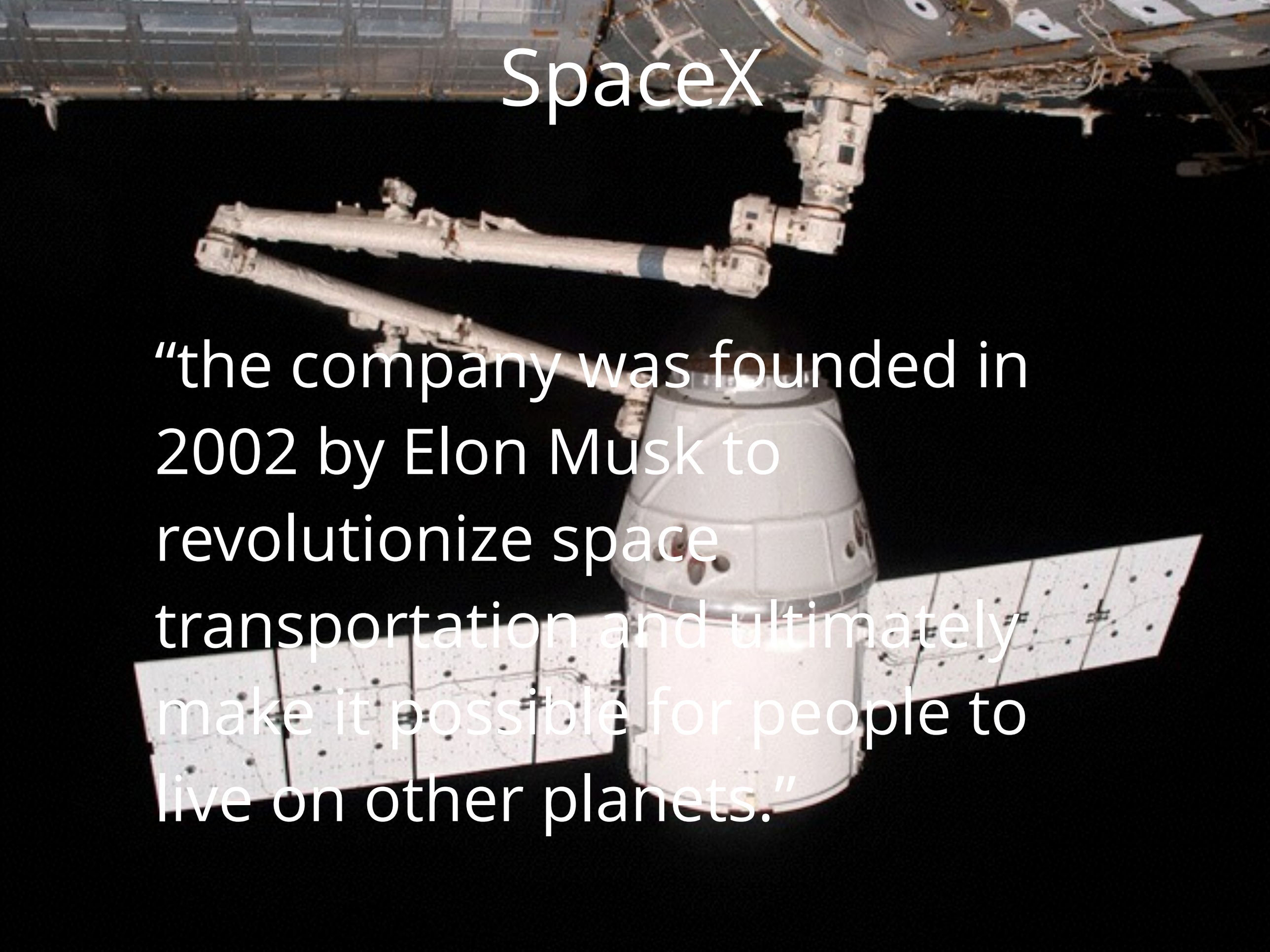
Jensen and Meckling, *Theory of the Firm*

shareholder value

“shareholder value is the dumbest idea in the world … [it is] a result, not a strategy … Your main constituencies are your *employees*, your *customers* and your *products*” — Jack Welch

