

MVPs

Decreasing levels of uncertainty

Investigate

Invent

Implement

Evaluate
Capabilities
&
Megatrends

Scope
Opportunity
Search

Assess
Market
Need

Differentiate
Solution

Generate
Business
Model

Migrate into
Core

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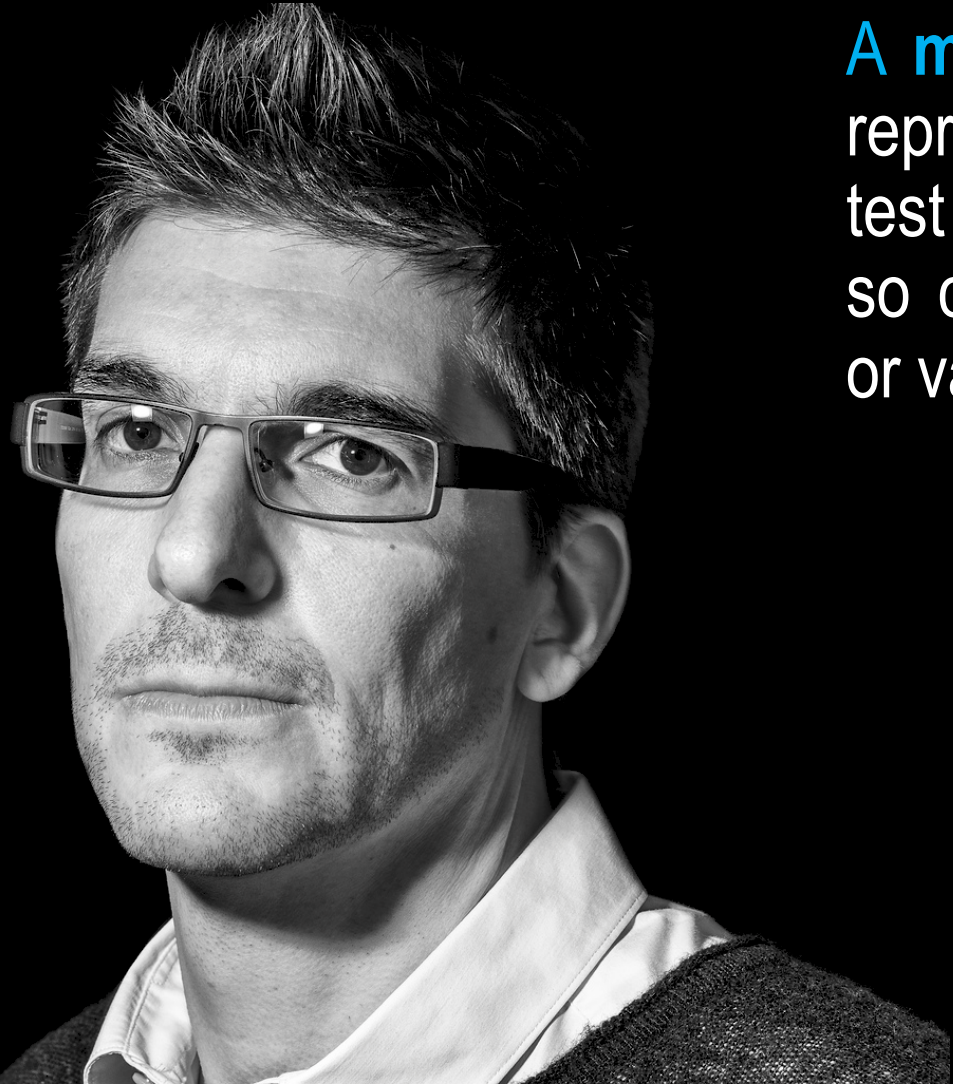
Generate
Business
Model

Migrate into
Core



A minimum viable product (MVP) is a development technique in which a new **product** or website is developed with sufficient features to satisfy early adopters. The final, complete set of features is only designed and developed after considering feedback from the **product's** initial users

Alex Osterwalder



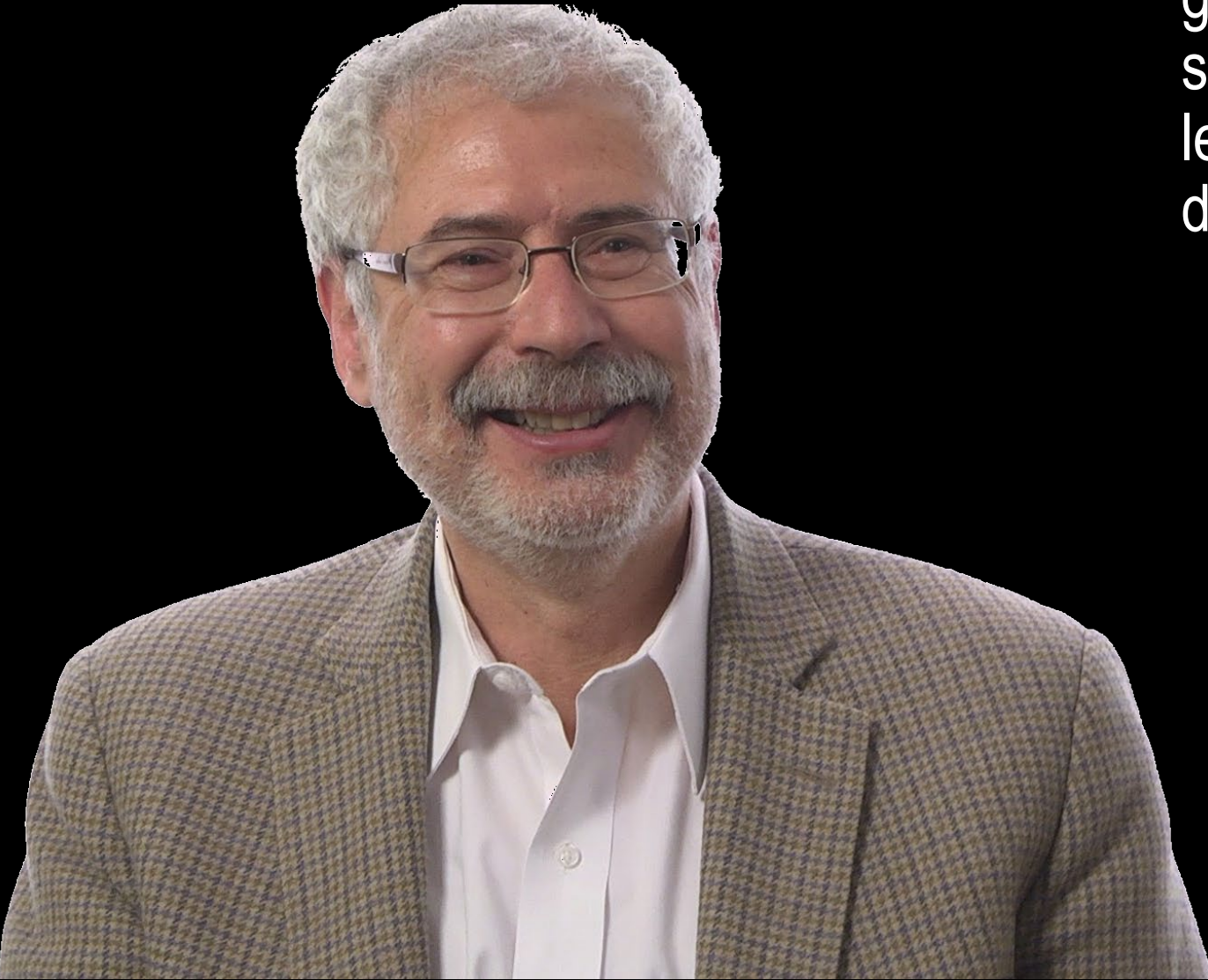
A minimum viable product (MVP) is an artifact or representation of a value proposition. It is designed to test the validity of one or more critical assumptions or so called hypotheses surrounding a business model or value proposition.

