Workshop on Intellectual Property, Innovation & Commercial Best Practices

Organised by **Nanyang Technological University (NTU)**, Asia's most prestigious university in Engineering, join us this Wednesday night, 3rd Nov, 6.30-8.30pm (Singapore time) as **Martin Schweiger** shares about his experience in Intellectual Property, Innovation, and Commercial Best Practices in today's context. He will also introduce his 4x4 Innovation Strategy to all of you innovators and entrepreneurs of the present and future!

Have a quick read of Martin's free book on his 4x4 Innovation Strategy here:

bit.ly/4x4innovation

You Find A Recording Of This Talk At www.ip-lawyer-tools.com

Workshop on Intellectual Property, Innovation & Commercial Best Practices

A Talk At Nanyang Technological University (NTU), Singapore

03 November 2021

by Martin Schweiger

What Successful Innovation Is

Converting a novel product or a novel service idea into money on the table.

- „novelty“ may be „local novelty“ and not necessarily „global novelty“
- “no money on the table“ = „no successful innovation“

Five ways to finance innovation when there is not yet a free cash-flow from sales

- Subsidies
- Investors
- Loans
- Savings
- Pre-Sales cash-flow

… or a mix of all five.

Typical dilemmas:
A. my money vs. someone else‘s money
B. free hand vs. reporting vs. subjection

plus risk of failure: will you innovate something that nobody wants to buy?

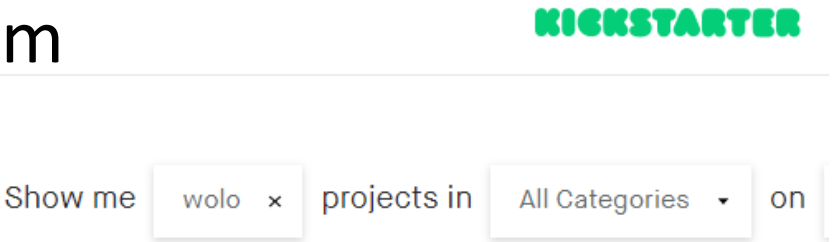
WHY DO START-UPS AND NEW PRODUCTS FAIL?

Source: www.100firsthits.com

Everything seems to suggest pre-sales

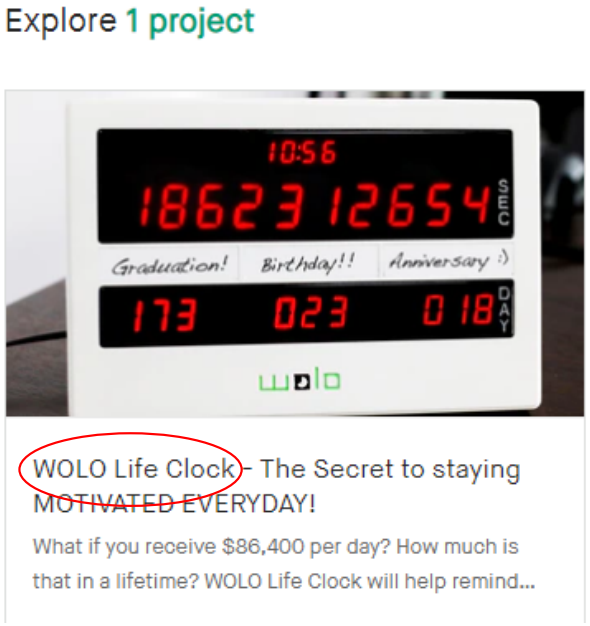
- Early income
- No inventory
- Consumer demand testing
- Price level testing
- Sales team testing
- User feedback collection
- Retain entrepreneurial freedom
- Reduce failure risk

www.kickstarter.com



Teach us to number our days, that we may gain a heart of wisdom. (Psa 90:10)

Movies:
- Seconds (1966)
- In Time (2011)
- Countdown (2019)



- Crowdsourcing
- You must have a working prototype
- Pledges/Backers
- If you hit your goal by the deadline, everyone´s credit card gets charged and you are good to go
- If you do NOT hit your goal by the deadline, nothing happens

www.ip-lawyer-tools.com

Why Kickstarter and similar crowd-sourcing initiatives do NOT work in practice

- not perceived as „professional“
- commission
- not scalable
- most important reason for failure: inventors are forced into providing a Minimum Viable Product (MVP), without intermediate stages

mothership News GE2020 Covid-19 Lifestyle Abroad Weekend Environment + More Search Videos

S'pore Kickstarter product fails to deliver after raising more than S$30,000

There have been no updates since April 2016.

Mandy How | Belmont Lay | April 18, 2017, 12:57 PM

Update, April 20, 2017, 15.05pm (See bottom of article for updates): *Gabriel*

Events

Search for „wolo kickstarter failure“

FREE!

download my FREE e-book here

bit.ly/4x4-innovation

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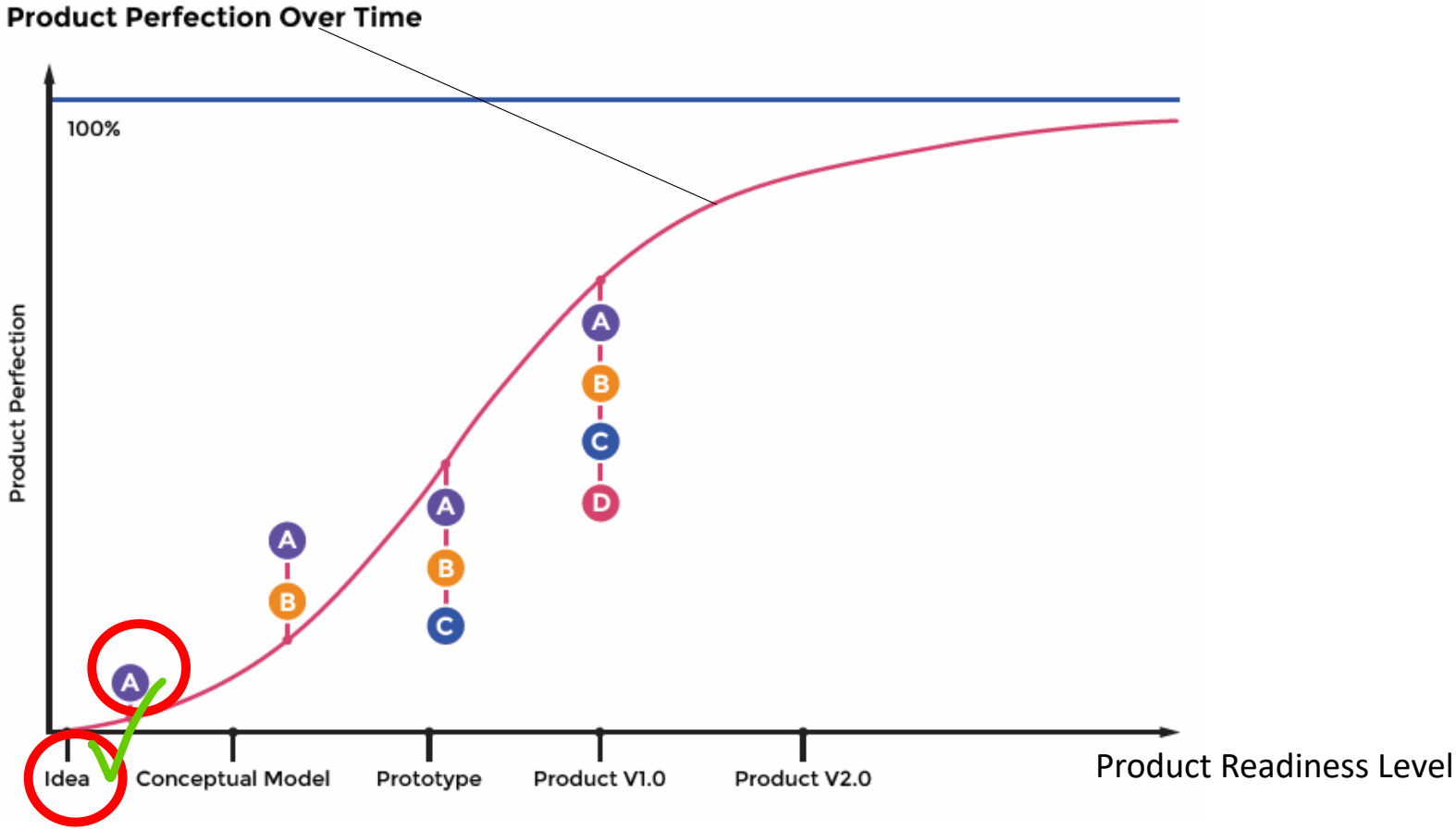
Innovation Analytics



