

Innovation that Drives your Business Growth



SIT
Systematic
Inventive
Thinking



[illegible]

-
- ## Today's Agenda
- Learn some principles and tools for innovative thinking, primarily from the Systematic Inventive Thinking methodology
 - Understand SIT's work process for new products, services, strategies and more
 - Learn how to apply the Subtraction thinking tool **to generate ideas for your business unit**

Me

- I make acoustic guitars
- I'm working on my fourth book - innovation in organizations
- I'm an introvert!

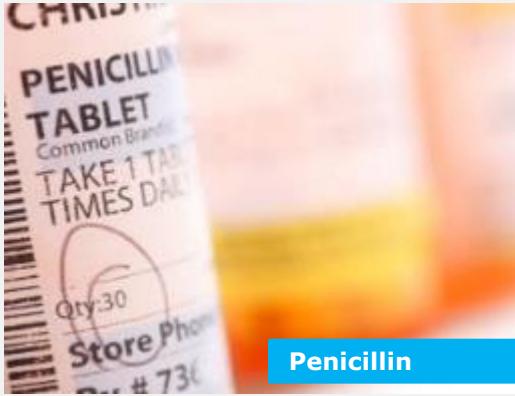
You

- Active role
- No phones
- Take notes

Innovate on demand

Generate new ideas and solutions when we want to.

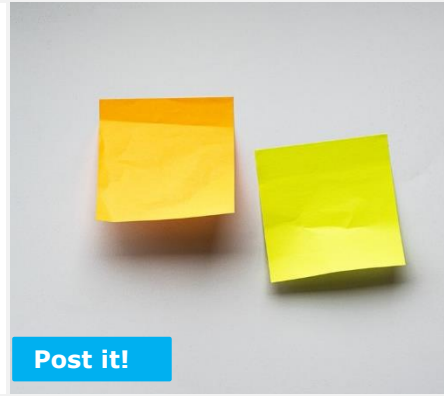




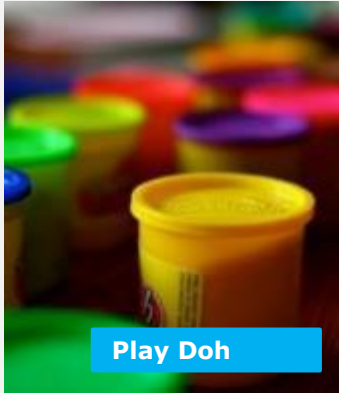
Penicillin



Viagra



Post it!