Alex Osterwalder



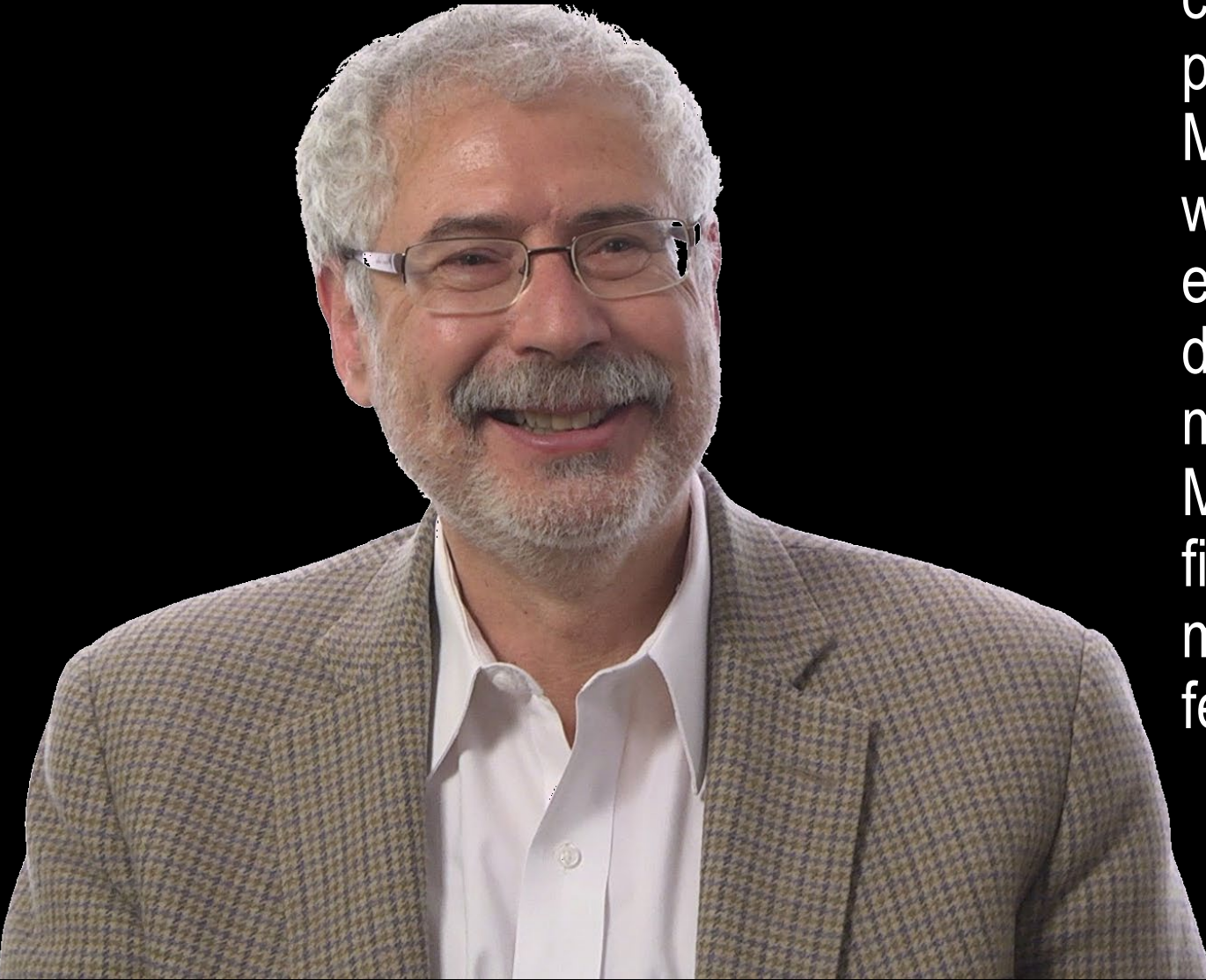
A **minimum viable product (MVP)** is an artifact or representation of a value proposition. It is designed to test the validity of **one or more critical assumptions** or so called hypotheses surrounding a business model or value proposition.

Steve Blank



A minimum viable product (MVP) is a concise summary of the smallest possible group of features that will work as a stand-alone product while still solving at least the “core” problem and demonstrating the product’s value.