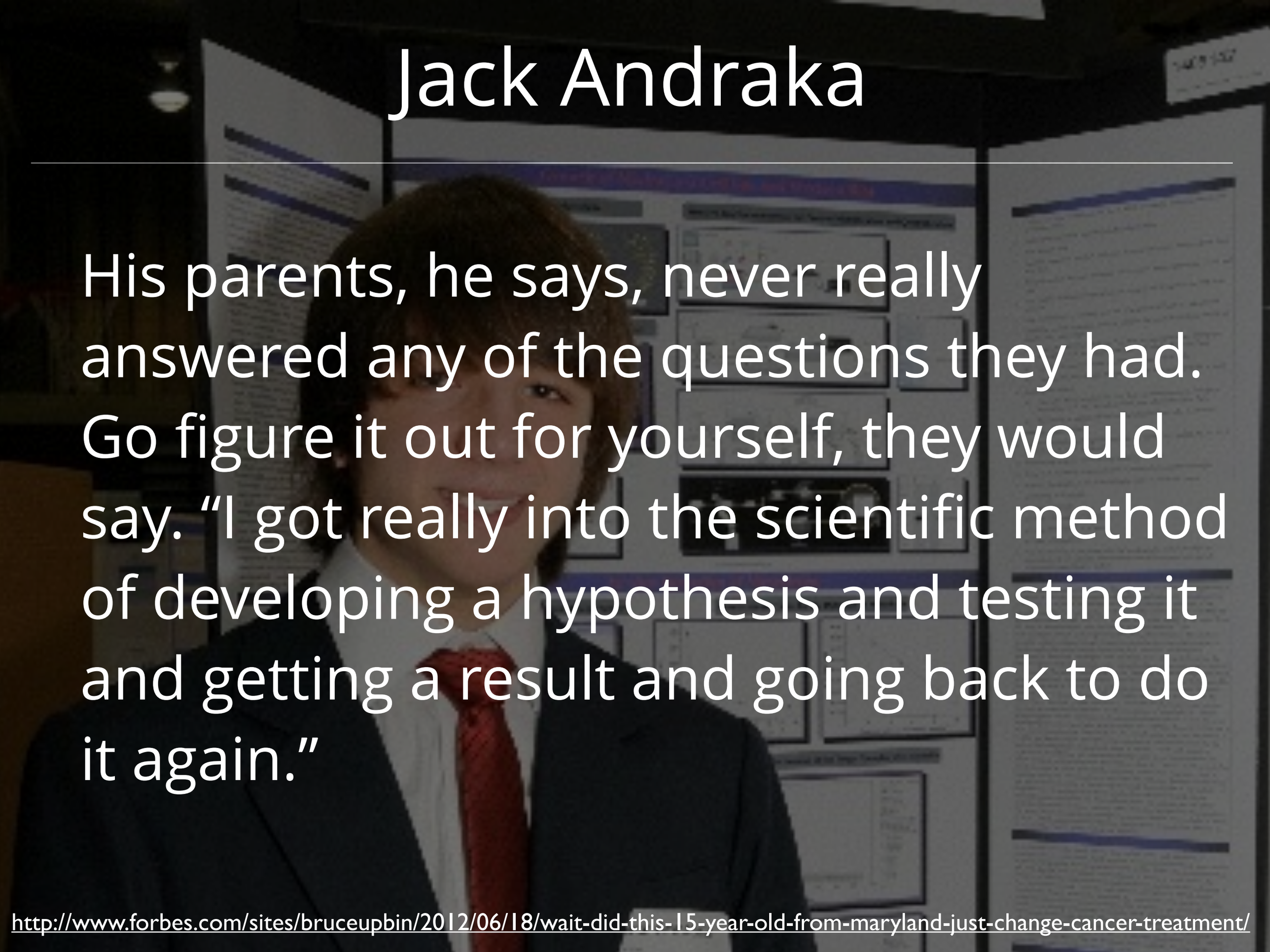
http://www.ft.com/cms/s/0/294ff1f2-0f27-11de-ba10-0000779fd2ac.html

SpaceX



“the company was founded in 2002 by Elon Musk to revolutionize space transportation and ultimately make it possible for people to live on other planets.”

