

jaarcongres

finance transformation

2015 // Your next move: making the business case for finance

ALEX VAN
GRONINGEN



YURI VAN
GEEST

Waarom nieuwe organisaties tien keer
beter, sneller en goedkoper zijn



Yuri van Geest

- Author of Exponential Organizations
- Dutch Ambassador of SU
- Founding CEO SingularityU Netherlands

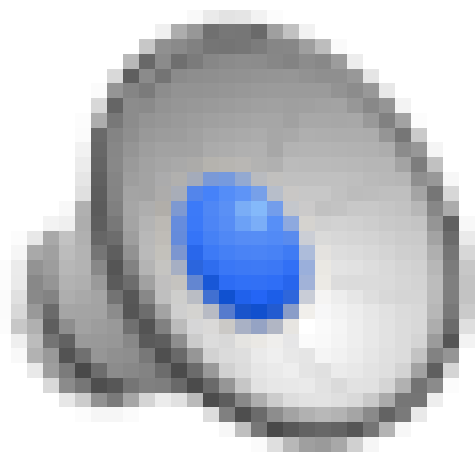
**SALIM ISMAIL
YURI VAN GEEST**

MET MICHAEL S. MALONE EN EEN VOORWOORD VAN PETER H. DIAMANDIS

EXPONENTIËLE ORGANISATIES

WAAROM NIEUWE ORGANISATIES TIEN KEER BETER, SNELLER
EN GOEDKOPER ZIJN - EN HOE JIJ DAT OOK WORDT

 A SINGULARITY UNIVERSITY BOOK





Singularity
University



Founders

Singularity University was jointly founded by Dr. Peter H. Diamandis and Dr. Ray Kurzweil in the fall of 2008.

The Founders

Singularity University was jointly founded by Dr. Peter H. Diamandis and Dr. Ray Kurzweil. The concept of Singularity University was proposed by Diamandis to Kurzweil and to International Space University colleagues Dr. Robert D. Richards and Michael Simpson, who became Founding Trustees in mid-2007.

Associate Founders

Moses Znaimer
Keith Kleiner
Barney Pell
Klee Irwin
Sonia Arrison Senkut
Dan Stoicescu

Reese Jones
David S. Rose
Peter L. Bloom
Geoffrey Shmigelsky
Georges Harik
Rob Nail

Corporate Founders

Autodesk



Google



KAUFFMAN

NOKIA



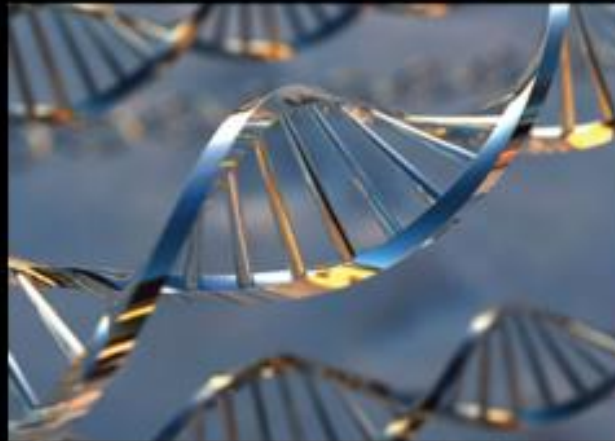
10⁹+

How will you positively impact
1 billion people in the next decade?