Play Doh



Ice cone



Fireworks



Microwave



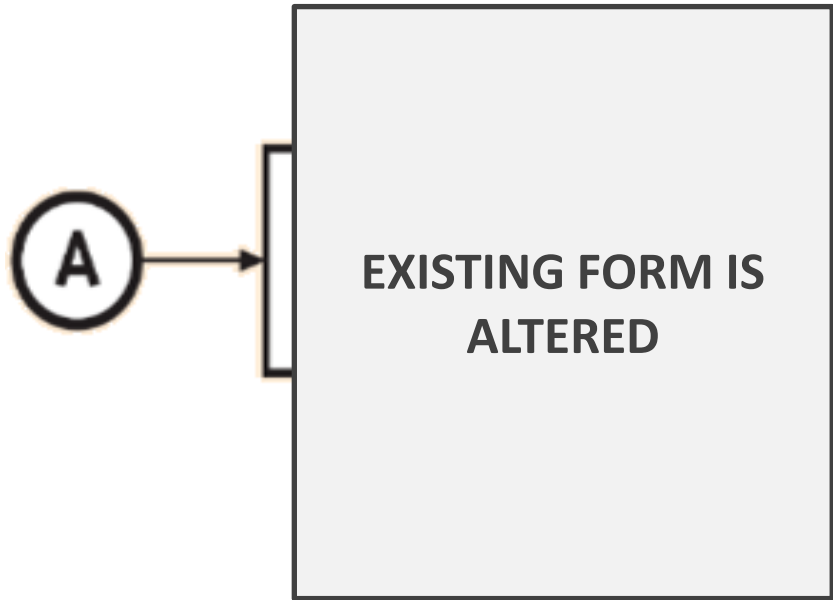
Chips

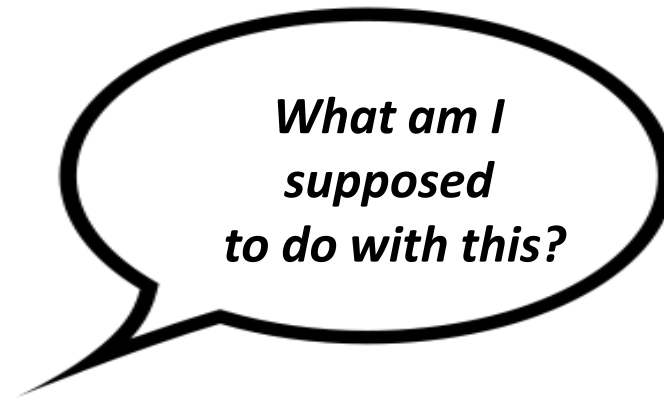
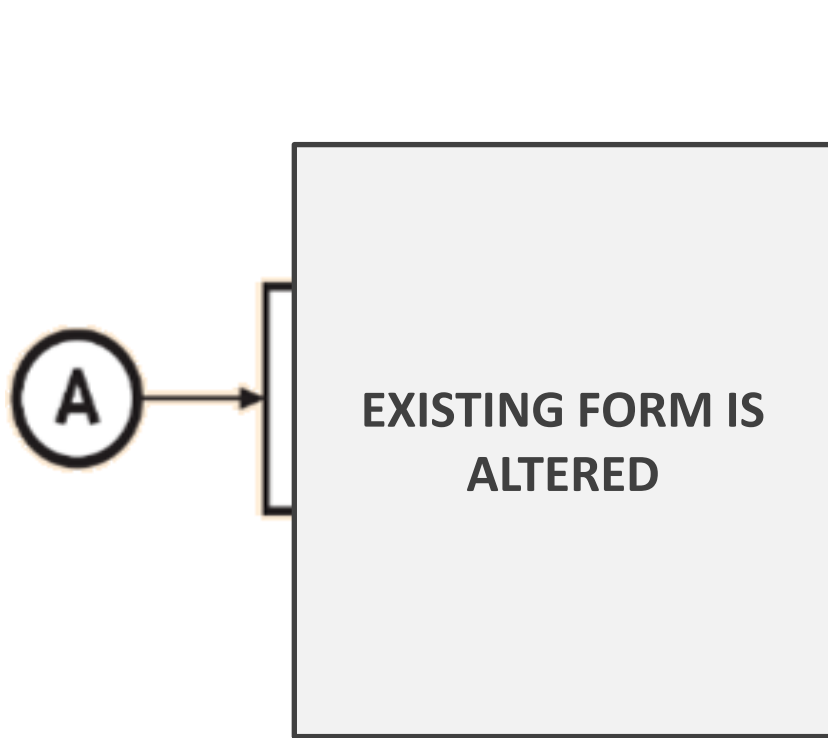


Chocolate Chips Cookies

How did these ideas come to be?

#LUCKY ACCIDENTS





??!!?!###?!
Are you Nuts?!
Outrageous
Bizarre

Impossible

Are you kidding me?
Broken
Useless
NEVER NEVER NEVER



SIT's process can help
you create INTENTIONAL
“lucky Accidents”



EXISTING SITUATION





EXISTING SITUATION

APPLY THINKING TOOL



Igniting innovation



??!!?!###?!

Are you Nuts?!

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**Benefits *before*
Challenges**

