SUNY STARTUP SUMMER SCHOOL

Week 3

Evaluation of the Opportunity - Patentability and Marketability Basics

SUNY STARTUP SUMMER SCHOOL

Course Schedule

Week	Date	Course Title	Presenters
✅ 1	May 28	Entrepreneurship 101 – What It Takes To Commercialize Your Tech	Felix Litvinsky, Abakama Allison Yacci, DataCicada
✅ 2	June 4	Discover Customer Discovery	Olga Petrova, University at Buffalo Kathryn Cherny, Binghamton University
📍 3	June 11	Evaluation of the Opportunity – Patentability and Marketability Basics	Lance Reich, SUNY RF Joy Goswami, SUNY RF
4	June 18	How To Win Grants – Mastering Non-Dilutive Funding Sources	Kirk Macolini, InteliSpark
5	June 25	Forming and Structuring Your Company Like a Boss	Rich Honen, Phillips Lytle
6	July 2	Team Chemistry – Leveling Up Your Company	Doug Benel, SUNY RF Ana-Maria Galeano, Galeano Law Firm
7	July 9	Strategies for Unstoppable Success	Arel Moodie, Reed Oak
8	July 16	Telling and Selling Your Story	Maureen Ballatori, Agency 29 Michael Lightman, Hate Your Deck
9	July 21- July 25	1:1 Meeting With SUNY Venture Advisors	
10	July 30	Demo Day and Graduation	You!

Course Schedule: What you need to know

1. **May 28-July 16**: Instructional Zoom webinars will be held every Wednesday from 10:30-12:00 PM ET. Invites have been sent.
2. **June 30 – July 28**: Virtual I-Corps short regional course.
3. **July 21 – July 25**: Office hours with Venture Advisors to apply what you are learning and prep for your Demo Day pitch.
4. **July 30**: S4 culminates with a Demo Day and Graduation celebration where participants pitch their technology or venture for one or more $50k Technology Accelerator Fund Catalyst Investments. Demo Day and Graduation are scheduled to be in person at the University at Albany's ETEC Complex in Albany, NY on July 30.

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Course Schedule: What you need to know

1. **Recordings** will be shared after each class, but we highly encourage you to attend live to take advantage of the full experience.
2. During the course, we will provide valuable resources to help you get your bearings and learn about others in your cohort, including a **class directory**.
3. Keep doing what you're already great at — participating! The more you join in, the more points you rack up for a shot at winning some awesome S4 swag!

4. At the end of each live session, please answer a 1 question **Zoom poll** about this week's topic. Your feedback helps us improve the program.
5. You will have an opportunity to provide feedback at the end of the course. If you have any questions, issues or ideas along the way, please don't hesitate to contact us.

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S4 Leaderboard

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Leaderboard Top 21

	First Name	Last Name	Points
1	Junaid	Zubairi	8
2	Gurtej	Singh	6
3	Ahmed	Alajlouni	5
4	Tsogt Erdene	Jamiyansuren	5
5	Fang	Luo	5
6	Jennifer	Adams	5
7	Nadrata	Abdul-salam	5
8	Janet	Paluh	5
9	Yousef	Taghizadeh Ghaleh Jough	5
10	Zhi	Guo	5
11	Josh	Chen	4
12	Rommel	Trotman	4
13	Saskia	Cheong	4
14	Teresa	Huho	4
15	Magnus	Scolaro	4
16	Scott	Laffer	4
17	Bahram	Salehi	4
18	Sara	Akbarnejad Nesheli	4
19	Jonathan Raj	Katikala	4
20	George	Murtha	4
21	Shenglong	Zhang	4

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Leaderboard By Campus

#	Campus	Points
1	University at Buffalo	99
2	Binghamton University	57
3	Stony Brook	48
4	University at Albany	31
5	Upstate Medical University	12
6	SUNY Fredonia	12
7	ESF	8
8	SUNY Poly	6
9	SUNY Oswego	5
10	NY-Creates	4
11	SUNY Empire State College	4
12	SUNY New Paltz	3
13	SUNY College of Optometry	2
14	SUNY Brockport	2
15	Mohawk Valley Community College	1
16	SUNY Oneonta	1
17	Buffalo State, SUNY	1
18	SUNY Old Westbury	1
19	UCAWD/SUNY ATTAIN	1
20	Downstate Health Sciences Univ	0
21	Monroe Community College, SU	0

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How Do You Earn Points?

There are many ways to earn points, including:

- Join LinkedIn Group – SUNY Innovation and Entrepreneurship Network
- Introduce yourself and why you are here
- Reply to a classmate
- Weekly attendance
- Weekly engagement
- I-Corps
- Pitch at Demo Day

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SUNY Technology Accelerator Fund (TAF)
S4 Catalyst Investment Eligibility

To be eligible for a TAF S4 Catalyst Investment, teams and/or companies must meet all of the following requirements:

1. Developing technology that is SUNY intellectual property;
2. Enrolled in the S4 Class of 2025;
3. Participate in the S4 Demo Day pitches on July 30, 2025;
4. By December 31, 2025, complete the company formation process if a company has not already been formed; and
5. By December 31, 2025, the company receiving the TAF S4 Catalyst Investment must demonstrate that it has an active license or option to the technology it plans to commercialize from a SUNY campus.

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Questions about S4?

Email us at S4@rfsuny.org

Let's jump into our session on Evaluation of the Opportunity!

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SUNY RF

Evaluation of the Opportunity - Patentability and Marketability Basics

Meet The Presenters

Lance Reich
Patent Attorney

Joy Goswami
Technology Transfer Professional

Overview

01. Who We Are & What We Do

02. Intellectual Property

03. Marketability

01. Who We Are & What We Do

What is SUNY RF, what is tech transfer and why is it important?

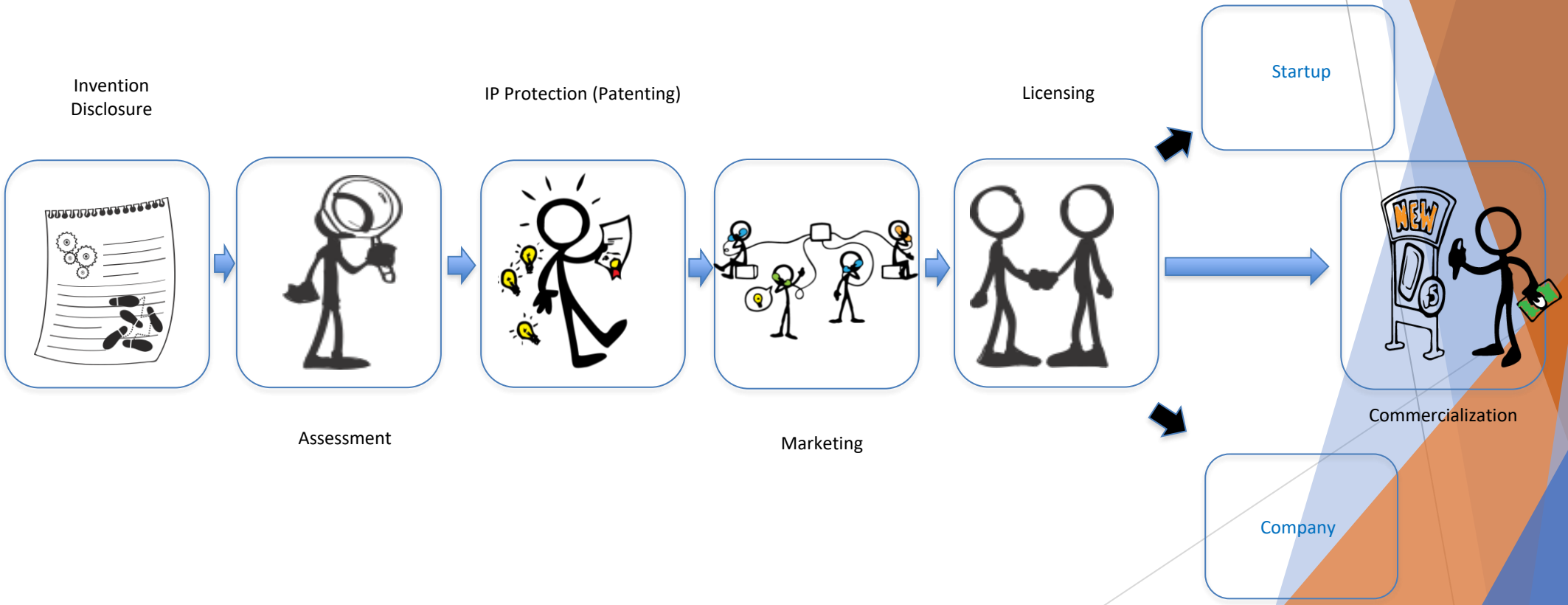
SUNY RF

Highlights

- Largest comprehensive university-connected research foundation in the country
- Provides central infrastructure of people, technology and processes:
  - administration of sponsored projects
  - transfer and sharing of intellectual property for public benefit and economic growth.
  - to write and submit grant proposals
  - establish contracts and manage funding awards
  - commercialize intellectual property