Accelerating Technologies

AI
Robotics
Biotech
Nanotech
Medicine
Neuroscience
Energy
Computing

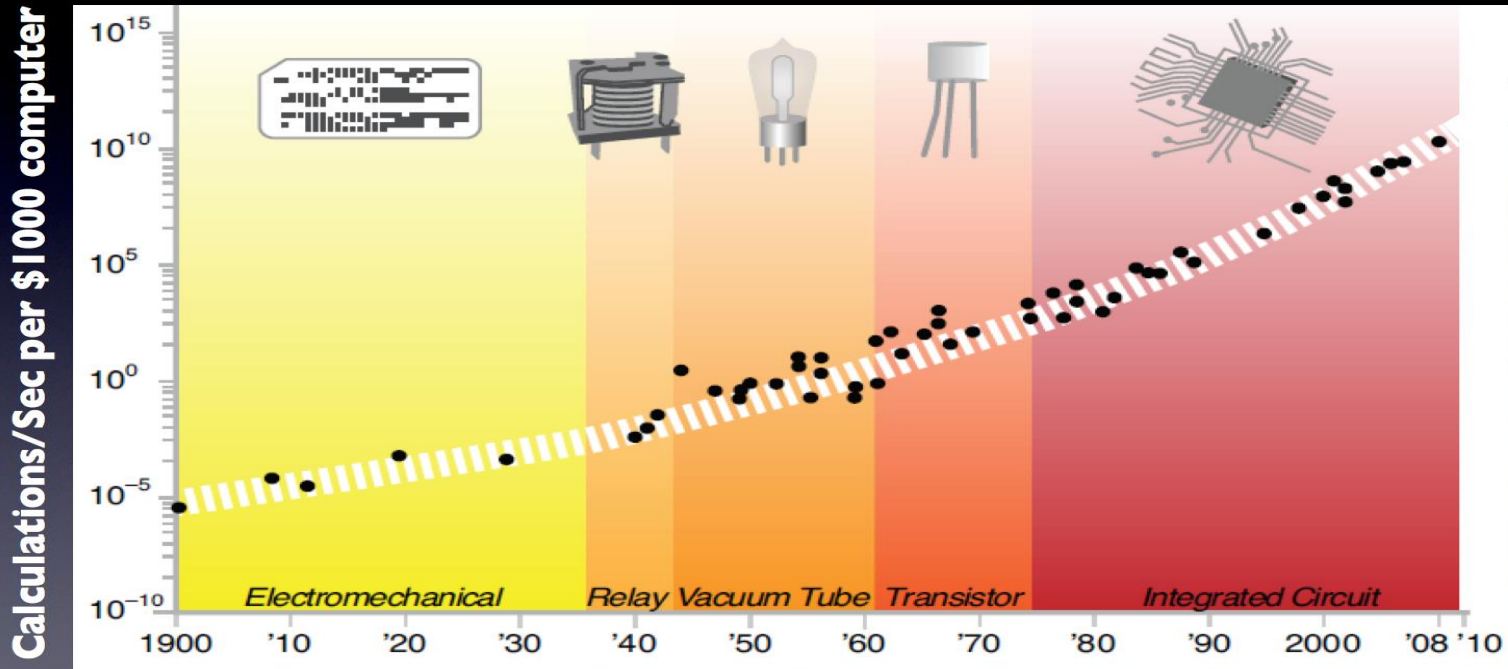


Singularity
University

EXPONENTIAL GROWTH &

THE LAW OF ACCELERATING RETURNS

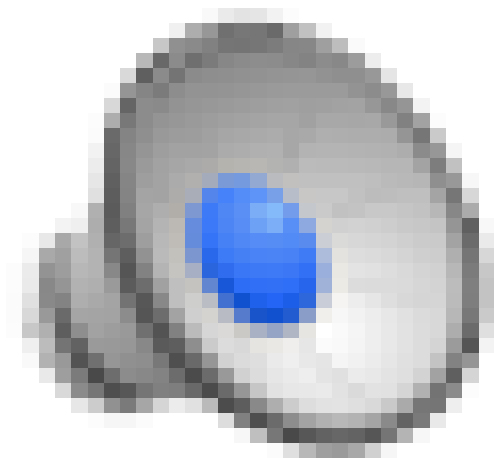
Moore's Law – 5th Paradigm of Exponential Growth



Hyperspectral Imaging



Apple & Foxconn - Apple plans to bring hyperspectral imaging to the new Apple Watch. Enables: cancer detection, retinal imaging, blood flow & oxygen levels, food composition insights (to enable food safety)

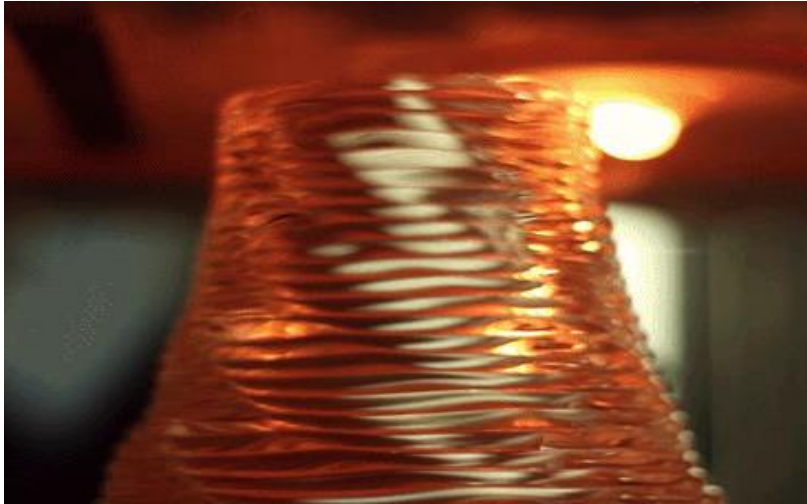




THE GLOBAL BRAIN

Viv radically simplifies the world by providing
an intelligent interface to everything.

MIT's Mediated Matter Group - Glass 3D Printing



Facebook's internet.org - Internet Access Globally

 internet.org by facebook

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[Learn about developing for Internet.org](#)



THE MORE WE CONNECT,
THE BETTER IT GETS



Others:

- Google's Project Loon (with Titan Aerospace) - Drones & Balloons
- Virgin Galactic's LauncherOne - Satellites
- SpaceX - Satellites

Nano-Fridge Concept



Haier - Chinese Consumer Electronics manufacturer

Alibaba - Chinese eCommerce and distribution company

Syngenta - Swiss seed producer and biotech company

Exponential Technologies

	Cost (averages) for equivalent functionality	Scale
3D printing	\$40,000 (2007) to \$100 (2014)	400x in 7 years
Industrial robots	\$500,000 (2008) to \$22,000 (2013)	23x in 5 years
Drones	\$100,000 (2007) to \$700 (2013)	142x in 6 years
Solar	\$30 per kWh (1984) to \$0.16 per kWh (2014)	200x in 20 years
Sensors (3D LIDAR sensor)	\$20,000 (2009) to \$79 (2014)	250x in 5 years
Biotech (DNA sequencing of one whole human DNA profile)	\$10 million (2007) to \$1,000 (2014)	10,000x in 7 years
Neurotech (BCI devices)	\$4,000 (2006) to \$90 (2011)	44x in 5 years
Medicine (full body scan)	\$10,000 (2000) to \$500 (2014)	20x in 14 years