FORM

EXISTING SITUATION

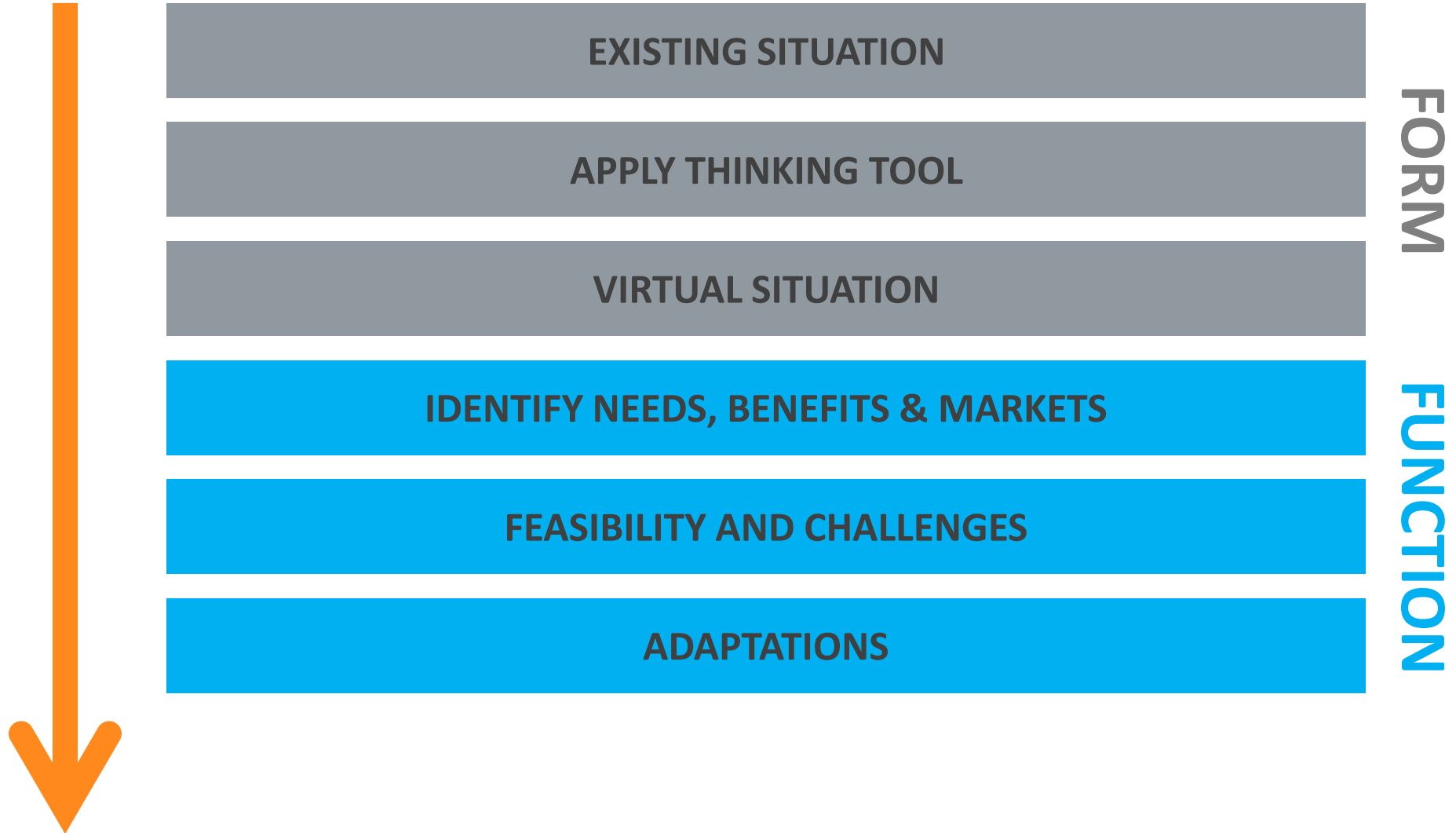
APPLY THINKING TOOL

VIRTUAL SITUATION

IDENTIFY NEEDS, BENEFITS & MARKETS

FEASIBILITY AND CHALLENGES

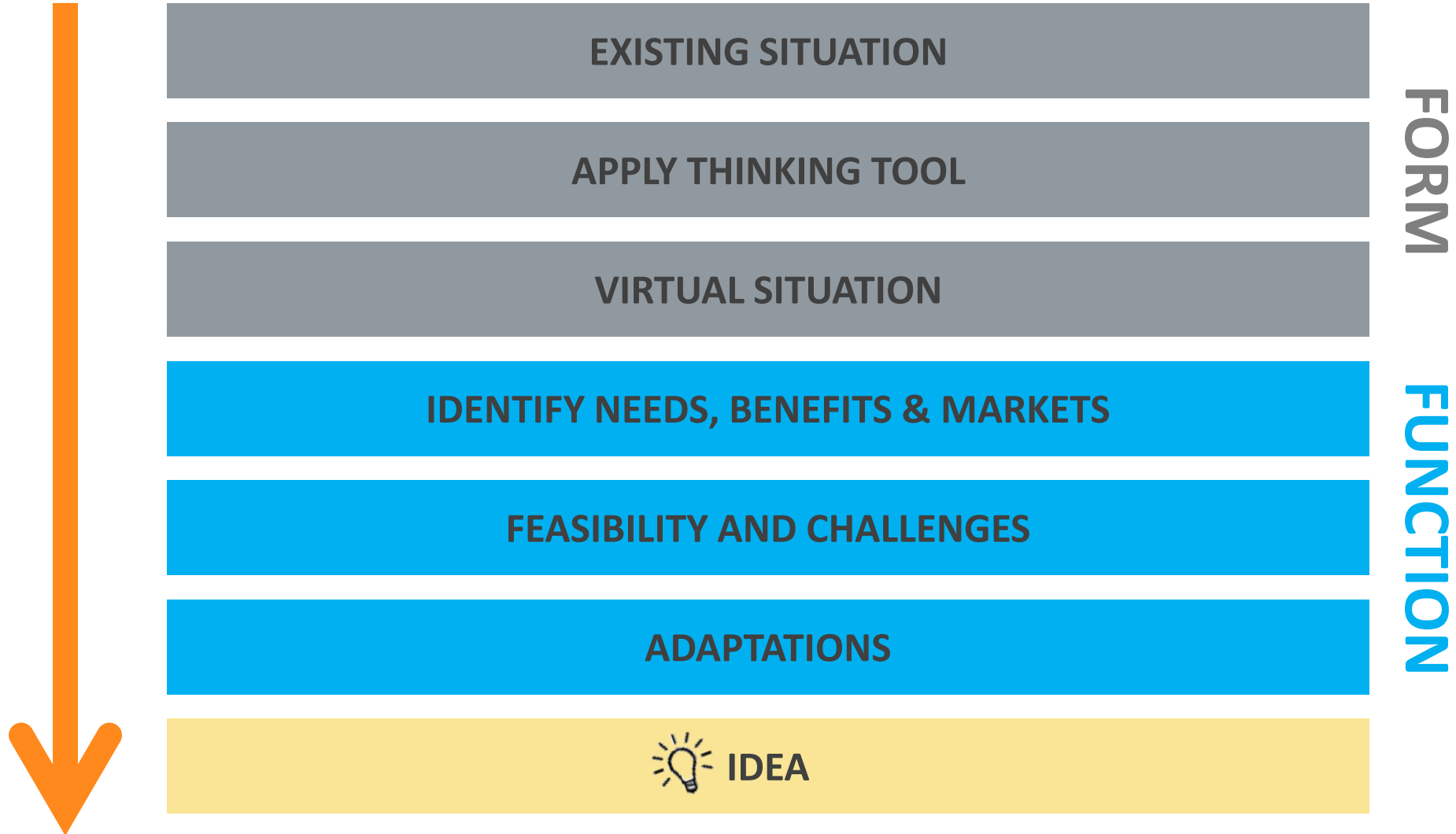






Fine tune

Function Follows Form (FFF)