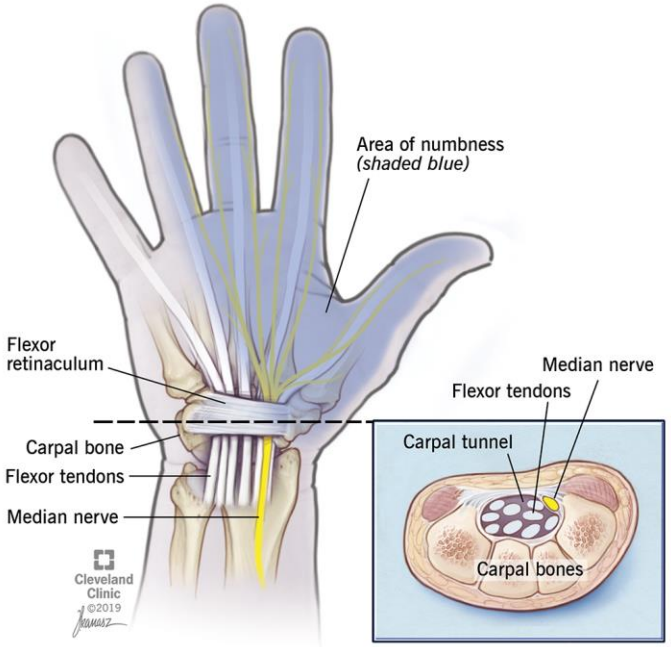
Tech Transfer

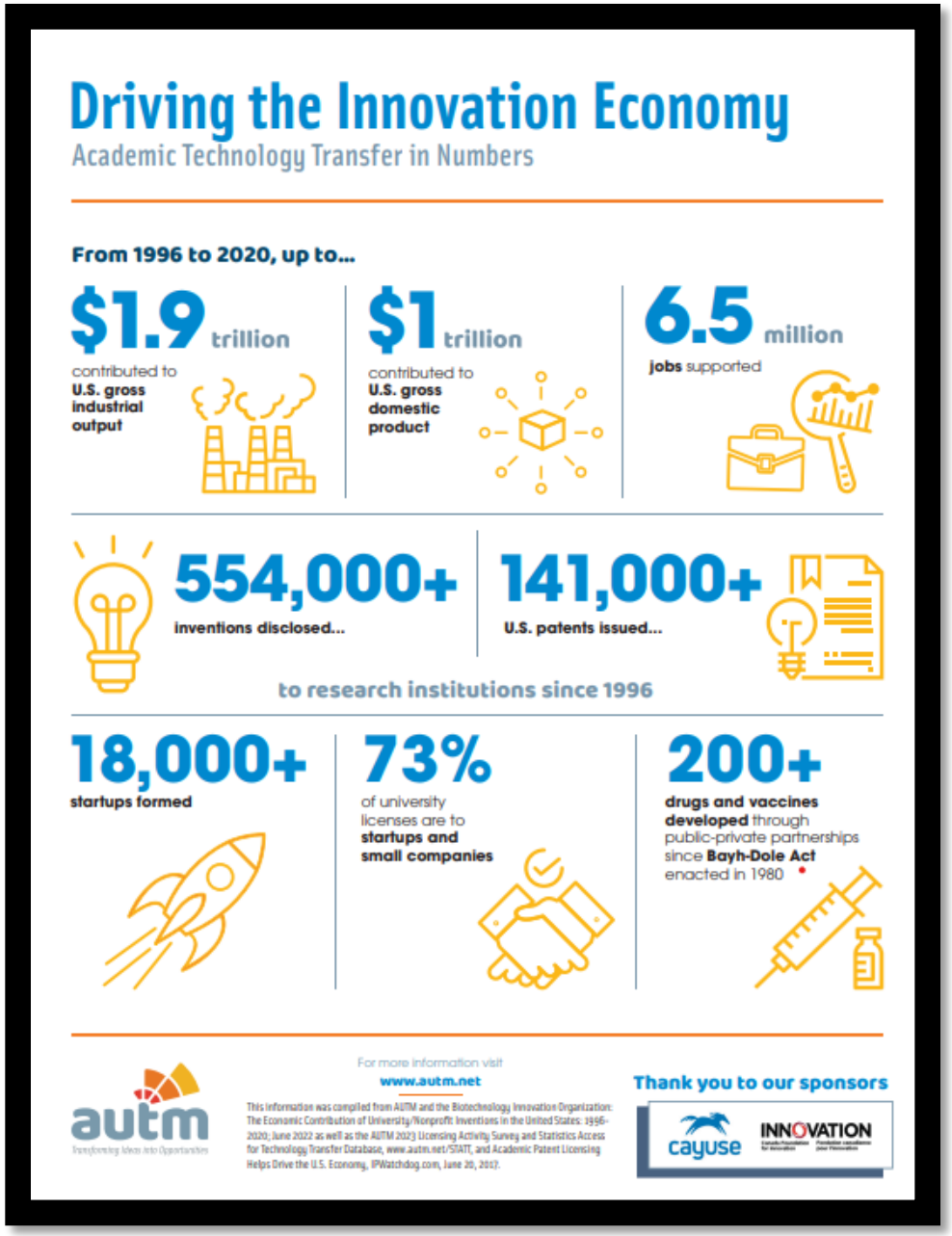
The process of transferring discoveries or innovations you develop from the university to the marketplace for public use.



Tech Transfer Success

John Elias and Wayne Westerman - Fingerworks




Driving the Innovation Economy
Academic Technology Transfer in Numbers
From 1996 to 2020, up to...
$1.9 trillion
contributed to U.S. gross industrial output
$1 trillion
contributed to U.S. gross domestic product
6.5 million
jobs supported
554,000+
inventions disclosed...
141,000+
U.S. patents issued...
to research institutions since 1996
18,000+
startups formed
73%
of university licenses are to startups and small companies
200+
drugs and vaccines developed through public-private partnerships since Bayh-Dole Act enacted in 1980
autm
Transforming Ideas into Opportunities
For more information visit
www.autm.net
This information was compiled from AUTM and the Biotechnology Innovation Organization: The Economic Contribution of University/Nonprofit Inventions in the United States: 1996-2020; June 2022 as well as the AUTM 2023 Licensing Activity Survey and Statistics Access for Technology Transfer Database, www.autm.net/STATT, and Academic Patent Licensing Helps Drive the U.S. Economy, IPWatchdog.com, June 20, 2017.
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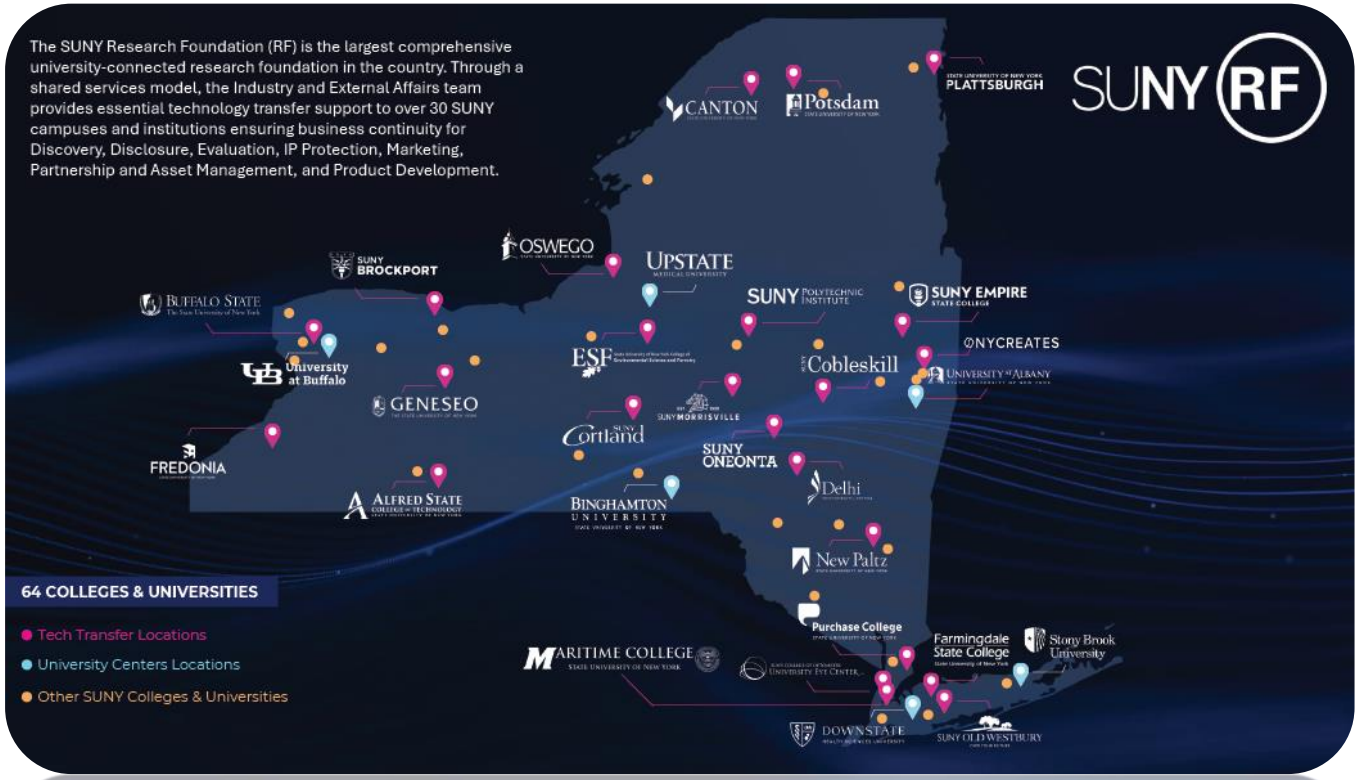
INNOVATION



TechTransfer Operations

University at Albany
Binghamton University
University at Buffalo
Stony Brook University
SUNY Downstate Health Sciences University
Upstate Medical University
Alfred State College
SUNY Brockport
Buffalo State College
SUNY Canton
SUNY Cobleskill
SUNY Cortland
SUNY Delhi
SUNY Empire State University
Farmingdale State College
SUNY Fredonia
SUNY Geneseo
SUNY Morrisville
SUNY New Paltz
NY CREATES
SUNY Old Westbury
SUNY College of Optometry
SUNY Oneonta
SUNY Oswego
SUNY Plattsburgh
SUNY Potsdam
SUNY Polytechnic Institute
Purchase College

The Team


Nicholas Querques


Peter Taubkin


Joy Goswami


Sara Goodman


Meg Maier


Austin Winter


Patrick Nelson


Mahfuzur Miah


Ben Clark


Brittany Wade


Jessica Stanley-Updyke


Joanne Lafrancois


Lance Reich


Peter Fallon


Doug Benel


Karl-Heinz Schofalvi

Innovation and Partnerships

New Ventures

Marketing and Communications

Our Services

Evaluation

- Invention intake
- Patentability and marketability
- Customer discovery

Protection

- Patents and copyrights
- IP strategy and Management
- In-house patent counsel

Commercialization

- Marketing
- Licensing and Partnering
- SUNY Startups

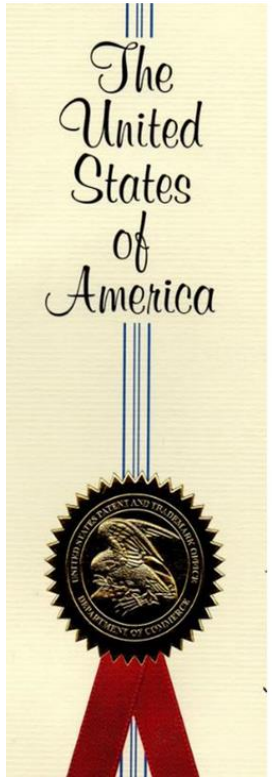
2. Intellectual Property

Property that enjoys legal protection and stems from the exercise of the mind.