Declining Costs

Increasing
Capabilities

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EXPONENTIËLE ORGANISATIES

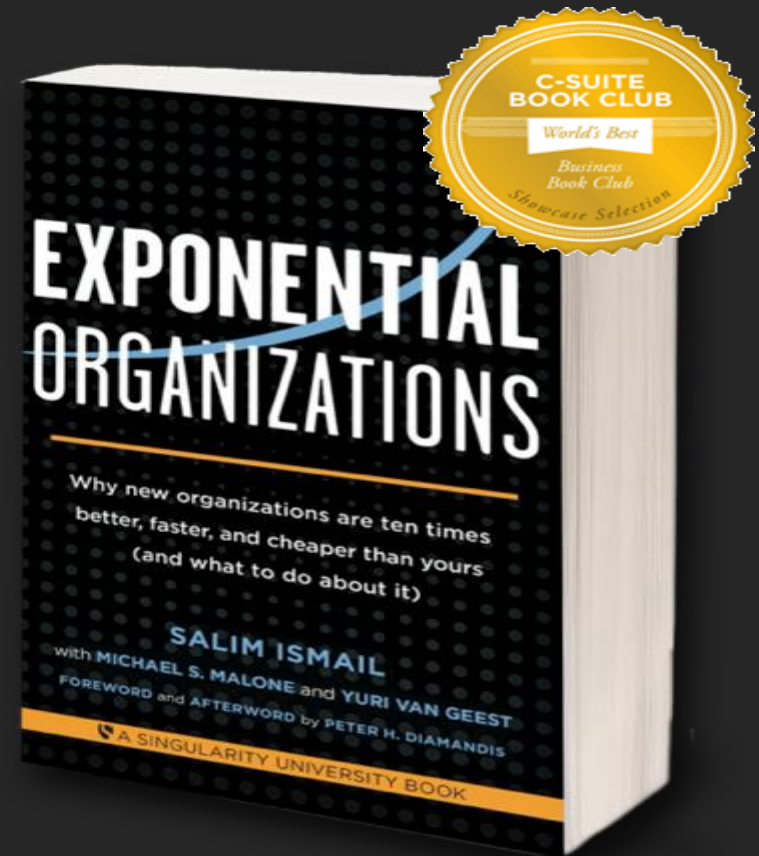
**WAAROM NIEUWE ORGANISATIES TIEN KEER BETER, SNELLER
EN GOEDKOPER ZIJN - EN HOE JIJ DAT OOK WORDT**

S A SINGULARITY UNIVERSITY BOOK

Best Business Book of 2014 Award
by Frost & Sullivan

One of the all-time highest rated
business books on Amazon
(4,8 out of 5)

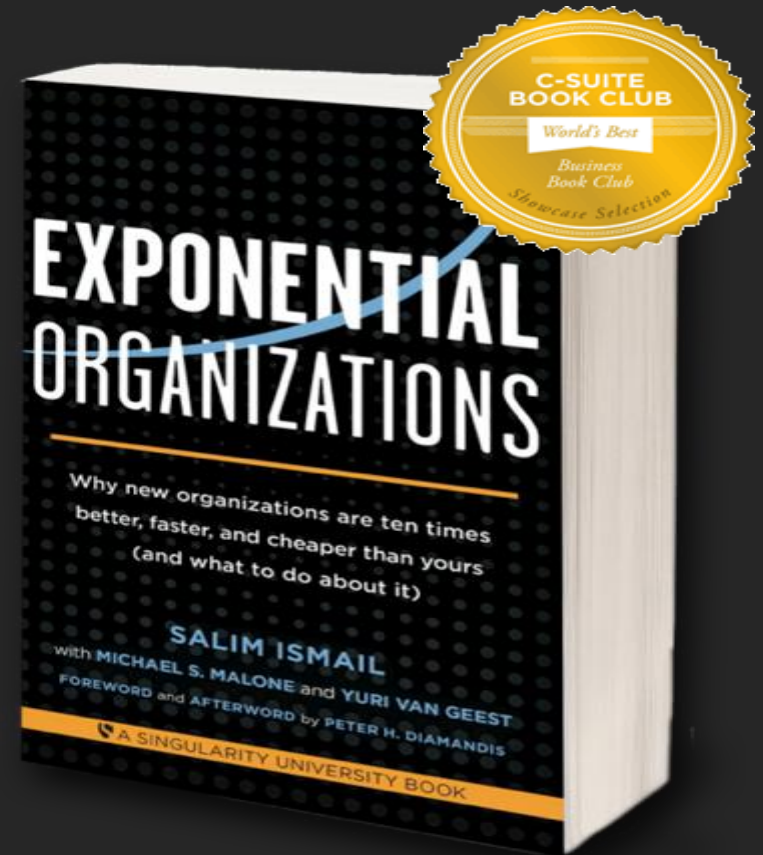
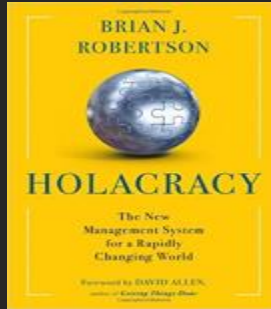
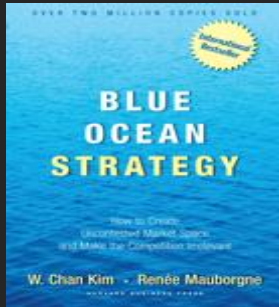
(Soon) available in 15 languages,
including all top 8 languages incl.
Chinese



Honored to be nominated for the
Oscars of Management Books:

**Thinkers50 Breakthrough Idea
Award**

Other nominees:



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“The average half life of a business competency has dropped from 30 years in 1984 to 5 years today.”