What do these have in common?



They are all the same type of invention! Aren't they?



Subtraction

Removing an essential component from a product / process / service and finding usages for the newly created product / process / service

- * Essential component is one that seems impossible for the product to exist without

LikeaBike



Airbnb



Chain-Free Bicycle



ChainFree

Tube-free toilet paper



China unveils track-less train that runs on virtual railways

China has unveiled a track-less train that runs on virtual rails in a bid to speed up public transportation in major cities.



No seat assignments ensures fast seating on low-cost flights



iPod Shuffle



Restaurant with no lights!

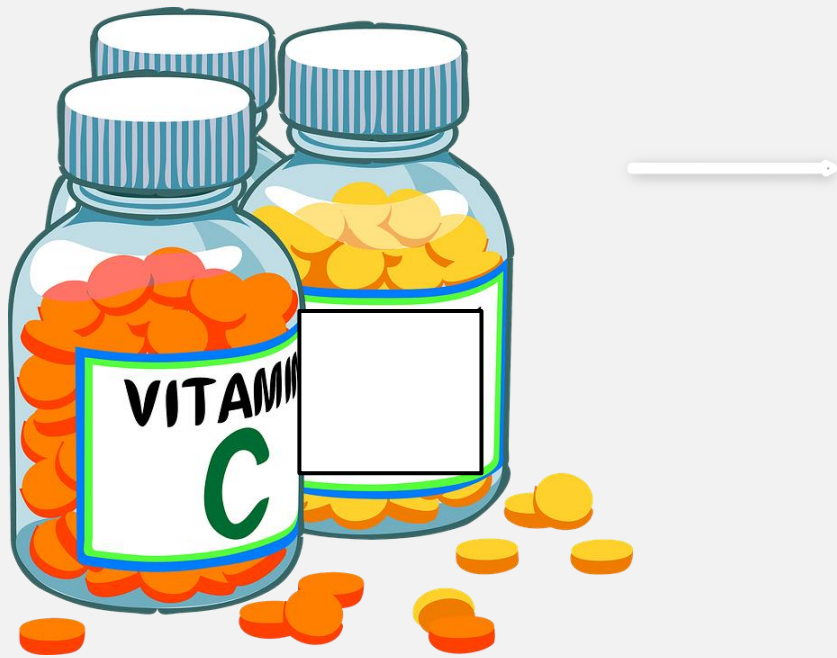


WIX & other online template companies



Gone are the days of always needing a coder to create a beautifully designed site. It is now possible to use several online services to create an aesthetically-pleasing webpage in minutes!

Placebo Medication – As Is Subtraction



In Placebo medication, the active ingredient and its function are removed turning it into an important methodological tool in medical research.

A Bookless Library



Libraries are springing up across the United States with NO BOOKS.



Bring Your Own Cup



At many coffee shops and other establishments selling beverages, a popular initiative has gained traction to reduce waste caused by disposable cups. If you Bring Your Own Cup (BYOC), you receive a discount on the price of a coffee/beverage.

Amazon Go



amazon go

Welcome to Amazon Go and the world's
most advanced shopping technology.
No lines, no checkout—just grab and go!

Now open in Seattle!

Monday to Friday 7AM–9PM

Package-free grocery stores



Self-Service Checkout



UBER



Wikipedia



No Wi-Fi in restaurants?! Why is it a good idea?



We don't have Wi-Fi,
just talk with each other



Ethicon Endo Surgery is a Johnson & Johnson company which develops and markets advanced medical devices for minimally invasive and open surgical procedures.

EES had purchased the IP for a new piece of medical capital equipment from a small firm, but they needed to further develop the concept so that they could provide a better product while reducing costs.



The Sedasys System

The SEDASYS[®] System is the first computer-assisted personalized sedation (CAPS) system designed to allow physician/nurse teams to provide minimal-to-moderate sedation with propofol during routine endoscopy procedures in healthy adults. By integrating state-of-the-art drug delivery and patient monitoring, the SEDASYS[®] System enables physician/nurse teams to deliver personalized sedation. It automatically detects and responds to signs of over-sedation (oxygen desaturation and low respiratory rate/apnea) by stopping or reducing delivery of propofol, increasing oxygen delivery and automatically instructing patients to take a deep breath. The SEDASYS[®] System monitors and records patient vital signs and additional parameters, including oxygen saturation, respiratory rate, heart rate, blood pressure, end-tidal carbon dioxide and patient responsiveness. The device is currently an investigational device limited by U.S. law to investigational use only.