- created in the mind
- intangible
- ownership is a creation of law and public policy

Types of IP

Patents



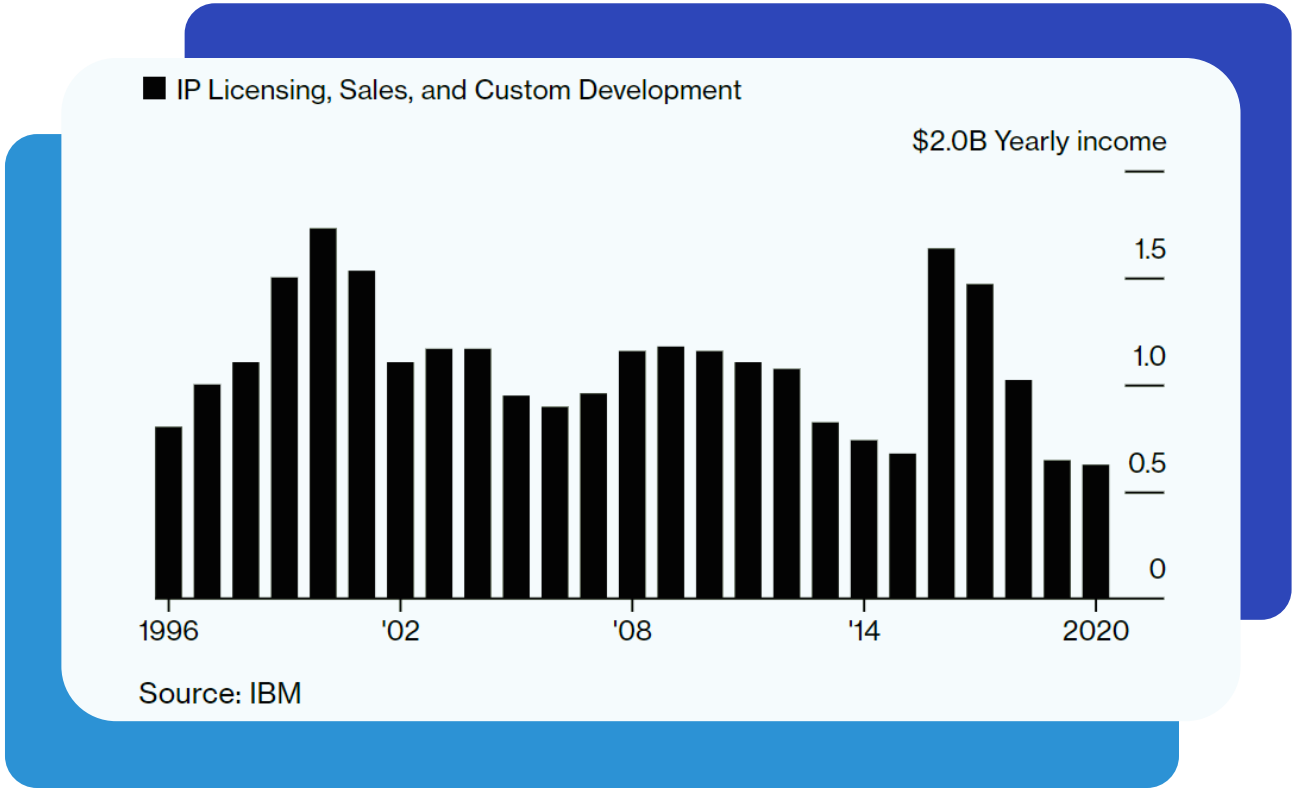
Copyrights & Trademarks

Know-How & Proprietary Info

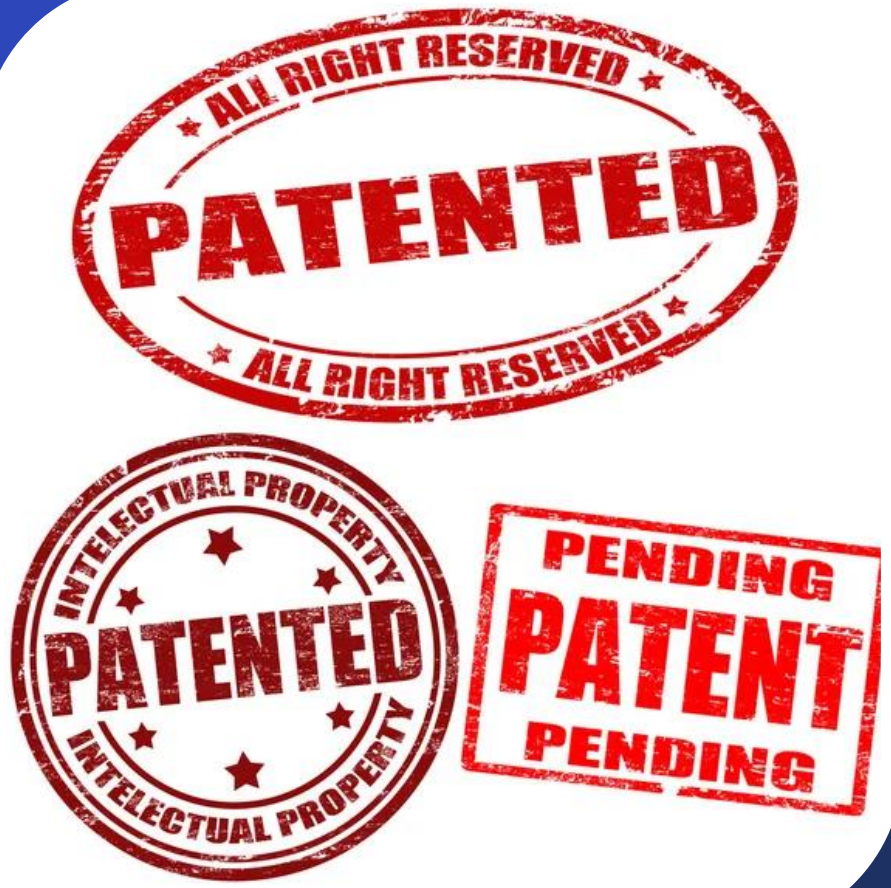
Why is IP important

- Creates property assets and adds value to a company from the minds of employees!
- Gives Businesses Exclusivity in the marketplace
- Marketing tool / Notice of ownership

Why is IP important



- Revenue Stream
  - Licensing to others - IBM $1.3B annually
- Finance: venture capitalists and banks want to see IP ownership



Patents

What are they, how do you get one, and why should you?

What is a patent?

- From WIPO:
  - "A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. To get a patent, technical information about the invention must be disclosed to the public in a patent application."

- A patent is a right granted to the patent owner by the government that permits that owner to exclude others from making, selling or using the invention for a period of time.

A patent gives the legal right:

To exclude others from making, selling or using the invention for a period of time.

Type Of Patents

3 Different Types of Patents

Design

Protects the design or exterior look of an invention.

Utility

Protects inventions such as machines, processes, or systems.

Plant

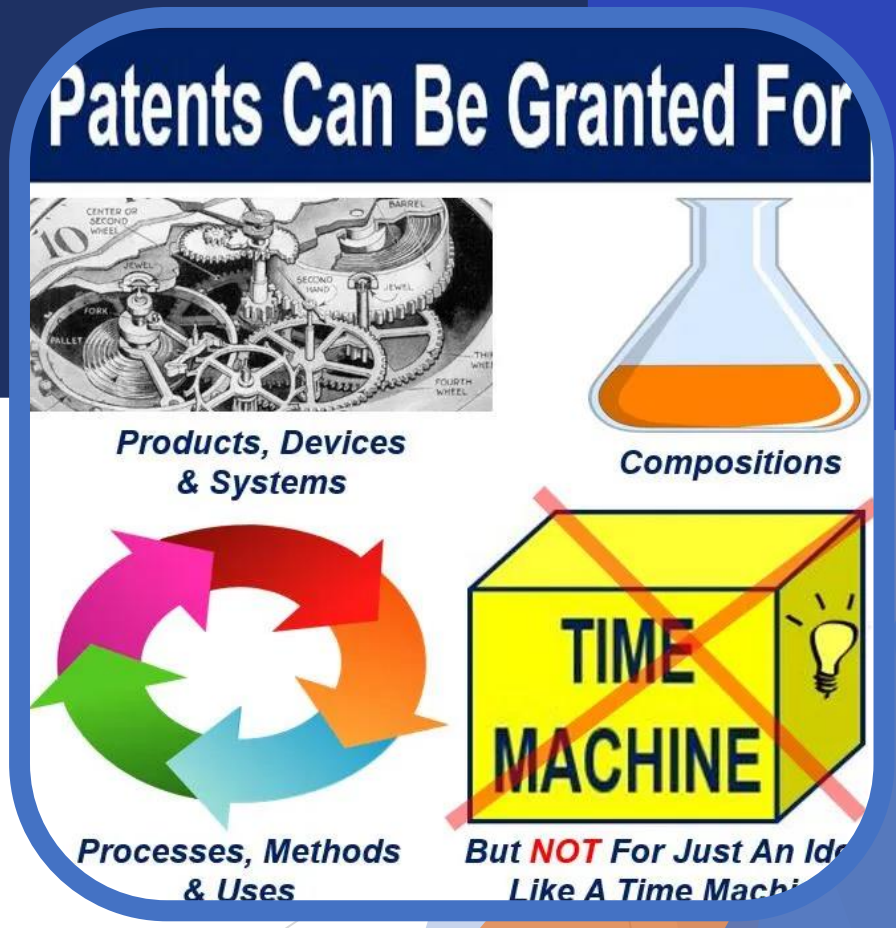
Protects the invention of new plant variants.