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“89% of the Fortune 500
companies from 1955 are
not on the list today.”

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“The average lifespan of an S&P 500 company has decreased from: 67 years (1920’s) to 15 years (today).”

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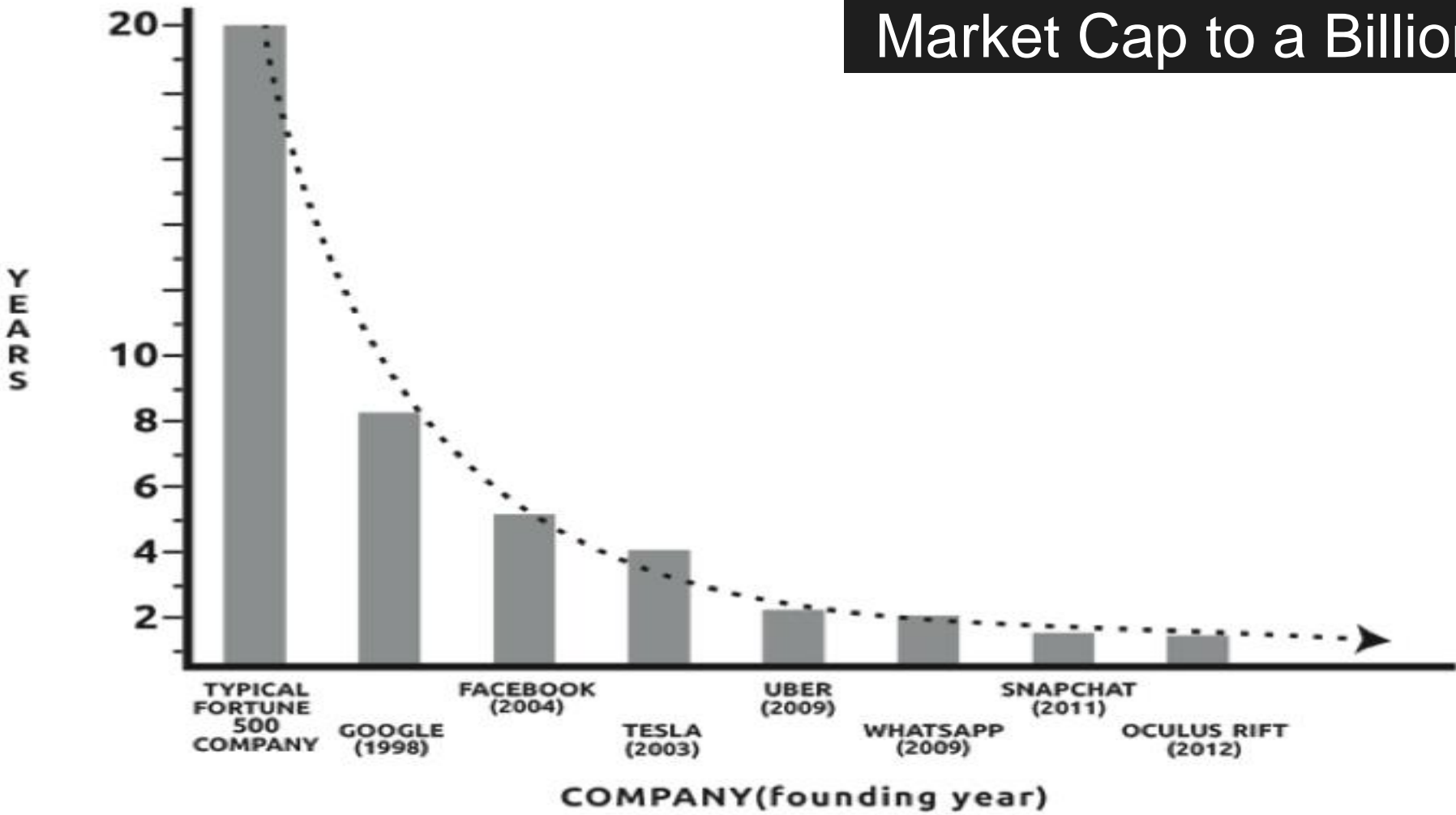
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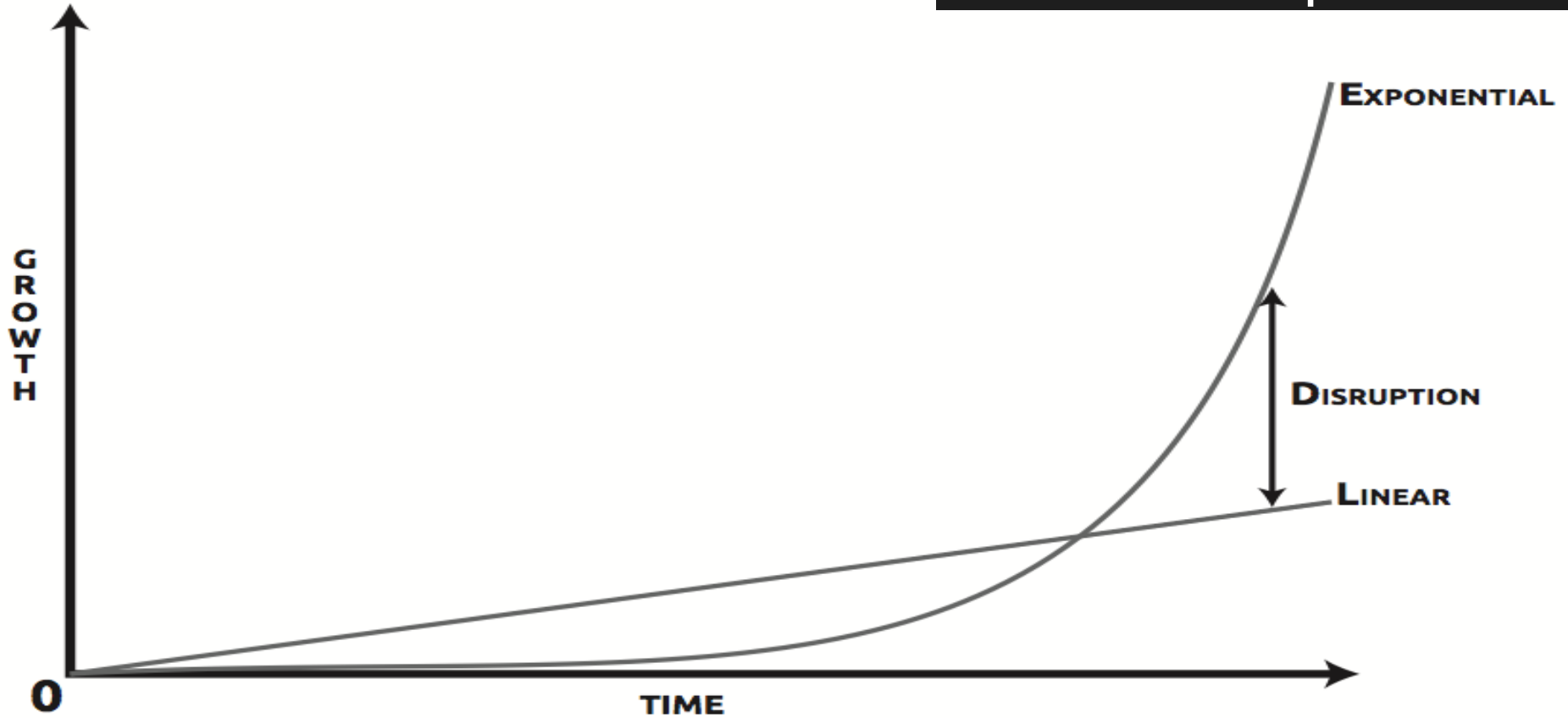
“In the next 10 years
40% of all S&P 500
companies will
disappear from this list”