Breaking The Product Into Its Components



The SEDASYS® System is the first computer-assisted personalized sedation (CAPS) system designed to allow physician/nurse teams to provide minimal-to-moderate sedation with propofol during routine endoscopy procedures in healthy adults. By integrating state-of-the-art drug delivery and patient monitoring, the SEDASYS® System enables physician/nurse teams to deliver personalized sedation. It automatically detects and responds to signs of over-sedation (oxygen desaturation and low respiratory rate/apnea) by stopping or reducing delivery of propofol, increasing oxygen delivery and automatically instructing patients to take a deep breath. The SEDASYS® System monitors and records patient vital signs and additional parameters, including oxygen saturation, respiratory rate, heart rate, blood pressure, end-tidal carbon dioxide and patient responsiveness. The device is currently an investigational device limited by U.S. law to investigational use only.

Screen

Keyboard

Drug cartridge

Power Supply

Software

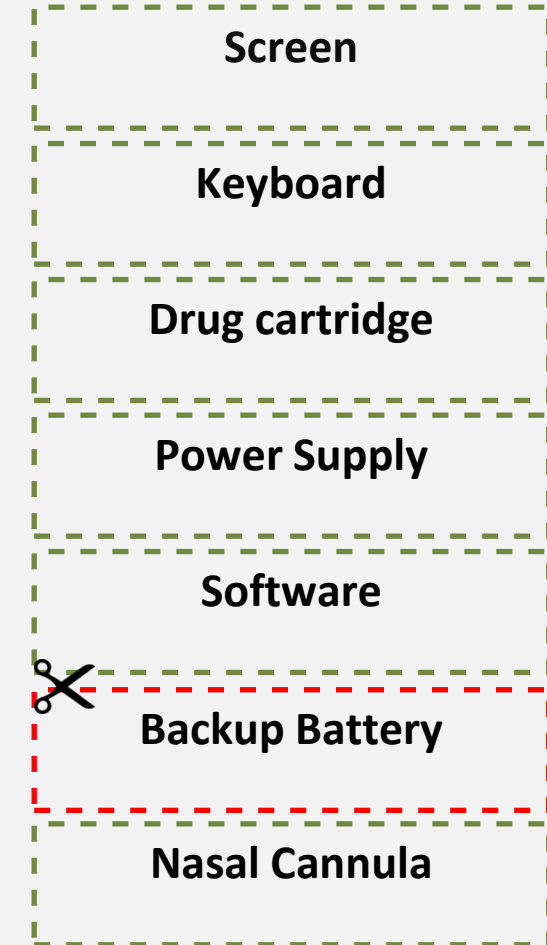
Backup Battery

Nasal Cannula

Subtracting An Essential Component!



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How Can We Make This Work?



Screen

Keyboard

Drug cartridge

Power Supply

Software

Nasal Cannula

How Can We Make This Work?



Screen

Keyboard

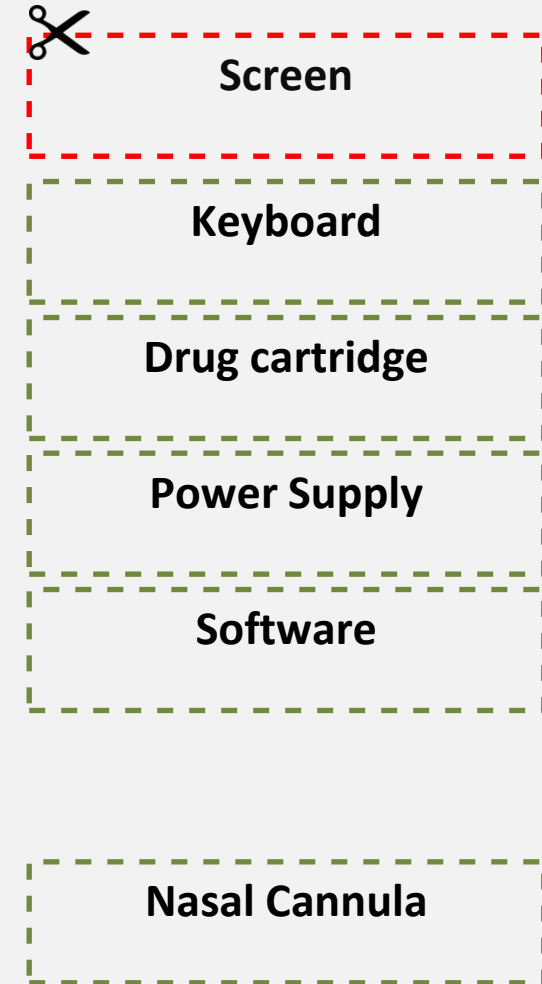
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How Can We Make This Work?