Steve Blank



A minimum viable product (MVP) is the simplest thing that you can show to customers to get the most learning at that point in time. Early on in a startup, an MVP could simply be a PowerPoint slide, wireframe, clay model, sample data set, etc. Each time you build an MVP you also define what you are trying to test or measure. Later, as more is learned, the MVP's go from low-fidelity to higher fidelity, but the goal continues to be to maximize learning not to build a beta/fully featured prototype of the product.

Eric Ries



A minimum viable product (MVP)

is that version of a new product which allows a team to collect the maximum amount of validated learning about customers with the least effort.

Ash Maurya



A minimum viable product (MVP)

is the smallest thing you can build that delivers customer value (and as a bonus captures some of that value back).



Frank Robinson

A minimum viable product (MVP) : We define MVP as that unique product that maximizes return on risk for both the vendor and the customer... is a mindset of the management and development-team. It says, think big for the long term but small for the short term. Think big enough that the first product is a sound launching pad for it and its next generation and the roadmap that follows, but not so small that you leave room for a competitor to get the jump on you. Too large or too small a product are big problems. The MVP is the difficult-to-determine sweet spot between them. Teams flounder tactically in trying to determine the MVP



Clayton Christensen

A minimum viable product (MVP) : We define MVP as that unique product that maximizes return on risk for both the vendor and the customer..



A minimum viable product (MVP) is the the most pared down version of a product that can still be released. An MVP has three key characteristics:

- It has enough value that people are willing to use it or buy it initially
- It demonstrates enough future benefit to retain early adopters.
- It provides a feedback loop to guide future development.



A minimum viable product (MVP) is that version of a new product a team uses to collect the maximum amount of validated learning about customers with the least effort." The definition's use of the words maximum and minimum means it is decidedly not formulaic.

THE NEW YORK TIMES BESTSELLER

THE LEAN STARTUP

How Today's **Entrepreneurs** Use
Continuous Innovation to Create
Radically **Successful** Businesses

ERIC RIES

*"The power of the
MVP approach is
matched only by the
amount of confusion it
causes..."*

What do all definitions have in *common*?

What do all definitions have in *common*?

PRODUCT

PRODUCT ~~=~~ Problem

PRODUCT = Solution

*Can you build and deliver a
product/service that **satisfies**
the customer problem or need?*

*Can you build and deliver a
product/service that satisfies
the customer problem or need
in a form the customer wants
to consume it?*

**You cannot build an effective
MVP until you understand...**

Jobs

Solution Criteria

**You cannot build an effective
MVP until you understand...**

Jobs

Solution Criteria

CONTEXT!!!

What is your goal? Who do you target?

*Does the same **MVP** apply to everyone?*



Why prototype?

Why prototype?

*What are **YOU** hoping to learn?*

You are now testing...

Do your

PRODUCT-OWNED FEATURES

***APPROPRIATELY* address**
UNDERSERVED CRITERIA?

Why pilot?

*What are your **CUSTOMERS** hoping to learn?*

Your customers are testing...

What **hidden sacrifices** do I not yet know about. Is the **ACTUAL value** worth **ALL of the SACRIFICES?**

The are **NOT** testing the value!

Designing MVPs is...

HARD!!!

April 23rd 1985

July 11th 1985

April 23rd 1985

79 days.....

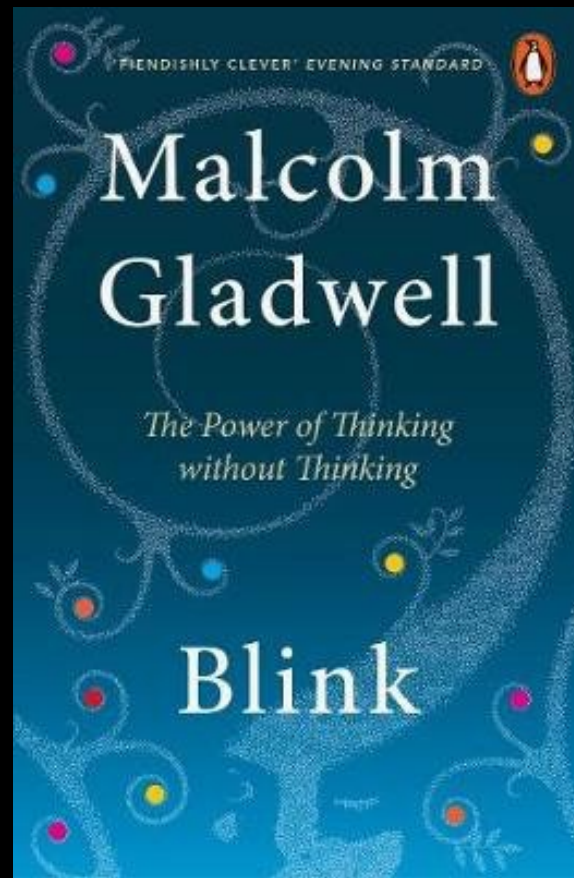
July 11th 1985



“The surest move Coke has ever taken”

- Roberto Goizueta





“Asking consumers about their opinion of a thing... usually fails. Requires a deeper search”

- Malcolm Gladwell

Product developers are ***CLOSE*** to their ideas.

We are bad at ***differentiating*** “***different***” from
“***bad***”

The “***Weird Factor***”

Product developers are ***CLOSE*** to their ideas.

We are bad at ***differentiating*** “***different***” from
“***bad***”

The “***Weird Factor***”

**NEW AND DIFFERENT IS ALWAYS MOST
VULNERABLE TO MARKET RESEARCH**



ACADEMY OF TELEVISION ARTS & SCIENCES
2008 PRIMETIME EMMY AWARDS
OUTSTANDING ACHIEVEMENT IN ENGINEERING DEVELOPMENT
PHILO T. FARNSWORTH AWARD
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION



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Welch's
FAMILY FARMER OWNED
Natural
STRAWBERRY
PREPARED
no high fructose corn syrup
NET WT 17 OZ (1.06 LB) 487g

365
ORGANIC
STRAWBERRY
CONSERVE

SMUCKER'S
Natural
MADE WITH INGREDIENTS
FROM NATURAL SOURCES
strawberry
fruit Spread