Market Cap to a Billion



Why are there ExOs?

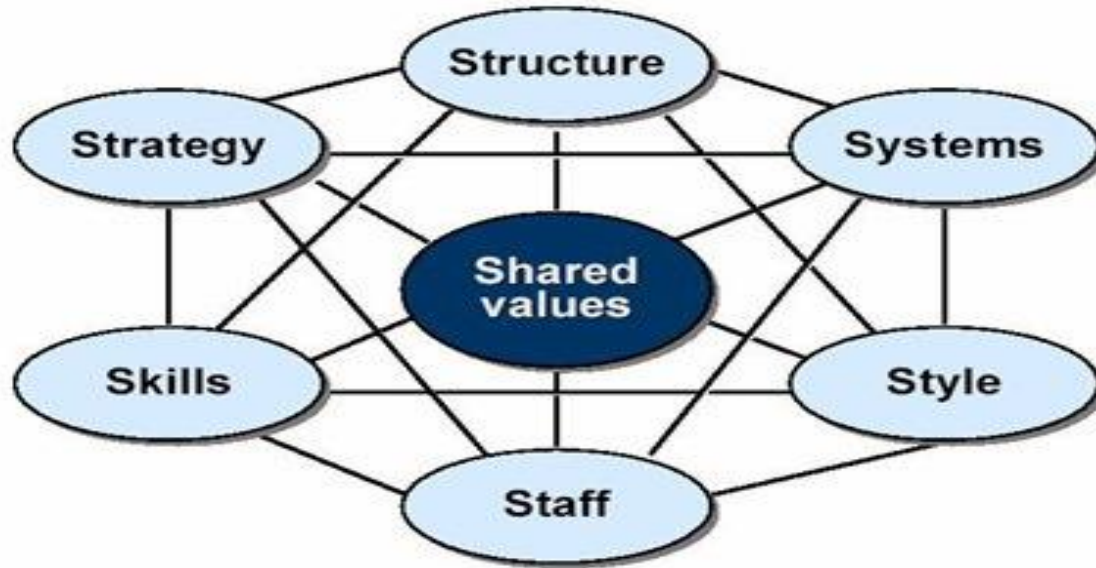
Linear > Exponential



Scarcity > Abundance



Time to scale the organization



Hard Ss –
easy to identify and
management can
directly influence

Soft Ss –
more difficult to describe,
less tangible and more
influenced by culture

Source: McKinsey 7S model

What are ExOs?