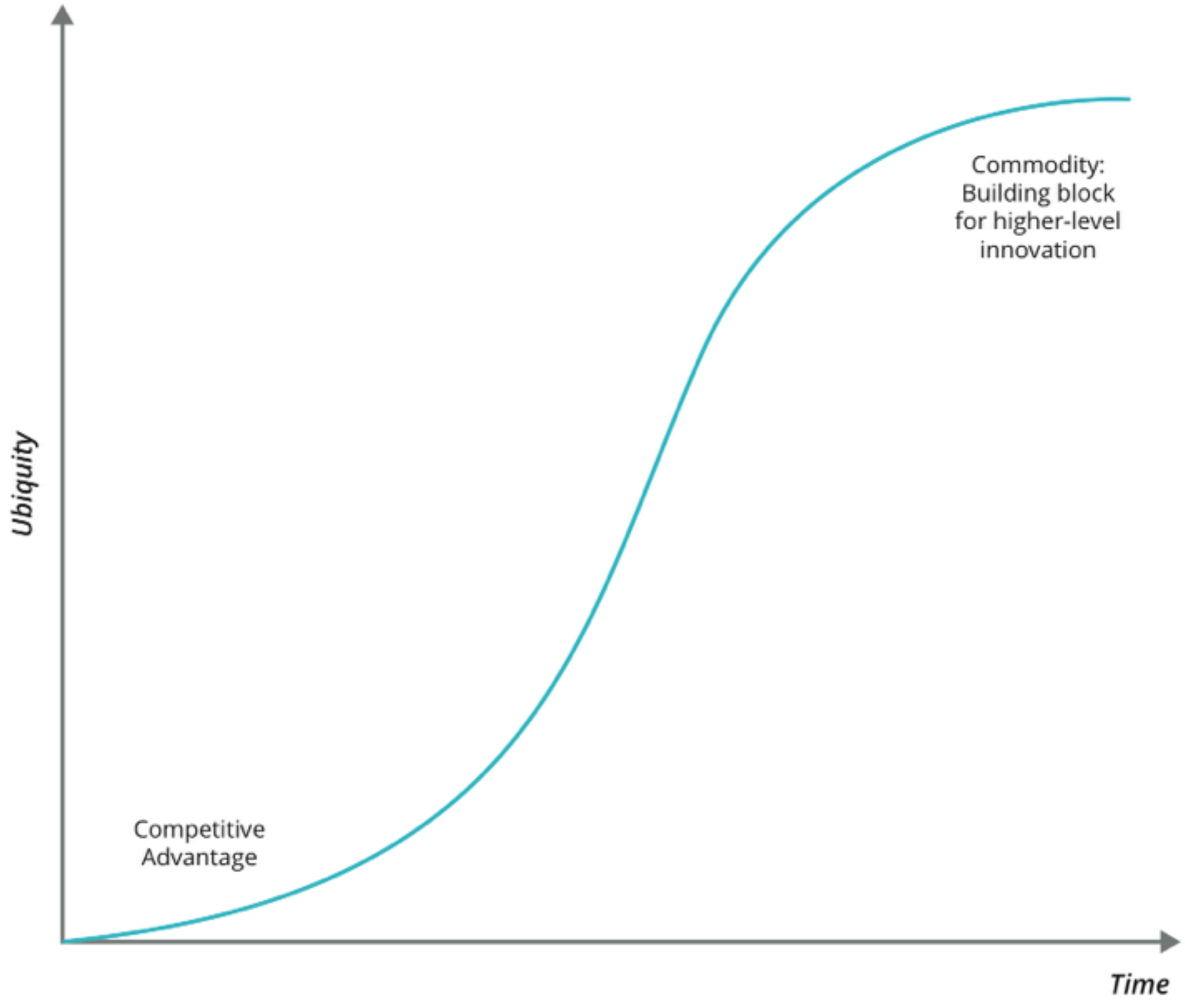
Jack Andraka



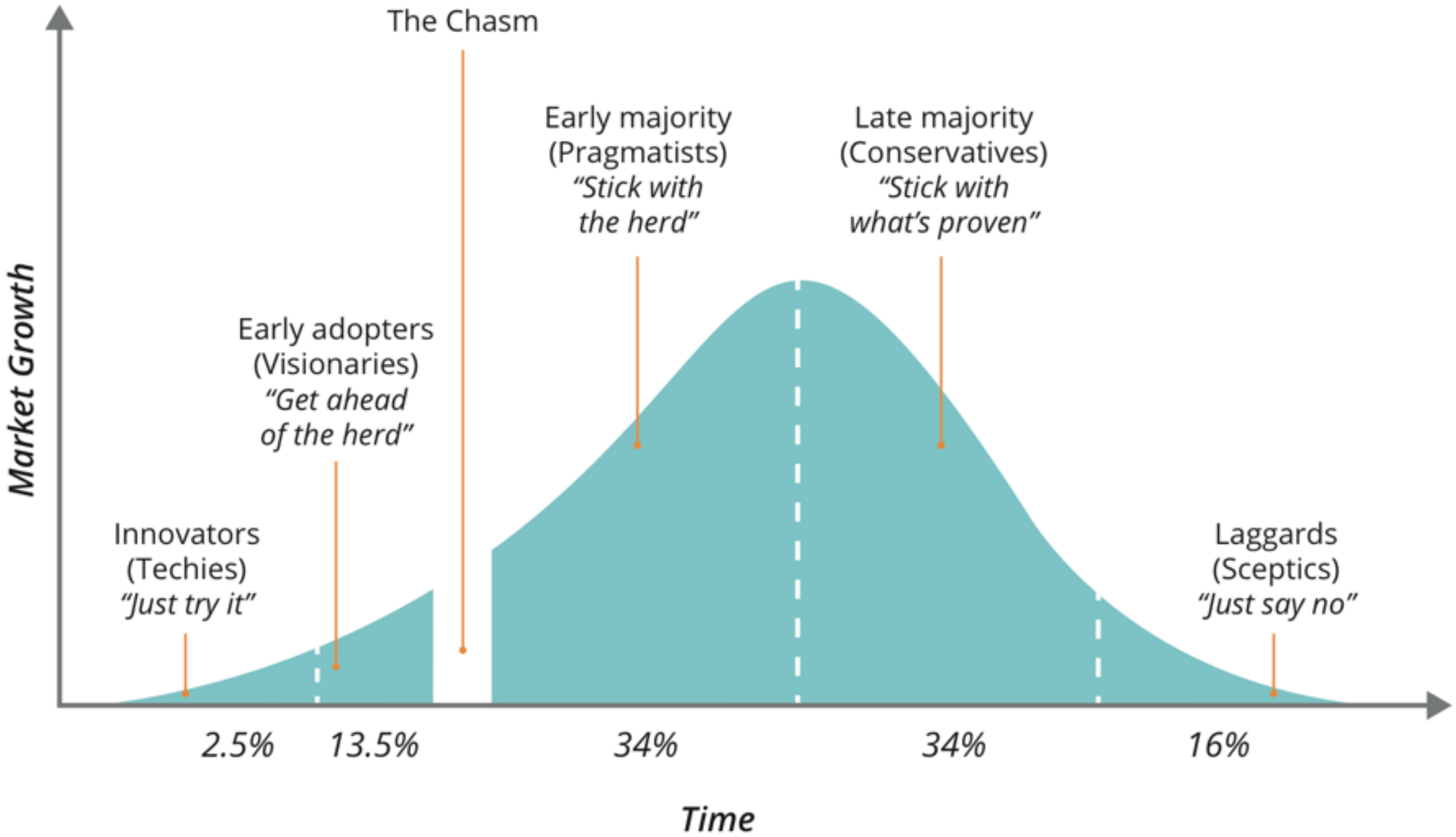
His parents, he says, never really answered any of the questions they had. Go figure it out for yourself, they would say. “I got really into the scientific method of developing a hypothesis and testing it and getting a result and going back to do it again.”

