



# **GUIDE ON USING INVENTIONS IN THE PUBLIC DOMAIN**

World Intellectual Property Organization

Project on the Use of Information in the Public Domain for  
Economic Development (DA\_16\_20\_03)

Workshop in Velikiy-Novgorod (May 30-31, 2019)

# Your Innovation Management & IP Partner



## Innovation & IP Consultants

Patent Search, Drafting, Filing and Prosecution (EU, US, China)

Patent Valuation, Due Diligence & Monetization

New Product Development and Re-engineering

R&D Streamlining and Management

Technology Transfer

R&D ROI Maximization

R&D Integration with HR practices for Sustainable Competitive Advantage



Vassilios Vlahakis

## Clients/Projects



## **Theme 7**

# **Guide on the Use of Inventions in the Public Domain in Product Design and Development: Inventions and Public Domain Knowledge**

# Purpose of the Guide



The guide's purpose is to...



**Help TISC staff** who assist entrepreneurs and SMEs in developing regions and Least Developed Countries (LDCs) to access and use public domain knowledge & technology



**Introduce patent documents and Non-Patent Literature (NPL)** as reliable sources of information on inventions



Explore how **subject matter** disclosed in patent documents impart **detailed invention information**

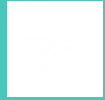


Introduce **key steps in product development and marketing processes** that utilize external and internal resources and capabilities such as patent documents



Present **relevant case examples** from recent research and practice.

## This guide addresses TISC services...



**Access** to patent and non-patent databases



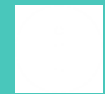
Increase awareness on IP and **contribute** to economic growth in the country



Provide quality services on patent **search** and **analysis**



Support to inventors in patent **filing** and IP **commercialization**



**Training** on access to and use of patent information

## TISC Services in the Philippines



Source: WIPO on TISC ([www.wipo.int/tisc/en/](http://www.wipo.int/tisc/en/))

# The Guide in a Nutshell

The Guide addresses the questions like...

**Who**

TISC staff in developing and least developed countries (LDCs) who can assist clients with inventive ideas

**When**

The guide can be used when a client comes with a new idea for a product/service and wants to commercialize it. Guide on identifying inventions in the public domain is the prerequisite guide for this.

**Where**

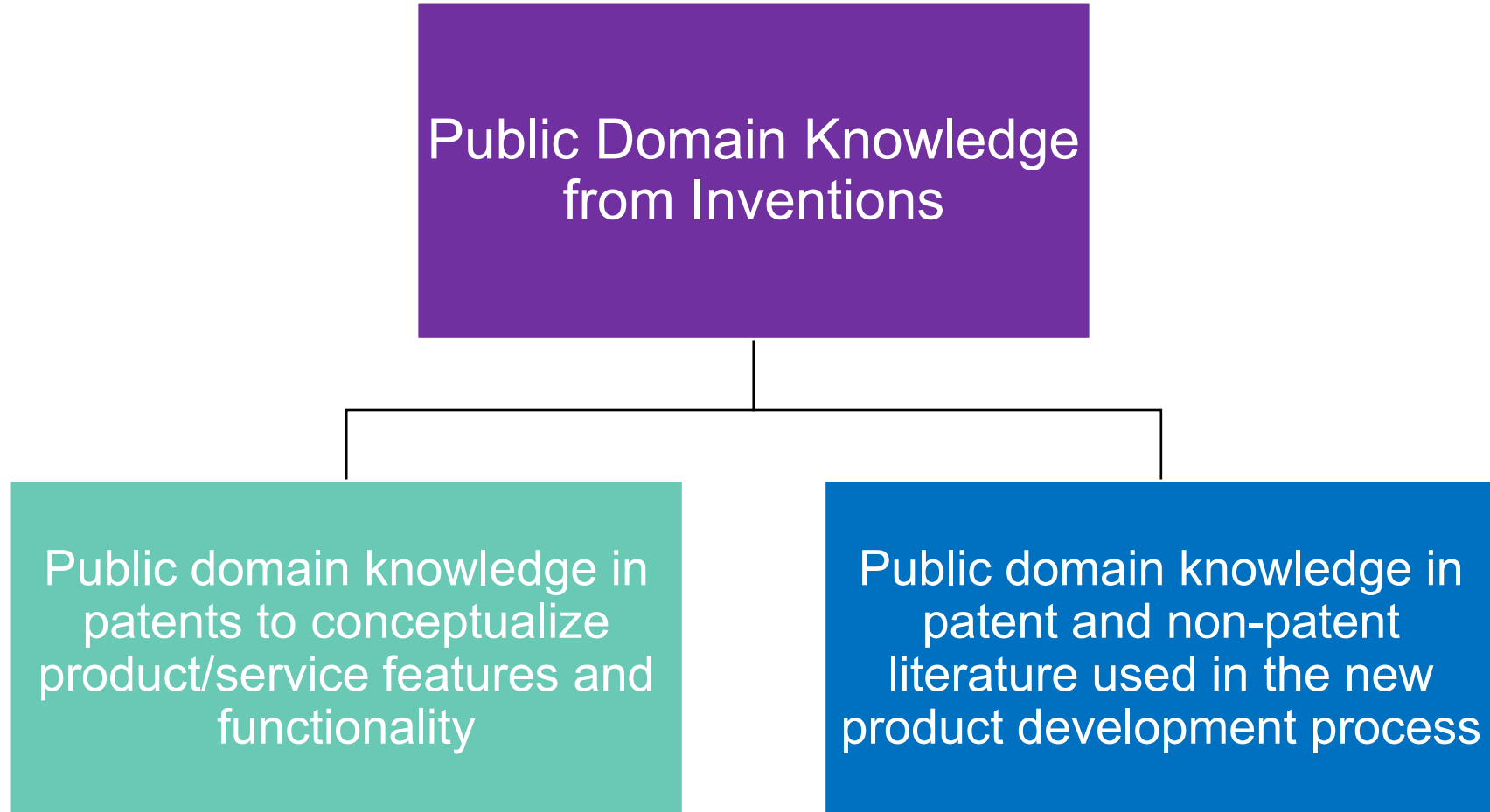
To be used in TISCs in developing and LDCs

**How**

To be used to explore public domain knowledge for improvement of invention of new products/services

# Framework for the Guide: 2 Approaches to using public domain knowledge

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# Limitations of the Guide

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Explanations in the Guide are...



**NOT** a formal introduction to the product development process



**NOT** to be used as a legal guide in any way



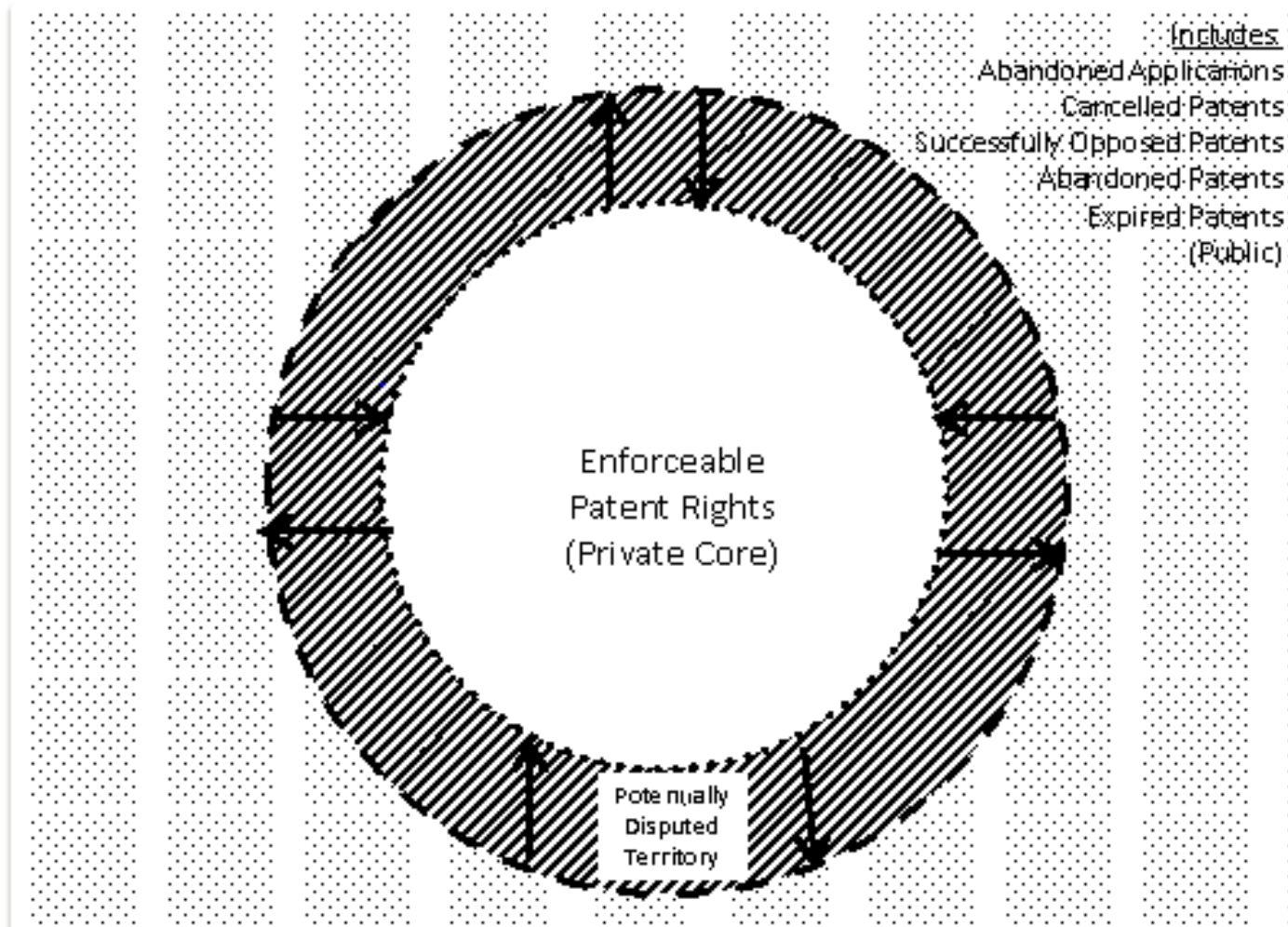
**NOT** a comprehensive guide on public domain



**Aware** of the lack of access to resources discussed in the Guide in many regions in the world

# What is Public Domain?

## Public domain as a function of Geography and Time



### Patents in Public Domain:

- Abandoned applications
- Abandoned previously granted patents
- Cancelled patents
- Successfully opposed patents
- Expired patents

Source: Conley J., et al.(2013). Study on patents and public domain (CDIP/12/INF/2 REV)

## Public Domain in Developing Countries and LDCs

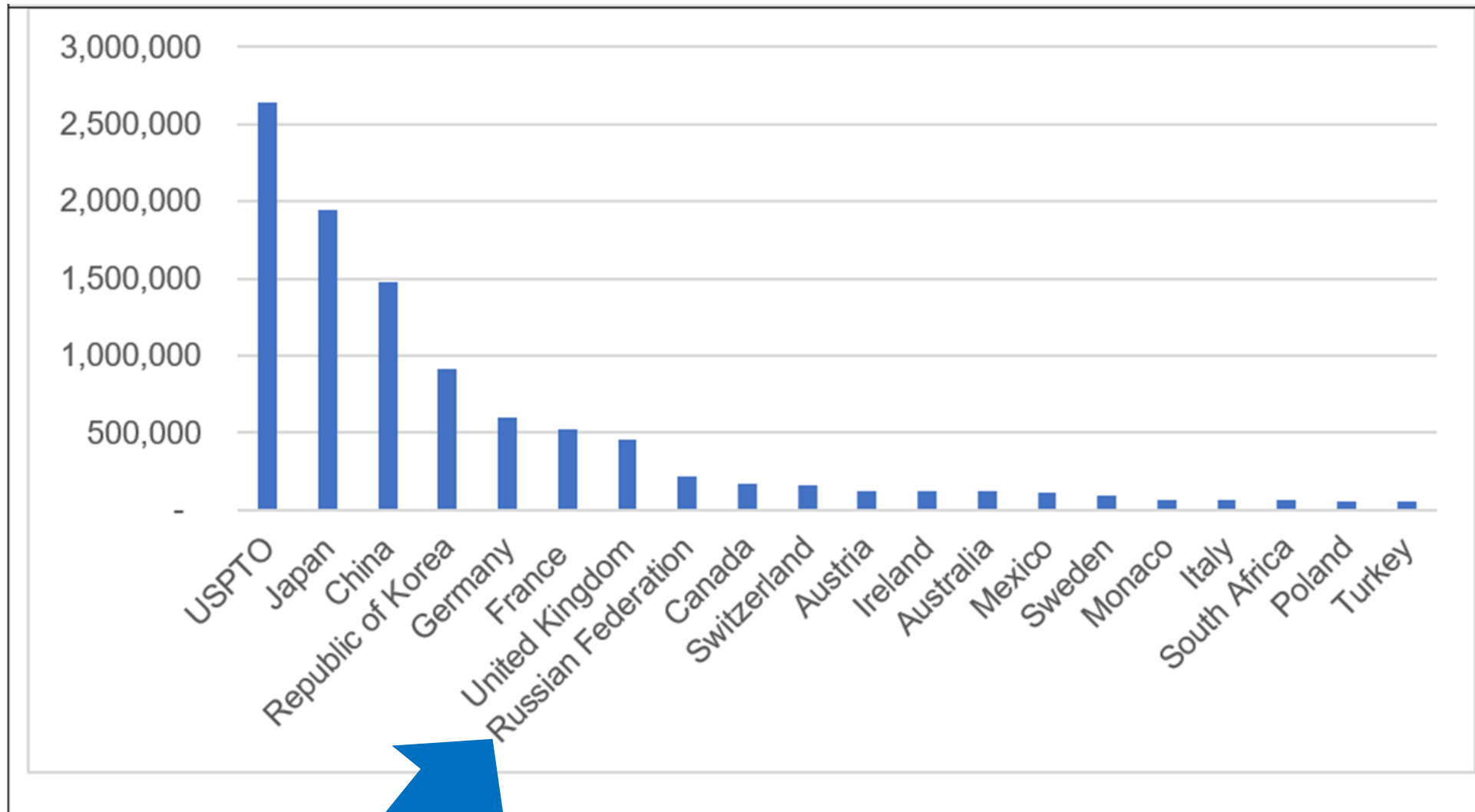
Developed countries are leading applicants of patents.