An Exponential Organization (ExO) is one whose impact (or output) is disproportionately large — **at least 10x larger** — compared to its peers because of the use of new organizational techniques that leverage exponential technologies.



Marc Andreessen

founder of Netscape,
renowned Venture Capitalist
Andreessen-Horowitz

Software is eating the
world, in all sectors

In the future every
company will become a
software company

ExOs: Everything will become **digital**

Past



Marketing, sales & service

- *social, mobile & online for front-end functions*

Present



Production & Manufacturing

- *nanotech, robotics, 3D printing, sensors, AI*

Future

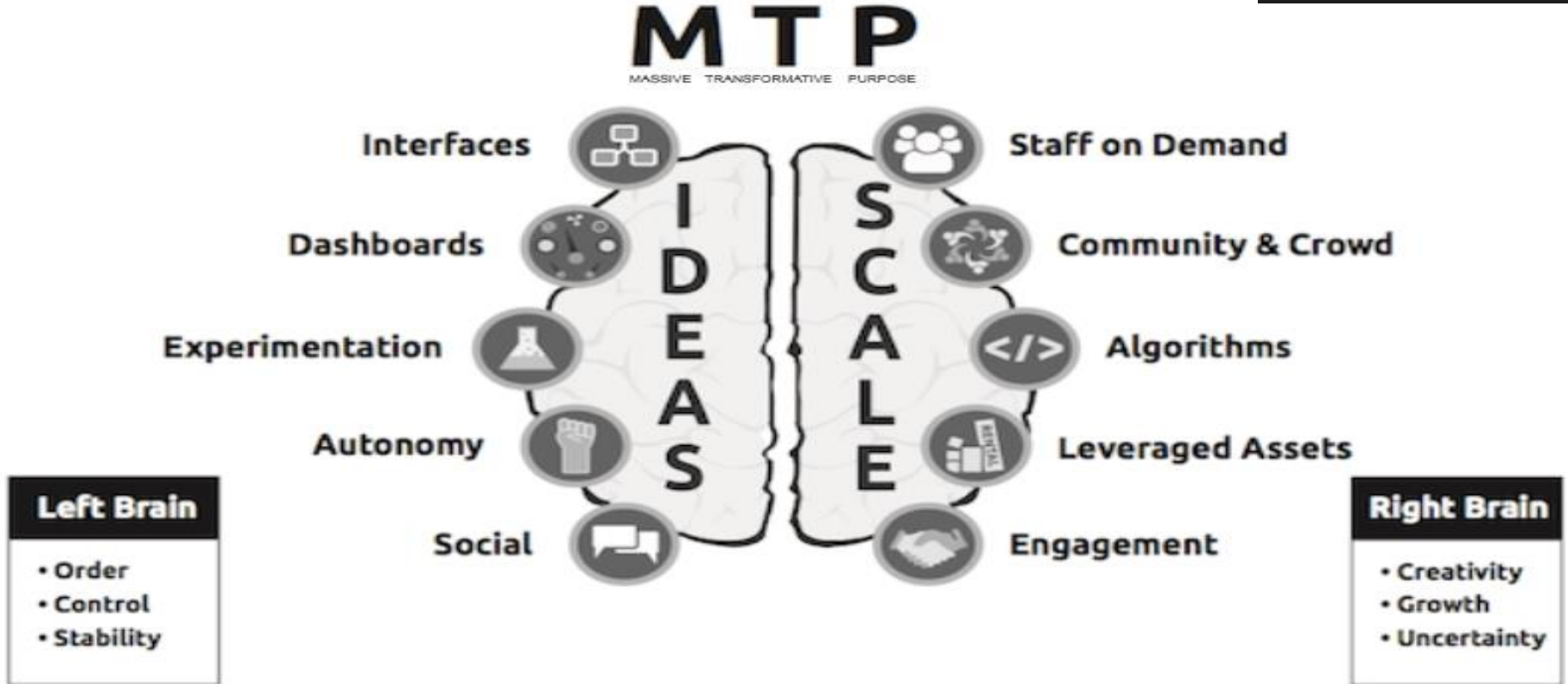