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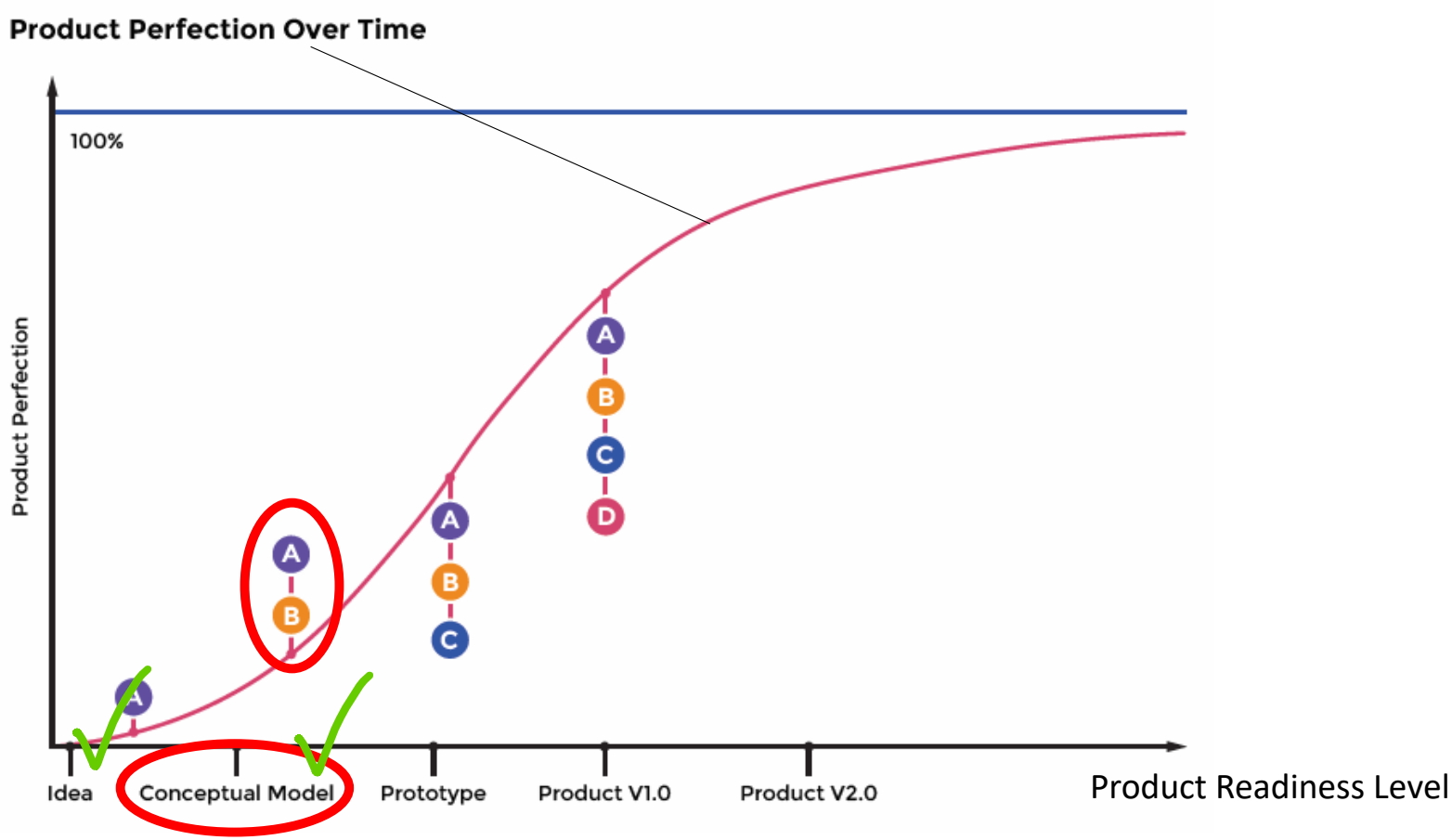
Innovation Analytics



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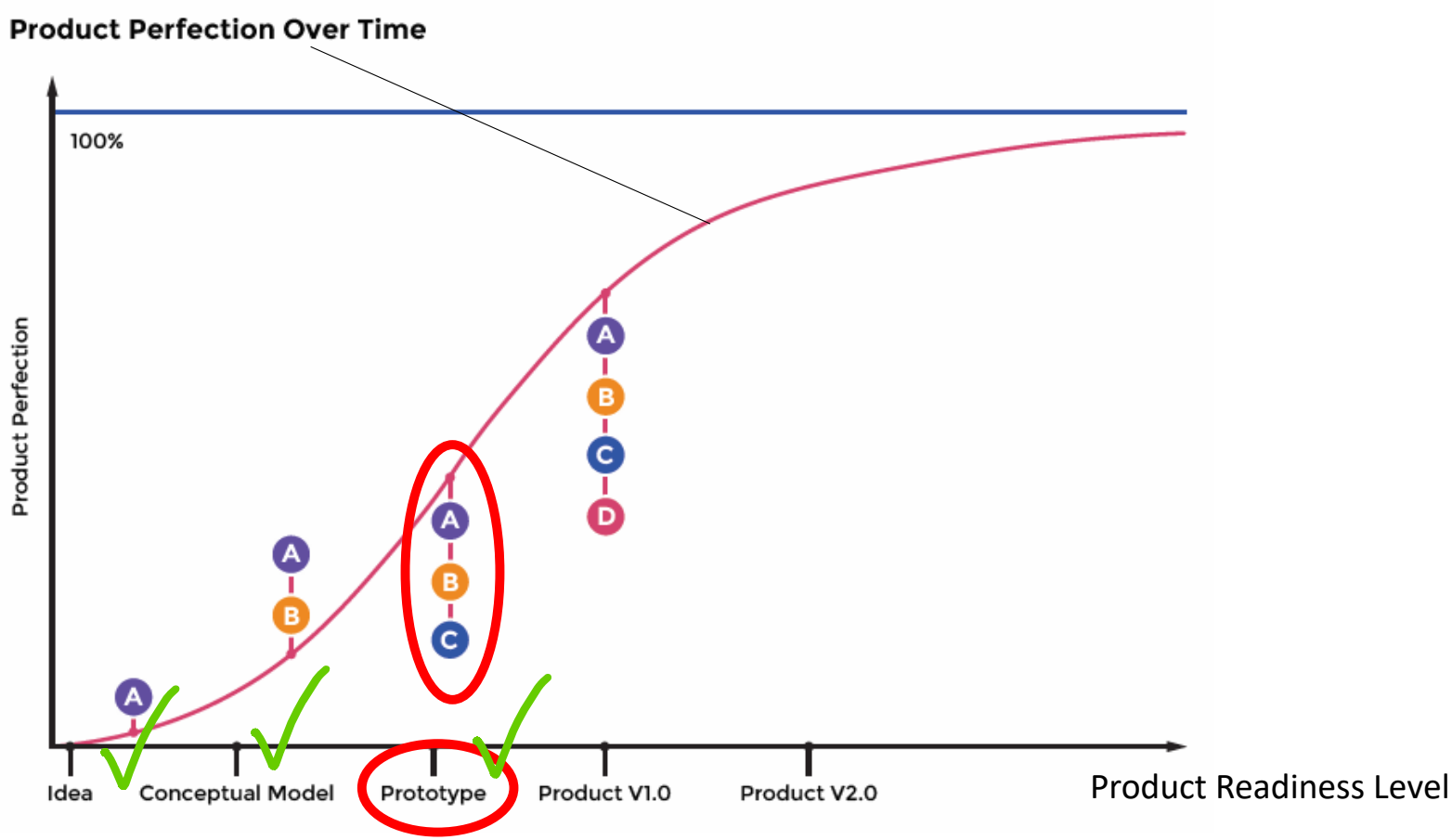
Innovation Analytics