Patents need economic reason to be filed in developing and LDCs. In practice few patents from developed countries are filed in LDCs. Hence most inventions from developed countries are part of public domain in LDCs.

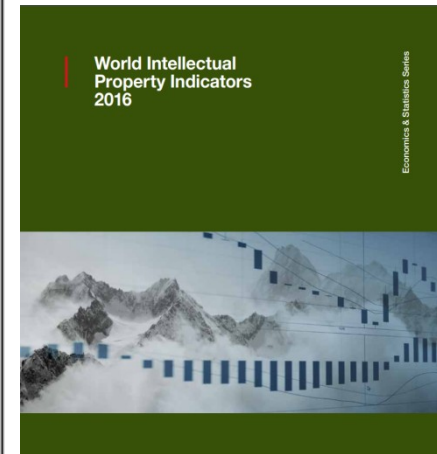
Freedom to Operate (FTO search) is important regardless.

Patent knowledge in most cases could be part of public domain in developing and Least Developed Countries (LDCs).

# Top 20 Patent Offices with Active Patents in 2015



Based on the data provided in World Intellectual Property Indicators 2016. WIPO.



## Focus is on Patent Document Use

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In the past 120 years, 150 million inventions disclosed in patent documents



Patent documents contain full disclosure of inventions by the original inventors



Patent rights are territorial and typically prosecuted/secured in a limited number of countries



Information in a patent document is free-to-use in the countries where the patent right has not been prosecuted



Patents are good indicators of chronological technology trends

...So what's more in a patent document that can be useful?

# Useful Elements in a Patent Document

**Title of invention**

(12) **United States Patent**  
Manullang et al.

(10) Patent No.: US 9,715,257 B2  
(45) Date of Patent: Jul. 25, 2017

**Patent number and Date of issue**

(54) **ACTIVE SCREEN PROTECTION FOR ELECTRONIC DEVICE**

(71) Applicant: Apple Inc., Cupertino, CA (US)

(72) Inventors: Tyson B. Manullang, Sunnyvale, CA (US); Stephen B. Lynch, Portola Valley, CA (US); Emery A. Sanford, San Francisco, CA (US)

**Inventors and location of inventors**

(73) Assignee: Apple Inc., Cupertino, CA (US)

**Assignee**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 560 days.

(21) Appl. No.: 14/256,002

(22) Filed: Apr. 18, 2014

(65) **Prior Publication Data**  
US 2015/0301565 A1 Oct. 22, 2015

(51) **Int. Cl.**  
G06F 1/18 (2006.01)  
G06F 1/16 (2006.01)  
H04M 1/18 (2006.01)  
H04M 1/02 (2006.01)

(52) **U.S. Cl.**  
CPC ..... G06F 1/182 (2013.01); G06F 1/1637 (2013.01); H04M 1/185 (2013.01); H04M 1/0266 (2013.01); H04M 2250/12 (2013.01)

(58) **Field of Classification Search**  
CPC .... G06F 1/1637; G06F 1/182; H04M 1/0266; H04M 1/185; H04M 2250/12; H04M 1/02; H04M 1/0202; H04M 1/18; H04M 2250/00; H04B 1/3888  
USPC ..... 3403.1, 5.1  
See application file for complete search history.

(56) **References Cited**  
U.S. PATENT DOCUMENTS

2,171,808 A	9/1939	Von Schlippe
2,989,869 A	6/1961	Hanggi
3,606,296 A	9/1971	Chassagne
3,772,923 A	11/1973	Burt
3,919,575 A	11/1975	Weber et al.
4,278,726 A	7/1981	Wieme
4,288,051 A	9/1981	Göschel
4,314,735 A	2/1982	Fullenkamp et al.
4,550,894 A	2/1983	Stuesson

(Continued)

**Portion of domestic patents cited as references**

FOREIGN PATENT DOCUMENTS

CN	1458804	11/2003
CN	2710238	7/2005

(Continued)

Primary Examiner — Brian Wilson  
(74) Attorney, Agent, or Firm — Kendall W. Abbasi; David K. Cole

(57) **ABSTRACT**  
An electronic device includes one or more screens, multiple screen protectors moveable between a retracted position and extended position where they extend above the screen to create a gap, and one or more sensors. When the sensor detects a drop event, the screen protectors move from the retracted to extended position, functioning as a shock absorber and preventing the screen from connecting with a surface that the electronic device contacts. In some implementations, the screen protectors may be multiple tabs that may be moved between the retracted and extended positions by one or more motors and/or other actuators coupled to one or more pinions. Such tabs may be formed of various flexible and/or rigid materials such as plastic, plastic film, polyethylene terephthalate or other polymers, metal, thin film metal, combinations thereof, and/or other such materials.

**Portion of foreign patents cited as references**

20 Claims, 8 Drawing Sheets

# Citation Cloud in a Patent Document

**Center patent**

Cited as prior art ←      → Citing as prior art

**(12) United States Patent**  
Manullang et al.

**(10) Patent No.:** US 9,715,257 B2  
**(45) Date of Patent:** Jul. 25, 2017

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**(54) ACTIVE SCREEN PROTECTION FOR ELECTRONIC DEVICE**

**(71) Applicant:** Apple Inc., Cupertino, CA (US)

**(72) Inventors:** Tyson B. Manullang, Sunnyvale, CA (US); Stephen B. Lynch, Portola Valley, CA (US); Emery A. Sanford, San Francisco, CA (US)

**(73) Assignee:** Apple Inc., Cupertino, CA (US)

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*G06F 1/18* (2006.01)  
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*H04M 1/18* (2006.01)  
*H04M 1/02* (2006.01)

**(52) U.S. Cl.**  
CPC \_\_\_\_\_ *G06F 1/182* (2013.01); *G06F 1/1637* (2013.01); *H04M 1/185* (2013.01); *H04M 1/0266* (2013.01); *H04M 2/25912* (2013.01)

**(58) Field of Classification Search**  
CPC ... *G06F 1/1637*; *G06F 1/182*; *H04M 1/0266*; *H04M 1/185*; *H04M 2/25912*; *H04M 1/02*; *H04M 1/0202*; *H04M 1/18*; *H04M 2/25000*; *H04B 1/3888*  
USPC \_\_\_\_\_ 349/3.1, 5.1  
See application file for complete search history.

**20 Claims, 8 Drawing Sheets**

**(55) References Cited**

U.S. PATENT DOCUMENTS

2,171,808 A	9/19/39	Von Schlippe
2,989,869 A	6/19/61	Haggi
3,606,296 A	9/19/71	Chausagne
3,772,923 A	11/19/73	Burt
3,919,575 A	11/19/75	Wider et al.
4,278,726 A	7/19/81	Wisme
4,288,051 A	9/19/81	Göschel
4,314,735 A	2/19/82	Fallonkamp et al.
4,370,894 A	2/19/83	Stareson

(Continued)

FOREIGN PATENT DOCUMENTS

CN	1458804	11/2003
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(Continued)

*Primary Examiner* — Brian Wilson  
*(74) Attorney, Agent, or Firm* — Kendall W. Abbasi; David K. Cole

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An electronic device includes one or more screens, multiple screen protectors moveable between a retracted position and extended position where they extend above the screen to create a gap, and one or more sensors. When the sensor detects a deep event, the screen protectors move from the retracted to extended position, functioning as a shock absorber and preventing the screen from connecting with a surface that the electronic device contacts. In some implementations, the screen protectors may be multiple tabs that may be moved between the retracted and extended positions by one or more motors and/or other actuators coupled to one or more pinions. Such tabs may be formed of various flexible and/or rigid materials such as plastic, plastic film, polyethylene terephthalate or other polymers, metal, thin film metal, combinations thereof, and/or other such materials.

**Subsequent patents that cite Apple patent US9715257B2 family include (From ESPACENET):**

- US9973231B1 issued to IBM (US) inventors E. Campbell and D. Buvid
- CN105607701 issued to Huizhou TCL Mobile Communication Co LTD. (China) inventors F. Han, Y. Zeng
- CN106131265 (A) issued to Wuhan China Star Optoelectronics Tech Co LTD. (China) inventors Z. Xing an Q. Zuo
- DE202018101276 (U1) issued to Frenzel and Mayer Solutions GbR (Germany)

# ESPACENET for Subsequent Art

The screenshot shows the Espacenet Patent search interface. The main heading is "Citing documents: US9715257 (B2) — 2017-07-25". Below this, there are 6 documents listed, each with a title, inventor, applicant, CPC, IPC, publication info, and priority date. The documents are:

- 1. Protective structures to provide impact protection for portable devices**  
Inventor: BUID DANIEL J [US], CAMPBELL ERIC I [US] (+2)  
Applicant: IBM [US]  
CPC: A45C11/00, A45C13/001, A45C13/002 (+4)  
IPC: A45C11/00, A45C13/00, A45F5/00 (+2)  
Publication info: US9715257 (B2)  
Priority date: 2017-03-20
- 2. ACTIVE SURFACE PROTECTION FOR PORTABLE ELECTRONIC DEVICES**  
Inventor: RIVELLINI TOMMASO P [US], KOCH RICHARD H [US] (+1)  
Applicant: APPLE INC [US]  
CPC: B65D81/054, H01F7/054, H01F7/122 (+3)  
IPC: B65D81/05, H01F7/06, H02K33/18 (+1)  
Publication info: US2017355507 (A1)  
Priority date: 2016-06-14
- 3. DROP COUNTERMEASURES FOR ELECTRONIC DEVICE**  
Inventor: PETERSON CARL R [US], WODRICH JUSTIN R [US] (+2)  
Applicant: APPLE INC [US]  
CPC: F16F15/067, F16F2230/0023, G01L5/0066 (+5)  
IPC: H04B1/3888, H04M1/18, F16F15/067 (+3)  
Publication info: US2017317707 (A1), US9929767 (B2)  
Priority date: 2013-03-11
- 4. Method and device for preventing stretchable screen from being scraped**  
Inventor: XING ZHENZHOU, ZUO QINGCHENG  
Applicant: WUHAN CHINA STAR OPTOELECTRONICS TECHNOLOGY CO LTD  
CPC: H04M1/185, H04M2250/12  
IPC: H04M1/185  
Publication info: CN106131265 (A)  
Priority date: 2016-11-16
- 5. PROTECTING AN ELECTRONIC DEVICE**  
Inventor: ROTHKOPF FLETCHER [US], ELY COLIN M [US] (+1)  
Applicant: APPLE INC [US]  
CPC: G05F1/1626, G05F1/1656, G05F1/1694 (+3)  
IPC: G05F1/16, H04M1/18  
Publication info: US2016154439 (A1), US9780621 (B2)  
Priority date: 2011-09-16
- 6. Keyboard used for portable terminal and multi-gear positioning structure thereof**  
Inventor: HAN FUXUE, ZENG YONG (+2)  
Applicant: HUIZHOU TCL MOBILE COMMUNICATION CO LTD  
CPC: G05F1/16, G05F1/1662, G05F3/0202  
IPC: G05F1/16, G05F3/02  
Publication info: CN105607701 (A)  
Priority date: 2016-05-25

Apple patent cited by the US patent US9973231 (B1) issued to IBM

Apple patent cited by the Chinese patent CN106131265 (A) issued to Wuhan

Apple patent cited by the Chinese patent CN105607701 (A) issued to Huizhou



# Technical Know-how from a Patent

(12) **United States Patent**  
**Manullang et al.**

(10) **Patent No.:** US 9,715,257 B2  
(45) **Date of Patent:** Jul. 25, 2017

(54) **ACTIVE SCREEN PROTECTION FOR ELECTRONIC DEVICE**

(71) Applicant: **Apple Inc.**, Cupertino, CA (US)

(72) Inventors: **Tyson B. Manullang**, Sunnyvale, CA (US); **Stephen B. Lynch**, Portola Valley, CA (US); **Emery A. Sanford**, San Francisco, CA (US)

(73) Assignee: **Apple Inc.**, Cupertino, CA (US)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 560 days.

(21) Appl. No.: **14/256,002**

(22) Filed: **Apr. 18, 2014**

(65) **Prior Publication Data**

US 2015/0301565 A1 Oct. 22, 2015

(51) **Int. Cl.**

**G06F 1/18** (2006.01)

**G06F 1/16** (2006.01)

**H04M 1/18** (2006.01)

**H04M 1/02** (2006.01)

(52) **U.S. Cl.**

CPC ..... **G06F 1/182** (2013.01); **G06F 1/1637** (2013.01); **H04M 1/185** (2013.01); **H04M 1/0266** (2013.01); **H04M 2250/12** (2013.01)

(58) **Field of Classification Search**

CPC .... **G06F 1/1637**; **G06F 1/182**; **H04M 1/0266**; **H04M 1/185**; **H04M 2250/12**; **H04M 1/02**; **H04M 1/0202**; **H04M 1/18**; **H04M 2250/00**; **H04B 1/3888**

USPC ..... **340/3.1**, **5.1**  
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,171,808	A	9/1939	Von Schlippe
2,989,869	A	6/1961	Hanggi
3,606,296	A	9/1971	Chassagne
3,772,923	A	11/1973	Burt
3,919,575	A	11/1975	Weber et al.
4,278,726	A	7/1981	Wieme
4,288,051	A	9/1981	Göschel
4,314,735	A	2/1982	Fullenkamp et al.
4,370,894	A	2/1983	Sturesson

(Continued)

FOREIGN PATENT DOCUMENTS

CN	1458804	11/2003
CN	2710238	7/2005

(Continued)

Primary Examiner — Brian Wilson

(74) Attorney, Agent, or Firm — Kendall W. Abbasi;  
David K. Cole

(57) **ABSTRACT**

An electronic device includes one or more screens, multiple screen protectors moveable between a retracted position and extended position where they extend above the screen to create a gap, and one or more sensors. When the sensor detects a drop event, the screen protectors move from the retracted to extended position, functioning as a shock absorber and preventing the screen from connecting with a surface that the electronic device contacts. In some implementations, the screen protectors may be multiple tabs that may be moved between the retracted and extended positions by one or more motors and/or other actuators coupled to one or more pinions. Such tabs may be formed of various flexible and/or rigid materials such as plastic, plastic film, polyethylene terephthalate or other polymers, metal, thin film metal, combinations thereof, and/or other such materials.