LEGALZOOM

Can I patent it?

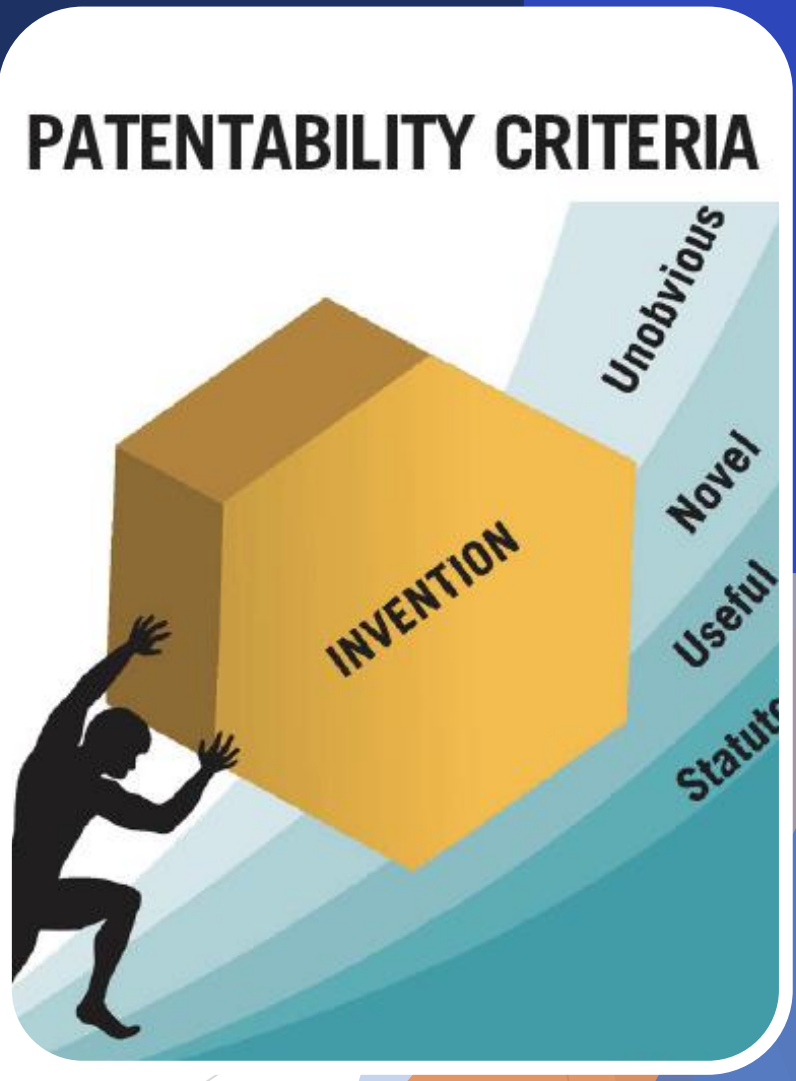
- What's patentable?
  - Compositions of matter
  - Machines
  - Articles of manufacture
  - Processes

- What's not patentable (exceptions)?
  - Abstract ideas
  - Products of nature
  - Natural phenomena



Patents and Public Disclosures

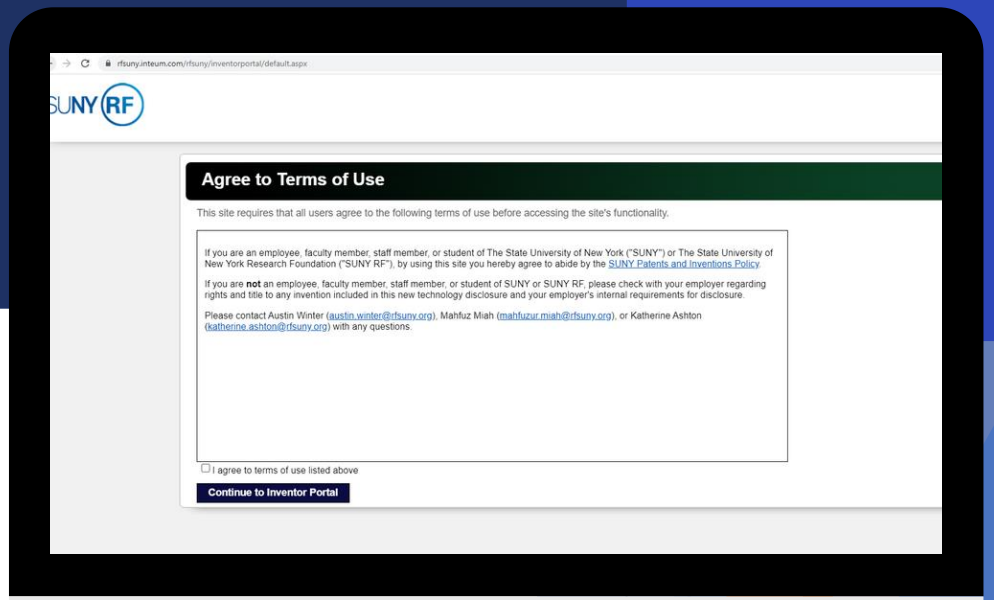
- To be patented inventions must be novel and non-obvious
- US has the benefit of a 1-year grace period however, most of the world = absolute novelty bar
- In nearly all other countries, as soon as an invention is disclosed, the inventor/applicant loses their right to file a patent application
- What constitutes a Public Disclosure?
  - Described in a publication or presentation, on sale, or available to public
  - Enables a skilled person to practice the invention



Key Take Away:

Disclose early,
Disclose often
(to your tech transfer office).

We are here to advise!



Quiz:

- ACME Company patents components A, B, C
- You patent component D – which relies on A, B, C
- Can you practice your invention including A, B, C, D?

Utility Patents

Term of 20 years from earliest filing date to… exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States

Starting the Patent Process

- In U.S., must file within a year of first public disclosure. If you want international rights, file before any public disclosure.

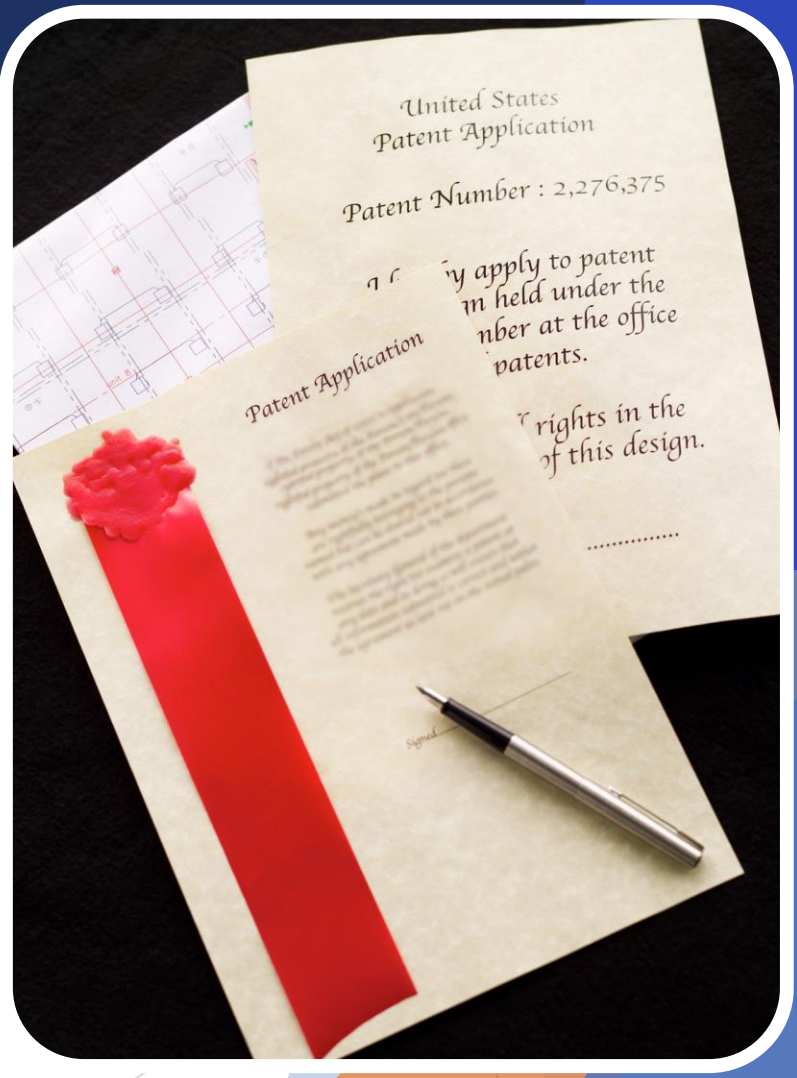
- You may file a provisional patent application, which gives you a “priority date” you can rely on for up to 1 year while you prepare your non-provisional application