Innovation & Supply

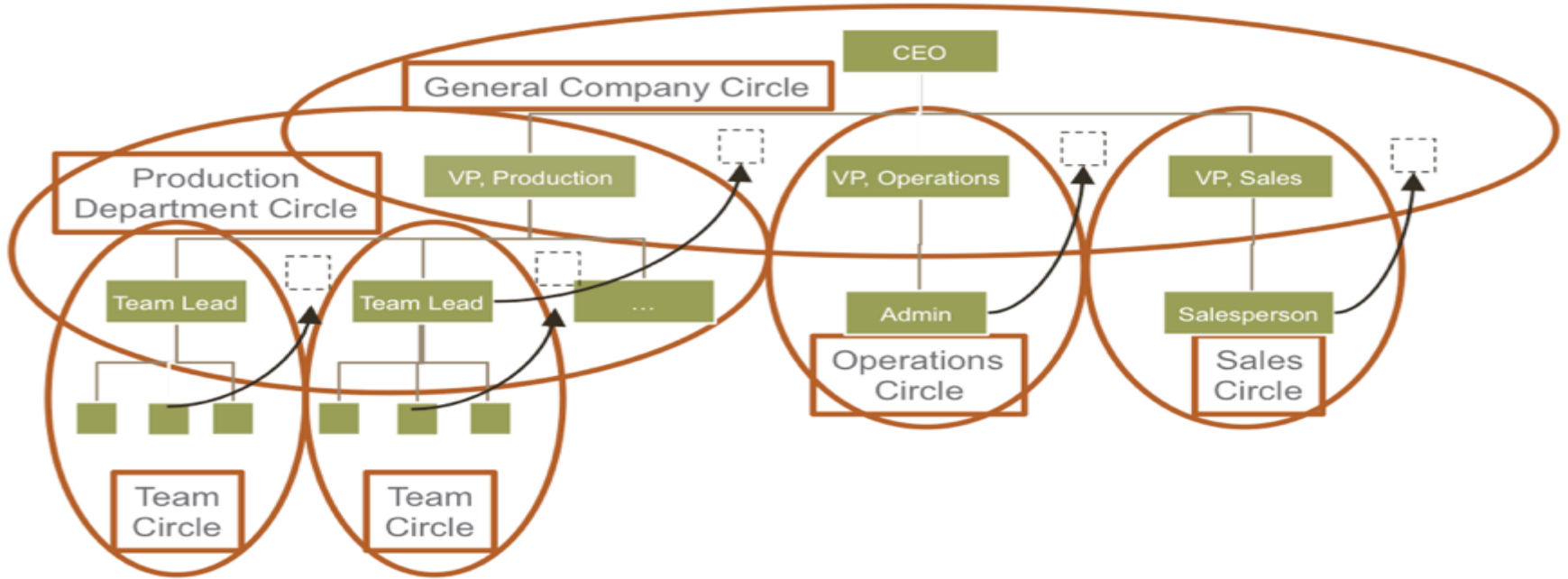
- *crowdsourcing (leveraging the crowd), DIY*, P2P**, crowd companies, AI, Nanofactories*

*Do-It-Yourself: Movement of people who create things without the help of experts or professionals

**Peer-to-Peer: a decentralized network leveraging direct interactions between people



Linear vs Exponential



Top-down, hierarchical

Flat, distributed authority

Linear vs Exponential



Financial driven, closed
(Status Quo)



MTP driven, transparent
via dashboards

Linear vs Exponential

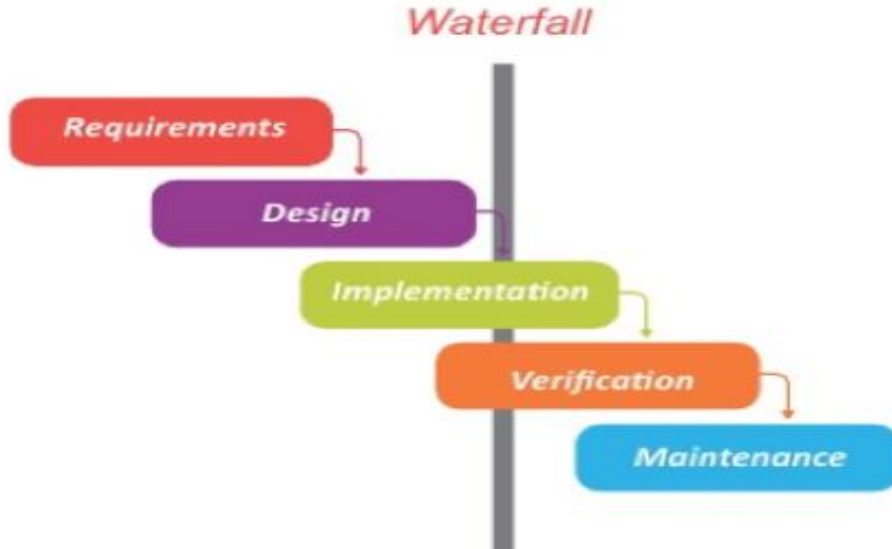


Strategy based on extrapolation from past (5-year operational plans)