20 Claims, 8 Drawing Sheets

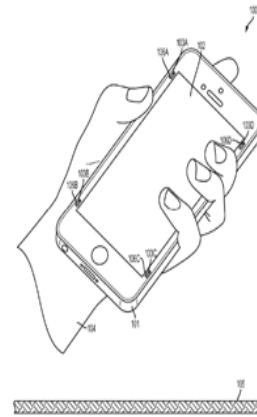


FIG. 1

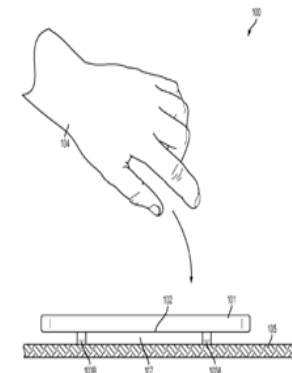


FIG. 2

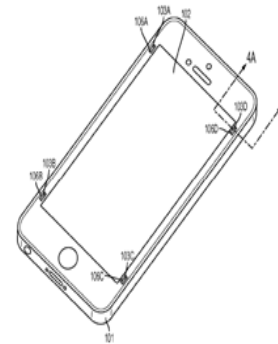


FIG. 3A

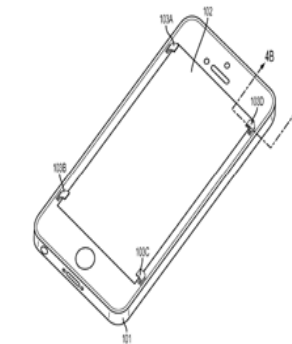


FIG. 3B

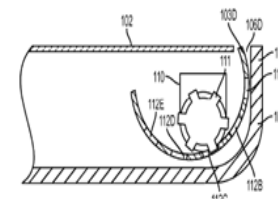


FIG. 4A

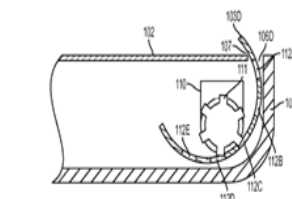


FIG. 4B

# Additional Useful Information Disclosed in Patent Records

Explanations in the Guide are...



Vital information, often, **may not be deliberately disclosed** by an inventor in a patent document



Patent families and patent **prosecution history** related to a patent of your interest widen your scope of research



**Litigation records** of a patented invention (private databases, court records)



Select **licensing records** of a patented invention

# Other Major IP Rights Regimes

■ Trademarks



■ Trade dress



■ Copyrights

■ Trade Secrets

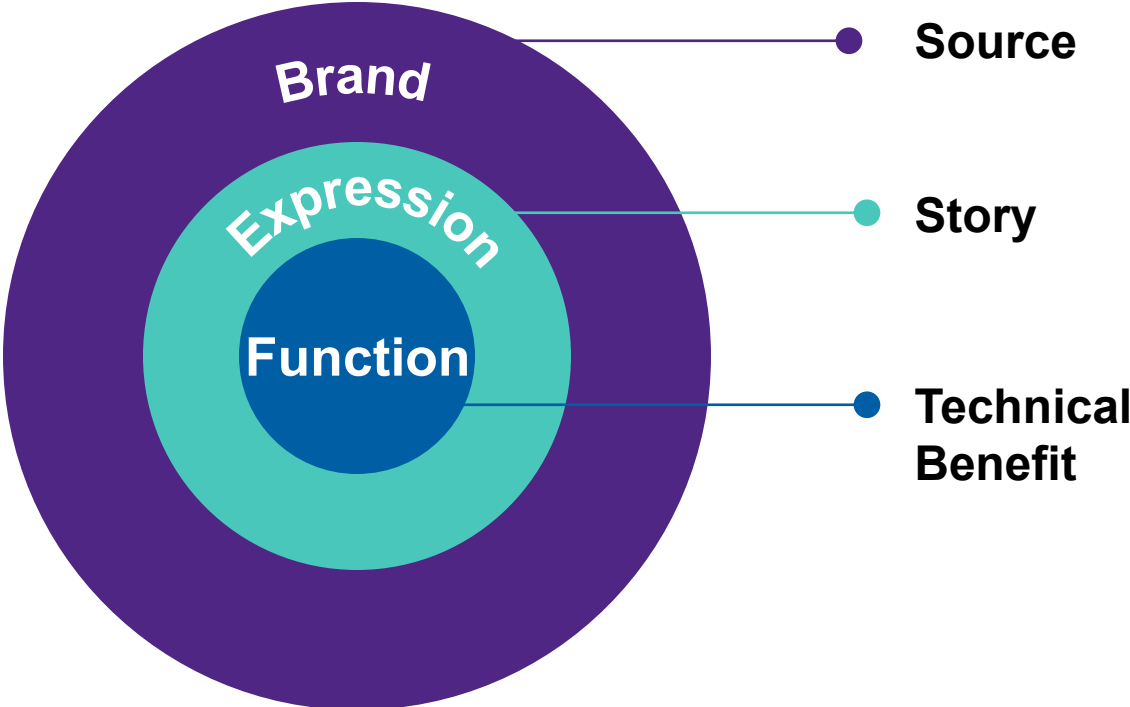
# Multiple Regimes of IP protection ... a Portfolio of Intangible Assets, Rights and Management Options

## RELATIONSHIPS AMONG TRADE SECRETS, PATENTS, TRADENAMES, TRADEMARKS, AND COPYRIGHTS

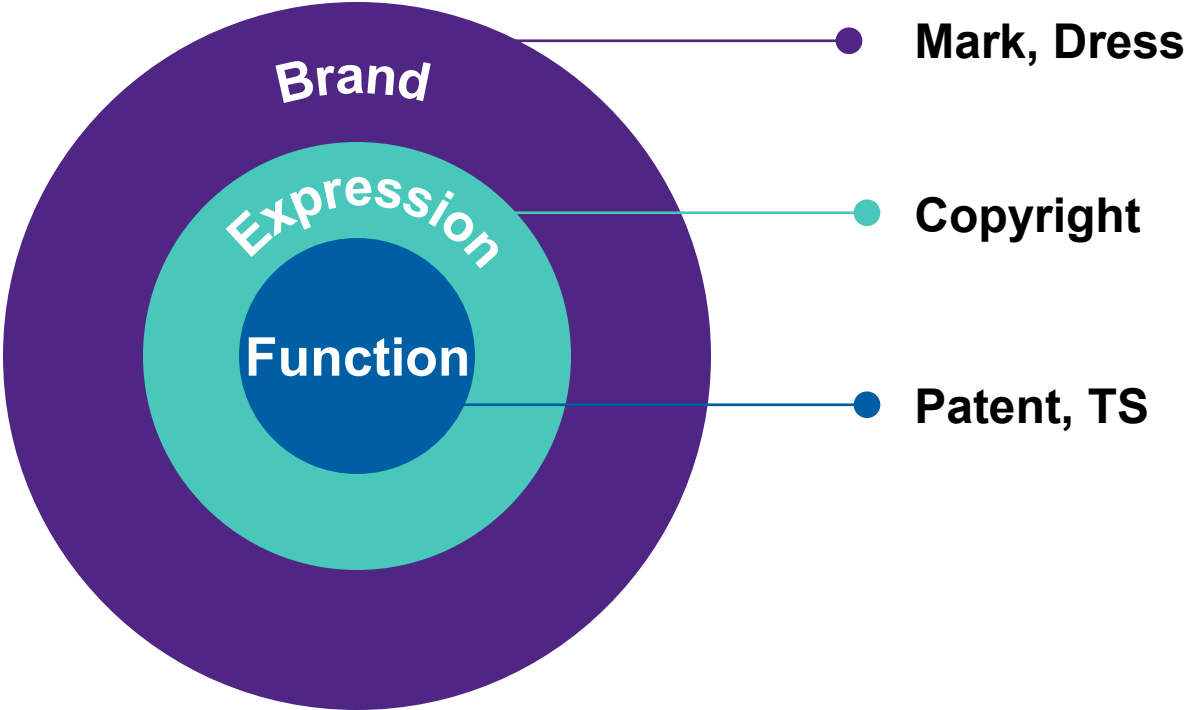
<b>Trade Secret</b>	<b>Function/Information</b>
<b>Utility Patent</b>	<b>Function</b>
<b>Design Patent</b>	<b>Form</b>
<b>Copyright</b>	<b>Expression</b>
<b>Tradenname, Trademark, Service Mark</b>	<b>Source Identity/Brand</b>

# IP Regimes and the Unique Selling Proposition

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# IP Regimes Reconciled



# What is the Unique Selling Proposition of Each Product?

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Uber



# UBER and the Unique Selling Proposition



Bits + Atoms

We're all about technology moving the physical world

US 20130132140 A1

(12) **United States Patent Application Publication** (10) Pub. No.: US 2013/0132140 A1  
 Amin et al. (41) Pub. Date: May 23, 2013

(54) DETERMINING A LOCATION RELATED TO ON-DEMAND SERVICES THROUGH USE OF PORTABLE COMPUTING DEVICES

(71) Applicant: Uber Technologies, Inc., San Francisco, CA (US)

(72) Inventors: Shafiq Amini, San Francisco, CA (US); Misha Radhakrishnan, San Francisco, CA (US)

(73) Assignee: Uber Technologies, Inc., San Francisco, CA (US)

(21) Appl. No.: 13/672,608

(22) Filed: Nov. 8, 2012

Related U.S. Application Data

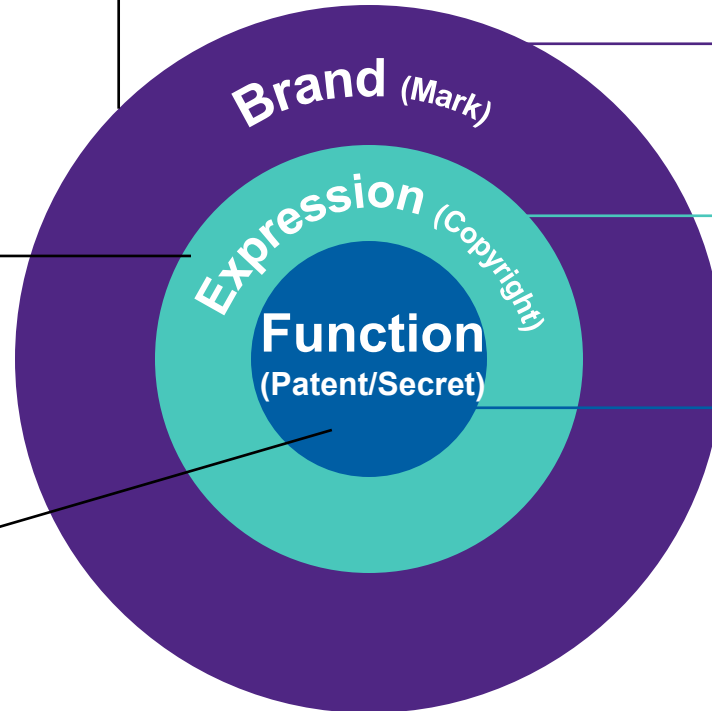
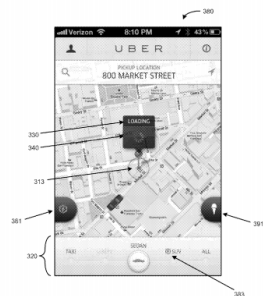
(65) Continuation of application No. 12/961,401, filed on Dec. 6, 2010.

Publication Classification

(51) Int. Cl. G06Q 30/00 (2012.01); G06Q 30/30 (2006.01)

(52) U.S. Cl. G06Q 18/0611 (2013.01); G06Q 30/30 (2011.01)

(57) **ABSTRACT**  
 A method for determining a location relating to an on-demand service comprising: detecting a user device; receiving a request from a user; the request request specifying at least one of a pick-up region or a drop-off region; one or more locations of interest within the at least one of the pick-up region or the drop-off region are determined; based on the at least one of the pick-up region or the drop-off region, one or more historical locations related to the user is determined; a likely location is determined based on the determined one or more locations of interest and the one or more historical locations.