- After provisional, two strategies:
  - If you only want a U.S. patent, file a regular patent application in the US Patent and Trademark Office (USPTO)
  - If you want US and foreign patents, file a Patent Cooperation Treaty (PCT) application

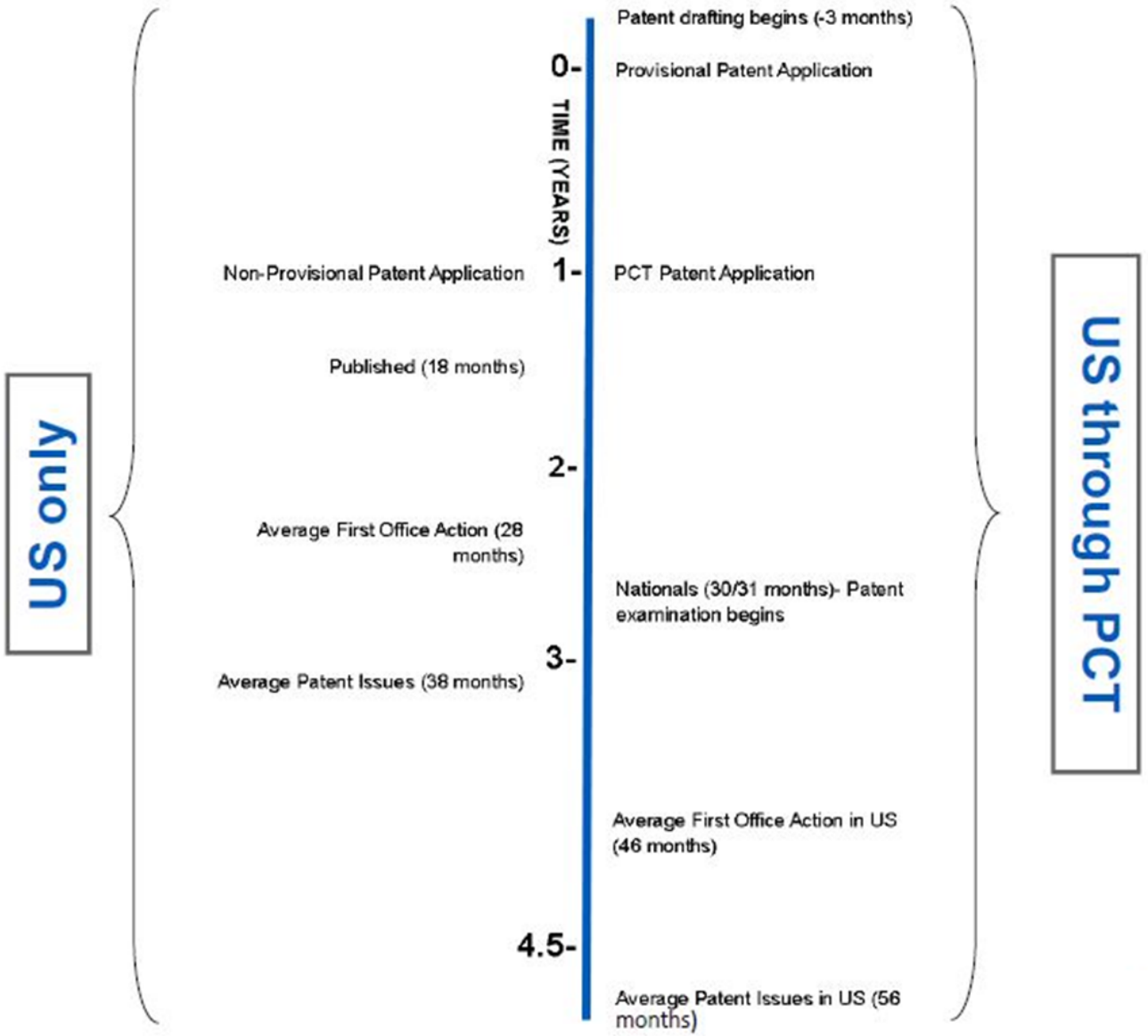
Utility Patent Process

- PATENT SEARCH: Search existing “prior art” to determine if patentable (Optional)
- APPLICATION PREP AND FILING: (Patent-Pending)
  - Application Components: written description, claims, drawings (where applicable)
- EXAMINATION AND PROSECUTION:
  - Most Applications are initially rejected requiring response(s)/Amendments to Application
- PUBLICATION at 18 months from filing date (by DEFAULT)
- ALLOWANCE / ISSUANCE (timescale: years after filing)
- MAINTENANCE: 3.5 years, 7.5 years, 11.5 years

Take Away: It is long and costly.



Patent Timeline



Quiz:

- You develop an inventive process for creating new compound A in March 2021. You disclose to SUNY RF in April 2021. You then submit a white paper that is immediately published (i.e., same day) on June 1, 2021 on the internet. What is the date of disclosure?

Are you an Inventor?

- Minimum requirement is to contribute to the conception of at least one claim in an issued patent.

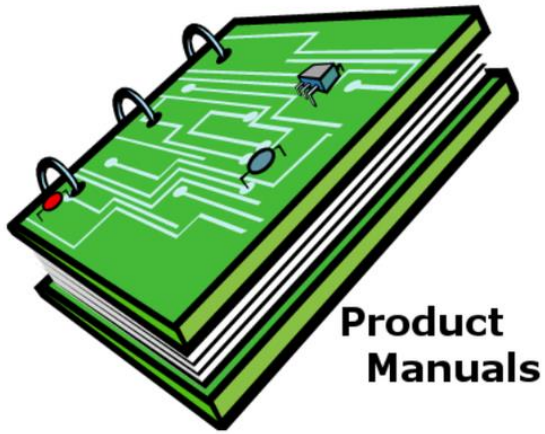
- In contrast, a person who did not help conceive the invention is not an inventor.
  - For example, a person who merely identified the problem is not an inventor unless they also helped conceive the solution. In addition, a person who reduced the invention to practice without helping to conceive it is not an inventor.

- Inventions with multiple inventors are owned equally by all inventors, even if conception contributions were unequal (unless a different agreement existed prior to filing)

- Inventorship is NOT the same as authorship

Copyrights

Software Apps



Copyrights

- Protect original expressions fixed in tangible medium
- Exclusive right to distribute, copy, prepare derivative works, perform, and display
- Last for the life of the author plus 70 years, or if authored by an employer, 95 to 120 years (depending on publication time and status)
- LIMITED TO EXPRESSION, NOT ACTUAL IDEAS!!!
- Examples: Poem written on paper, music, SOURCE CODE, manuals, marketing material, website/APP design, recorded performances, video, mixed media, video games, painting, etc.

Obtaining Copyrights

- Registration not required to establish rights
  - Just need something recorded in a tangible medium

- Registration through US Copyright Office gives extra rights … which can be important!!!
  - Registration process is relatively simple and cheap, ~$50
  - Registration important in litigation: can bring standing, up to $150k per infringing work if it's willful

- Infringement Standard includes (1) Access by infringer and (2) "Material Similarity"
  - Access requirement unique to Copyright

Creating Copyright Leverage

- Register Your Important Works – early and often (e.g., update quarterly)

- Always Have Written Agreements when dealing with Contractors
  - By default, contractors own copyrights in created works
  - REMEMBER - A creator of an original expression in a work is the author, and authors also are the owner of the copyright unless there is a written agreement by which the author assigns the copyright to another person or entity

Open Source Software

- Licenses copyright holders may grant to downstream users designed to keep the source code free
- Two types of Open Source licenses, with different concepts of freedom:

Permissive – Freedom for downstream users to use the code as they wish, including in proprietary (non-Open Source) programs

- Most popular licenses: MIT, BSD, Apache
- Favored by industry since it allows for downstream proprietary products

Copyleft – Maintains freedom of the code for all downstream users by requiring derivative works to also be Open Source

- Most popular licenses: GPLv2, GPLv3, LGPL
- Viral license: All modifications and derivative works must be released under the same Open Source license – no proprietary works

Working With Open Source Software

- Incorporating OS code into your new code
  - Pay close attention to source code's license, especially for copyleft/GPL works
- Choosing a license for your code - Considerations
  - Compliance with incorporated OS code, if any
  - Obligations from your funders, if any
  - Personal ethics and developer community
  - Your goals (e.g., commercialization?)
  - Custom licenses (e.g., academic use only)

Get in touch with us anytime if you have any questions!