Screen

Keyboard

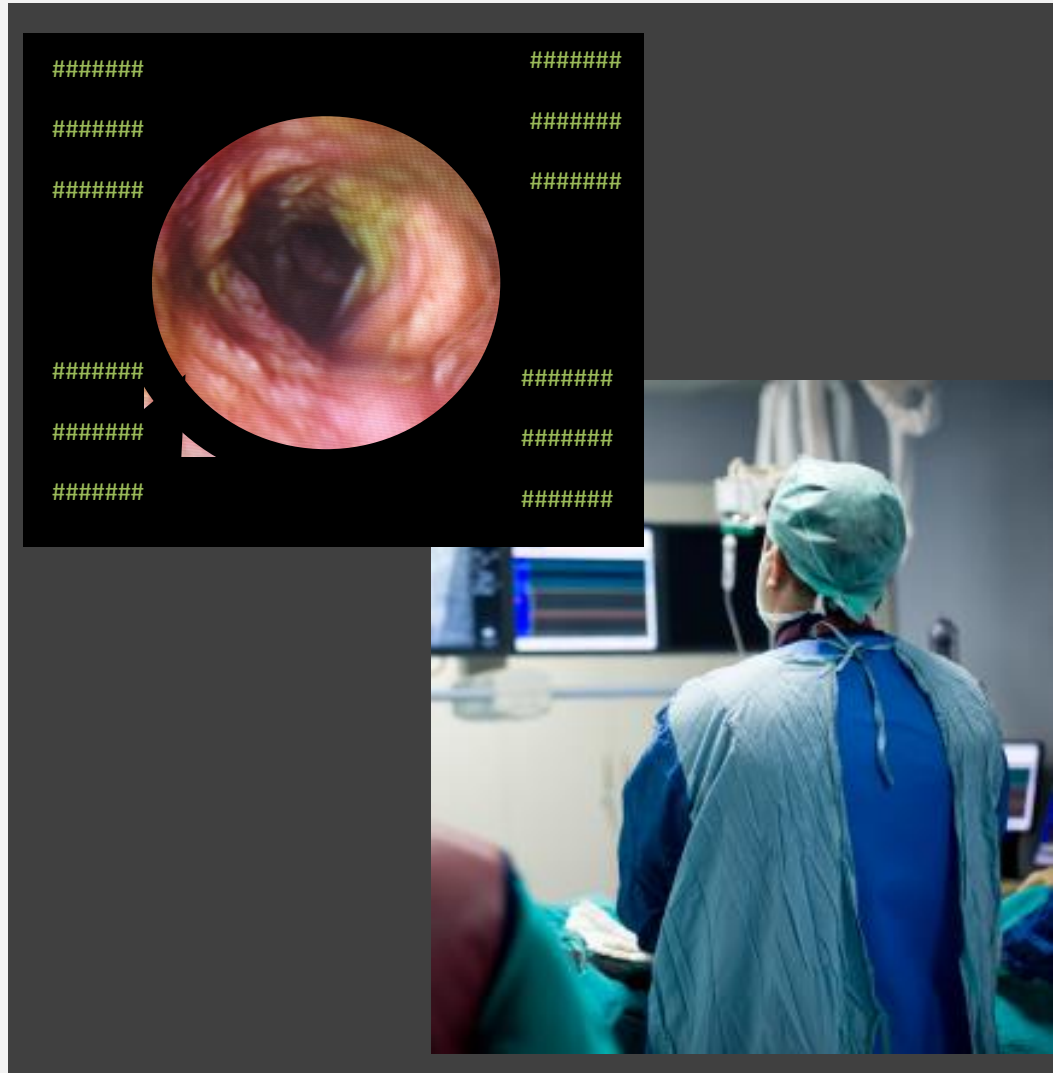
Drug cartridge

Power Supply

Software

Nasal Cannula

Using Free Space On Existing Screen



Keyboard

Drug cartridge

Power Supply

Software

Nasal Cannula

Main advantage:

Improved throughput for the operating room by 2-3 more surgeries per day. Great value to patients and to surgeons.

Fixedness broken:

Break the product into smaller components which could be connected and detached at different times