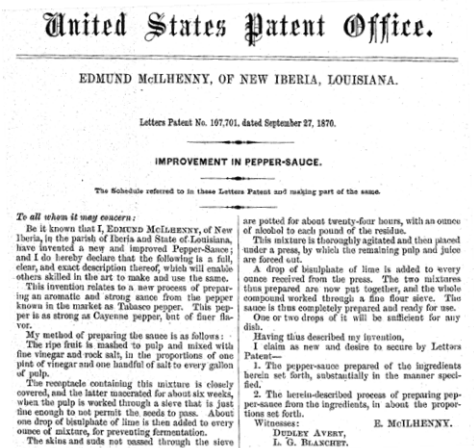
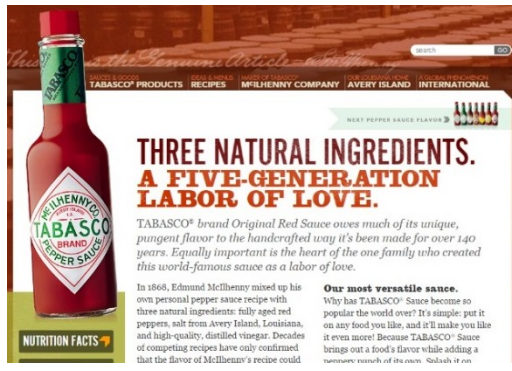
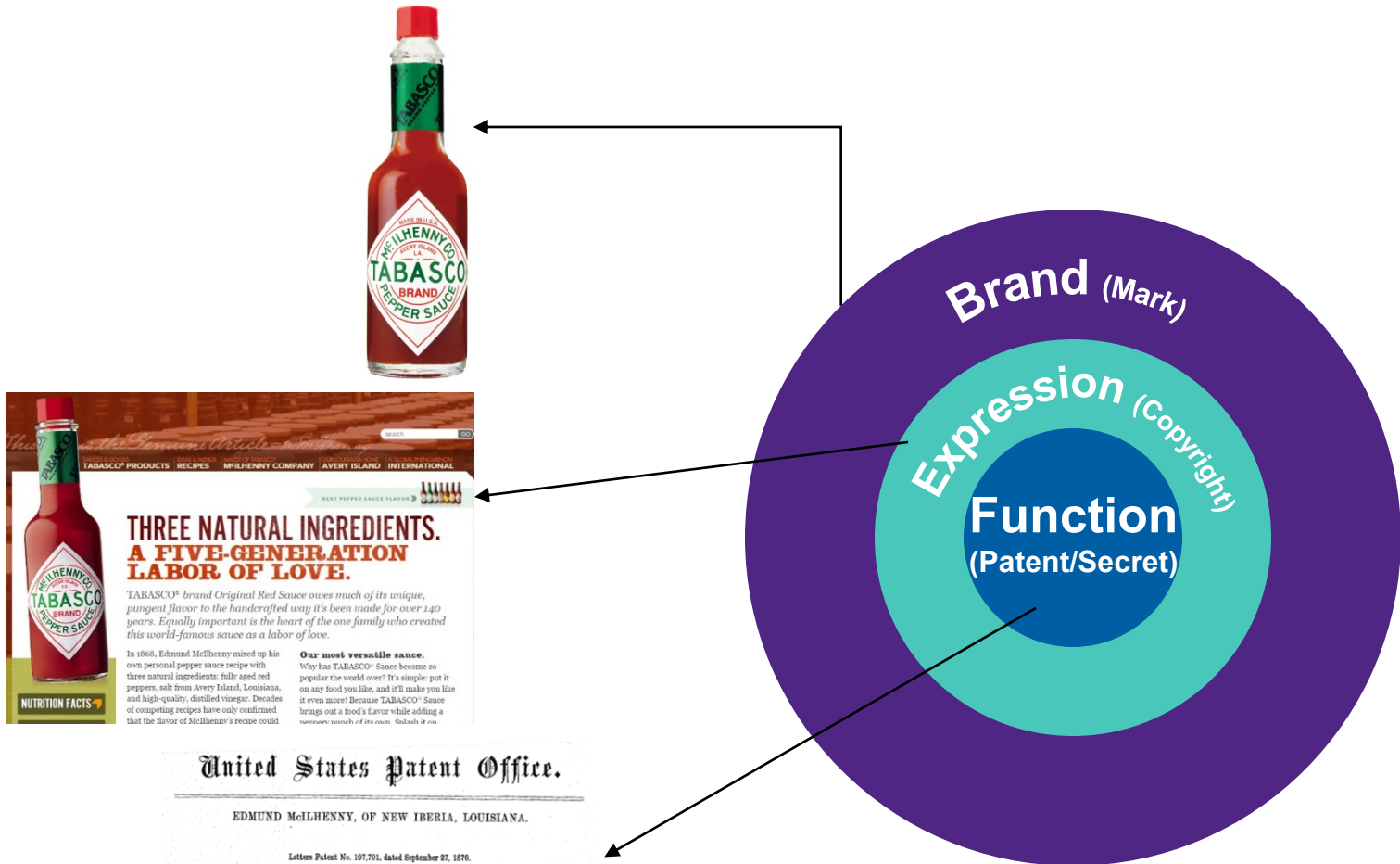
**Unique Selling Proposition**

- **Source of Benefit**
- **Story about Benefit**
- **Technical Benefit**

<https://brand.uber.com/>



# Tabasco and a Timeless USP



**McIlhenny Company**

FAQs MYTHS ADS

## TIME IN A BOTTLE

TABASCO® ADVERTISING DATING BACK TO THE LATE 1800s

**TV & RADIO**

- "Mouqito," 1996
- "Reach for the Flavor," 1983
- Cartoon with Beagle, 1968
- "Special Island," 1964
- A Sales Message from Jack Parr, 1954
- Charlie Chaplin, 1917
- Aunt Jane (silent movie), 1901

7 FLAVORS OF DELICIOUSNESS. FROM MILD TO WILD, THERE'S SOMETHING FOR EVERYONE.

**ON TABLES SINCE 1868. MEET OUR FAMILY.**

The TABASCO® Family of Flavors® traces its roots back to 1868, and to the rich soil of Avery Island, Louisiana, where Edmund McIlhenny first planted pepper seeds. The sauce he made from them became today's TABASCO® brand Original Red Sauce.

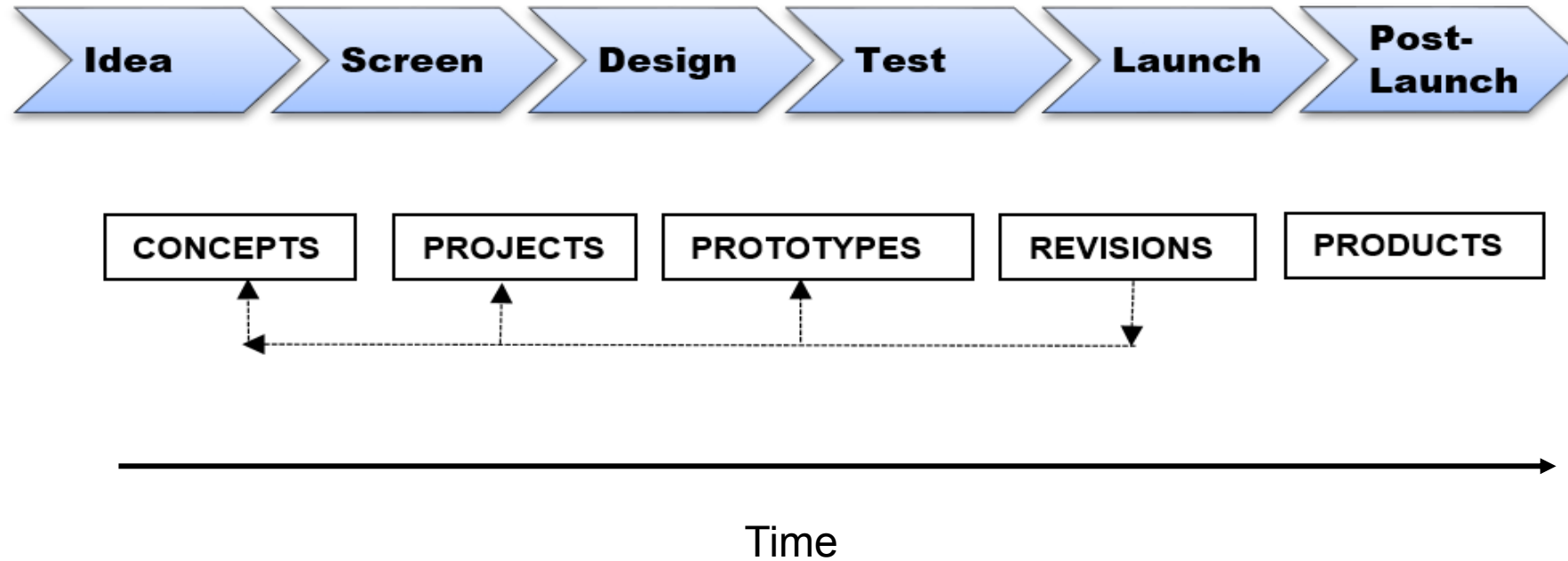
Five generations later, McIlhenny Company crafts seven unique and distinct flavors of sauce. With all the varieties of deliciousness from our family, there's bound to be at least one to delight every member of yours!

**OUR PEPPER SAUCE FLAVORS**

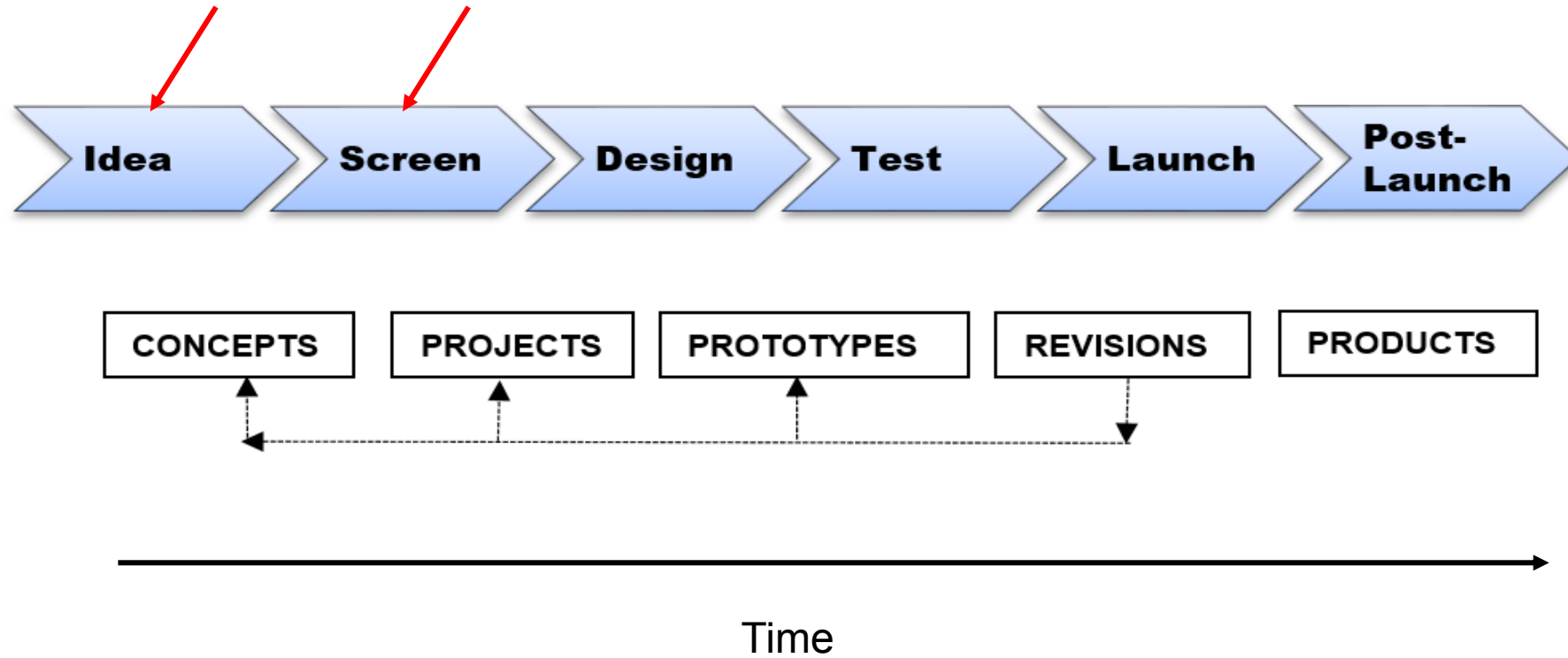
## **Theme 8**

**From Idea to Market: Tools and Approaches for Extracting Valuable Business Information from Public Domain Knowledge to Validate Ideas and Product Concepts**

# New Product Development Process



# New Product Development Process

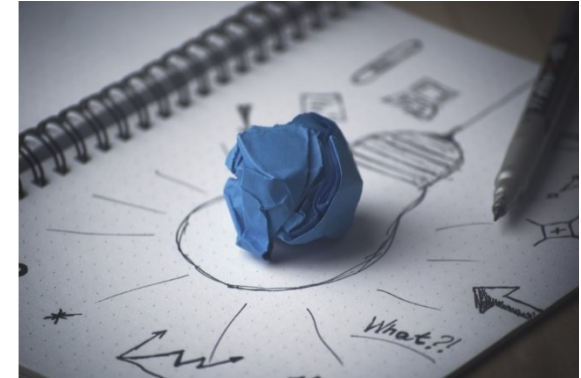
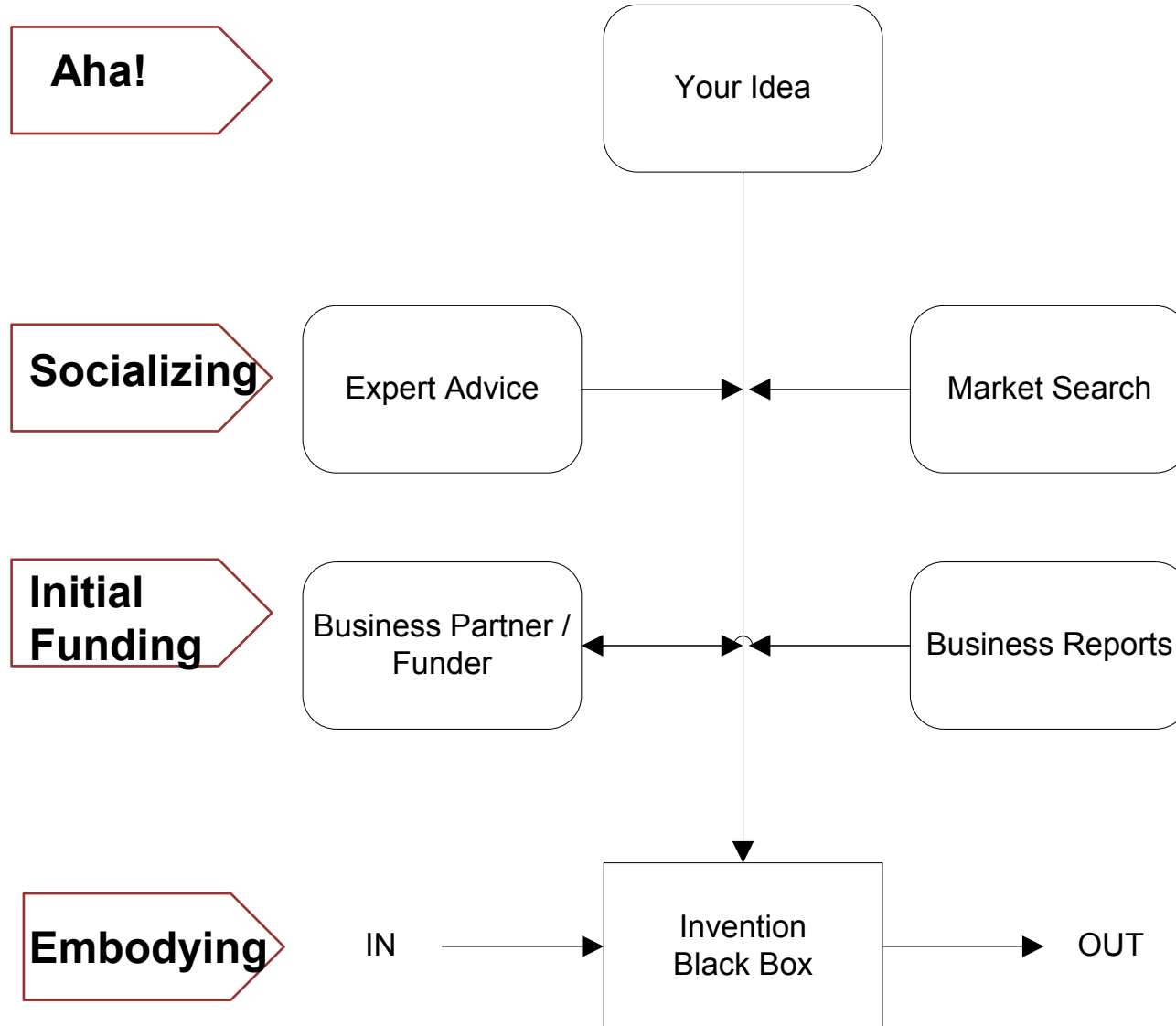




# It All Begins with an “Idea”



Idea





Your team with a set vision should be encouraged to be innovative by the start. You can do so by:

- Stating the intention to be innovative
- Mobilizing with respect and recognition to the people of the firm

- Implementing related and concrete projects focused on the reality of the firm
- Identifying and explicitly stating the potential of the firm

- Disseminating and promoting the firm's innovation scheme
- Using tools to outsource the knowledge



A rhetorical question...

what is **innovation**?