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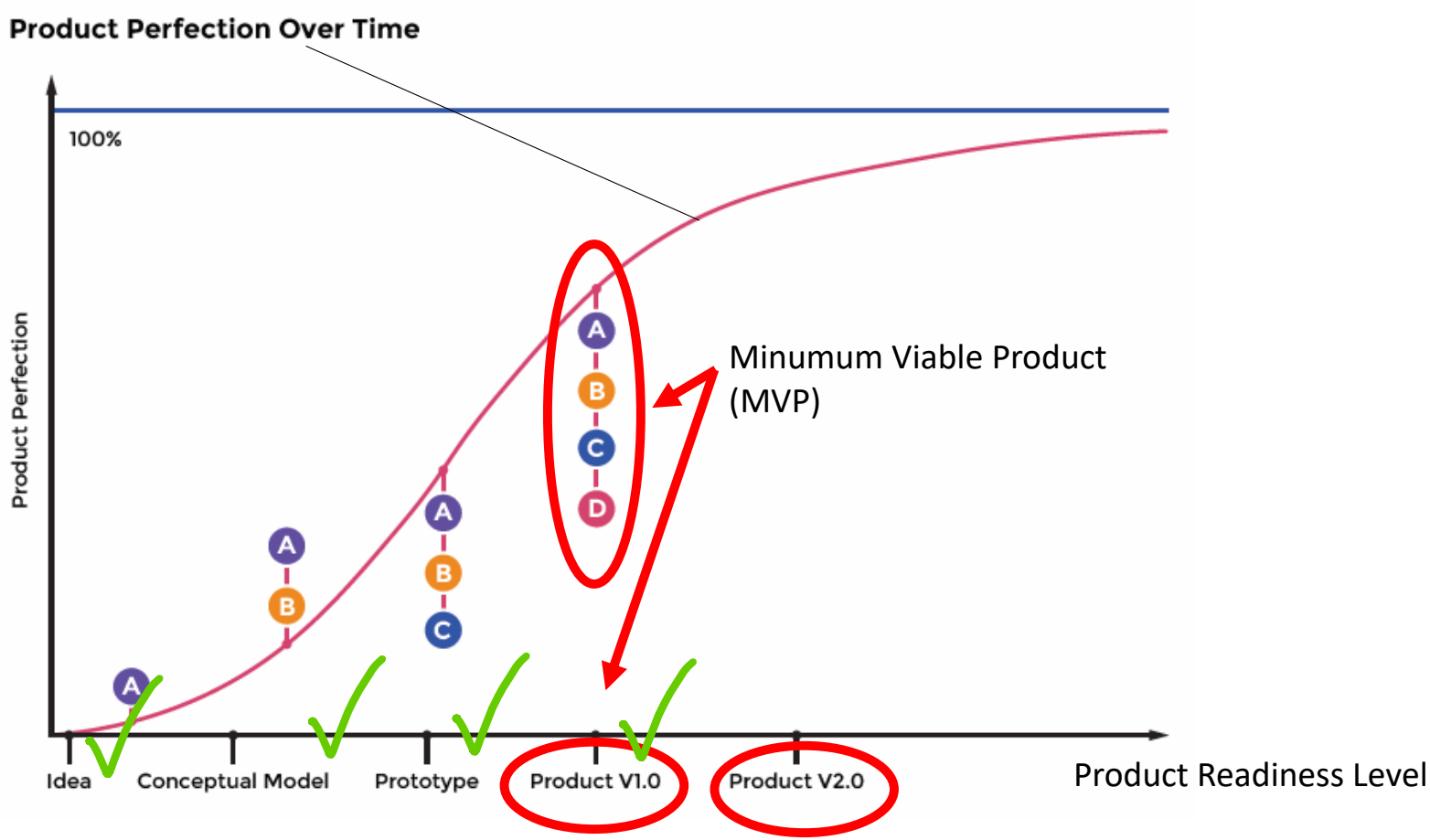

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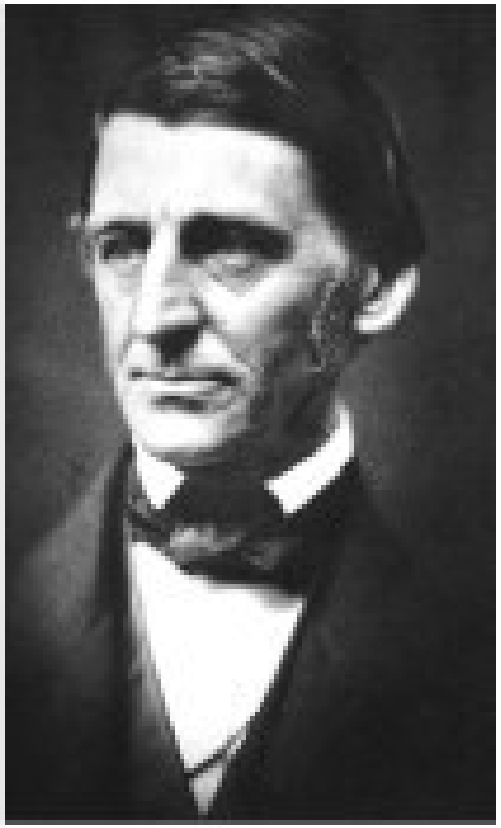
Build a better mousetrap
and the world will beat
a path to your door.

- Ralph Waldo Emerson
(1803 – 1882)



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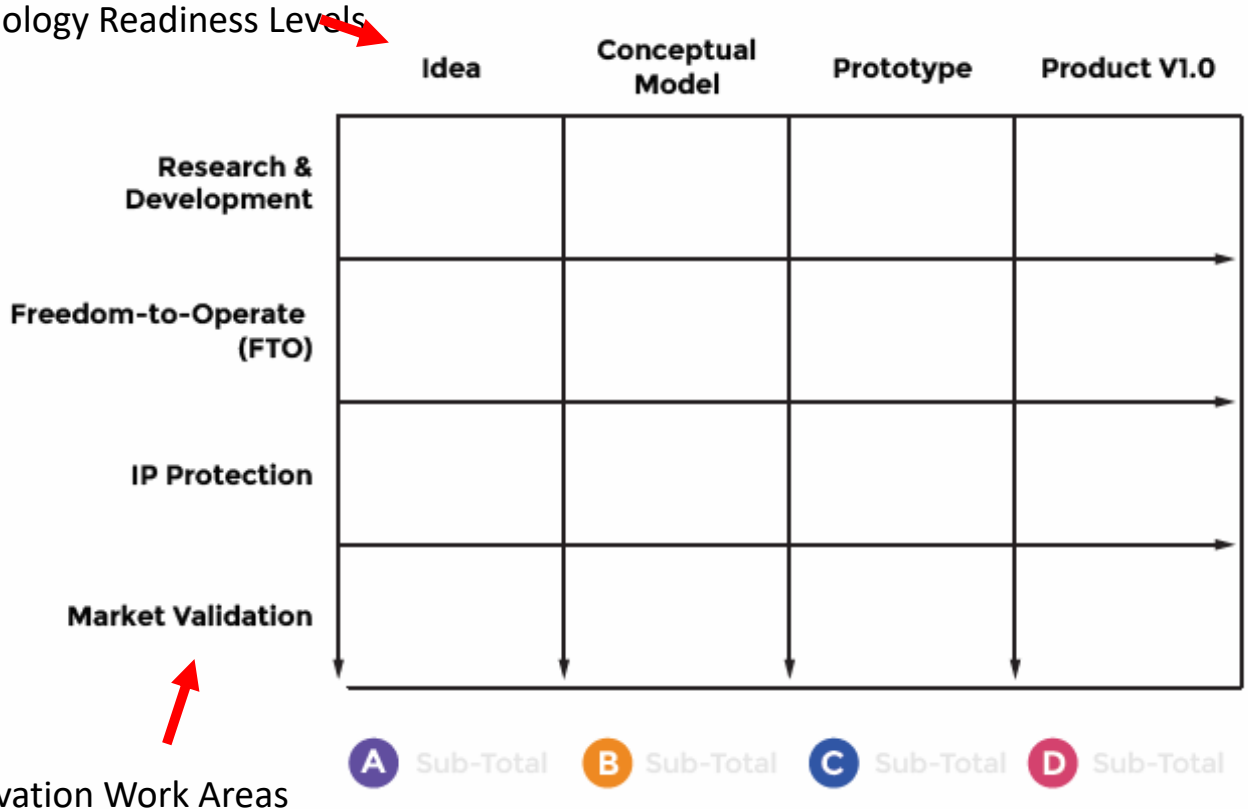
The 4x4 Innovation Strategy = How To Build And Sell An Elephant



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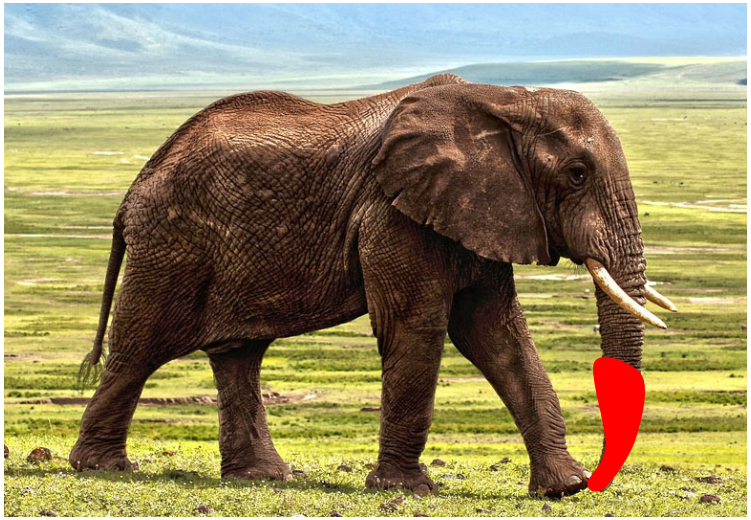
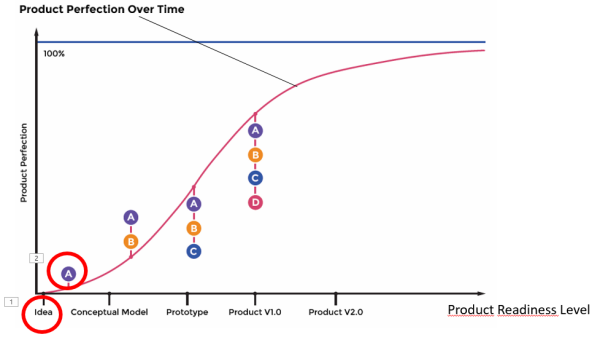
My favorite inventor