http://www.forbes.com/sites/bruceupbin/2012/06/18/wait-did-this-15-year-old-from-maryland-just-change-cancer-treatment/

lifecycle of innovations

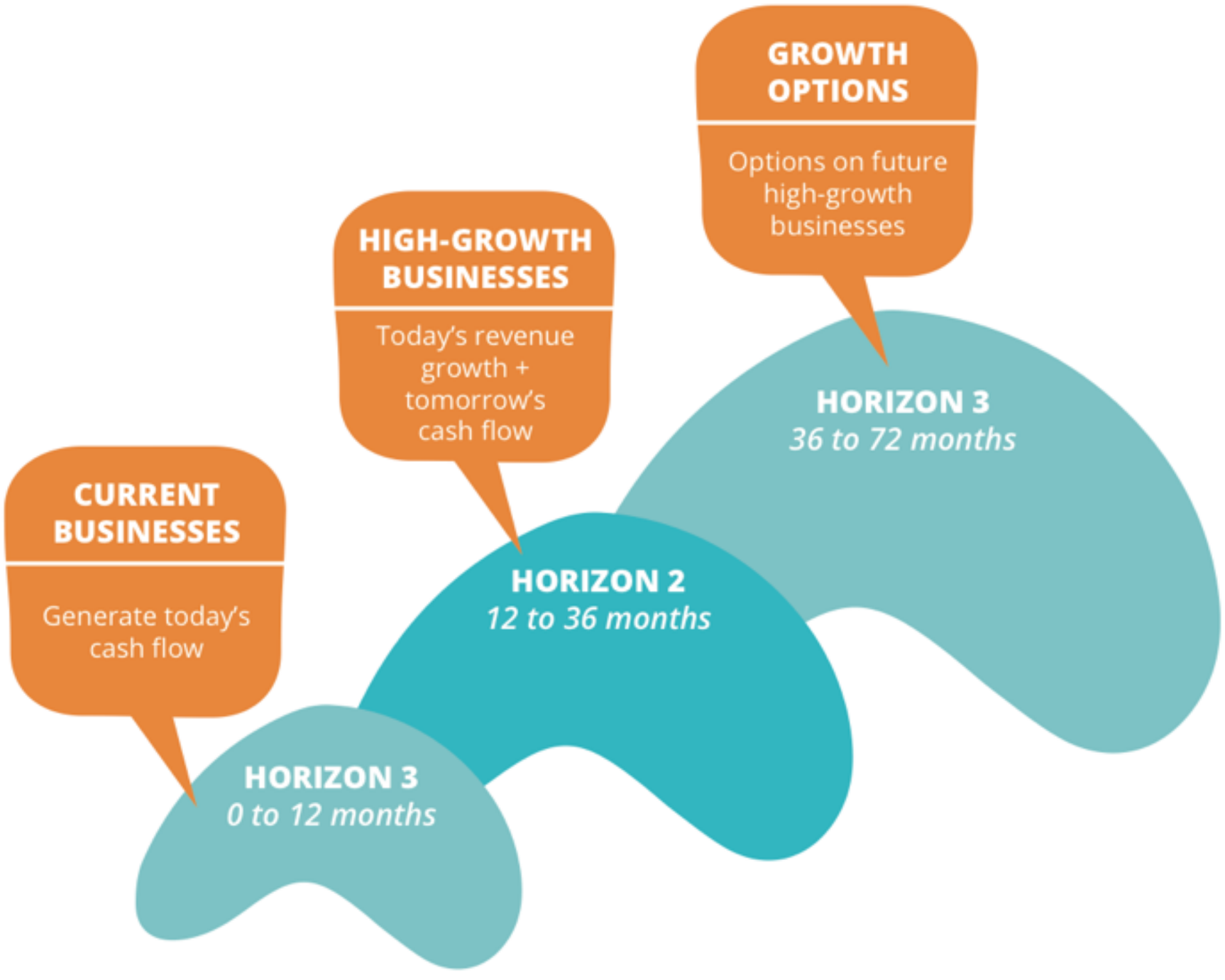


technology adoption lifecycle



Geoffrey Moore, *Crossing the Chasm*

three horizons



Baghai, M., Coley, S. and White, D., *The Alchemy of Growth*

enterprise politics

Business

Let's create a new product

Get off my land!