## A Definition of Innovation:

“The creation of substantial new value for customers and the firm by creatively changing one or more dimensions of the business system”

# MIT Sloan

## Management Review

**Mohanbir Sawhney, Robert C. Wolcott and Inigo Arroniz**

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## The 12 Different Ways for Companies to Innovate

# Kellogg CRTI Research Views Innovation as Systemic



## The Innovation Radar - Overview



# 12 Dimensions of Innovation Radar



Idea

Dimension	Definition
<b>Offerings</b>	New and innovative products or services
<b>Platform</b>	Common components to create derivative offerings
<b>Solutions</b>	Integrated offerings that solve end-to-end customer problems
<b>Customers</b>	Offerings that satisfy unmet customer needs
<b>Customer Experience</b>	Redesign customer interactions in all moments of contact
<b>Value Capture</b>	Create innovative new revenue streams
<b>Processes</b>	Redesign operational processes to improve efficiency
<b>Organization</b>	Change form, function or activity scope of the firm
<b>Supply Chain</b>	Improvement in sourcing and fulfillment
<b>Presence</b>	Create new distribution channels
<b>Networking</b>	Create network-centric intelligent and integrated offerings
<b>Brand</b>	Leverage a brand into new domains



Idea





Idea

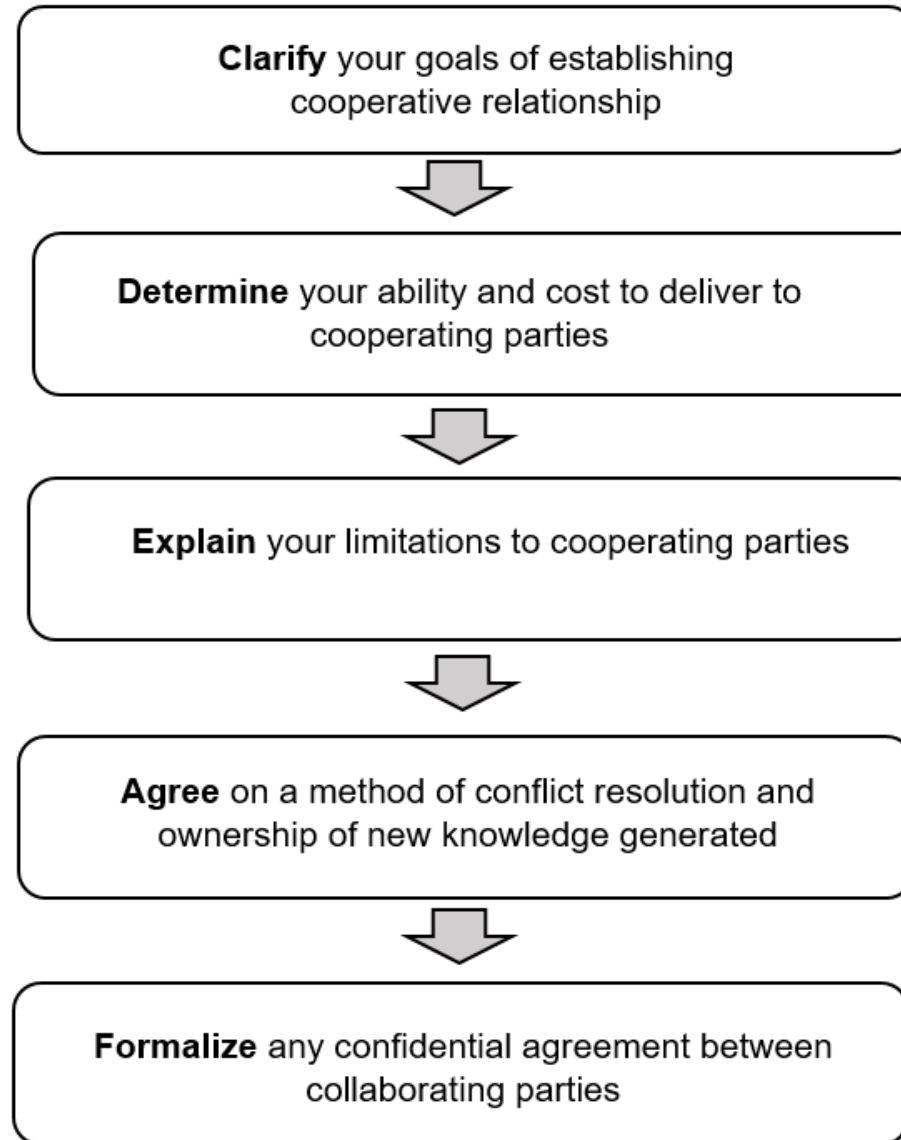


# Cooperative Process of Innovation

# Cooperative Process of Innovation



Idea



# Identification and Evaluation of Resources



Idea



# Identify and Evaluate the Available Resources

---

## Evaluation of available resources (internal and external):

Step 1: Make a strategic diagnosis of your project in development

- Collect and evaluate all information that exists
- Identify ones that are relevant to you
- Design a research strategy

Step 2: Describe the needs with focus on technological area

- Define your technical know-how
- Monitor what's new technology in the market
- Identify opportunities presented in the market
- Identify and collaborate with experts in areas of interest



# Steps to Review Internal Resources








Idea










## Direct external resources

 Customers	 Suppliers
 3 <sup>rd</sup> party subcontractors	 Competitors
 Public events	 Direct contacts (friends, colleagues)

## Indirect external resources

 Non-patent literature		 Business, trade organizations
	 Patents	
 Academic resources		 Internet databases

## External Resources of a SME



Idea

area under 90  
policeman or social w

**patent** an

document granting the s  
an invention protected  
made or held under

**Patent Intelligence**



Patent Intelligence: Supplement your invention with information available in patent databases  
Ask questions like...

What technology of interest is free-to-use?

What is the scope of patent search?

Do the target markets for your client's product/service also limit your client's use of certain technology?

# 3 Types of Patent Searches



Is the technology new or has it been patented already?



Will your new product infringe on a certain patent (or a set of patents) claims?



Is it risk-free to proceed with implementing and selling a product/service using a specific technology (or set of technologies)?

# Example of Patent Information in Use



<p>(12) <b>United States Patent</b> <b>Manullang et al.</b></p>	<p>(10) <b>Patent No.:</b> US 9,715,257 B2 (45) <b>Date of Patent:</b> Jul. 25, 2017</p>																																											
<p>(54) <b>ACTIVE SCREEN PROTECTION FOR ELECTRONIC DEVICE</b></p> <p>(71) Applicant: <b>Apple Inc.</b>, Cupertino, CA (US)</p> <p>(72) Inventors: <b>Tyson B. Manullang</b>, Sunnyvale, CA (US); <b>Stephen B. Lynch</b>, Portola Valley, CA (US); <b>Emery A. Sanford</b>, San Francisco, CA (US)</p> <p>(73) Assignee: <b>Apple Inc.</b>, Cupertino, CA (US)</p> <p>(* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 560 days.</p>	<p>(56) <b>References Cited</b></p> <p><b>U.S. PATENT DOCUMENTS</b></p> <table border="0"> <tr><td>2,171,808</td><td>A</td><td>9/1939</td><td>Von Schlippe</td></tr> <tr><td>2,989,869</td><td>A</td><td>6/1961</td><td>Hanggi</td></tr> <tr><td>3,606,296</td><td>A</td><td>9/1971</td><td>Chassagne</td></tr> <tr><td>3,772,923</td><td>A</td><td>11/1973</td><td>Burt</td></tr> <tr><td>3,919,575</td><td>A</td><td>11/1975</td><td>Weber et al.</td></tr> <tr><td>4,278,726</td><td>A</td><td>7/1981</td><td>Wieme</td></tr> <tr><td>4,288,051</td><td>A</td><td>9/1981</td><td>Göschel</td></tr> <tr><td>4,314,735</td><td>A</td><td>2/1982</td><td>Fullenkamp et al.</td></tr> <tr><td>4,370,894</td><td>A</td><td>2/1983</td><td>Stuesson</td></tr> </table> <p>(Continued)</p> <p><b>FOREIGN PATENT DOCUMENTS</b></p> <table border="0"> <tr><td>CN</td><td>1458804</td><td>11/2003</td></tr> <tr><td>CN</td><td>2710238</td><td>7/2005</td></tr> </table> <p>(Continued)</p> <p><i>Primary Examiner</i> — Brian Wilson (74) <i>Attorney, Agent, or Firm</i> — Kendall W. Abbasi; David K. Cole</p>	2,171,808	A	9/1939	Von Schlippe	2,989,869	A	6/1961	Hanggi	3,606,296	A	9/1971	Chassagne	3,772,923	A	11/1973	Burt	3,919,575	A	11/1975	Weber et al.	4,278,726	A	7/1981	Wieme	4,288,051	A	9/1981	Göschel	4,314,735	A	2/1982	Fullenkamp et al.	4,370,894	A	2/1983	Stuesson	CN	1458804	11/2003	CN	2710238	7/2005	
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<p>(21) Appl. No.: <b>14/256,002</b></p> <p>(22) Filed: <b>Apr. 18, 2014</b></p> <p>(65) <b>Prior Publication Data</b></p> <p>US 2015/0301565 A1 Oct. 22, 2015</p> <p>(51) <b>Int. Cl.</b></p> <p><b>G06F 1/18</b> (2006.01) <b>G06F 1/16</b> (2006.01) <b>H04M 1/18</b> (2006.01) <b>H04M 1/02</b> (2006.01)</p> <p>(52) <b>U.S. Cl.</b></p> <p>CPC ..... <b>G06F 1/182</b> (2013.01); <b>G06F 1/1637</b> (2013.01); <b>H04M 1/185</b> (2013.01); <b>H04M 1/0266</b> (2013.01); <b>H04M 2250/12</b> (2013.01)</p> <p>(58) <b>Field of Classification Search</b></p> <p>CPC .... <b>G06F 1/1637</b>; <b>G06F 1/182</b>; <b>H04M 1/0266</b>; <b>H04M 1/185</b>; <b>H04M 2250/12</b>; <b>H04M 1/02</b>; <b>H04M 1/0202</b>; <b>H04M 1/18</b>; <b>H04M 2250/00</b>; <b>H04B 1/3888</b></p> <p>USPC ..... 3403.1, 5.1 See application file for complete search history.</p>	<p>(57) <b>ABSTRACT</b></p> <p>An electronic device includes one or more screens, multiple screen protectors moveable between a retracted position and extended position where they extend above the screen to create a gap, and one or more sensors. When the sensor detects a drop event, the screen protectors move from the retracted to extended position, functioning as a shock absorber and preventing the screen from connecting with a surface that the electronic device contacts. In some implementations, the screen protectors may be multiple tabs that may be moved between the retracted and extended positions by one or more motors and/or other actuators coupled to one or more pinions. Such tabs may be formed of various flexible and/or rigid materials such as plastic, plastic film, polyethylene terephthalate or other polymers, metal, thin film metal, combinations thereof, and/or other such materials.</p>																																											
<p style="text-align: center;"><b>20 Claims, 8 Drawing Sheets</b></p>																																												

# Does this look familiar?



Idea



Source: YouTube at [https://www.youtube.com/watch?v=FF\\_1IH9NHpo](https://www.youtube.com/watch?v=FF_1IH9NHpo)

# And...Frenzel Filed his Patent in Germany



(19)  Deutsches Patent- und Markenamt   
(10) **DE 20 2018 101 276 U1** 2018.05.09

(12) **Gebrauchsmusterschrift**

(21) Aktenzeichen: **20 2018 101 276.2** (51) Int. Cl.: **H05K 5/03** (2006.01)  
 (22) Anmeldetag: **07.03.2018**  
 (47) Eintragungstag: **03.04.2018**  
 (45) Bekanntmachungstag im Patentblatt: **09.05.2018**  
**H04M 1/18** (2006.01)  
**H04M 1/02** (2006.01)

(73) Name und Wohnsitz des Inhabers: <b>frenzel + mayer solutions GbR</b> (vertretungsberechtigter Gesellschafter: Philip Frenzel, 73430 Aalen, DE), 73430 Aalen, DE	(74) Name und Wohnsitz des Vertreters: <b>RAUNECKER PATENT, 89073 Ulm, DE</b>
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DE 20 2018 101 276 U1 2018.05.09

## ZITATE ENTHALTEN IN DER BESCHREIBUNG

*Diese Liste der vom Anmelder aufgeführten Dokumente wurde automatisiert erzeugt und ist ausschließlich zur besseren Information des Lesers aufgenommen. Die Liste ist nicht Bestandteil der deutschen Patent- bzw. Gebrauchsmusteranmeldung. Das DPMA übernimmt keinerlei Haftung für etwaige Fehler oder Auslassungen.*

### Zitierte Patentliteratur

- US 9715257 B2 [0003]
- US 7059182 B1 [0004]

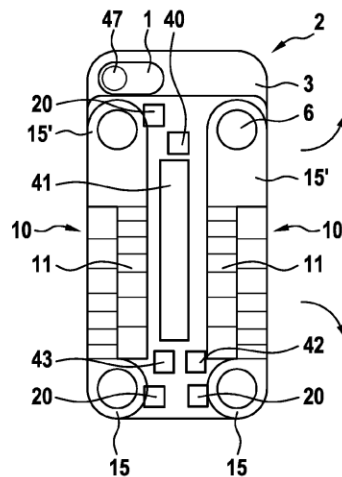
Cited Patent Literature

- US 9715257 B2 [0003]**
- US 7059182 B1 [0004]**

Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen.