Gene

Ralph Waldo Emerson Approach



Gene taps into his savings



	Idea	Conceptual Model	Prototype	Product V1.0	Total Stage Cost
Research & Development	$5,000	$25,000	$125,000	$1.25m	$1.405m
Freedom-to-Operate (FTO)				$15,000	$15,000
IP Protection				$15,000	$15,000
Market Validation				$170,000	$170,000
	A Sub-Total $5,000	B Sub-Total $25,000	C Sub-Total $125,000	D Sub-Total $1.45m	Total $1.605m

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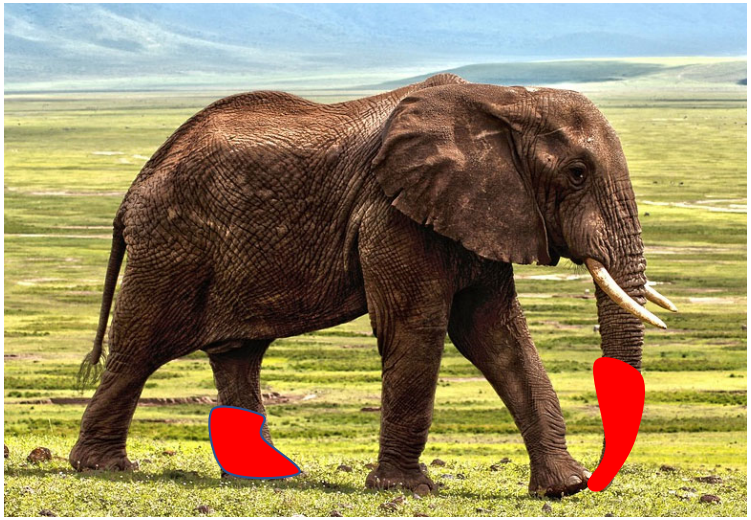
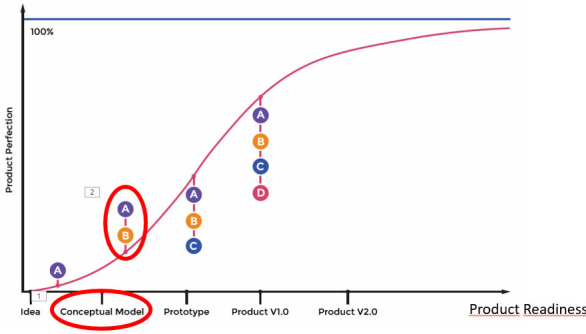
Ralph Waldo Emerson Approach



Gene does a credit card overdraft



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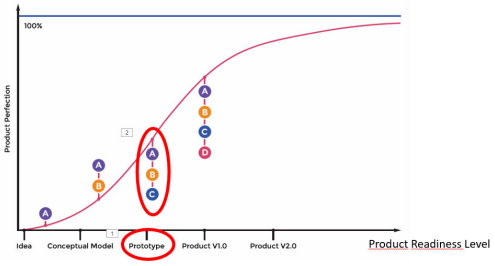
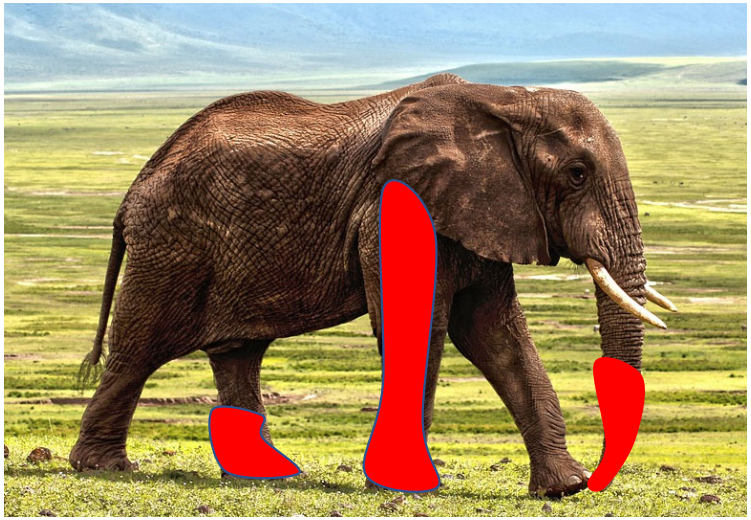


Gene`s friends chip in



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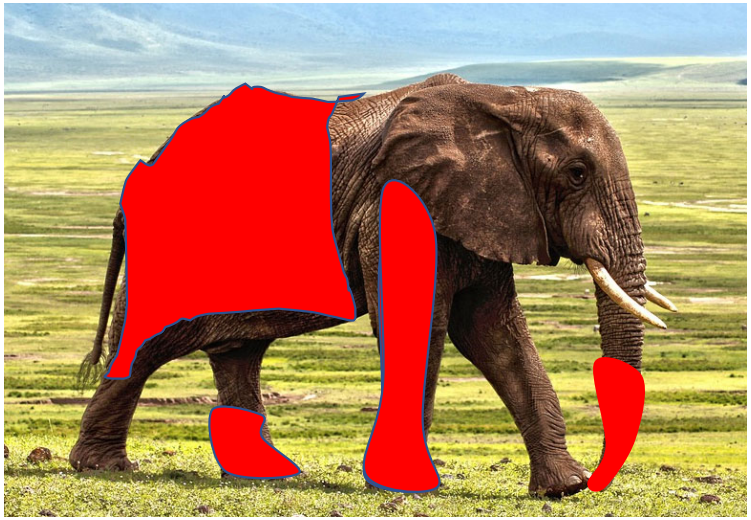

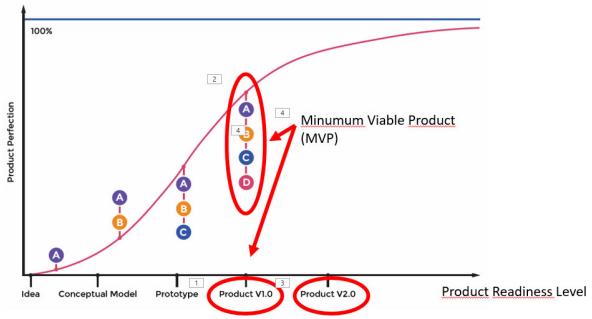

Gene`s mom sells her apartment for her son`s idea

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... and when I state that a business can be testing in market the same day they generate an idea they usually comment:

"My clients need to test before they buy.“

"I might miss the market if I wait to build.“

"I'm too far along not to finish development."

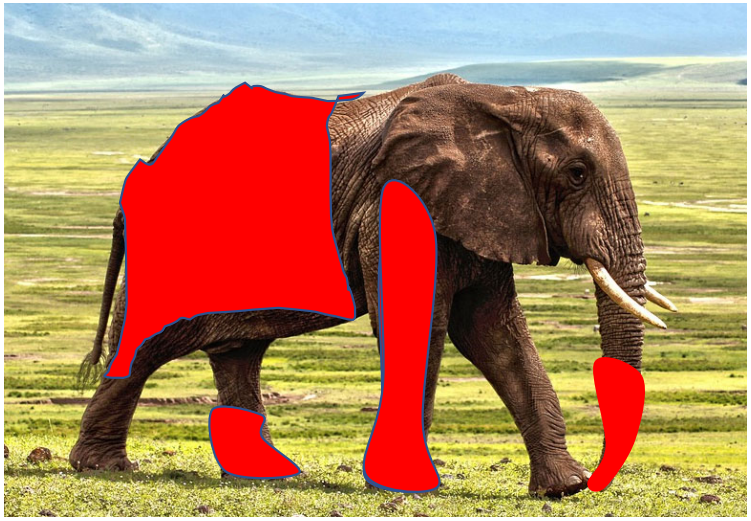
Mathew Wahlrab

The Truth About Failed Innovation

Li#|rx#exlog#d#ehwwhu#p rxvhwuds/#dqg#|rx#
gr#qrw#kdyh#d#p dunhwlqj#sodq/#|rx#z loo#
gl h#dcrqh#dqg#eurnh#z lwk#d#judujh#ixoo#ri#
p rxvh#wudsv1

Mac Ross (+ 2006)

Ralph Waldo Emerson Approach



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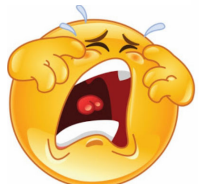