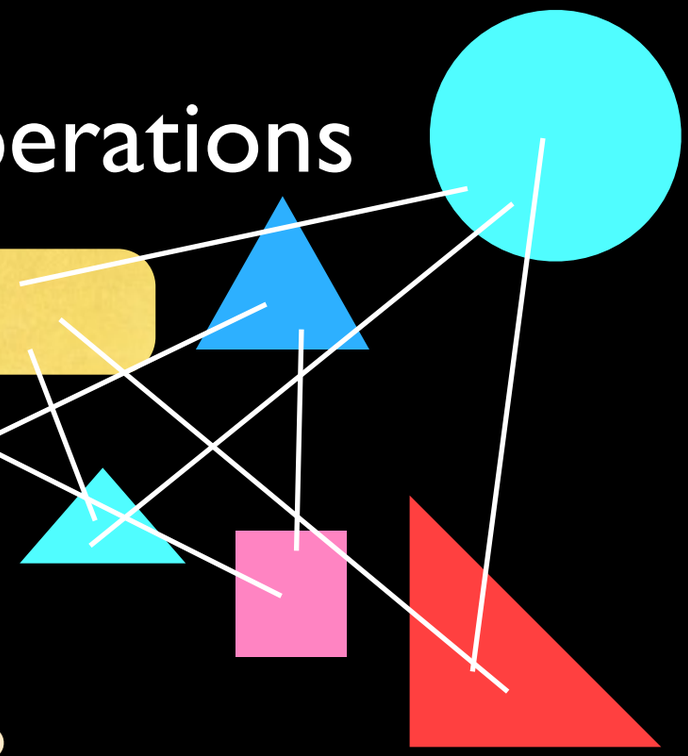
Engineering

Project C

Project A

Project B

Operations



DBAs

Service desk

Infrastructure team

Value stream

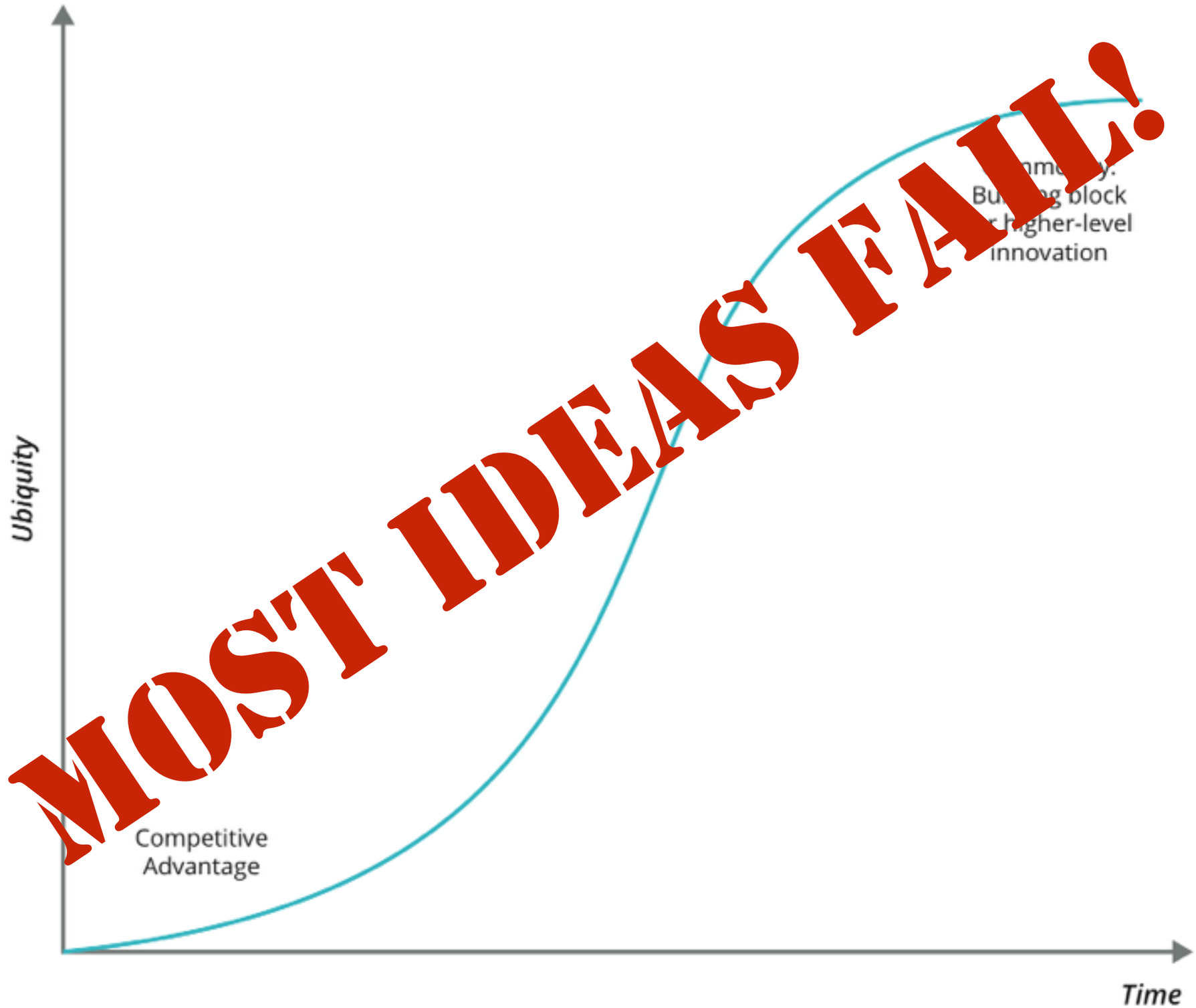
Intuit horizons and metrics

	Existing businesses	Adolescent businesses	Ideas
Investment	60%	30%	10% of operating expenses, funded quarterly based on validated learning
Metrics	Growing category, Share, Net promoter, Revenue	Growth, Increasing efficiency (will lead to profitability)	Love Metrics based on delivering customer benefit, active product usage, proactive word of mouth
Example products	TurboTax, Mint	QuickBooks Online Accounting	SnapTax

explore vs exploit

	Explore	Exploit
Strategy	Radical or disruptive innovation, new business model innovation	Incremental innovation, existing business model optimization
Structure	Small cross-functional multi-skilled team	Multiple teams aligned using Principle of Mission
Culture	High tolerance for experimentation, risk taking, acceptance of failure, focus on learning	Incrementally improve and optimize, values quality and customer satisfaction
Risk management	Biggest risk is failure to achieve product/market fit	A more complex set of trade-offs specific to each product/service
Goals	Create new markets, discover new opportunities within existing markets	Maximize yield from captured market, outperform competitors
Measure of progress	Achieving product/market fit	Outperform forecasts, achievement of planned milestones and targets