(54) Bezeichnung: **Umhausung für ein elektronisches Gerät**

(57) Hauptanspruch: Umhausung (2) für ein elektronisches Gerät (1), umfassend,  
 - mindestens eine Dämpfungseinheit (10), die zwischen einer eingefahrenen und einer ausgefahrenen Position bewegt werden kann, wobei die Dämpfungseinheit (10) eine Feder (13) und einen Dämpfer (12) umfasst  
 - mindestens einen Sensor, der dazu ausgebildet ist, einen Fallvorgang des elektronischen Gerätes zu detektieren, eine Auslöseeinheit (20), die dazu eingerichtet ist, bei einer Detektion eines Fallvorganges einen Positionswechsel der mindestens einen Dämpfungseinheit (10) von der eingefahrenen in die ausgefahrene Position auszulösen, dadurch gekennzeichnet, dass die Feder (13) und der Dämpfer (12) dazu eingerichtet sind, bei der Bewegung von der eingefahrenen Position in die ausgefahrene Position ihre Form zu ändern.







**So...is it time to shape  
your IP strategy?**

# IP Strategy is Necessary from Early Stage in NPD



Idea

**Make sure your invention is protected against infringement**

**Determine what kind of IP protection would be the best**

- Patent protection
- Trademark filing

**Seek an expert to draft your IP strategy**

- Lack of resources often discourage legal help but may prove worthwhile **in the long run**



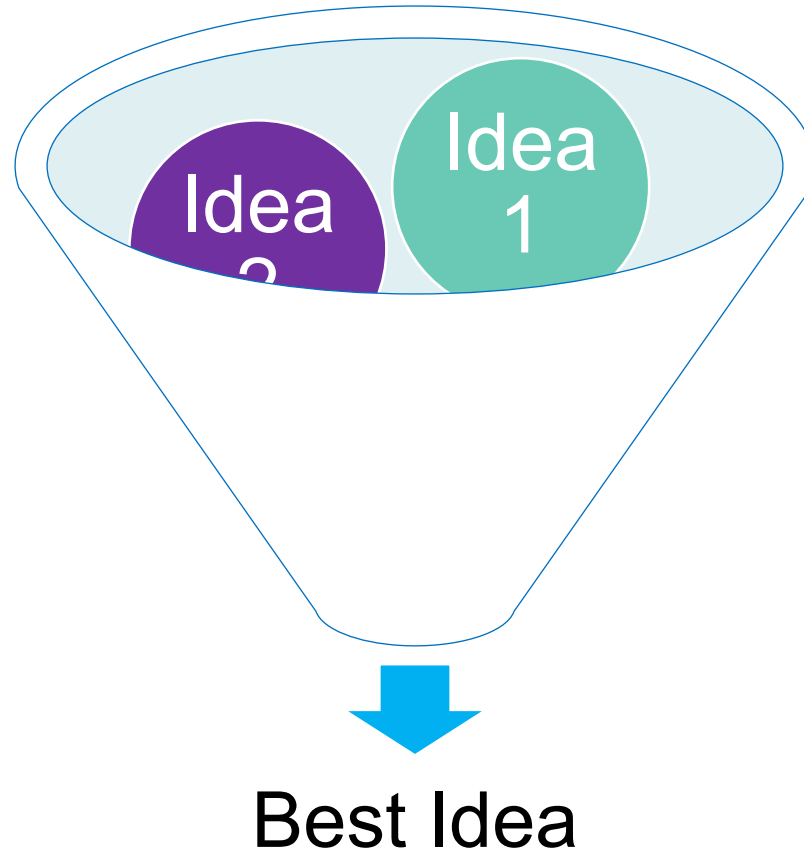
Screen



# Product Concept

# Screening Product Concepts

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Competitive intelligence comprises of gathering of information based on commercial strategy, business development as well as information based on technological, social, and market activities.

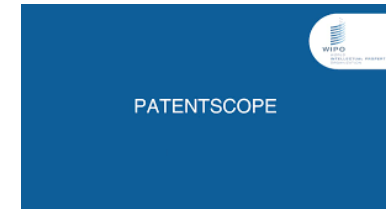
Technology intelligence includes monitoring, search and detection of specific technology or trends.

# Examples of Competitive Intelligence and Technology Intelligence



## Competitive Intelligence

- Corporate publications (annual reports)
- Patent & Trademark filings
- Market study reports
- Trade analyst reports
- White papers



## Technology intelligence

- Patent citations in published patents
- Scientific journals
- Trade press
- Blogs
- Social media e.g. LinkedIn
- Publications from institutions



# IP Strategy in the NPD under Design Stage



Design

File for patent protection in the markets of interest

Make sure to search for non patent information in the public domain

Pursue design patent to protect ornamental /aesthetic features

Copyright protection for original works



# IP Strategy Example







Source: Gillian Zoe Segal,  
Wikimedia

# SPANX<sup>®</sup>

BY SARA BLAKELY<sup>®</sup>



"It all started with a pair of pantyhose, some scissors and a bright idea."



US006276176B1

(12) **United States Patent**  
Blakely

(10) **Patent No.:** US 6,276,176 B1  
(45) **Date of Patent:** Aug. 21, 2001

(54) **PANTYHOSE UNDER GARMENT**

(57) **ABSTRACT**

(76) Inventor: Sara T. Blakely, 800-A E. Morningside Dr., Atlanta, GA (US) 30324

A pantyhose garment is provided that has relatively sheer leg portions that end with knitted-in welts just below or above the knees, and a reinforced control top portion having good shaping and control characteristics that terminates at the top of the waist region with a knitted-in welt. The pantyhose under garment provides the user with shaping support, and because the lower leg is bare, it gives the user the freedom to wear any type of shoe (i.e., open-toed shoes, sandals, etc.). Pantyhose worn with open-toed shoes are usually undesirable, and also dangerous because the foot may slip in the shoe due to the lack of friction between the pantyhose and the shoe. In addition, there are many occasions when the user wants a more casual look in clothing, and therefore pantyhose on the foot and ankle would not be desired. The reinforced control top portion extends down the leg portions of the pantyhose far enough to provide support over the "saddlebag" and cellulite regions of the body. The knitted-in welt at the waist region blends into the control top without causing waist constriction. Similarly, the knitted-in welts at the ends of the leg portions blend into the leg portions without causing leg constriction. The overall design provides the user with a smooth, tight appearance when worn under clothing, without causing the user to suffer discomfort.

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/544,829

(22) Filed: Apr. 6, 2000

(51) Int. Cl.<sup>7</sup> ..... D04B 9/46; A41B 11/14

(52) U.S. Cl. .... 66/178 R

(58) Field of Search ..... 66/116 R, 171, 66/178 R, 182, 183, 184, 185, 178 A; 450/101, 104, 156; 2/239, 240

(56) **References Cited**

U.S. PATENT DOCUMENTS

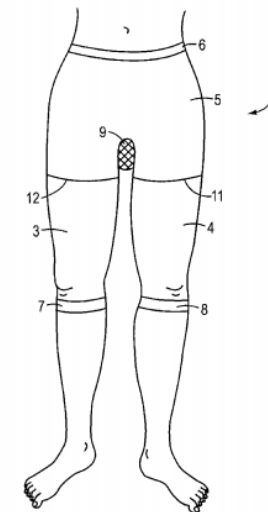
4,351,068	9/1982	Taylor .	
4,862,523	* 9/1989	Lipov .....	2/409
5,097,537	* 3/1992	Ewing .....	2/409
5,465,894	* 11/1995	Imboden et al. ....	66/177
6,151,927	* 11/2000	Owens et al. ....	66/178 R

\* cited by examiner

Primary Examiner—Danny Worrell

(74) Attorney, Agent, or Firm—Morris, Manning & Martin, L.L.P.

20 Claims, 2 Drawing Sheets



WIPO  
WORLD  
INTELLECTUAL PROPERTY  
ORGANIZATION

## **Theme 9**

**Product Design and Development Process: Tools and Business Constructs for Using Public Domain Knowledge to Develop Marketable Products and/or Services**

# Tools To Be Discussed

- Balanced Scorecard
- Porter's Value Chain Analysis
- Technology Trends and Market Data
- Business Model Canvas
- SWOT Analysis
- TRIZ Methodology
- The 5 Ps of Marketing
- Technology Risk Management



# Balanced Scorecard



Idea

# Product Idea Scoring through Balanced Scorecard

4 steps that go into Balanced Scorecard that does Product Idea Scoring:

- Translation of a firm's vision into a set of performance measures
- Conveying the firm's vision to the team
- Planning, setting targets and aligning strategic initiatives
- Capturing feedback and adapting it into internal learning process



# Example of the Balanced Scorecard

	Strategic Priorities	Objectives	Measures	Target	Initiatives
Financial	Become Financially Strong	<ul style="list-style-type: none"> <li>- Profitability growth</li> <li>- Cost reduction</li> </ul>	<ul style="list-style-type: none"> <li>- Cash flow</li> <li>- Profits</li> <li>- Cost of R&amp;E/Sales</li> <li>- Cost of financing</li> </ul>	<ul style="list-style-type: none"> <li>- \$200K</li> <li>- \$23K</li> <li>- \$80K/\$45K</li> <li>- 5%</li> </ul>	<ul style="list-style-type: none"> <li>- Secure clients who pay on time</li> <li>- Reduce costs and use marketing</li> <li>- Streamline processes</li> <li>- Use collaterals to reduce cost of financing (e.g. use patent and IP)</li> </ul>
Technology	Develop Competitive IoT Technologies	<ul style="list-style-type: none"> <li>- Develop technologies to sell to other manufacturers</li> <li>- Develop technologies for use only in company's products</li> <li>- Protect IP</li> </ul>	<ul style="list-style-type: none"> <li>- Number of technologies licensed to other or components sold to others</li> <li>- Number of technologies used in own branded products</li> <li>- File for international patents</li> </ul>	<ul style="list-style-type: none"> <li>- 2 per year</li> <li>- 3 per year</li> <li>- 4 per year</li> </ul>	<ul style="list-style-type: none"> <li>- Invest in R&amp;D</li> <li>- Invest in staff training</li> <li>- Put emphasis on IP and incorporate it in company culture</li> </ul>
Customer	Keep Customers Happy	<ul style="list-style-type: none"> <li>- Build win-win relationship with customers</li> </ul>	<ul style="list-style-type: none"> <li>- Returning customers</li> <li>- Spending per returning customer increases</li> </ul>	<ul style="list-style-type: none"> <li>- 60%</li> <li>- 15% increase per month</li> </ul>	<ul style="list-style-type: none"> <li>- More efficient product marketing</li> <li>- Adjust price</li> <li>- Offer incentives</li> <li>- Work with client in new product development</li> </ul>
Internal	Operational Excellence	<ul style="list-style-type: none"> <li>- Build innovative products</li> <li>- Streamline product development and manufacturing to reduce cost, increase quality, reduce time to market</li> </ul>	<ul style="list-style-type: none"> <li>- Number of innovative products per year</li> <li>- ROI and R&amp;D</li> <li>- Number of defective products</li> <li>- Time to market</li> </ul>	<ul style="list-style-type: none"> <li>- 2</li> <li>- 50%</li> <li>- 0.001%</li> <li>- 6 months</li> </ul>	<ul style="list-style-type: none"> <li>- Train staff for continuous innovation</li> <li>- Give incentives to staff</li> <li>- Adopt quality management principles</li> <li>- Streamline R&amp;E, manufacturing and testing processes</li> </ul>





Idea

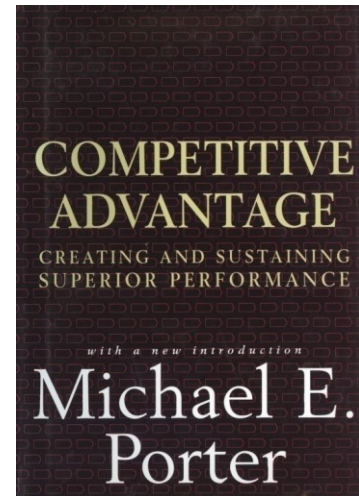
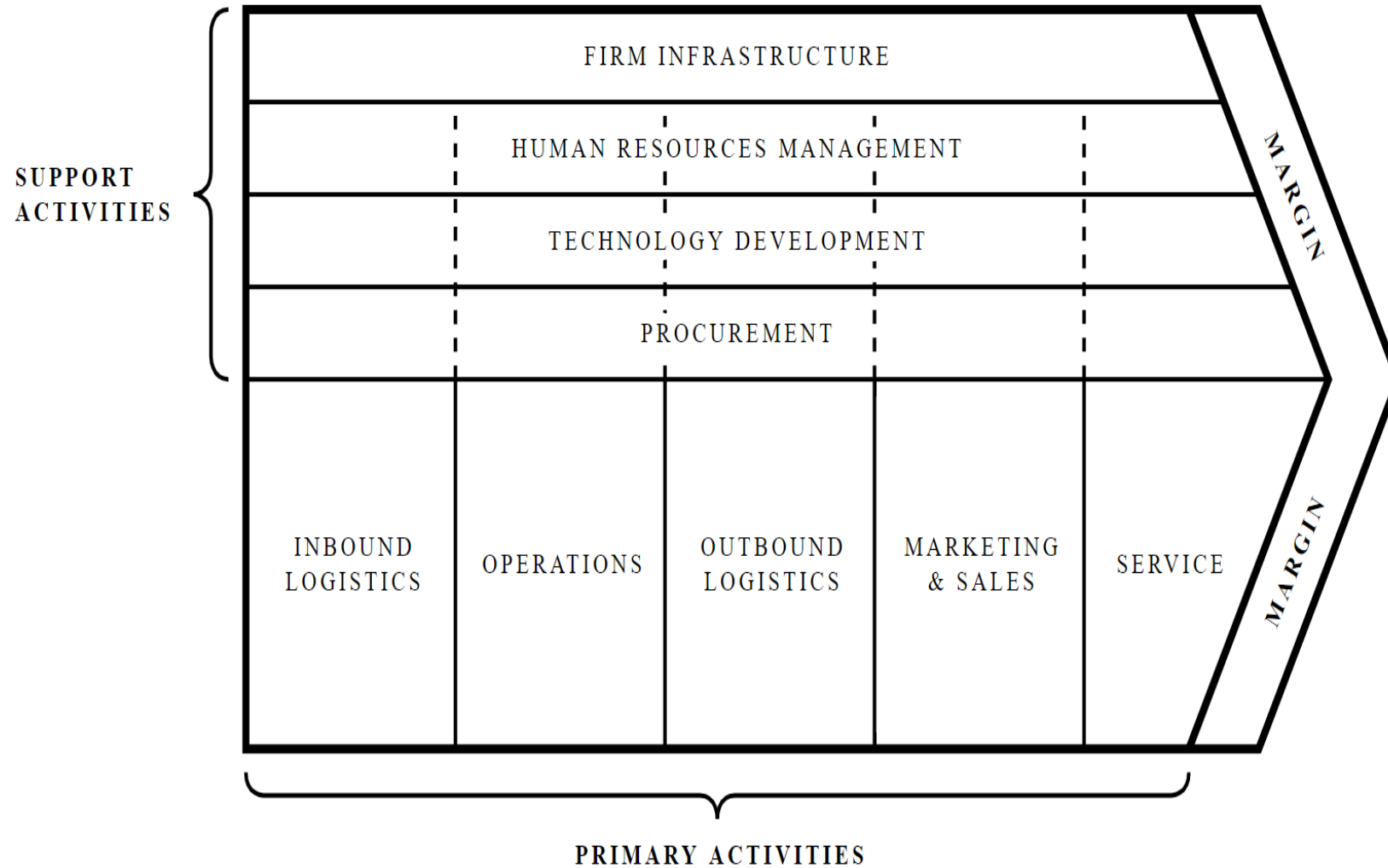
# Porter's Value Chain Analysis