Zero Orders

No Early IP

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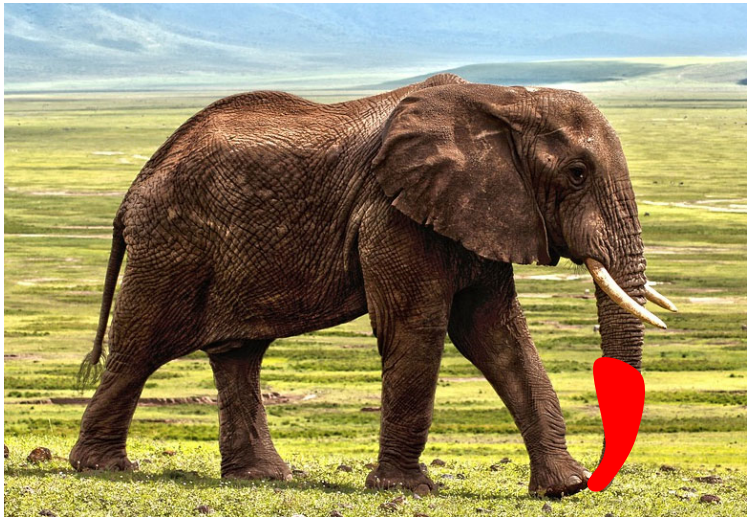
Let`s Do Something NEW

The 4x4 Innovation Strategy applied

(tip: what follows is Agile project management, applied to innovation)

NEW: The 4x4 Innovation Strategy applied



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IP Protection	$5,000	$5,000	$5,000	$15,000	$30,000
Market Validation	$5,000	$15,000	$45,000	$170,000	$235,000

A Sub-Total $20,000

Results/Outcome: 3 Letters of Intent

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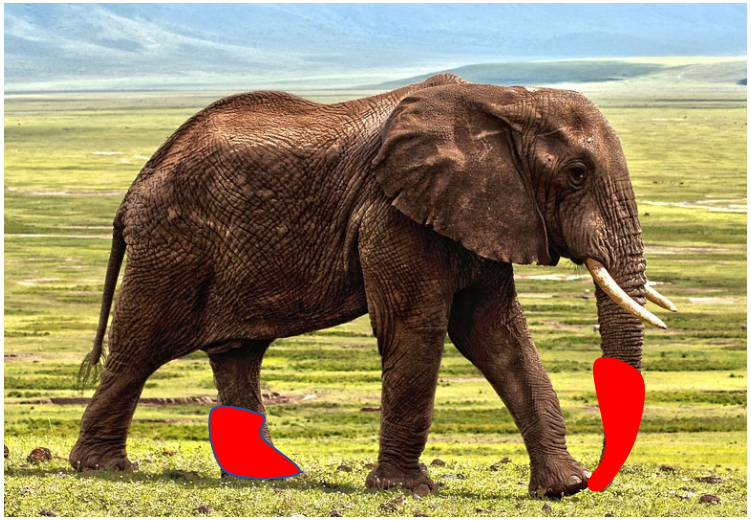
The 4x4 Innovation Strategy applied



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Market Validation	$5,000	$15,000	$45,000	$170,000	$235,000
	A Sub-Total $20,000	B Sub-Total $50,000			
Results/Outcome	3 Letters of Intent	3 Paid Reservations			

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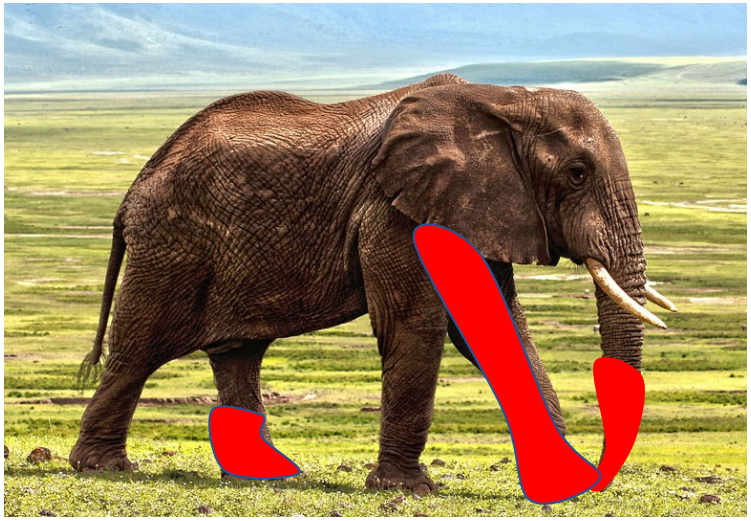
The 4x4 Innovation Strategy applied



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Market Validation	$5,000	$15,000	$45,000	$170,000	$235,000
	A Sub-Total $20,000	B Sub-Total $50,000	C Sub-Total $185,000		
Results/Outcome	3 Letters of Intent	3 Paid Reservations	3 Paid Pre-Orders		

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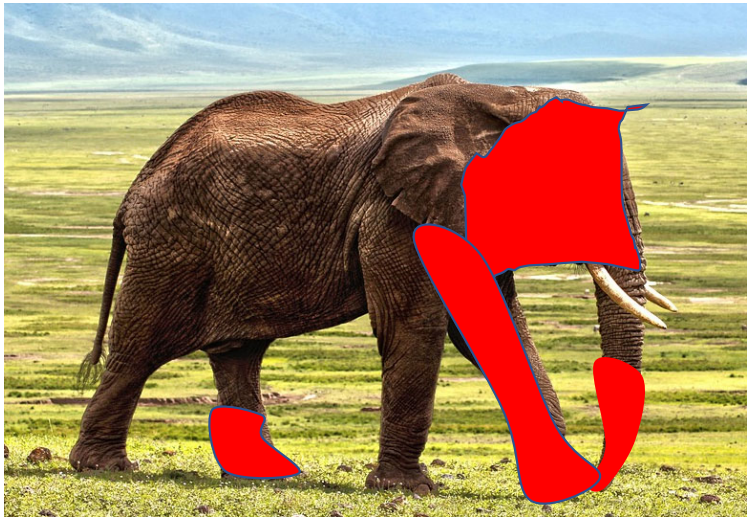
The 4x4 Innovation Strategy applied



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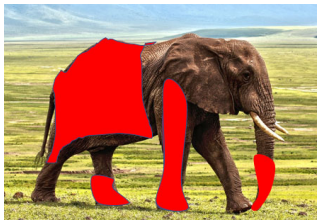

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	A Sub-Total $20,000	B Sub-Total $50,000	C Sub-Total $185,000	D Sub-Total $1.45m	
Results/Outcome	3 Letters of Intent	3 Paid Reservations	3 Paid Pre-Orders	3 Paid Orders	

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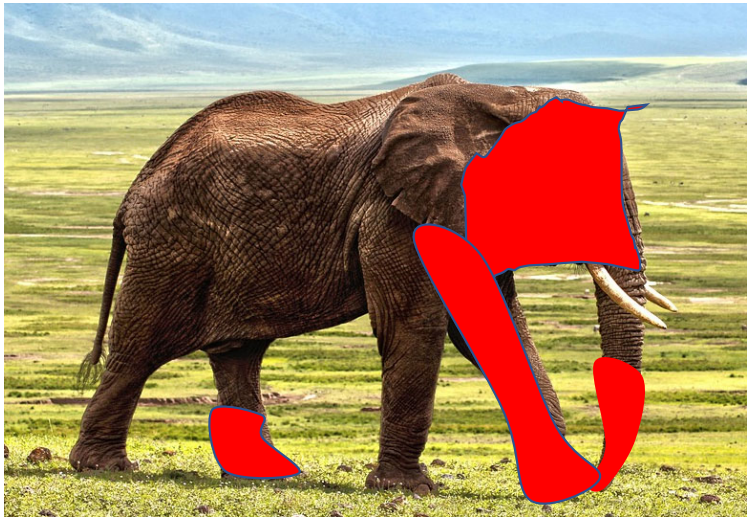
The 4x4 Innovation Strategy applied



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	A Sub-Total $20,000	B Sub-Total $50,000	C Sub-Total $185,000	D Sub-Total $1.45m	Total $1.705m
Results/Outcome	3 Letters of Intent	3 Paid Reservations	3 Paid Pre-Orders	3 Paid Orders	Thorough FTO + Early Patents

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Common cases

- „Perfect!“
- „I have seen this working“
- “Stay away from this”
- “KPI-driven approach”

Early warning stages:

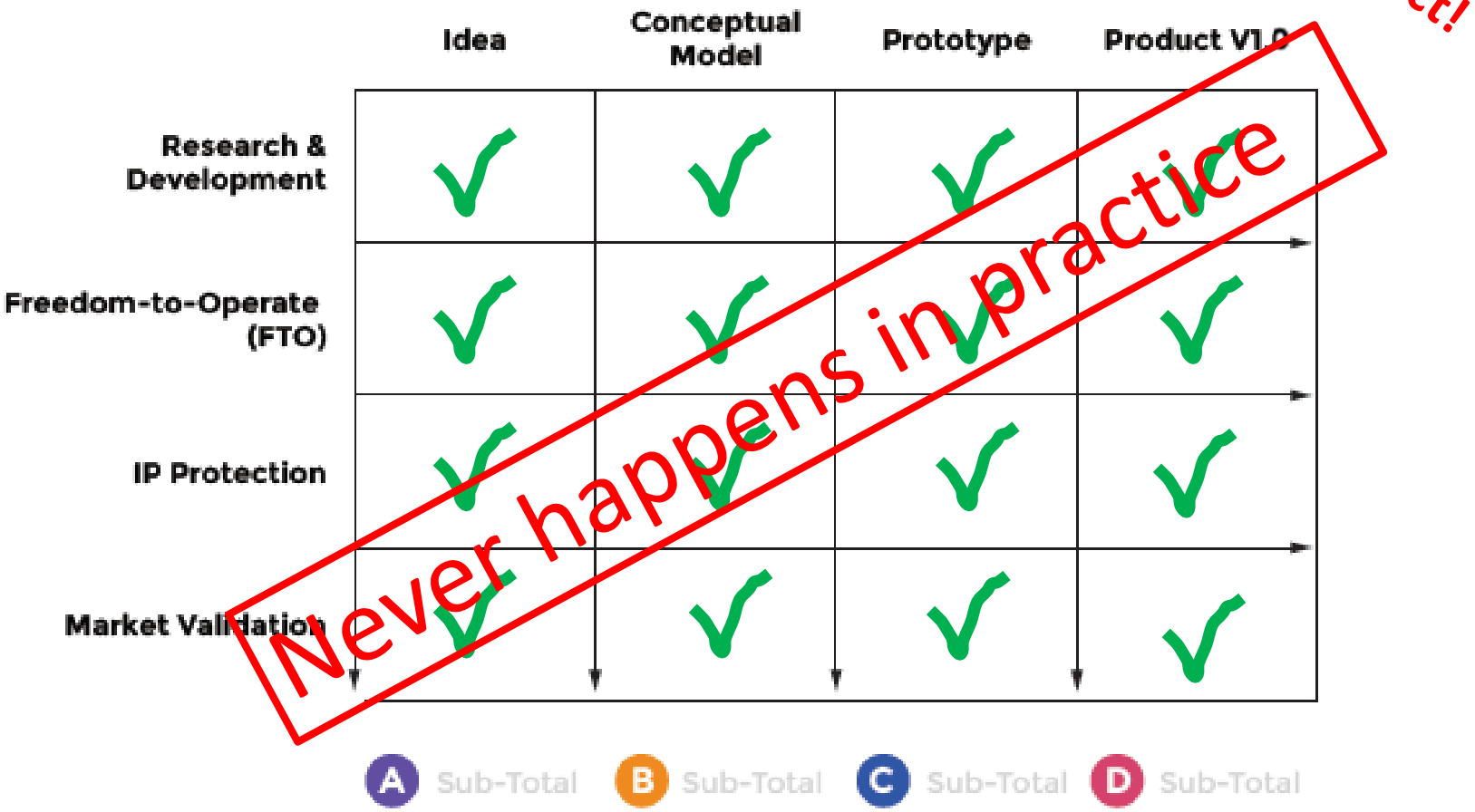
- “Yellow Alert!”
- “Red Alert!”

Special cases

- University Style
- University Style XL
- Patent Troll/Patent Attorney inventor
- SME with a perfect sales team but with an owner that can improve
- Inventright/Inventhelp/etc. Model I: early exit
- Inventright/Inventhelp/etc. Model II: late exit

Check out this link: bit.ly/4x4Roadshow

The 4x4 Matrix



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https://pixabay.com/da/photos/fr%c3%bchjahrsputz-tjeneste-2151818/

Next case

The 4x4 Matrix

	Idea	Conceptual Model	Prototype	Product V1.0
Research & Development	✓	✓	✓	✓
Freedom-to-Operate (FTO)	✗	✓	✗	✓
IP Protection	✓	✗	✓	✓
Market Validation	✓	✓	✓	✓
	A Sub-Total	B Sub-Total	C Sub-Total	D Sub-Total

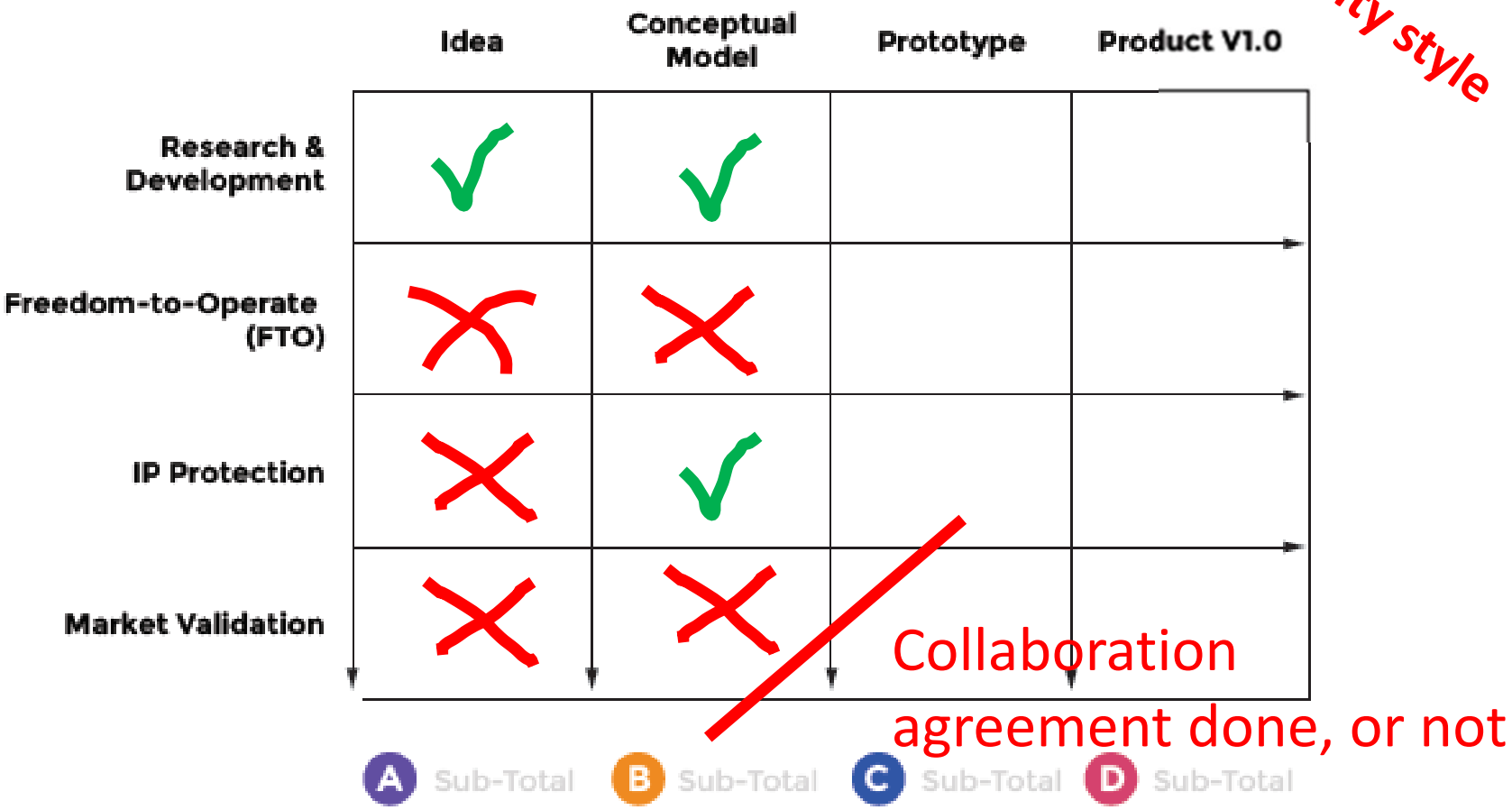
I have seen that working

(Stage-Gate does not want that)