FOUNDED IN SKAGIT VALLEY WA
Cascadia
ORGANIC
SINCE 1985

ST. DALFOUR
FRANCE
Strawberry
11 Natural Ingredients
100% Fruit
Old French Recipe
Delicious fruit spread made in
France by an old recipe with
cherries sweetened only with
fruit juice concentrates
WT. 10 OZ. (284 G)

INNA jam.
seascape
STRAWBERRY
NET WT 10 oz (284 g)

PREPARED ONLY WITH FRUIT JUICE
Polaner
All Fruit
SPREADABLE FRUIT
Strawberry

ROFFER'S
Premium Spread
Strawberry
ORGANIC
NET WT. 10 oz (283g)

SMUCKER'S
Simply
FRUIT
STRAWBERRY
Spreadable Fruit
PREPARED WITH PURE STRAWBERRY FRUIT
CONCENTRATE AND PEARL RICE CORNFLOUR

TRADER JOE'S
ORGANIC
STRAWBERRY
fruit spread
NET WT. 10 OZ
(284g)

NET WT. 10 OZ (284g)
MADE WITH PURE STRAWBERRY FRUIT
CONCENTRATE AND PEARL RICE CORNFLOUR

American
Early Glow Strawberry
PRESERVE
NET WT. 9.5oz

Tiples
LITTLE SCARLET
NET WEIGHT
12oz 340g

Bonne Maman
Strawberry Preserves
NET WT. 13oz

INNA jam.
albian
STRAWBERRY
net wt 10 oz (284 g)

d'Arbo
All Natural
GARDEN
STRAWBERRY

spread
ORGANIC
Est. 1969
pick

NET WT. 10 OZ (284g)

NET WT. 10 OZ (284g)

MVPs *Not For Sale*

Used to test early concepts
***before building a "working
solution"...***

Low Fidelity *MVP*



Data Sheet

Specs of your imagined value proposition

Requirements:

Word processor

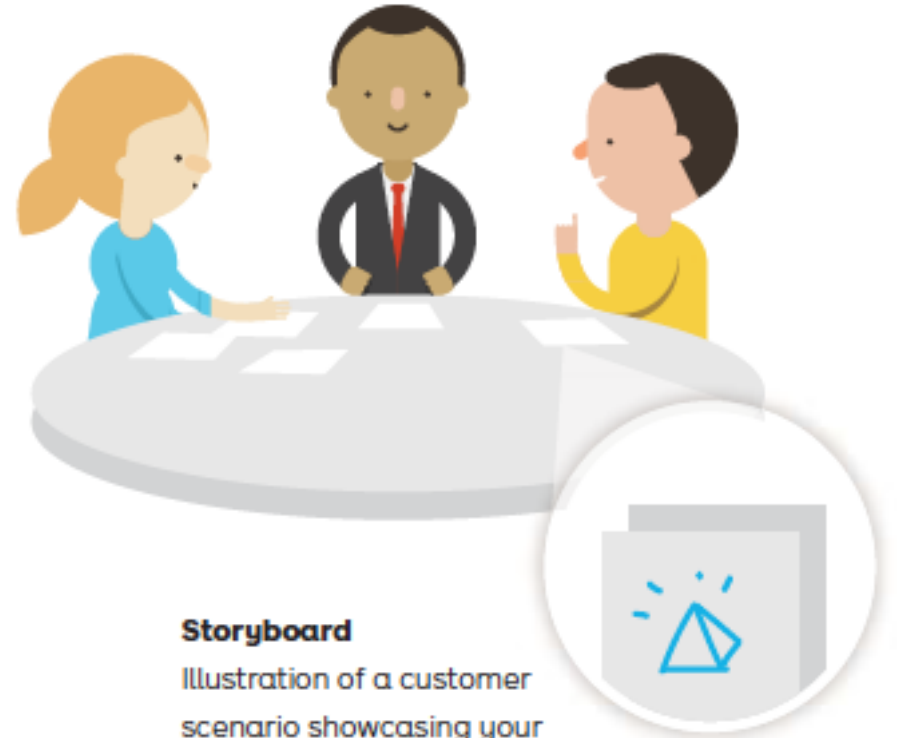


Brochure

Mocked-up brochure of your imagined value proposition

Requirements:

Word processor and design skills



Storyboard

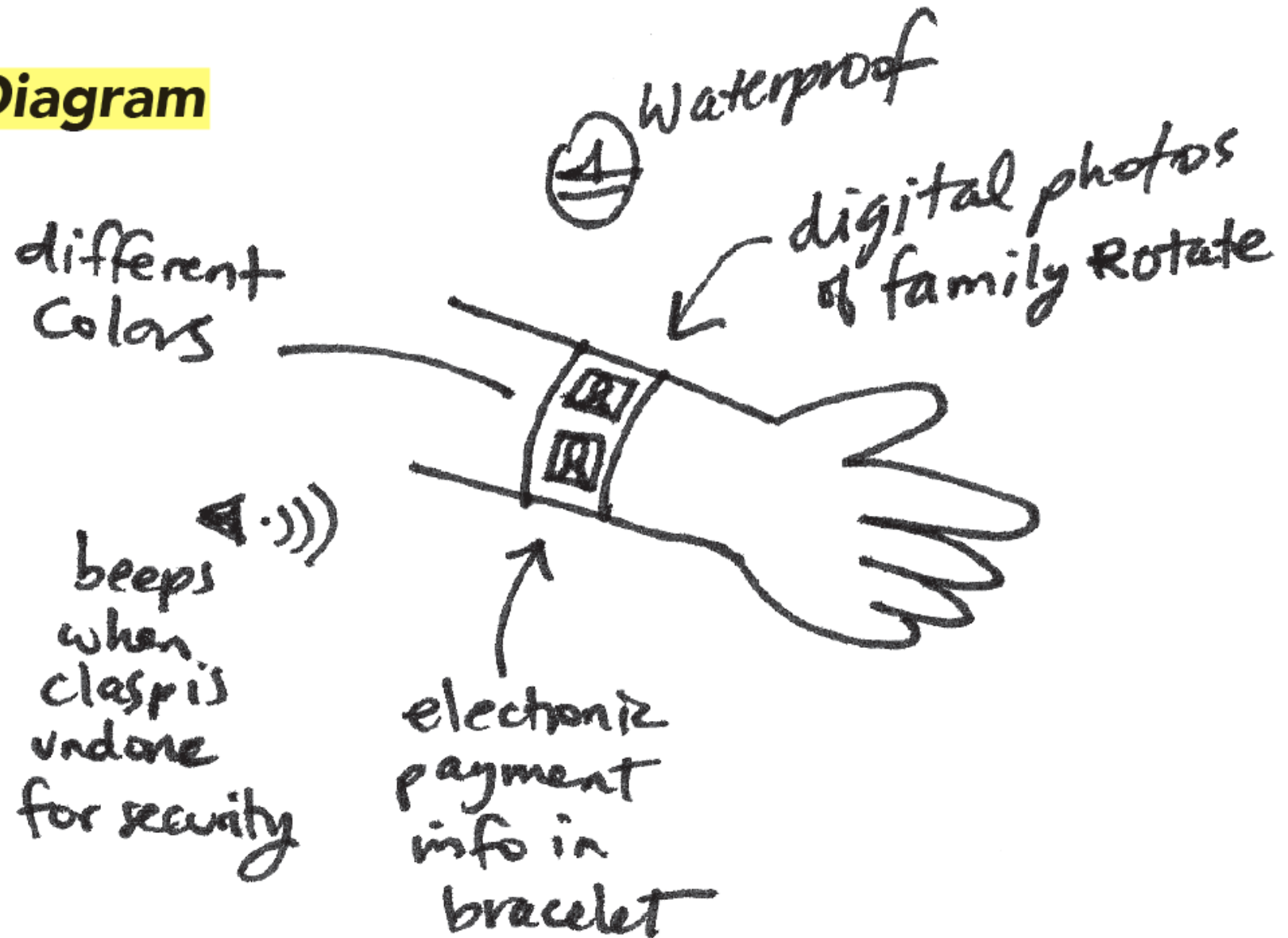
Illustration of a customer scenario showcasing your imagined value proposition