Idea

# Porter's Value Chain Analysis





**Idea**

# Technology Trends & Market Data

# Identify Technology Trends and Market Segments



Idea

- Market Opportunities: who will buy your product/service?
- Market Data: what information do you have of the market you want to enter in?
- Reviewing what technologies are already in the market
- Finding if there are available technologies you can exploit to identify market opportunities
- Patent intelligence based on patent database searches, patent statistics and reports



# Giants that Failed



amazon.com  
**fire**  
PHONE





Idea

# Market Opportunities Example: Gwatamatic

- An automated sadza maker by William Gwata
- Sadza – staple meal in Africa but too labor intensive
- Gwata pursued domestic buyers for his sadza maker
- Gwata finally realized the market opportunity for his invention – for commercial use





Idea

# Gwatamatic in Operation



Source: William Gwata via YouTube at <https://www.youtube.com/watch?v=7k0Dyi6UwuQ>

# Existing Technology to Develop New Product

## Example: BIODOME



Idea

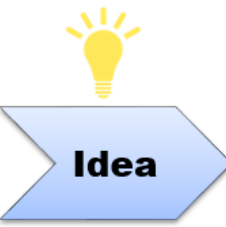
- BIODOME by Fatima Zahra of Morocco
- An alternate composter that harnessed renewable biogas
- Ms. Zahra studied existing composters in the market
- Target customers who could use a composter and biogas as a source of fuel





# Business Model Canvas





# Business Model Canvas

- Key partners
- Key activities
- Key resources
- Value propositions
- Customer relationships
- Channels of distribution
- Customer segments
- Cost structure
- Revenue streams

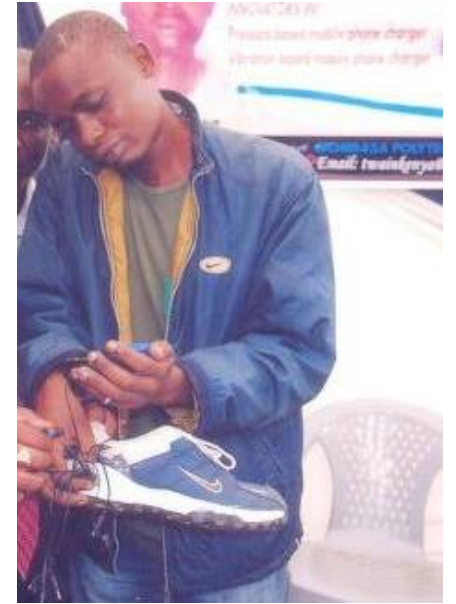
Source: [www.businessideageneration.com](http://www.businessideageneration.com)



Idea

# Business Model Canvas Example: Hatua Charger

- Pressure based mobile phone charger
- Device installed inside a shoe's inner sole
- Walking motion exerts pressure on the piezoelectric crystal

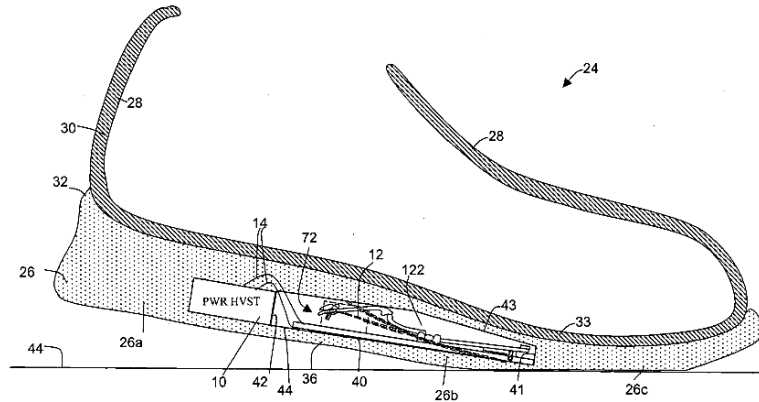


Mr. Mutua with a finished market ready piezoelectric shoe phone charger.



Idea

# US Patent Referenced for Mutua Shoe Charger



US20060021261A1 by Bradbury Face of 02-02-2006 was one of the patents which provided Mutua with information on the circuitry and control components

A schematic illustration of Mr. Mutua's shoe phone charger

# Example of Business Model Canvas



Idea

## Key Partners



- Innovation lab at TUM
- Kenyan Patent Office for patent research on existing technology
- Investors
- Shoemakers
- Piezoelectric crystal chip and other parts suppliers

## Key Activities



- Assemble parts to be put in shoes
- Retrofit shoes with the chargers
- Provide solutions/feedback to complaints/suggestions

## Key Resources



- Research partners at TUM
- Investors
- Skilled workers in assembly
- Shoemakers with technical know-how

## Value Proposition



- Alternative solution to lack of electricity for charging phones
- No change in the original design of the shoes after retrofitting
- Low maintenance after retrofitting the shoes
- Quick turnaround for installing the phone chargers
- Low costs to the business
- Affordable pricing model for customers

## Customer Relationships



- Cost effective
- Ease of use
- Safe to use

## Channels



- Servicing:
- Licensed outlets for retrofitting
- Accessible retrofitting locations for customers
- Marketing
- Social media channels
- Word-of-mouth

## Customer Segments



- People-on-the-go who walk frequently
- People who live in areas where electricity is unreliable or unavailable
- Moderate to frequent users of mobile phones

## Cost Structure

- Cost of labor to assemble the chargers and to retrofit them in the shoes
- Cost of training staff and partner shoemakers
- Technical support for defective chargers
- Initial costs of the charger parts
- Research & Development (R&D)
- Marketing and sales cost



## Revenue Streams



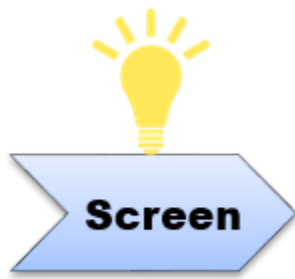
- Paid partnerships with shoemakers selling retrofitted shoes
- Revenue model: Price of retrofitted shoes paid by customers
- Future licensing fees from the patented technology



**Screen**

# SWOT Analysis

# SWOT Analysis



- Methodological assessment of one's Strengths, Weaknesses, Opportunities and Threats
- SWOT Analysis can help you build your strategy at a higher level and at a focused level.
- Use SWOT Analysis to match strength with opportunities to achieve sustainable competitive advantage
- Use SWOT Analysis to evaluate your options

# SWOT Analysis Matrix



**Screen**

	Good Factors	Bad Factors
Internal Factors	STRENGTHS	WEAKNESSES
External Factors	OPPORTUNITIES	THREATS

# SWOT Analysis Matrix



Screen

	Good Factors	Bad Factors
Internal Factors	<p><b>STRENGTHS</b></p> <p><i>List the factors that add to your client's competitive advantage</i></p>	<p><b>WEAKNESSES</b></p> <p><i>List the things that your client needs to improve upon</i></p>
External Factors	<p><b>OPPORTUNITIES</b></p> <p><i>List the market trends that can lead to greater profit margin</i></p>	<p><b>THREATS</b></p> <p><i>List the competitive advantages of other firms that can decrease your client's profit margin</i></p>



# Example SWOT Analysis Matrix

## STRENGTHS

- Food & Drinks Inc. has flexibility to implement new business strategies
- The company has seen a 10% boost in sales in the last 5 years

## WEAKNESSES

- Small portfolio of products concentrated in a few categories of food products
- Limited and only local distribution network
- Limited budget for advertising and marketing

## OPPORTUNITIES

- The edible oils category is expected to grow at 6% annually until 2021 in developing countries. Other categories performing well within the packaged food are: Snacks, Baby Food, Breakfast
- Consumers in both developed and emerging countries are increasing their internet purchases; reach core consumers by creating an omni-channel distribution strategy

## THREATS

- Slow global growth in the packaged food market: smaller gains means smaller room for outside companies to win market share as most well established brands use their market dominance to diversify their portfolio
- Increasing uncertainty keeps impacting developed markets: many scenarios and variables could impact the market, making it difficult to have a clear path for the future

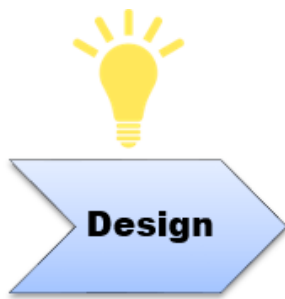


**Screen**

# Design

At this stage of the NPD process, you have your...

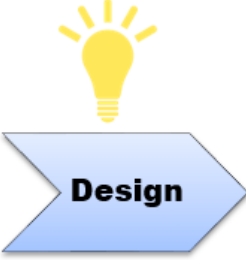
- Initial idea validated
- Market research done
- Internal capabilities assessed
- Feasible product concept developed
- Patent and/or other IP strategy formalized
- Final product conceptualized