Trademarks

Trademarks

- Identifiers of source of goods and/or services
- Word Mark v. Stylistic Mark NIKE v. 
- Rights: PREVENTS others from using confusingly similar mark
- Examples:
  - Name – Microsoft
  - Design – Nike's swoosh
  - Color – Tiffany Blue
  - Sound – Harley Davidson Motorcycle
  - Shape – Peeps
  - Scent – Play-Doh (granted 2018)

Trademark Rights

- Rights available by using the mark in commerce and/or via Federal Registration with USPTO
  - Rights limited to type of goods and services
    - E.g., Apple Computers vs. Apple Records (1978/2006)
- TM for Common Law or ® for Registered
- Likelihood of Confusion Standard for Infringement
- Scope of protection varies
  - Strength of the mark
    - Generic – Descriptive – Suggestive – Arbitrary – Fanciful
    - Aspirin – Pizza Hut– AIRBUS – Apple – Kodak

AIRBUS

Pizza Hut

KODAK

Apple

Trademark Infringement

The key test for trademark infringement is whether the defendant's use of a particular mark creates a likelihood of confusion

(1) the similarities of the goods and services involved
(2) evidence of actual confusion
(3) physical proximity
(4) likelihood of product line expansion

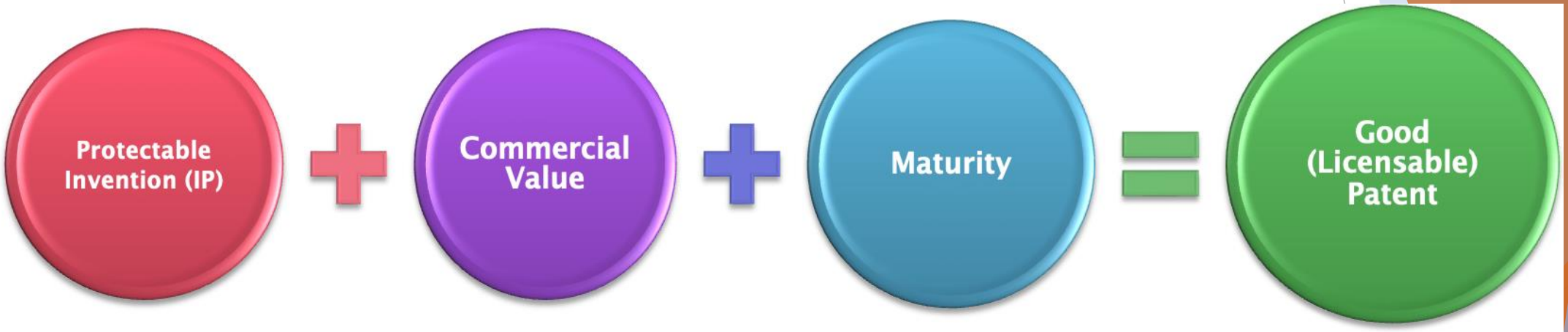

TRADE
SECRET

Trade Secrets

- Any secret information that gives an economic advantage over competitors that do not have access to the secret
- ONLY GOOD IF YOU CAN KEEP SECRET
  - Is reverse engineering possible? How likely is independent creation?
  - Don't file or register – once the secret gets it out cannot put it back in the bottle
- Requires protection efforts commensurate with the value of the Trade Secret
  - Employment agreements; non-disclosure agreements, need-to-know access; notices on documents; sign in sheets, key card access, security check points, etc.
- Examples include, e.g., formulas (Coca-Cola), patterns, compilations, programs, devices, methods, techniques or processes, customer lists, and other confidential technologies
- Misappropriation punishable under law, but damages can be difficult to assess or retrieve
- Best offense is good defensive measure to prevent access and misappropriation

03. Marketability

Market Ready Innovation



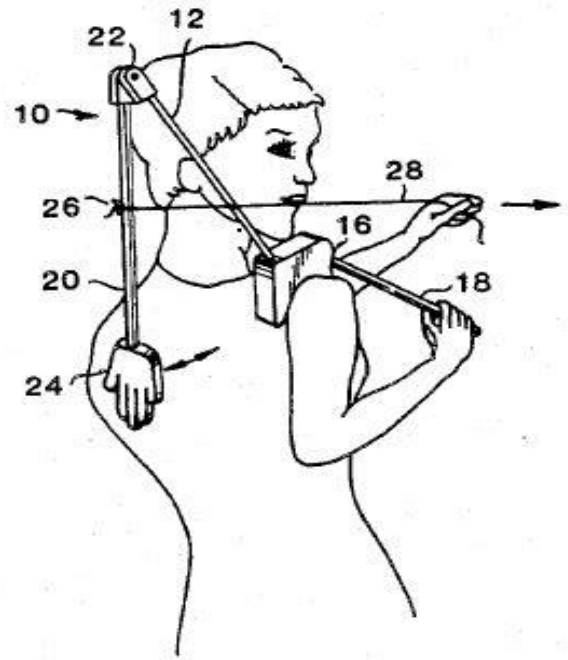
Quirky Patents

United States Patent [19]
Piro

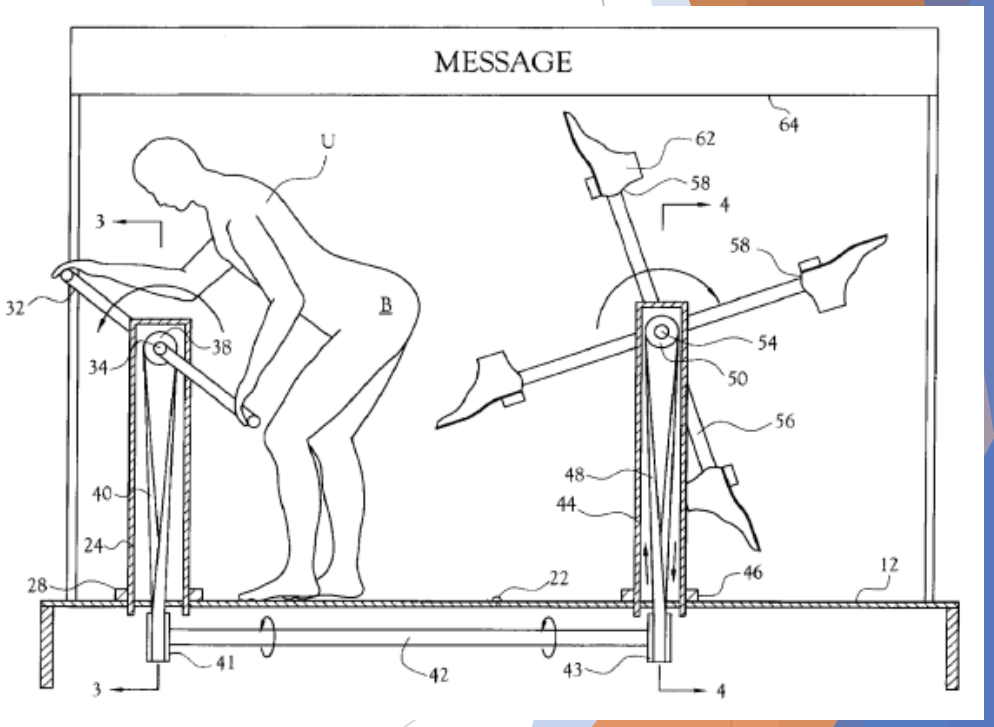
[11] **Patent Number:** **4,608,967**
[45] **Date of Patent:** **Sep. 2, 1986**

[54] **PAT ON THE BACK APPARATUS**

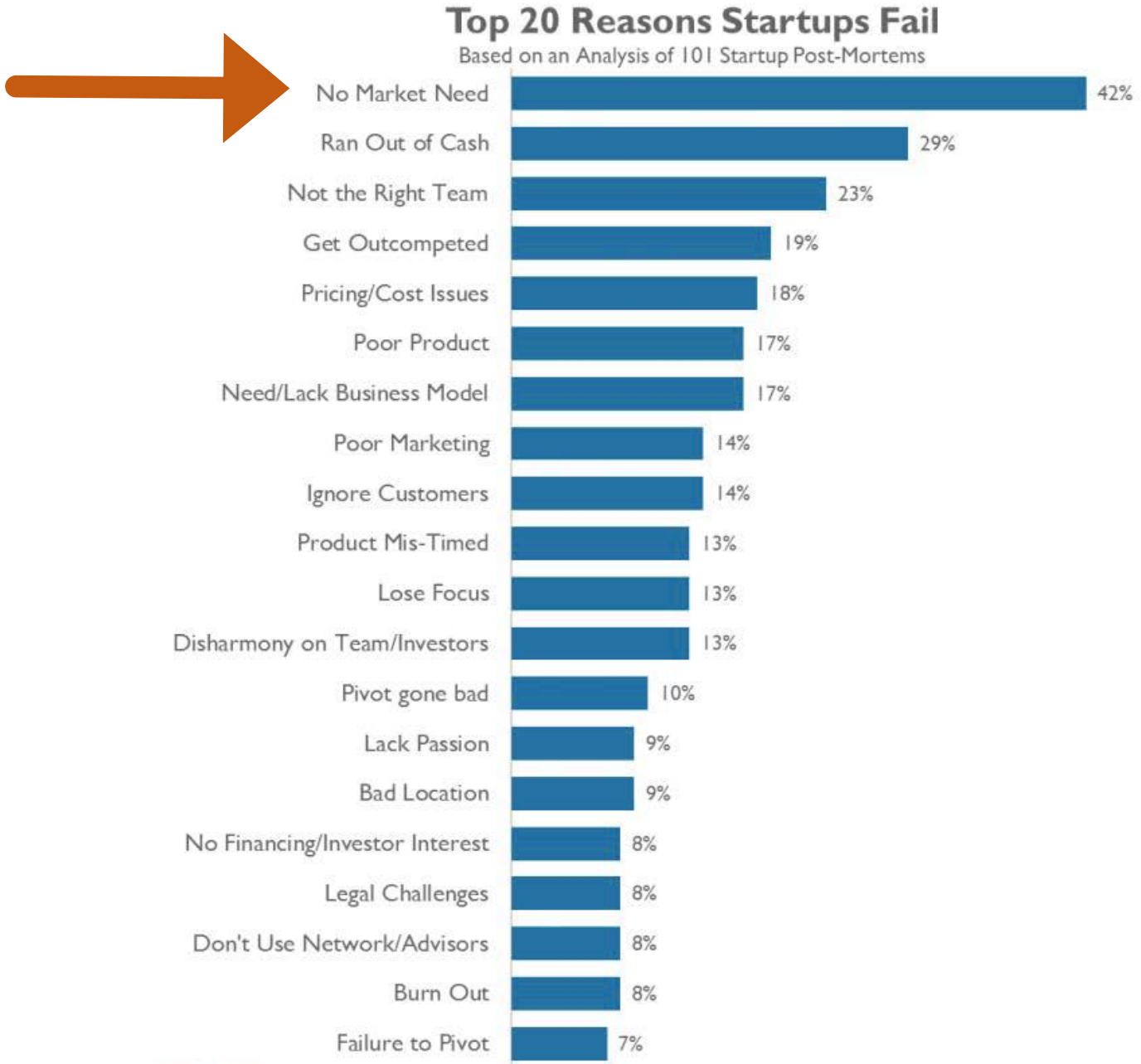
3,679,107	7/1972	Perrine	224/265



Apparatus for kicking the user's buttocks – US6293874



It's Not All About Your Technology



“Build it and they will come” fallacy

Don’t let this be you!!