product/market fit

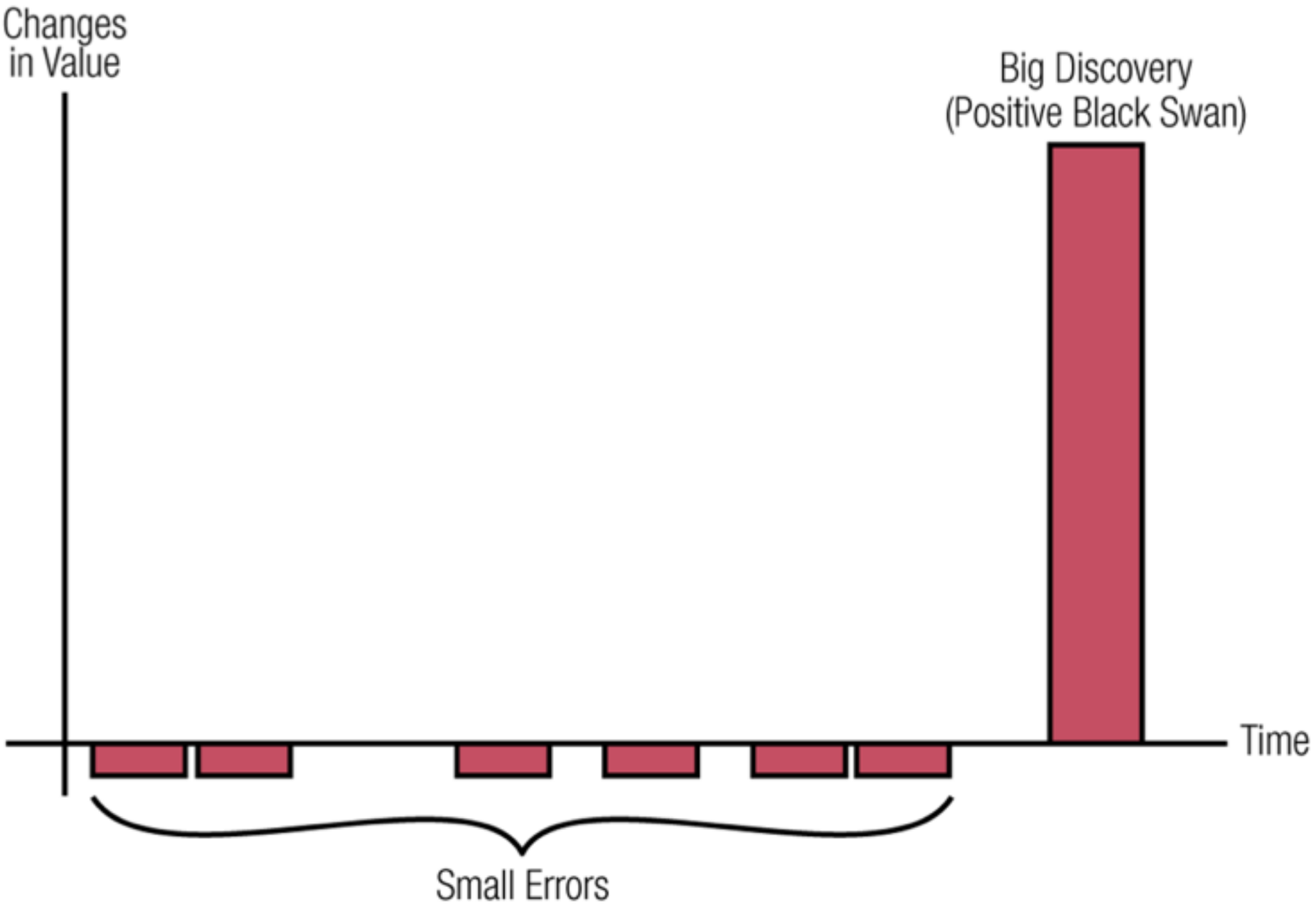


costs

"Even in projects with very uncertain development costs, we haven't found that those costs have a significant information value for the investment decision... The single most important unknown is *whether the project will be canceled*... The next most important variable is *utilization of the system*, including how quickly the system rolls out and whether some people will use it at all..."