Next case

The 4x4 Matrix

University style



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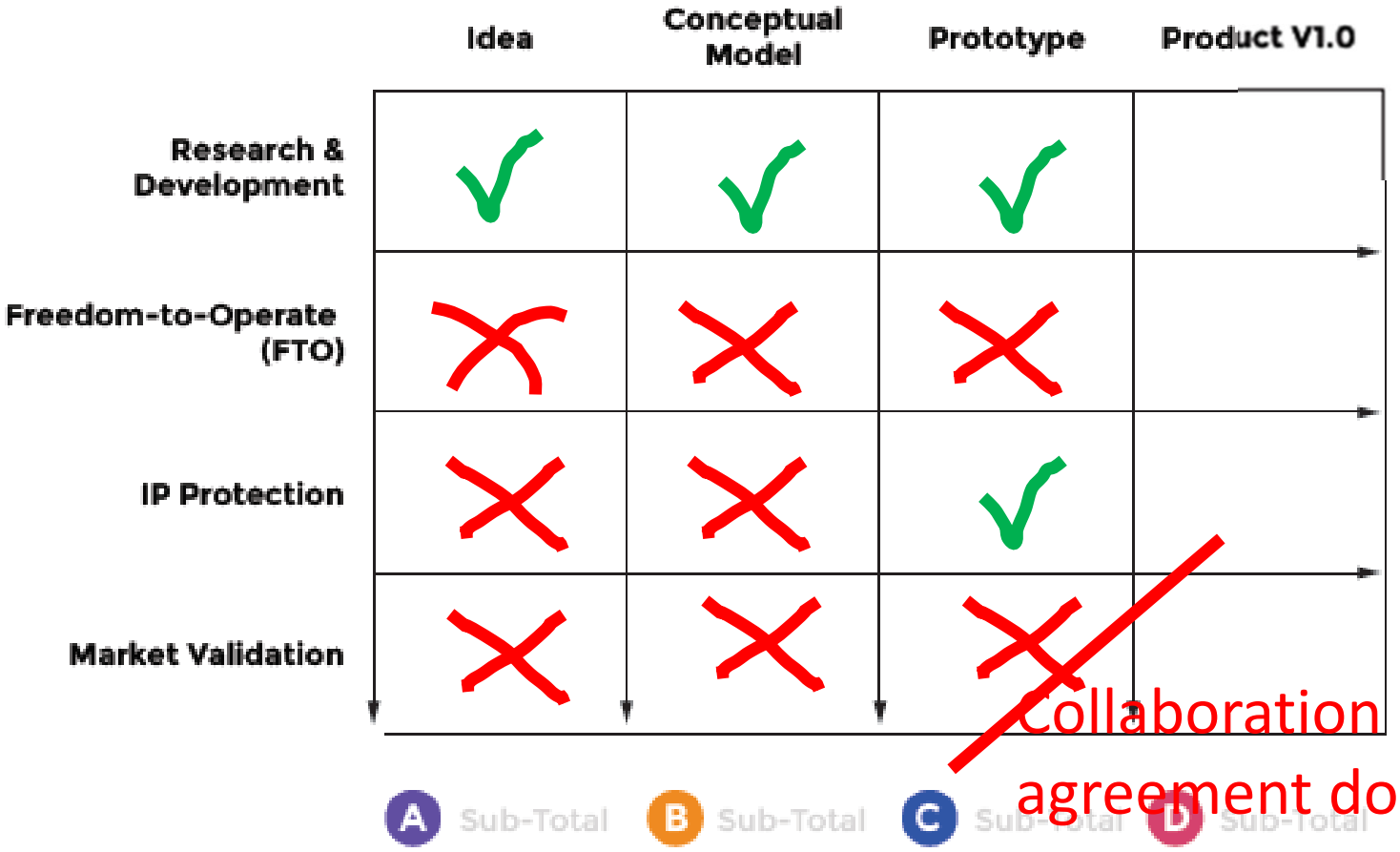
Next case

The 4x4 Matrix

University style XL



Collaboration agreement done, or not

Incremental vs. Non-Incremental Innovation

For most existing companies, the organization's resources, people, energy, and management attention are fully focused on producing, delivering today's products. That includes improving these existing products, which is incremental innovation.

And in some companies, there are other activities that move the company into new white space. That area is called non-incremental innovation.

Example: German steel pipe manufacturer Mannesmann builds up a mobile phone network (D2) in 1990.

Moving Firms Into New Competitive Space

Fewer than one-fourth of the firm's innovation projects focus on goods and services that will move the firm into new competitive space.

Most of those projects (60% of the 25%, or 15% of all of the projects a firm undertakes) are products that another firm already has commercialized.

Example: should Ford Motor Company develop a theme park featuring cars and automotive history, this type of product would move the company into new market space. However, the product is one that other firms, notably Disney, already have developed. Thus, while this development is more risky for Ford than creating a next-generation improvement to one of their current car models, there are examples in the market that Ford could use as templates to reduce its commercialization risk.

The other 40% of projects that will move a firm into new market space (approximately 10% of all of the innovative projects the firm undertakes) are concepts that are "new-to-the-world." They are non-incremental products for which there are no competitors already in the market.

(Bruce Vojak)

Who Can Innovate. And Who Cannot.

- Serial Innovators vs. Inventors

“Inventors … are primarily idea generators and technology solution providers. If allowed to operate without guidance and direction from the marketplace, such individuals may develop into “profitless prolifics,” generating one new patentable technology after another without any profitable application and, therefore, without any financial return.”
(Bruce Vojak)

Personality traits of Serial Innovators:

- high in openness
- low in agreeableness and high in primary psychopathy
- moderately high in IQ
- high in creativity
- not scientific, but it also works: 16 Personalities/Myers-Briggs Type Indicator (Stevens, Greg et. al. "Piloting the rocket of radical innovation“)

Price‘s Law

50% of the work is done by the square root of the total number of people who participate in the work

- 10 – 3
- 100 – 10
- 1000 – 31
- 10.000 - 100

Save Money and Effort: Pareto Principle in Innovation

100% of the Innovation work is done by 100% of the people

80% of the Innovation work is done by 20% of the people

80% of 80% (= 64%) of the Innovation work is done by 20% of 20% (= 4%) of the people

80% of 80% of 80% (= 51.2%) of the Innovation work is done by 20% of 20% of 20% (= 0.8%) of the people

In other words: if you have 100 people in your R&D department, re-assign the right 80 people to other tasks (to incremental innovation or to facility management) and the remaining 20 people will still have about the same (non-incremental) innovative power as the 100 people before that.

Managing Innovation

- Stage Gate Project Management:

„Just let marketing sign off this milestone and you can go ahead to the next stage.“

… and „marketing“ is never available for signing off, for whatever reason.

- Why there are so few Serial Innovators in large companies:

Serial Innovator: „I found a way to save a million Dollars by spending only $10.000.“

Manager: „The $10.000 would come out of my budget but the savings would go into someone else‘s budget. It is not feasible.“

„Serial Innovators“ Law

- In a company of 100, there is one Serial Innovator
- In a company of 1,000, there are two Serial Innovators, maybe three
- In a company of 10,000, there are still two (or maybe three) Serial Innovators, because the others have left after getting frustrated by the management

The Funny Thing With Innovation

It is most of the time NOT the innovative people that talk about how to innovate.

Look at the innovative background of innovation gurus.

example: Clayton Christensen – zero tangible innovation in his C.V.

Yet:

- a Harvard university professor for innovation
- wrote a famous book „The Innovator‘s Dilemma“
- coined the term „breakthrough innovation“ (for non-incremental innovation)

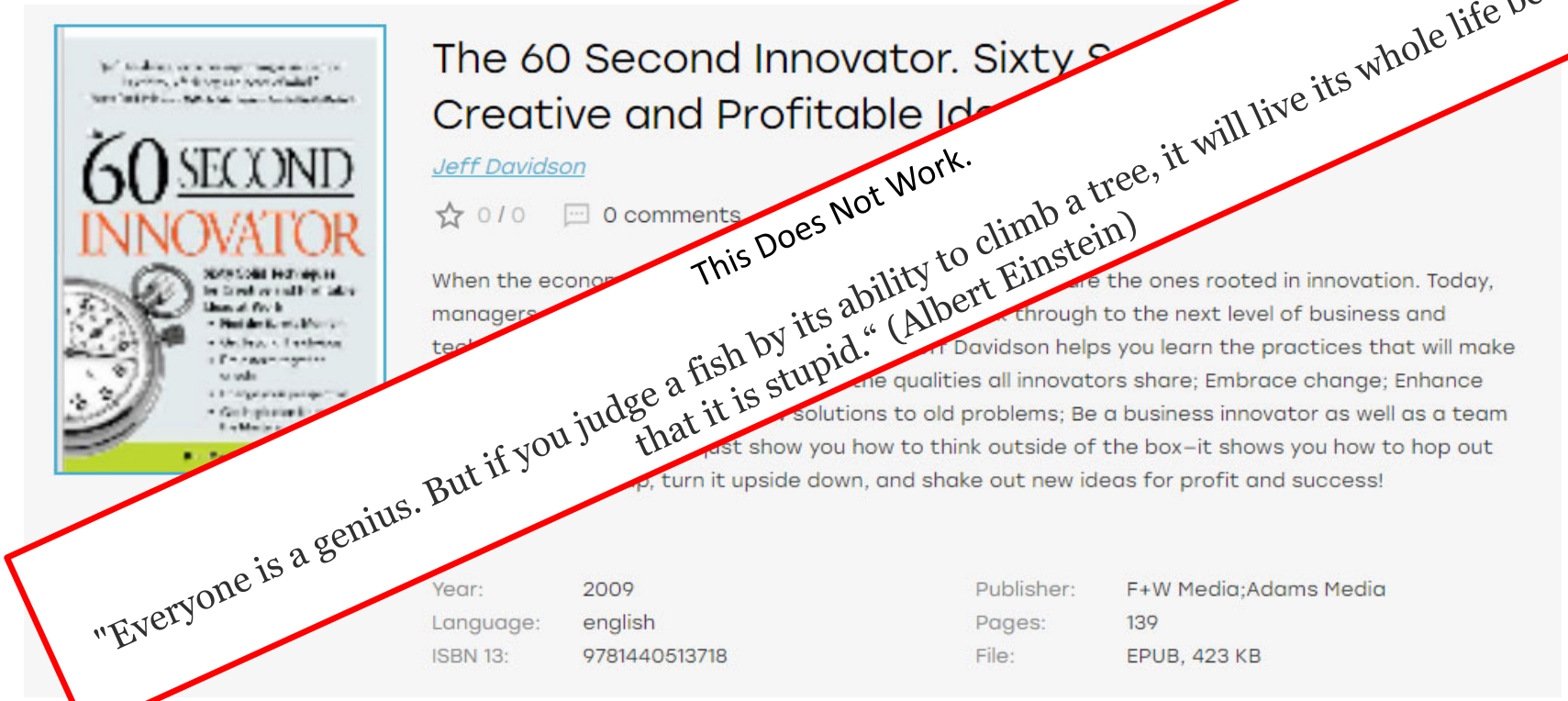
Finding Literature About Innovation

- Check the background of the author: is he/she a proven innovator?
- Check the structure of the literature: is IP in the foreground, or Successful Innovation?
- Check the recommended innovation strategy.