Marketability

Measure whether a product or service will appeal to customers and sell within a certain price range to generate a profit

In tech transfer, it's a critical to our prospects of finding a potential licensee willing to try and commercialize a particular technology

What is the goal of market research?

To determine if it makes sense to invest in forming a legal entity, paying patent attorneys, developing infrastructure, and hiring personnel if a comparable product or process already exists that works and is much less expensive

IS IT WORTH THE COST?

From: NYS Science+Technology Law Center , Lacey C. Grummons

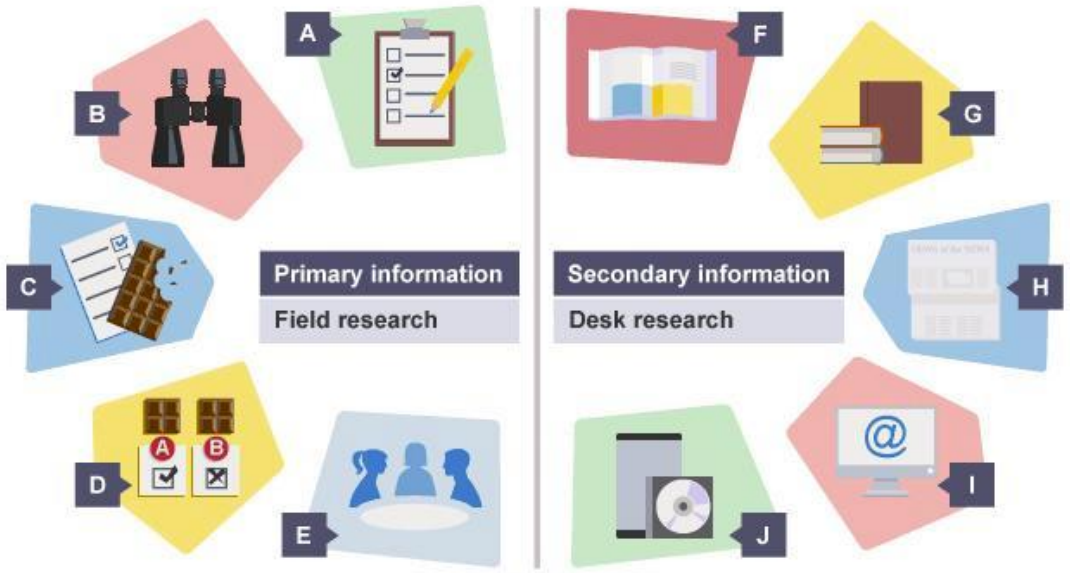
Addressable Market Applications

What market applications or segments might this technology address? – think blue sky

Marketability Aspects

- Size
- Trends
- Competitors
- Regulations
- Product Life Cycle
- Barriers to Entry
- More…

Market Research Tools:
Primary vs Secondary Research



A	Questionnaires and surveys	F	Articles
B	Observations	G	Books
C	Consumer trials	H	Newspapers
D	Hall tests	I	Internet
E	Focus groups	J	CD/DVD

https://theprauthority.com/market-research-methods/

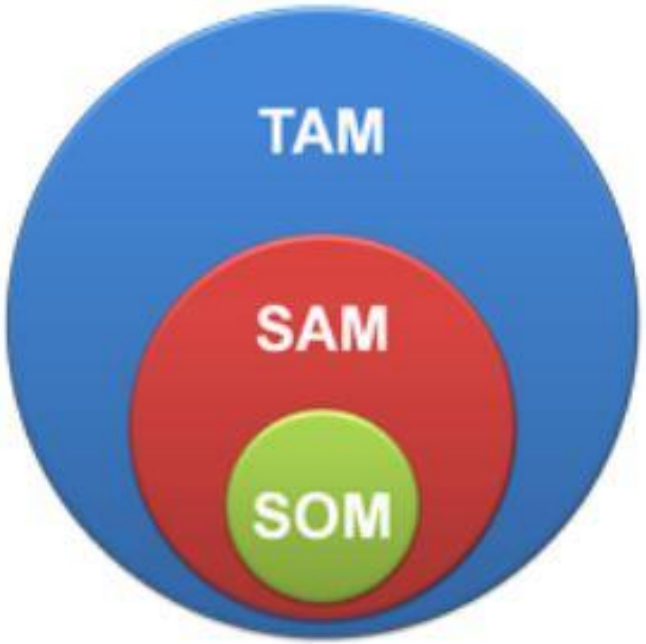
IBISWorld

WHERE KNOWLEDGE IS POWER

2. IBIS World
www.ibisworld.com

FROST & SULLIVAN

Market Size



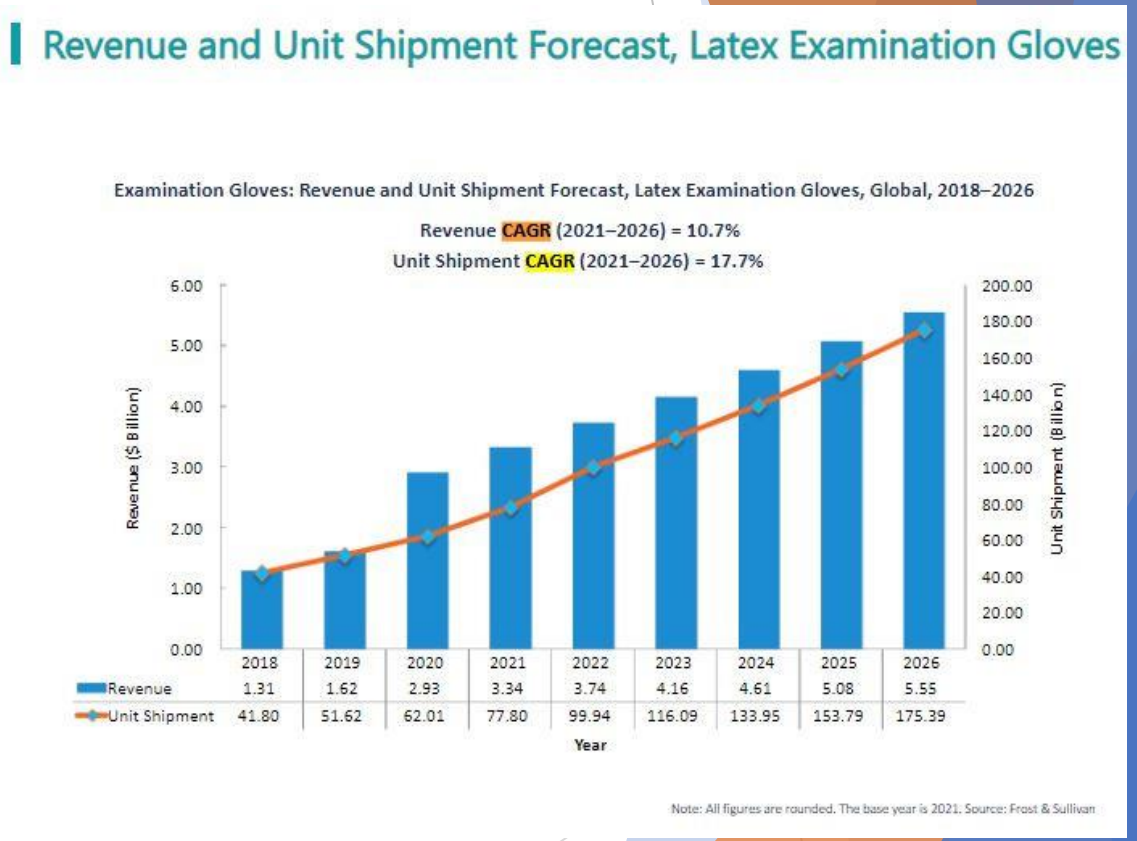
TAM = $_____
Total Available Market - total market demand for a product or service

SAM = $_____
Serviceable Available Market - segment of TAM targeted by your products and services which is within your geographical reach

SOM = $_____
Serviceable Obtainable Market - portion of SAM that you can capture

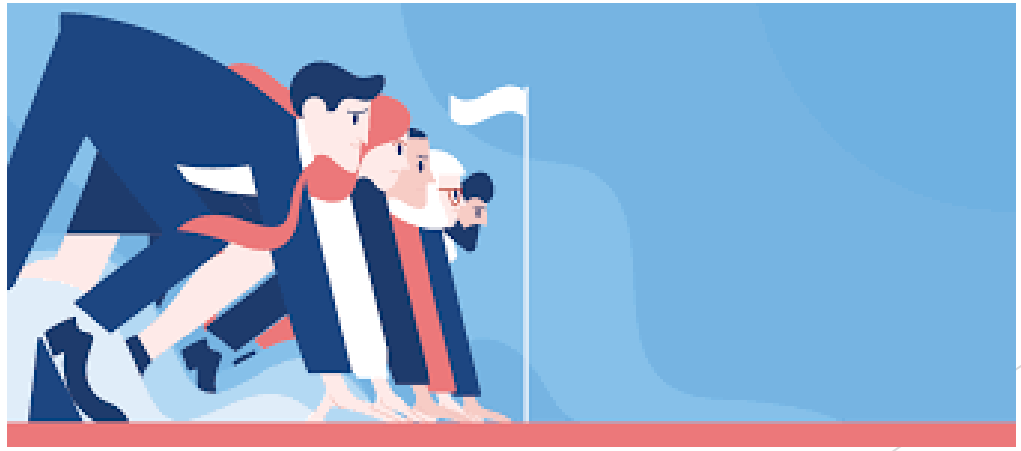
Market Trends & Growth Rate

- Trends
  - What have been the major trends in your market in the last 5-10 years? Relatively unchanged? Turbulent with lots of competitors? Fast-paced innovation or reluctant to try new technologies?
- Growth Rate
  - Is this a growing market or a declining market? If growing, what's the projected growth rate?
  - Compound Annual Growth Rate (CAGR): Represents the rate of return on an investment over a defined period of time
    - Ultimately it can tell you how hot the market you're looking to enter is and if it's hot enough to entice investors
    - Good CAGR: Investing in the S&P is basically 8-10% return. Startup investors, knowing the risk and failure of the majority of their investments, will need you to convince them you can achieve much higher CAGR, >20%-100+%