Requirements:

Sketch artist

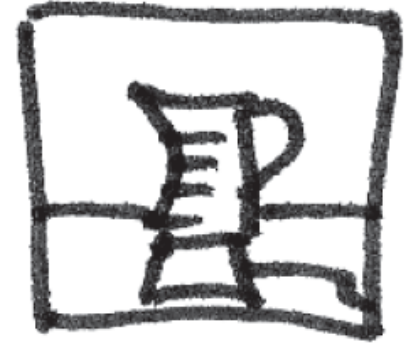
Annotated Diagram

Sketch what your idea looks like, and include short notes to point out key features.



Storyboard

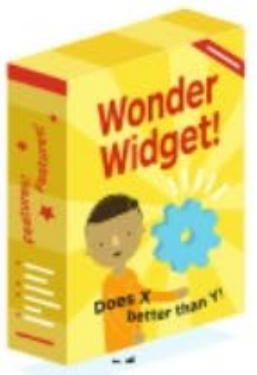
Create a series of images (rough sketches or photos) outlining a sequence of events and details.



“Higher” Fidelity *MVP*

**The purpose – to test
whether basic functionality
*addresses a problem or need?***

Prototypes (MVP)



Product box



Prototype



Video



concept car



Wizard of Oz



Landing page



3D printing

Pilot Site *MVP*

*For some complex system solutions, **pilot sites are required** to prove value to customers.*

Where to start?

*The **purpose** of MVPs*

*The **purpose** of MVPs*

*Move **Problem** to **Solution***

Be deliberate!

Be deliberate!

Don't just build and show.

***What aspects of your idea
will be **critical** to adoption?***

Features?

Process?

Adoption into workflow?

***You can "start" now by using
your competitors' products***




Examples

Team 860

Ion Team

Business Thesis:

We make networked radon detectors for young homeowners with families in Zone 1 risk areas who want to decrease health risks and gain peace of mind.

	Interview Count			
NEW	24	10	3	11
TOTAL	98	52	9	37



Northeastern University

Professor Swastik Kar, PI
Physics Professor



Daniel Esposito, EL



David Carnahan, M
Co-Founder & President
of NanoLab

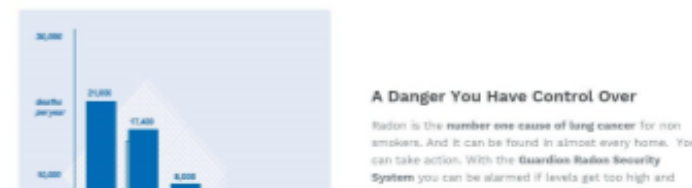


Value Prop 1(cont):

Continued testing general interest online:

- Online Mock Product Page. End goal may be Amazon.
- Information driven ad campaign on facebook targeting Zone 1 areas to identify interested demographics.
- Results so far: 2% CTR for ad (465), 1.5% Add to Cart (7), Cost per add to cart (~\$18) (Priced at \$150, little information)


	Female		Male	
	Views	CTR	Views	CTR
25-34	5597	1.9%	7297	2.2%
35-44	2841	1.9%	3728	<u>2.7%</u>
45-54	238	0.8%	438	1.8%



A Danger You Have Control Over
 Radon is the **number one cause of lung cancer** for non-smokers. And it can be found in almost every home. You can take action. With the **Guardion Radon Security System** you can be alerted if levels get too high and track trends so you can take action before an alarm is triggered.

Guardion Radon Security Systems

Protect your family from the #1 cause of lung cancer for non-smokers: Radon.



Guardion Radon Security System

Help protect your family from the number cause of lung cancer for non-smokers: Radon. The easiest to use and most accurate system on the market.

GUARDION.MYSHOPIFY.COM Learn More

PROTECTED TODAY

Guardion Radon Security System
 \$150.00 Sale

1 of Detectors ADD TO CART

The #1 cause of lung cancer for non-smokers is the US to the EPA, with over 21,000 deaths a year - 30,000 total deaths related to radon. You can take action to protect your family with the Guardion Radon Security System. It provides accurate and fast readings over the full detection range used by radon inspectors. The detector can act as a single alarm. You will be alerted if levels get too high and track trends so you can take action before you reach crisis levels. Perfect for every home. Ideal for people who use finished basements.