Warning signs:

- The author has not demonstrated to be innovative
- it is about manpower and how to better manage that manpower
- it is about producing and managing IP in high volumes
- it is about big data and how to use it for decision making

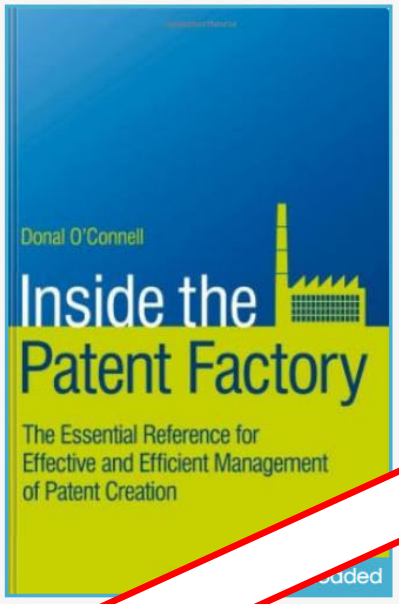
This is what you were told at Business Scho



"Everyone is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid." (Albert Einstein)

This Does Not Work.

A similar case: patents for the sake of patents



Inside the Patent Factory: Th
for Effective and Efficient M
Creation

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The book is a co or anyone interested in inte
embark on patent creation. It draws on the au
ch , management and leadership at Nokia.
ook guides the reader through each stage of settin
involvement by asking vital questions about their needs a
involved, it provides examples, diagrams and models to ill
Critical chapters include the core activities of patent cre
quality and the comparison of external and internal alloc
how to such define roles and responsibilities and the man

Expensive And Complicated, does not work

Nokia CEO Cries During his last Speech

Nokia CEO Ended His Speech Saying This 'We Didn't Do Anything Wrong But Somehow, We Lost'

The Nokia Problem Seems To Have a Name

A similar case: patents for the sake of patents

About

I am the Managing Director of Chawton Inn
solutions in the areas of innovation and int

In the past years, the client base has includ
Firms, global telecoms companies, a compl
company, a global heavy engineering comp

The projects have included IP auditing, IP s
management, research into NPEs, IP outsou
part of an M&A deal, IP portfolio manager
more.

I have had a long career at Nokia for 21 ye
having worked for periods in The Netherlar

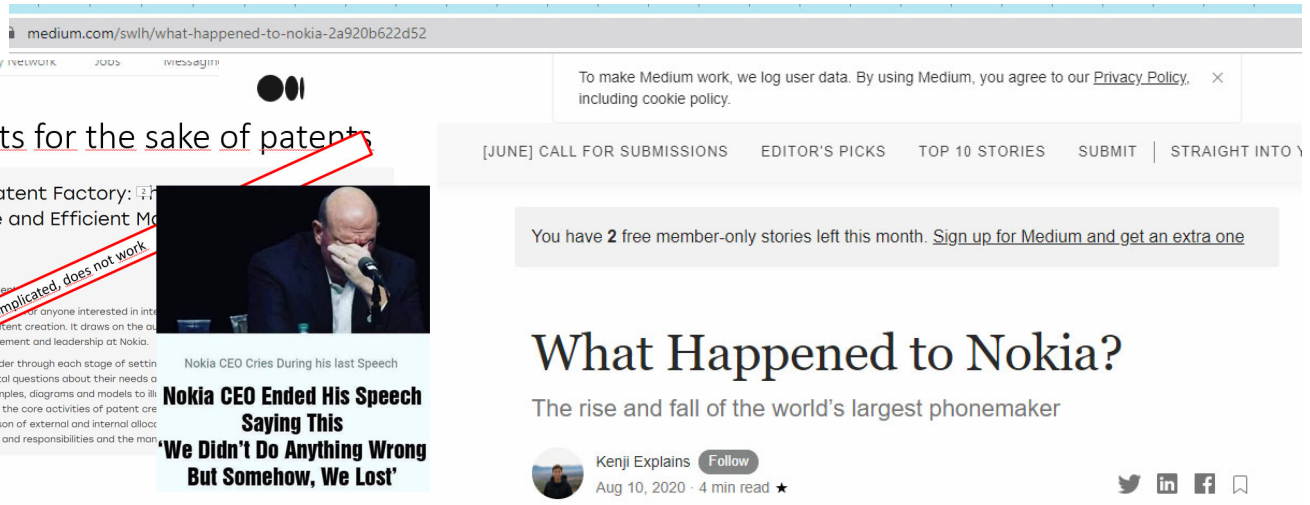
I am formerly a VP of R&D and a Director of IP at Nokia.

In the US I managed Nokia R&D in Texas from '97 to '03, growing the site from scratch by recruiting and developing more than 600 engineers and developing and launching many successful products.

More recently, from '03 to '09 I was a Director of IP at Nokia, and during this time period I successfully managed a number of major change projects.

I have written two books, "Inside the Patent Factory" and "Harvesting External Innovation". I recently co-authored a report on 'IP exchanges' which went on sale in mid 2012.

Specialties: innovation management, intellectual property management, understanding the inventor community, external innovation and the role of intellectual property, management & leadership, and IP software solutions.



While Nokia operated using a standard hierarchical organization through to the early 2000s, company executives decided to reorganize into a matrix structure in 2004, with the hopes of increasing innovation.

With the reorganization, conflicts began to arise. Among the disadvantages of having a matrix structure is that several managers have equal authority, which inevitably leads to power struggles. Inevitably, this also led to the departures of key members of the executive team.

While Nokia was dwelling with internal conflict, Apple — its biggest threat — was managed by a laser-sharp Steve Jobs, and was swiftly gaining market share through meticulous design, branding, and execution.

Contributions

- A clear definition of “Innovation”
- Why most start-ups fail
- The 4x4 Innovation Strategy tool
- Incremental vs. non-incremental innovation
- Pareto principle applied:
  20% of the R&D staff does 80% of the innovation
- Price`s Law and Serial Innovators’ law. There are only one or two serial innovators in each company
- How to find the right literature about innovation

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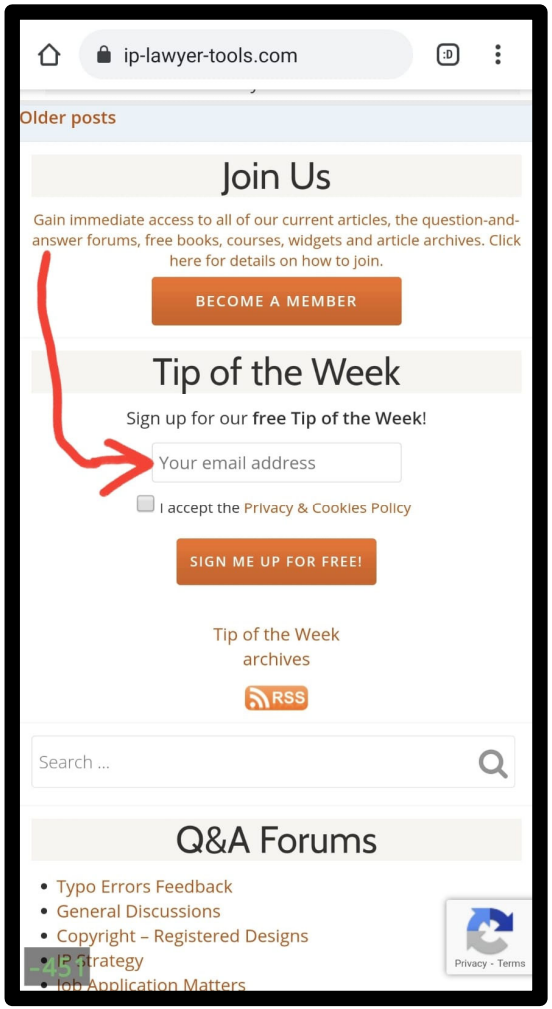

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