Douglas Hubbard, http://www.cio.com/article/119059/The_IT_Measurement_Inversion

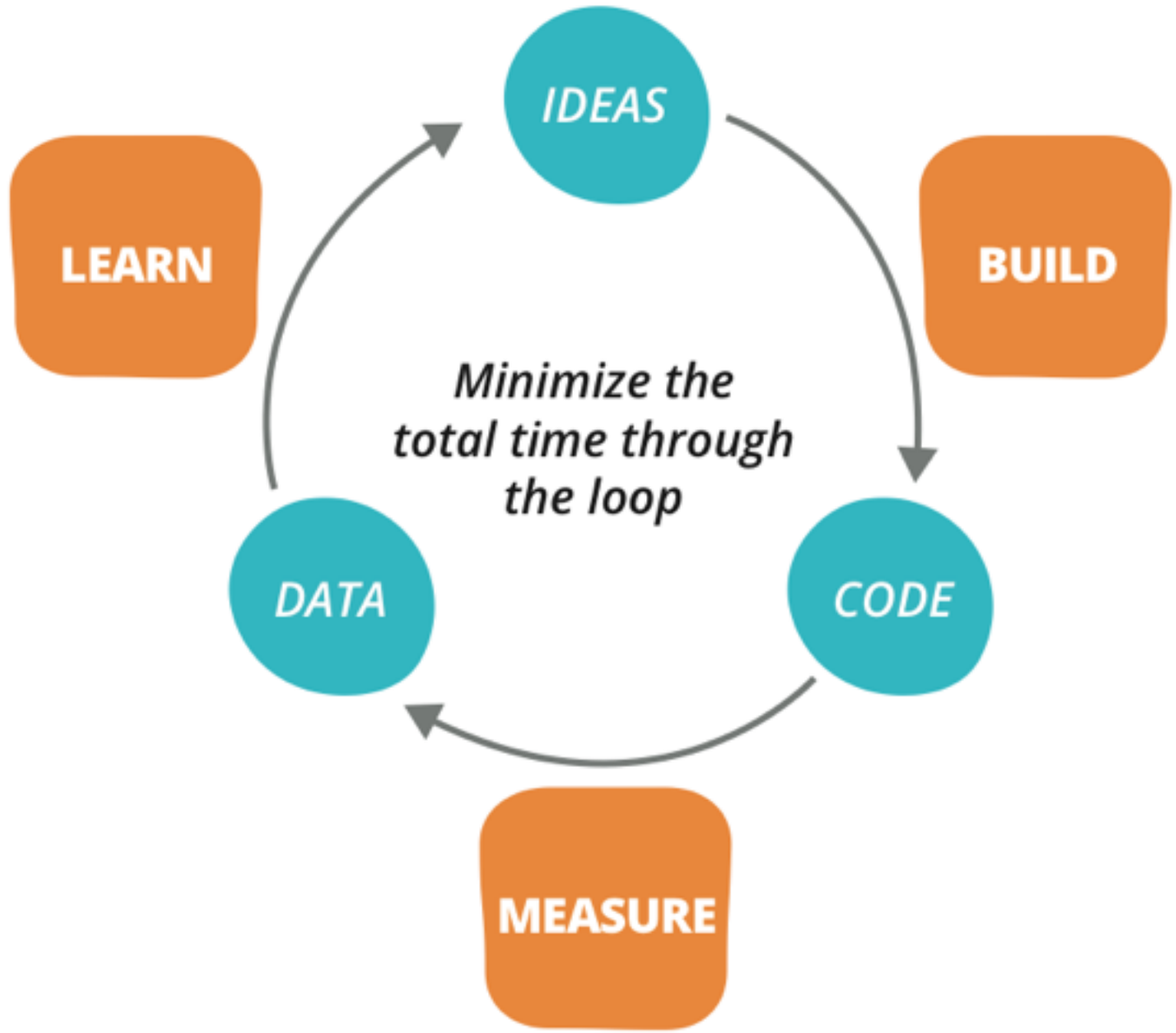
optionality



Nassim Taleb, *Antifrafile*

eric ries, *the lean startup,* ch. 1

build-measure-learn



learn-measure-build

learn: create a value hypothesis

measure: how do we test our hypothesis?

build: gather the necessary data

business model canvas

The Business Model Canvas

Designed for:

Designed by:

Date:

Version:

Key Partners

Who are our Key Partners?
Who are our key suppliers?
Which Key Resources are we acquairing from partners?
Which Key Activities do partners perform?

MOTIVATIONS FOR PARTNERSHIPS
Optimization and economy
Reduction of risk and uncertainty
Acquisition of particular resources and activities

Key Activities

What Key Activities do our Value Propositions require?
Our Distribution Channels?
Customer Relationships?
Revenue streams?

CATERGORIES
Production
Problem Solving
Platform/Network

Key Resources

What Key Resources do our Value Propositions require?
Our Distribution Channels? Customer Relationships?
Revenue Streams?

TYPES OF RESOURCES
Physical
Intellectual (brand patents, copyrights, data)
Human
Financial

Value Propositions

What value do we deliver to the customer?
Which one of our customer's problems are we helping to solve?
What bundles of products and services are we offering to each Customer Segment?
Which customer needs are we satisfying?

CHARACTERISTICS
Newness
Performance
Customization
"Getting the Job Done"
Design
Brand/Status
Price
Cost Reduction
Risk Reduction
Accessibility
Convenience/Usability

Customer Relationships

What type of relationship does each of our Customer Segments expect us to establish and maintain with them?
Which ones have we established?
How are they integrated with the rest of our business model?
How costly are they?

EXAMPLES
Personal assistance
Dedicated Personal Assistance
Self-Service
Automated Services
Communities
Co-creation

Channels

Through which Channels do our Customer Segments want to be reached?
How are we reaching them now?
How are our Channels integrated?
Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer routines?

CHANNEL PHASES
1. *Awareness*
   How do we raise awareness about our company's products and services?
2. *Evaluation*
   How do we help customers evaluate our organization's Value Proposition?
3. *Purchase*
   How do we allow customers to purchase specific products and services?
4. *Delivery*
   How do we deliver a Value Proposition to customers?
5. *After sales*
   How do we provide post-purchase customer support?

Customer Segments

For whom are we creating value?
Who are our most important customers?

Mass Market
Niche Market
Segmented
Diversified
Multi-sided Platform

Cost Structure

What are the most important costs inherent in our business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?

IS YOUR BUSINESS MORE
Cost Driven (leanest cost structure, low price value proposition, maximum automation, extensive outsourcing)
Value Driven (focused on value creation, premium value proposition)

SAMPLE CHARACTERISTICS
Fixed Costs (salaries, rents, utilities)
Variable costs
Economies of scale
Economies of scope

Revenue Streams

For what value are our customers really willing to pay?
For what do they currently pay?
How are they currently paying?
How would they prefer to pay?
How much does each Revenue Stream contribute to overall revenues?