***Kiosk design and purchase of
greeting cards***

(competition is Hallmark)









***Molten Splash
Protective Fabric***

Aluminized, CarbonX and Oasis knocked out in Pulp protection by FR Apparel

Aluminized



CarbonX



Oasis



FR Apparel

*Engineered to
repel molten
splash*

Sample

Cotton Undershirt



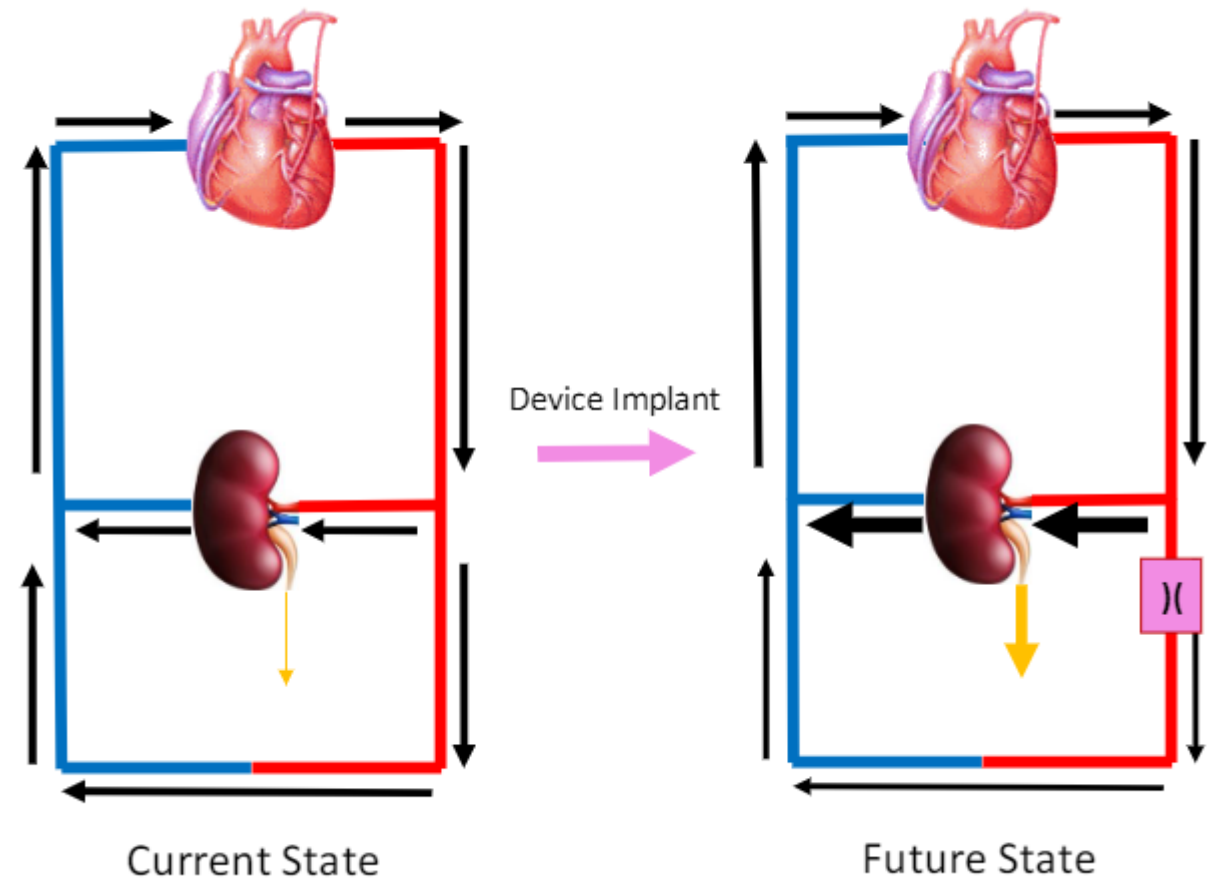
Business Thesis:

“The only implantable, adjustable vascular device that enables regulation of fluid retention for heart failure patients, minimizes fluid overload and the symptoms of congestion while helping to preserve renal function.”

***No device has EVER
been used for this
purpose – ever!***

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“You’ve got to understand, we’ve had 20 years of highly hyped ‘New Therapies’ that never materialized. Have you got something!?” -**Dr. Sklar**



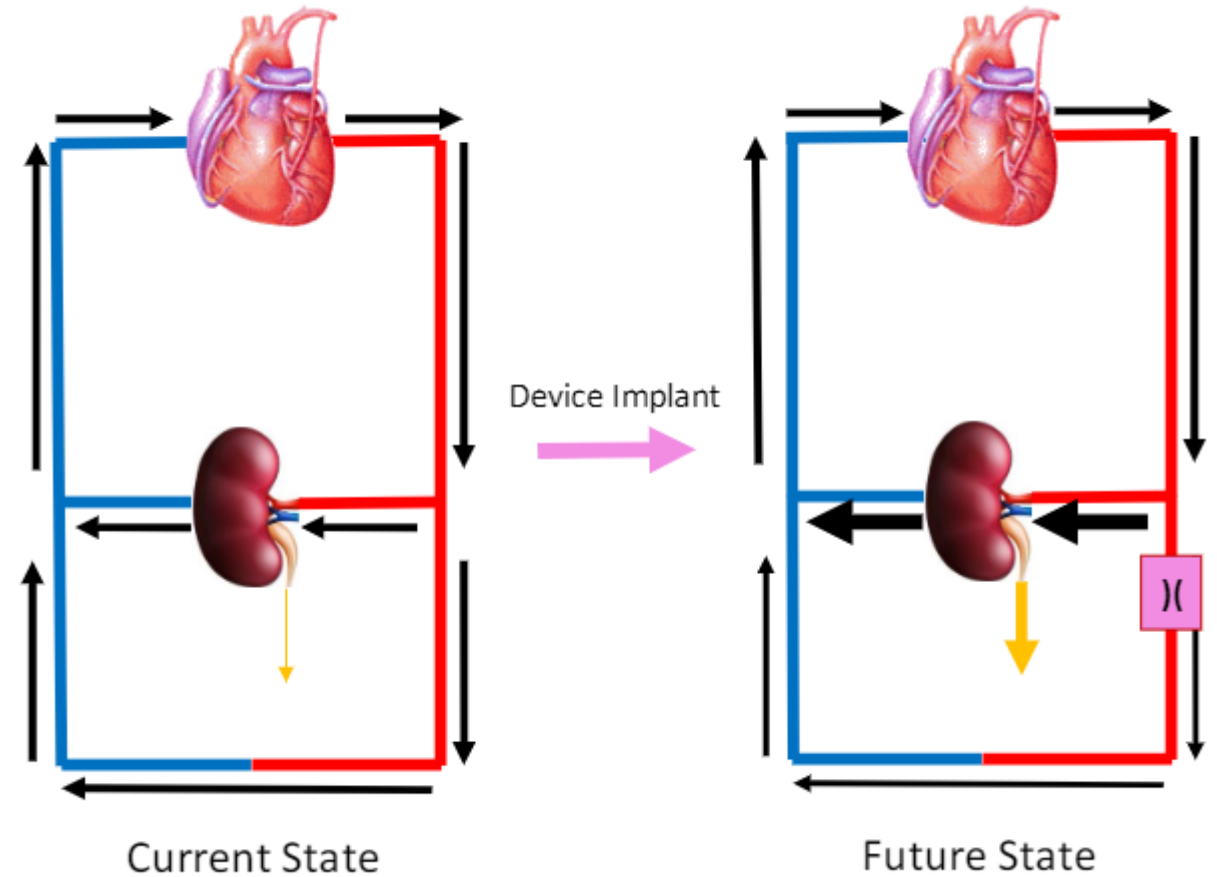
“I’m a young vibrant woman! These medications are ruining my life!” –
Patient Charisse