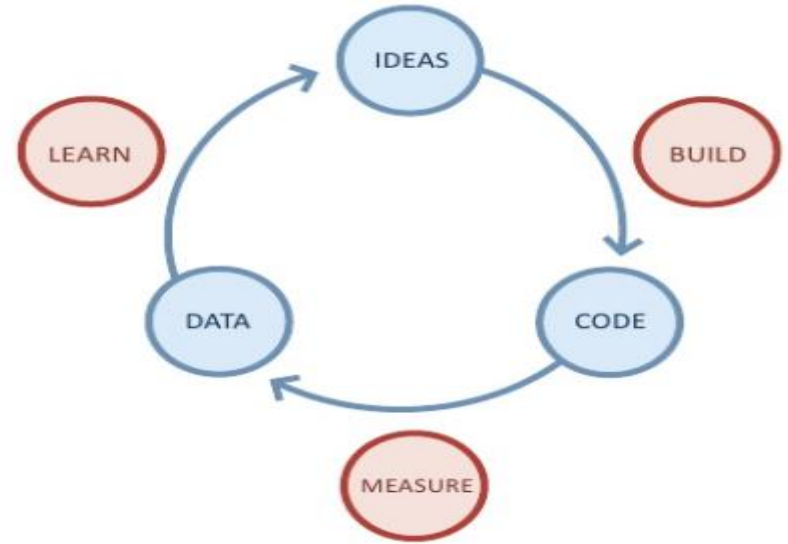


Strategy based on MTP, pivots and 1 year operational plan

Linear vs Exponential



Linear, sequential
thinking



Experimentation and
feedback loops

Linear vs Exponential



Process inflexibility and
risk intolerance

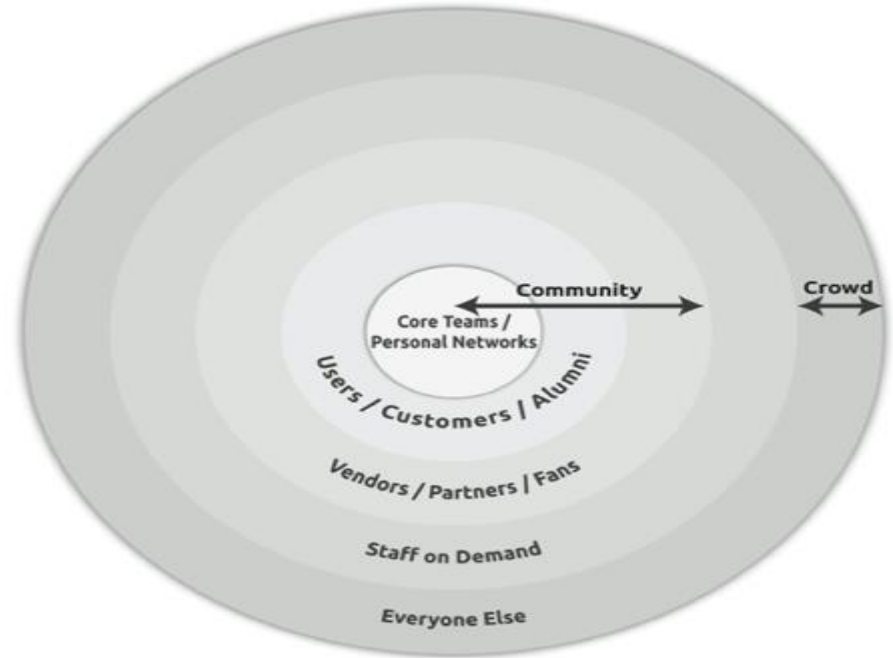


Flexibility and smart
failure celebration

Linear vs Exponential



Innovation from inside,
large number of FTEs



Innovation at the edges
and from outside sources

Examples of ExOs

Build software better, together.

Powerful collaboration, code review, and code management for open source and private projects. Need private repositories? Upgraded plans start at \$7/mo.

Best ExOs

MTP

Staff on Demand

Community & Crowd

Algorithms

Leveraged Assets

Engagement



Interfaces

Dashboards

Experimentation

Autonomy

Social



Sign up for GitHub

By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We will send you account related emails occasionally.

Why you'll love GitHub.

Powerful features to make software development more collaborative.

GitHub - GitHub is an open source code and collaboration community with 10 million members, 21 million repositories and market cap of \$10B. Key differentiator: technical infrastructure of the internet as organizational design



Redmi

Dual SIM
1.5GHz Quad-core
4.7" IPS display.



Gyroscope



Compass



Wi-Fi Direct



Accelerometer



Proximity sensor



USB On-The-Go



Bluetooth 4.0



Ambient noise-reduction mic



SD card slot

Best ExOs

MTP

Staff on Demand

Community & Crowd

Algorithms

Leveraged Assets

Engagement



Interfaces



Dashboards



Experimentation



Autonomy

Social



Xiaomi - Chinese smartphone company, focusing on performance, quality and customer experience. Has a flat organization consisting of 5.000 employees and leverages a Community of 100 million fans for product ideation & iteration.

Performance Improvement



Local Motors

1000x cheaper & 5-22x faster production



Traditional Car
Manufacturers

Corporate Example

MTP

Staff on Demand

Community & Crowd

Algorithms

Leveraged Assets

Engagement

Interfaces

Dashboards

Experimentation

Autonomy

Social



Haier - Chinese appliance maker with 80,000 employees organized in 2005 in 2,000 self-managed units with decision-making authority (Autonomy). Market cap grew from \$20B to \$60B today in the last 3 years.

How to create ExOs?

Strategies for Corporates

Transform Leadership

- Education
- Board Management
- Diversity
- Leadership Skills

ExO
Lite

Disrupt [x]

- Edge ExOs
- Black Ops
- Model Google [x]

Partner, Invest, Acquire ExOs

- Partner with
 - Incubators
 - Accelerators
 - Hackerspaces



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PLATINUM PARTNERS



GOLD PARTNERS



SILVER PARTNERS



KENNIS PARTNERS