TYPES
Asset sale
Usage fee
Subscription Fees
Lending/Renting/Leasing
Licensing
Brokerage fees
Advertising

FIXED PRICING
List Price
Product feature dependent
Customer segment dependent
Volume dependent

DYNAMIC PRICING
Negotiation (bargaining)
Yield Management
Real-time-Market

DESIGNED BY: Business Model Foundry AG
The makers of Business Model Generation and Strategyzer

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Strategyzer
strategyzer.com

vanity vs actionable metrics

Vanity	Actionable
Number of visits: Is this one person who visits a hundred times, or are a hundred people visiting once?	**Funnel metrics, cohort analysis**: define the steps of our conversion funnel, then group users and track their usage lifecycle over time.
Time on site/number of pages: These are a poor substitute for actual engagement or activity unless your business is tied to this behaviour. They address volumes, but give no indication if the customer can find the information they need.	**Number of sessions/user**: Define overall evalution criterion for how long it should take for a session (or action) to complete on the site, then measure how often the user is performing it successfully
Emails collected: A big email list of people interested in a new product is exciting but until we know how many will open our emails (and act on whats inside them), this isn't useful.	**Email action**: Send test emails to a number of registered subscribers and see if they do what we tell them to do.
Number of downloads: While it sometimes affects your ranking in app stores, downloads alone don't lead to real value.	**User Activations**: identifies how many people have downloaded the application and used it. Account creations and referrals provide more evidence of customer engagement.
Tool usage: Level of standardization and reuse in the enterprise tool chain	**Tooling effect**: Cycle time from check-in to release in production for new line of code.
Number of trained people: Number of people that have been through Kanban training and successful obtained certification	**Higher throughput**: High value work gets completed faster leading to increased customer satisfaction.

minimum viable product

Type	Pros	Cons	Examples
Paper	Speed, Visual, Creates shared understanding	Limited interaction, Does not test usability or hypothesis	Diagrams, Wireframes, Sketches
Interactive Prototype	Test design and usability, iterate solutions at speed, Test qualitative customers interviews	Does not test hypothesis or supporting technology	HTML or clickable mock-ups, Videos
Concierge	Reduced complexity, Supports generative research, Validate assumptions qualitative with a small investment	Limited scalability, manual, resource intensive, Customer is aware of human involvment	AirBnB founders offering air beds to customers during Democratic National convention, Collison installation for Stripe [15]
Wizard of Oz	Working solution from customer perspective, person playing the role of the wizard can gain valuable insights from the close involvement, Enables evaluative research for price points and validation of value proposition	Limited scalability based on higher commitment of resources, person playing the role of the wizard must appreciate the functionality of the proposed solution, Difficult to evaluate systems with a large graphical interface component	Tony Hsieh purchasing shoes for initial customers of Zappos.com
Micro-niche	Highly focused test, dedicated to any specific topic, minimal effort	Finanical investment to drive traffic, Competition for keywords and customer click throughs	http://whatkatewore.com/
Working software	Test hypothesis in real environment, validate assumptions qualitative	Expensive, scale of relative investment in people and tools	A/B testing, conversion funnels, referral optimization

conclusion

always explore assumptions for new ideas

your biggest risks: runway, uptake

learn — measure — build — pivot

employ optionality, create artificial scarcity

growing a validated idea needs a different “lean”

questions

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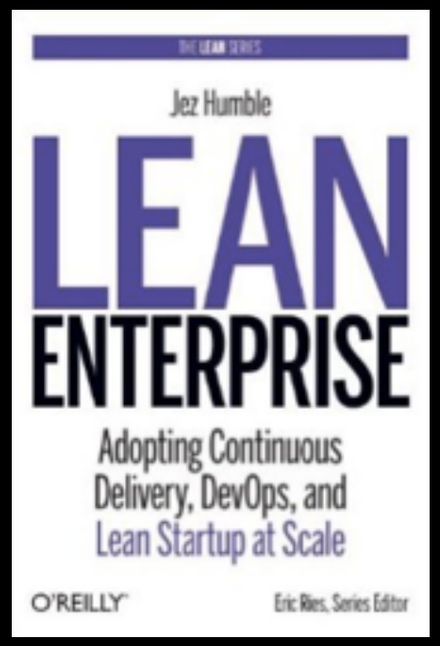

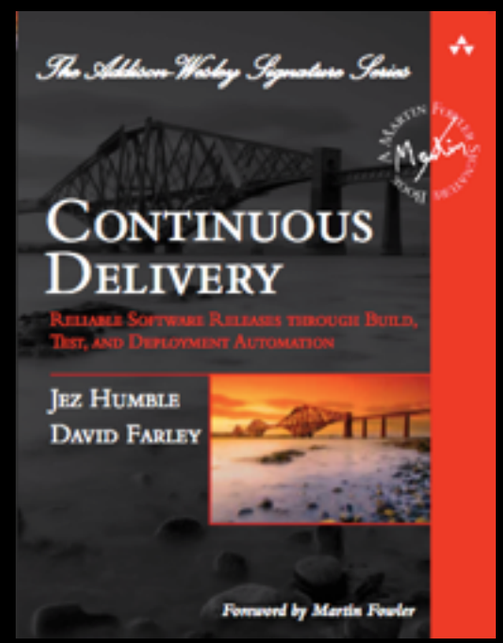

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