Potential Competitors

- Direct vs Indirect
- Basics: History, Size ($ and employees), Geographic reach
- Product: What do they sell? Strengths and weaknesses? IP?
- Price: How do they price it? Large markup? Subscription model?
- Promotion: What's their marketing strategy? Who do they target and how (i.e., channels)?
- Place: Online or brick and mortar? Direct or through a distributor?
- As you collect information ask yourself what their strengths and weaknesses are (e.g., technology, distribution channels, branding, reputation, IP defense)
- What's the MVP you need to stand out?



Organizational Tools - SWOT

Strengths	Weaknesses
Opportunities	**Threats**

Market Analysis Advice

- Don’t let perfect be the enemy of the good
- Do enough secondary research to give you a lay of the land and a market to start with, then let primary research, customer discovery, be your guide

BUSINESS MODEL CANVAS

Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
				
	Key Resource		**Channels**	
				
Cost Structure			**Revenue Streams**	
				

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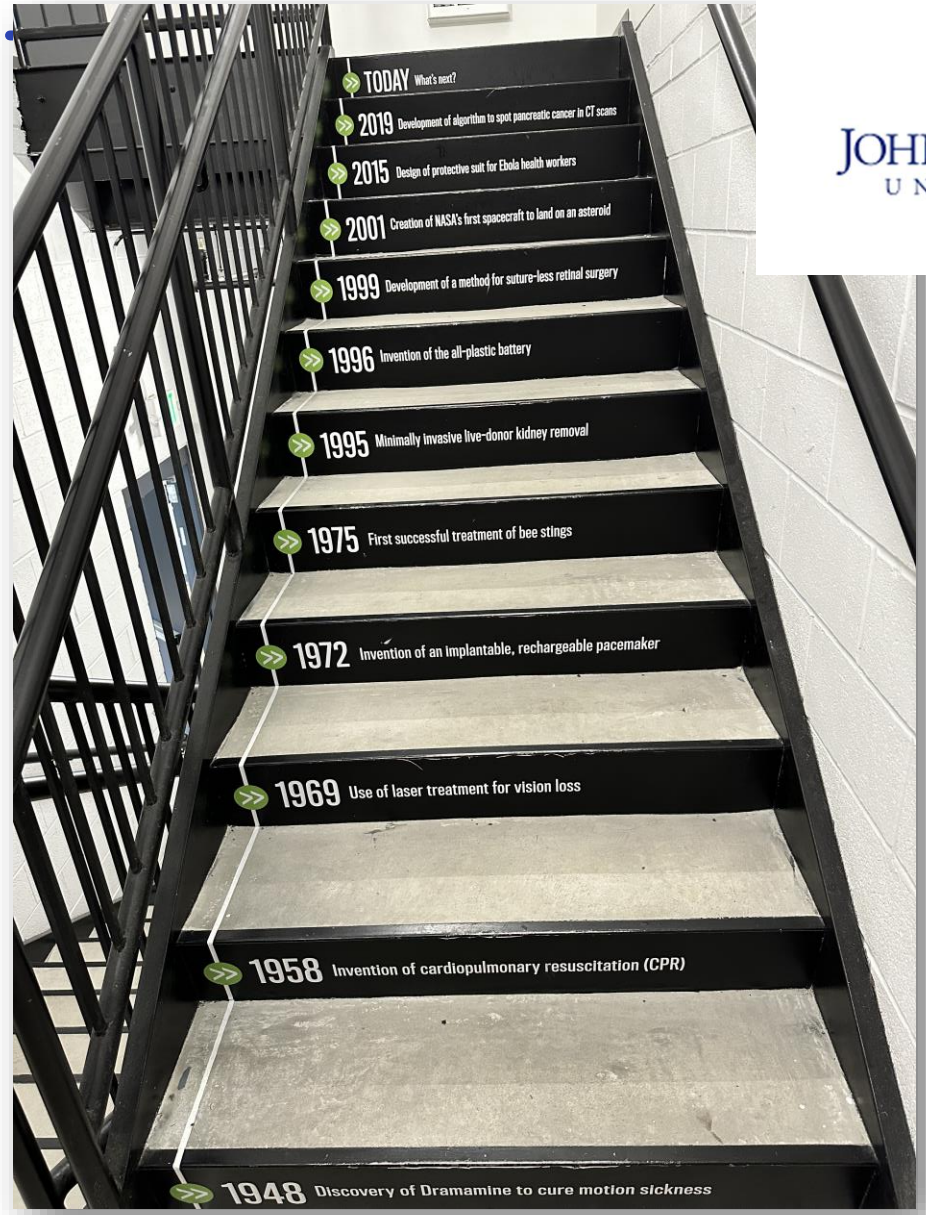

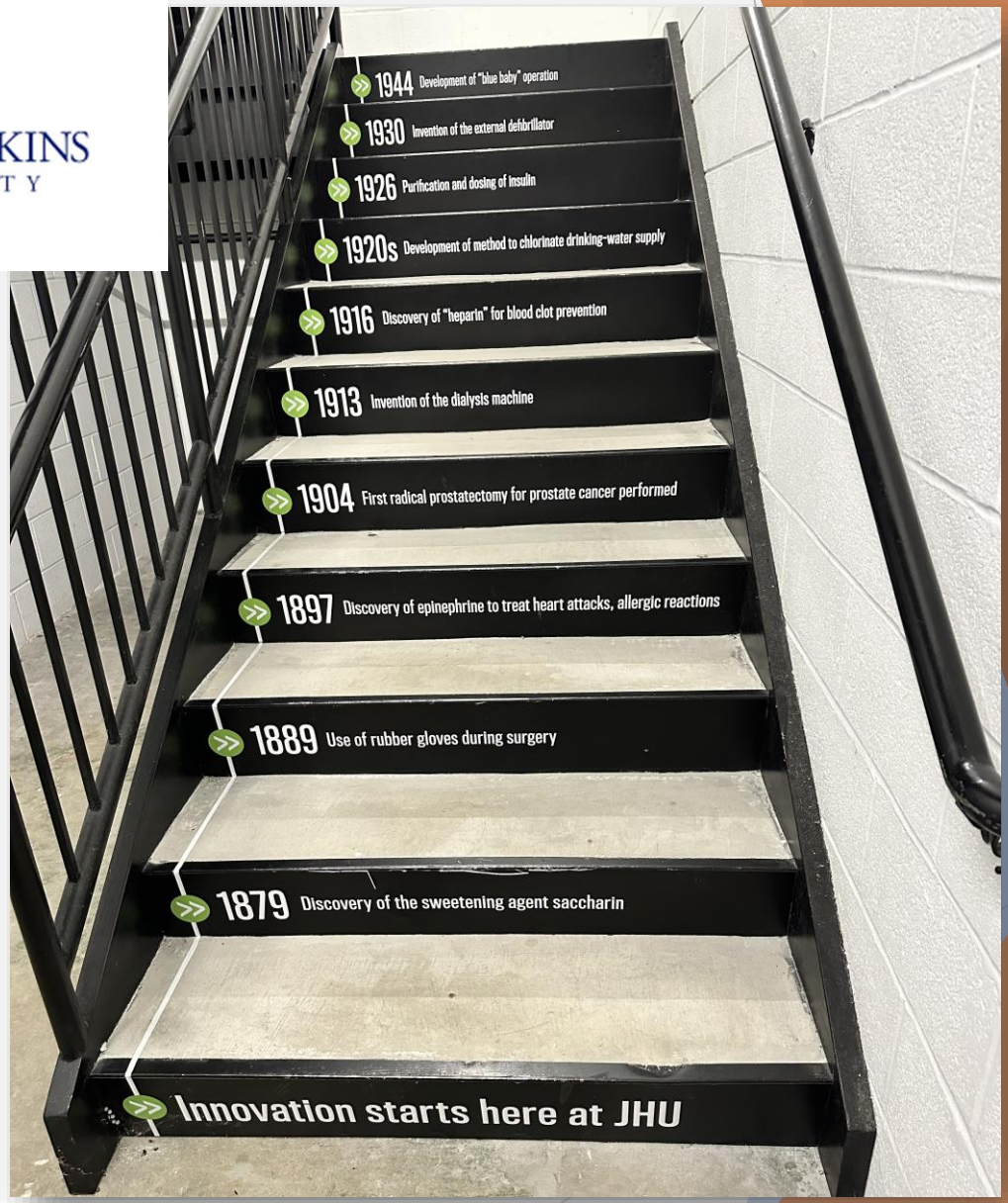

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Thank you!

- Please answer the Zoom poll question.
- Recording will be sent tomorrow.
- Don’t forget to connect with us on LinkedIn.
- See you next week for

Week 4: June 18

How To Win Grants – Mastering Non-Dilutive Funding with Kirk Macolini from InteliSpark