View the device as part of a system (the OR) and not as a stand-alone

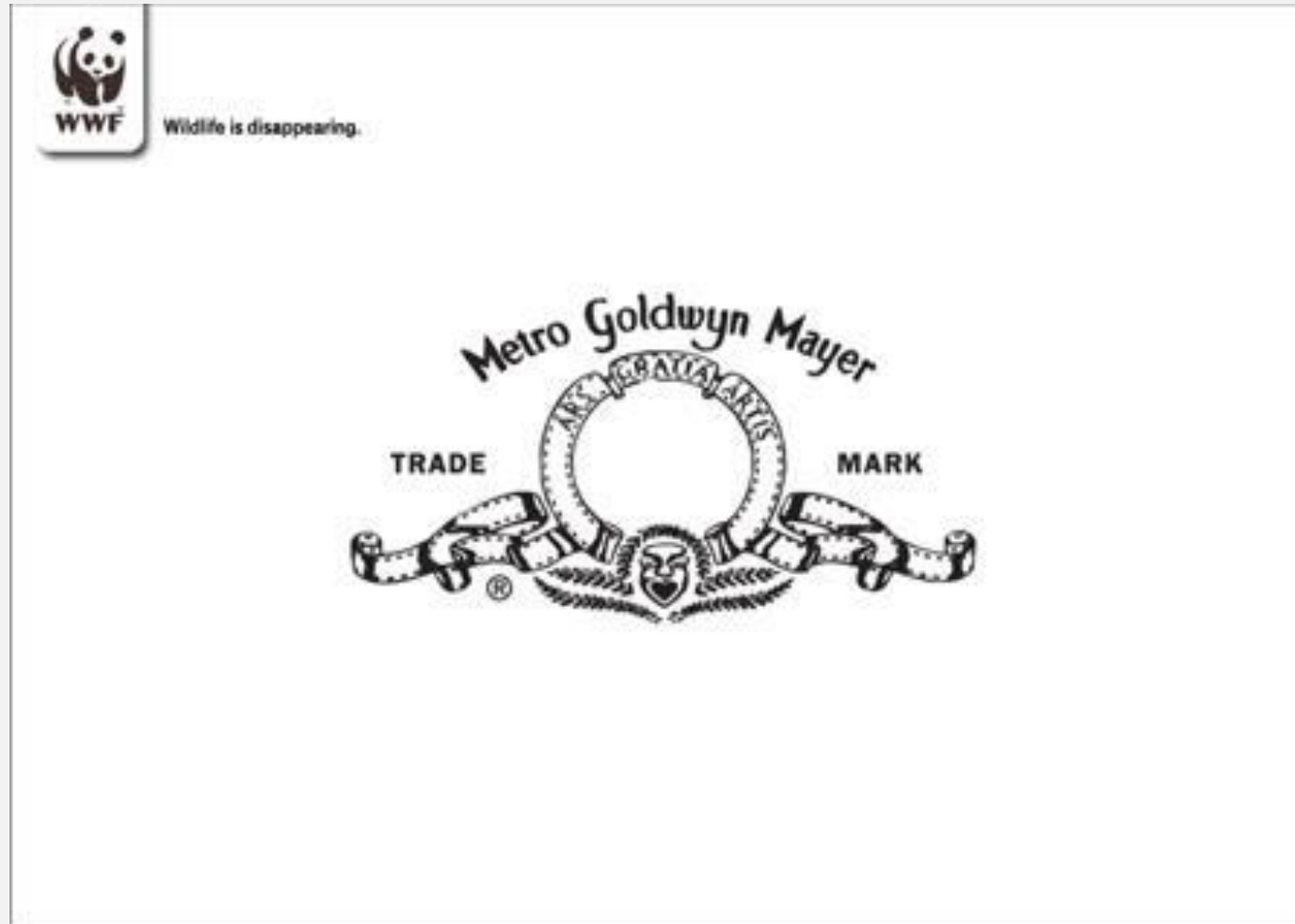
Switch from capital/reusable business model to pay per use model