“...a fascinating idea, I never dreamed of such a device...” -
Dr. Joseph Kranzler



“...awesome and there is a great population of patients this could be applied to” -**Dr. Andrew Sauer**



Key Learning– As much as 50% of operational time is spent cleaning reactors and this is a pain



Joel Hawkins,
Senior Research
Fellow, Pfizer



“You don’t want your biggest product to be **cleaning**”



“That’s why they call it a **‘manhole’**. If the acid boil outs do not work, someone has to suit up, climb in, and to wipe it down”



Matt Jorgenson,
Director, Nalas
Engineering
(12 yrs at Pfizer)



“Basically you are taking a clean GMP reactor and putting in a bunch of **soot** (Pd/C catalyst) – So of course cleaning is an issue”



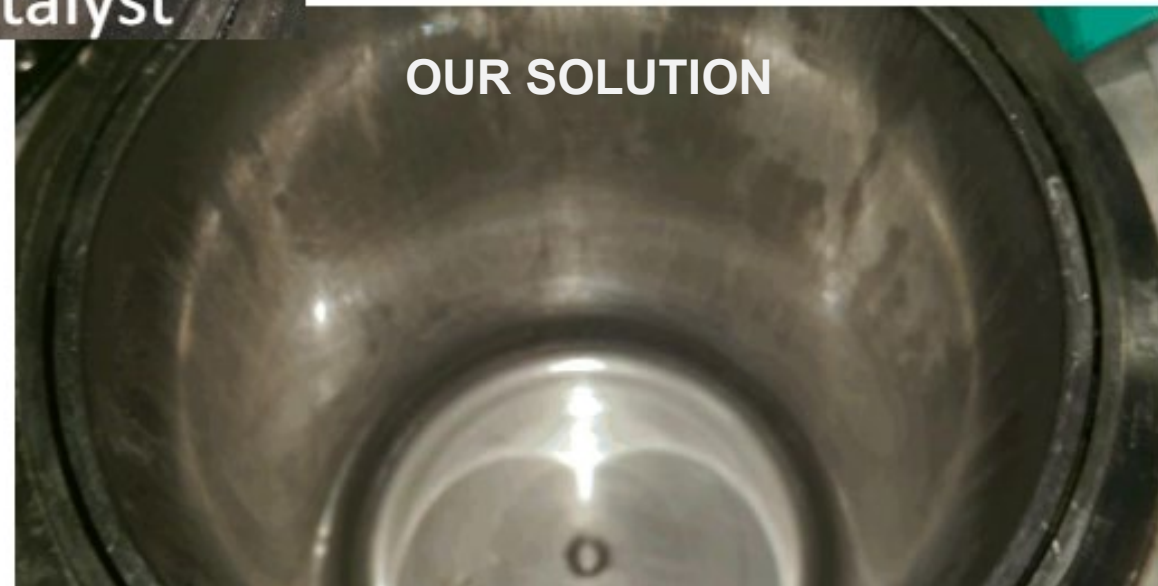
Martin Eastgate,
Director, Bristol-
Myers-Squibb