# TRIZ Methodology

# Strategies to Solve Problems Based on Patent Knowledge

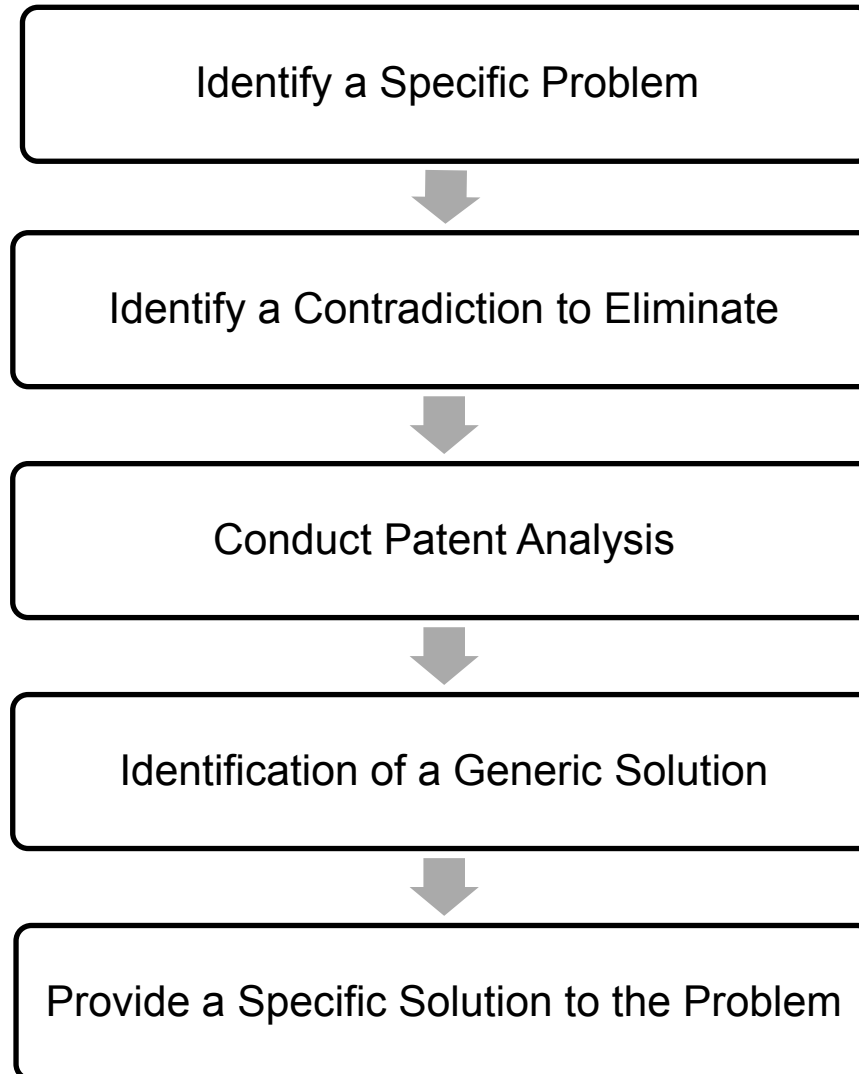


**What is TRIZ methodology?**

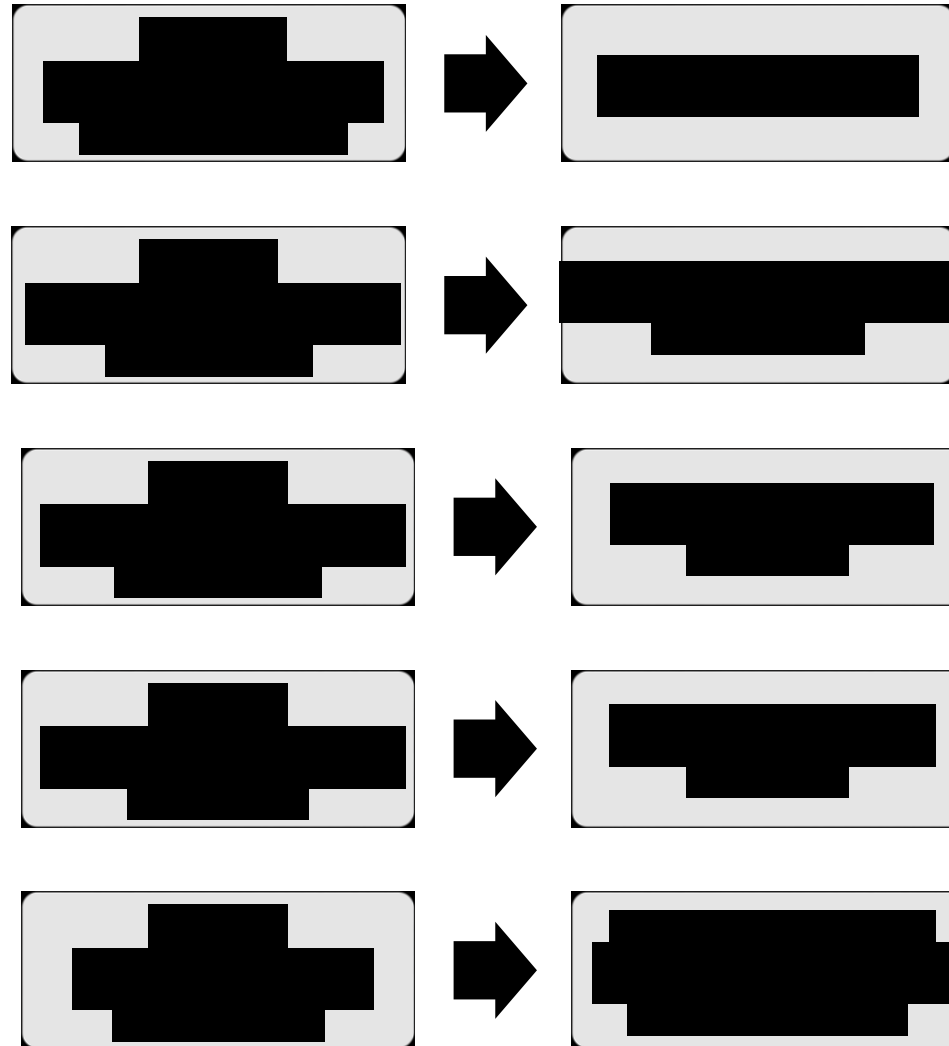
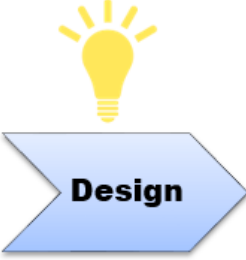
# Steps Involved in TRIZ Methodology



Design



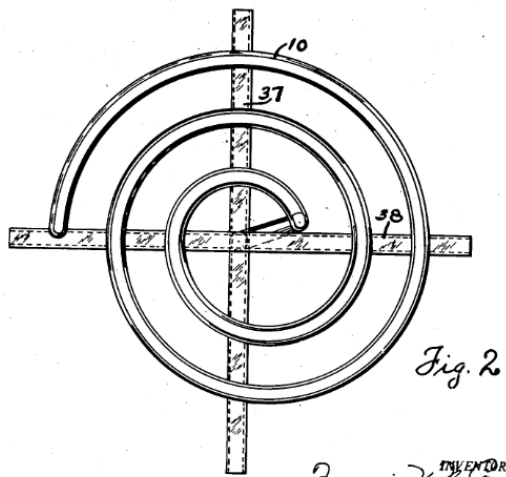
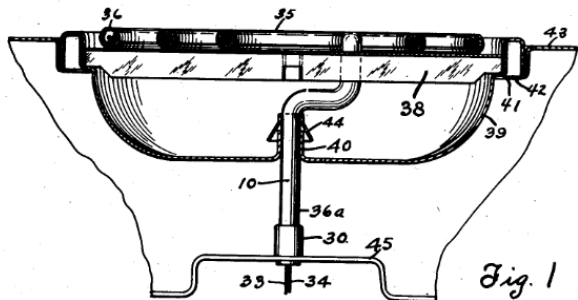
# Levels of Invention in TRIZ with Technological Development





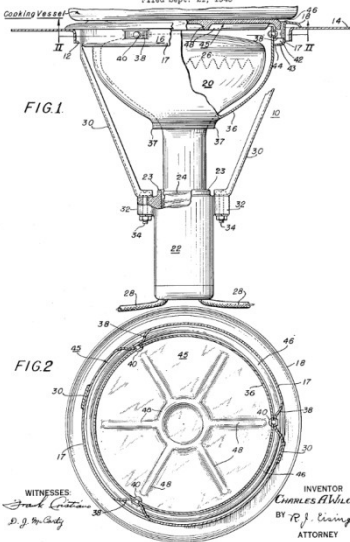
# Example of TRIZ Application

Nov. 30, 1948. F. H. McCORMICK 2,455,186  
DOMESTIC ELECTRIC HEATER  
Filed Nov. 2, 1946 7 Sheets-Sheet 1

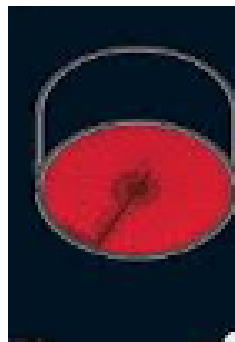


INVENTOR  
Francis H. McCormick  
BY  
Speiser, Gardner & Fisher  
Attorneys

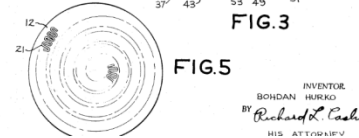
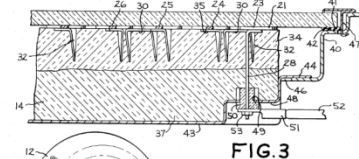
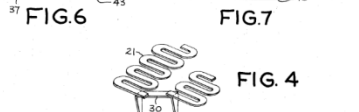
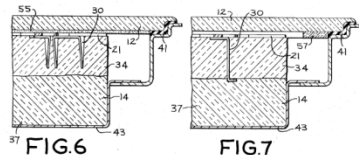
June 17, 1952 C. A. WILCOX 2,601,011  
HEATING APPARATUS  
Filed Sept. 21, 1948



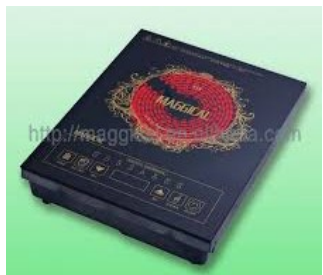
WITNESSES  
Frank L. ...  
D. J. ...  
INVENTOR  
Charles A. Wilcox  
BY  
Richard L. ...  
ATTORNEY



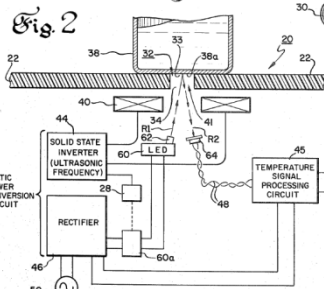
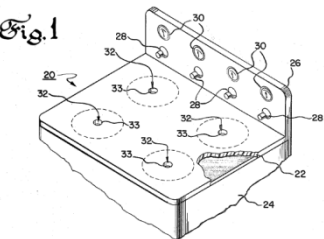
PATENTED MAR 26 1952 SHEET 2 OF 2 3,567,906



INVENTOR  
BOHDAN HURKO  
BY  
Richard L. ...  
HIS ATTORNEY



PATENTED MAR 6 1973 SHEET 1 OF 2 3,719,789





**Design**

# The 5 Ps of Marketing





Design

# 5 P's of Marketing: Determine your marketing mix

- **Product** – what are you making?
- **Price** – at what price are you selling your product/service?
- **Place** – what platform/market will you be selling your product/service?
- **Promotion** – how will your customers know of your product?
- **People** – who will be helping you with your business?



Design

# Example of 5 P's Implementation: Chai Rum





Design



# AKAL

## 400 Years in the Making

Introducing the 95 point rated AKAL Chai Rum. Born of over 400 years of nautical history & AKAL family legacy, it's the world's most sophisticated, ultra-premium rum.



Chairum.com  
[instagram.com/chai\\_rum\\_guys](https://www.instagram.com/chai_rum_guys)

WIPO  
WORLD  
INTELLECTUAL PROPERTY  
ORGANIZATION



Design

# The 5 P's for Chai Rum

- Product – Premium rum with unique taste to compete with cognacs
- Price – Approx. \$65 per unit as other top brands
- Place – Sold through select channels and online
- Promotion – Upscale events with luxury brands featured
- People – Niche customers, tea growers in India, botanical growers in Trinidad, rum processors in Trinidad, etc.



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INTELLECTUAL PROPERTY  
ORGANIZATION



**Design**

# Think Like a Product Manager



Design

## What Product Managers Need to Know\*

1. Do you know who will buy the product?
1. Is your product compelling to these target customers?
1. Have you made your product simple and easy to use?
1. Will your product succeed against current and future competition?
1. Can you explain how your product is differentiated in a **minute**?
1. Will your product work as promised?
1. Is your product a whole (complete) product?
1. Are your product's strengths aligned with what customers want?
1. Does the product team agree on the product's strengths?
1. Is your product worth the money we plan to charge for it?

\*Sawhney, M. (2017) Foundations of product management. Kellogg School of Management



**Design**

# Technology Risk Management





Design

# Technology Risk Management

At this point, you have done your relevant patent search and FTO. Your options to use protected technologies are:

- **BUY** the rights to use

*OR*

- **LICENSE** from the patent holder

*OR*

- **USE** alternative technologies that are not protected



Design

# IP Strategy in the NPD

- File for patent protection in the markets of interest
- Make sure to search for non patent information in the public domain
- Pursue design patent to protect ornamental/aesthetic features
- Copyright protection for original works

# Remaining Stages of the NPD Process

# Finalization of Product Development



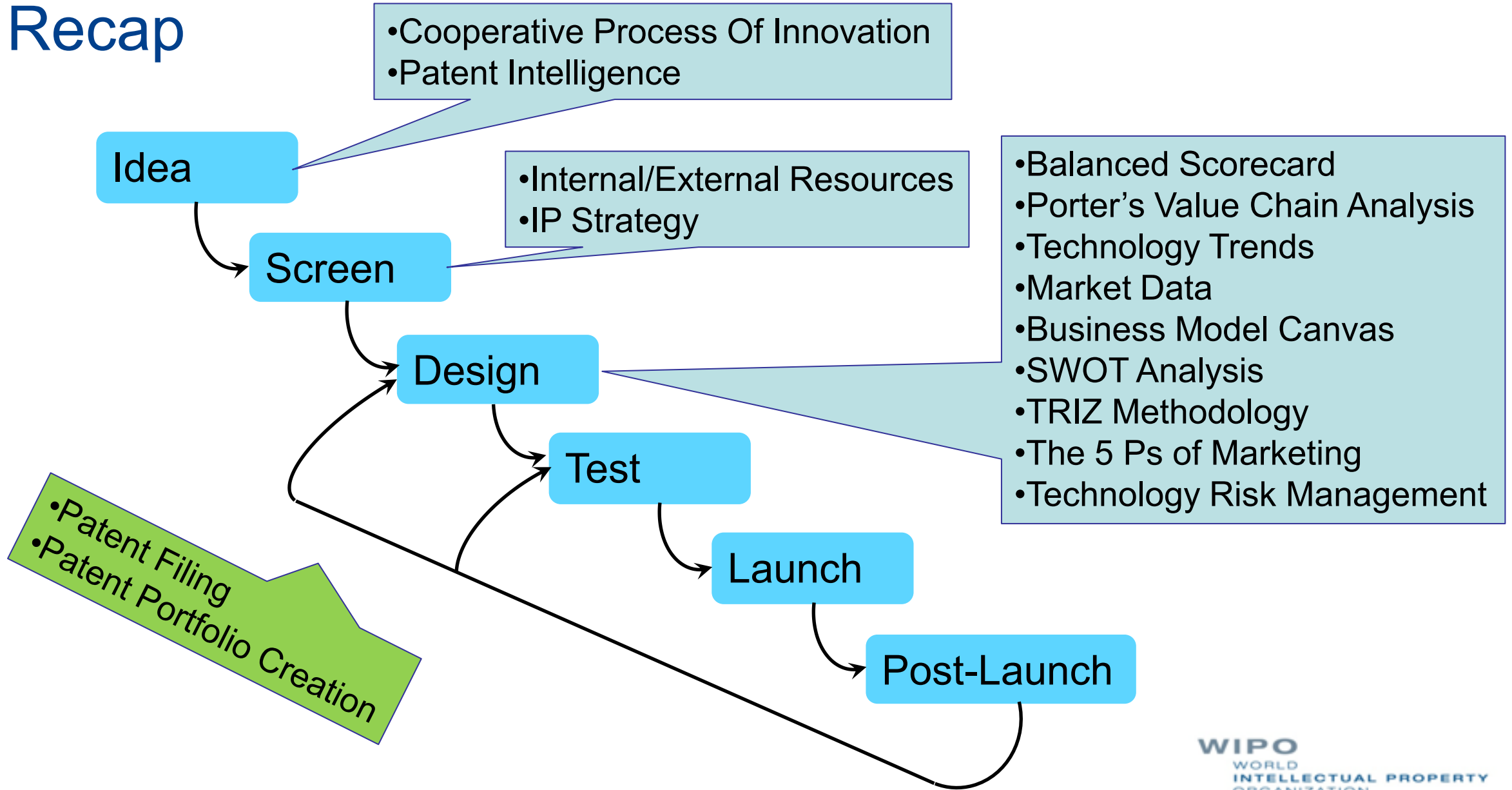
- Testing
  - Alpha Testing
  - Beta Testing
  
- Launch
  - Patent Landscape Reports
  - FTO Search
  
- Post-Launch
  - Iterative process of feedback gathering

Guidelines for Preparing  
Patent Landscape Reports



2015

# Recap



# Thank you!

Questions?

Email: [v.vlahakis@kainagora.com](mailto:v.vlahakis@kainagora.com)