Bristol-Myers Squibb

***Catalyst
Cleanup after
small batch
reactor runs***

Initial MVP testing of powder-free cleanup

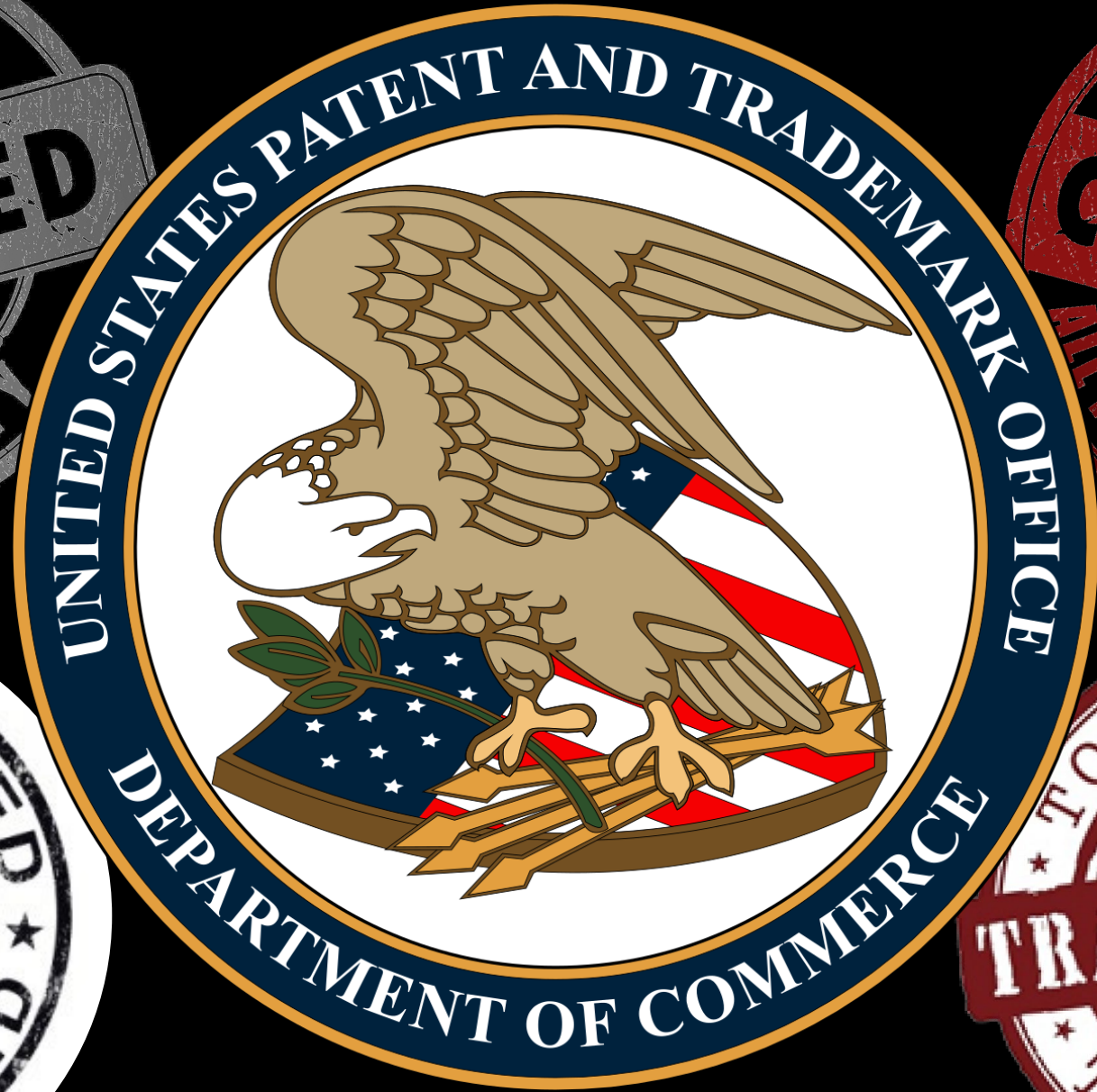




Intellectual Property
and the MVP

Intellectual Property:

***any product of the human
intellect that the law protects
from unauthorized use by
others***



Intellectual Property

Creates value, not revenue

80% *of a company's value*
can reside in IP

Why protect IP?

Exclude competition

Leverage and license

Avoid trade secret loss

Increase value

RISKS DURING DISCOVERY

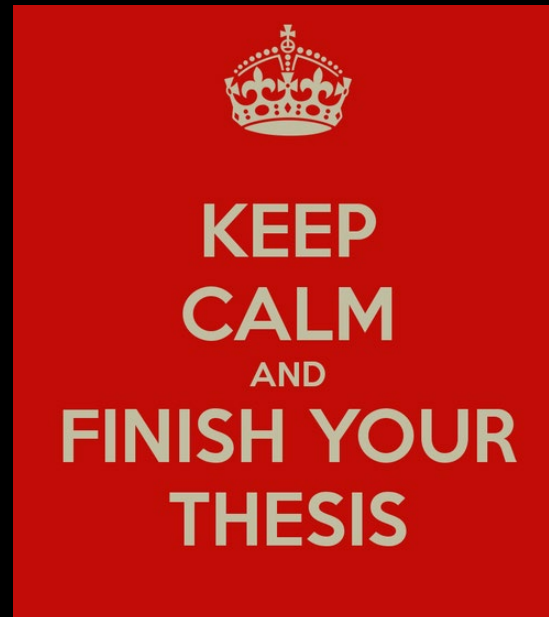
Two general categories of ***RISK***:

1. The idea becomes part of the public domain through a public disclosure.
2. The invention is appropriated by prior filing by another

Public Disclosure = Public Domain

1. The idea becomes part of the public domain through a public disclosure.

- The invention is described without the benefit of confidentiality
- Results in the loss of exclusivity through the inability to enforce an exclusive statutory right (patent)



facebook

FIRST TO FILE

1. The invention is appropriated by prior filing by another

- The invention is patented by another's prior filing
- Results in the inability to practice ones own invention
- *March 16, 2013 – USA switched from “first-to-invent” to “first-inventor-to-file”*

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Stranger Danger!

Non Disclosure Agreements (CDA) and Patent Filings Mitigate IP Risks Differently

- **Non Disclosure agreements (CDA)**

- Mitigate the risk of a disclosure invalidating a later filed patent
- Mitigate the risk that the receiving party will claim a patent based on the information
- BUT: scope of the agreement governs what's protected, and resulting claim is in Contract. Claims of Inventorship/derivation require substantial documentation.

- **Patent Filing (Including Provisional Patent Filings)**

- Eliminate the risk of appropriation based on the disclosure to another
- Mitigate the risk of the disclosure to another invalidating the patent
- But: Ability to exclude is limited to the description provided in the patent (a significant pivot or hasty drafting increases risk of BOTH public disclosure and appropriation)

Customer Discovery : Test the Problem

Intellectual Property is considered

- Can we test the problem without disclosing potential solutions?
- Common mistakes
 - Disclosure without protection
 - Disclosing potential solutions as a part of testing the problem (IP loss)
 - Filing provisional patents that don't cover the real problem or the later discovered solution
 - Provide technology insight that enables others to file patents

I ALREADY HAVE A PATENT! *or other protections...*

Intellectual Property Plan Executed

- **Common mistakes**
 - **Assuming provisional is a good replacement for CDA**
 - Not enabled/or support (EU/China)
 - Not entitled to date
 - **Pivot takes you outside patent scope**
 - **Losing patent rights due to filing delays/invention disclosures**
 - Disclosure in a printed publication
 - Offer for sale in the US if pivot on feedback makes new product not entitled to provisional date