****Named by the Cleveland Clinic as one of the Top Ten Medical Innovations for 2014****



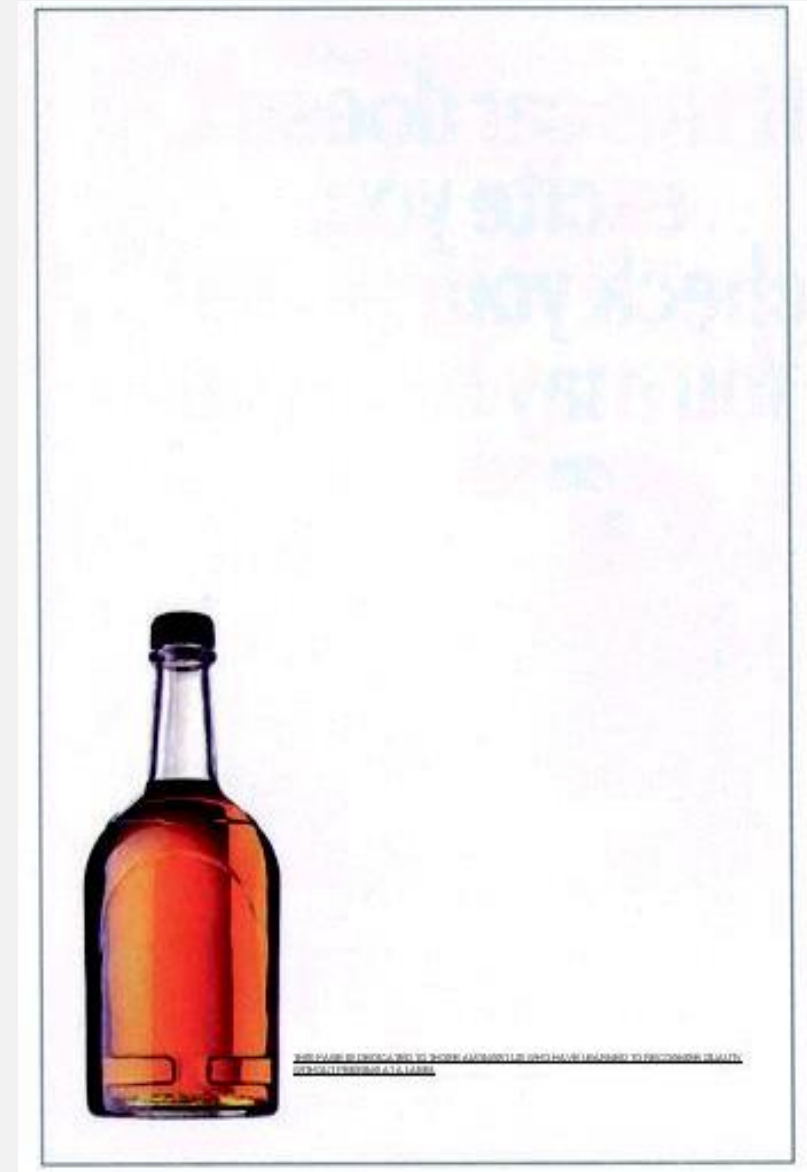


Applying Subtraction to Advertising



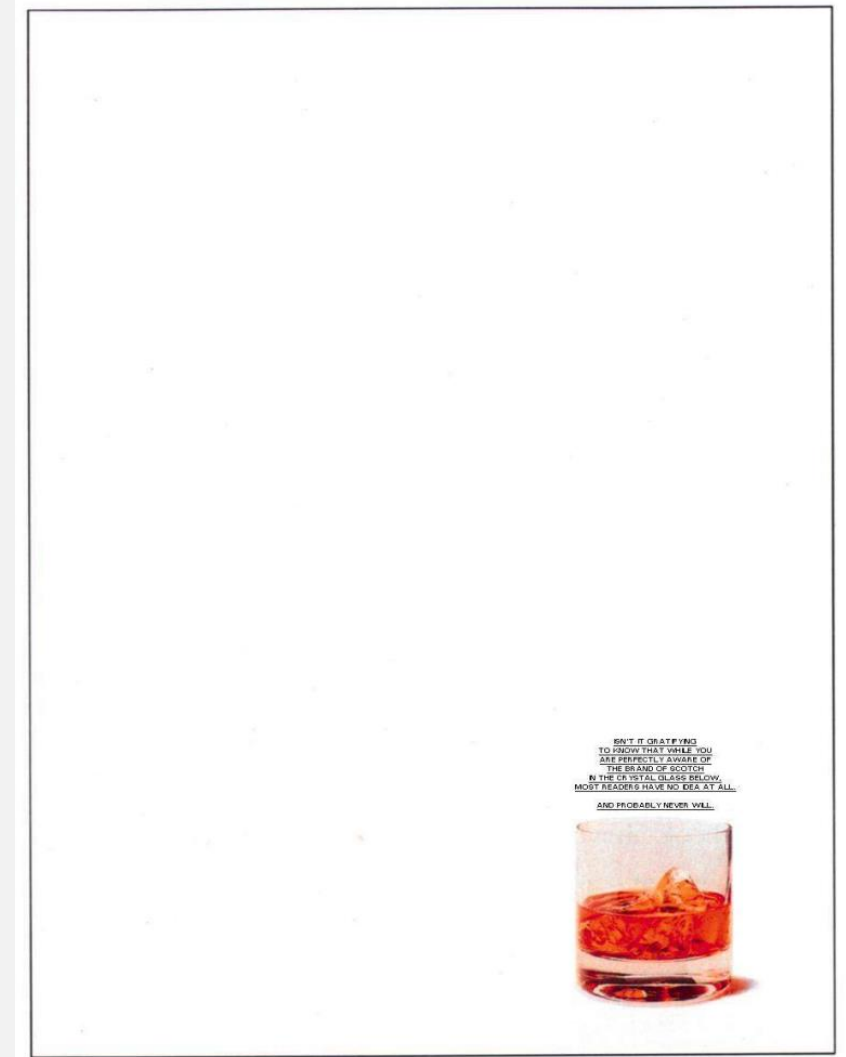
This page is dedicated to those amongst us who have learned to recognize quality without peering at a label.

THE BALL PATRERSHIP (Neil French) — Singapore



Isn't it gratifying to know that while you are perfectly aware of the brand of scotch in the crystal glass below, most readers have no idea at all. And probably never will.

THE BALL PATRNSHIP (Neil French)—Singapore





Mondi's See-Through Packaging

SIT's work with Mondi, a leading international paper and packaging group, led to the development of revolutionary new product packaging. The new packaging reduced the amount of cardboard from the box, which helped cut down manufacturing costs (more than \$150K a year) and serves the functional purpose of enabling the consumer to use the see-through window to know how many reams remain in the box.





Revolutionizing the DVD player

The LCD was removed, and the buttons were relocated to other parts of the player. The unique look differentiates this DVD from the competition, saves storage space, and was the winner of a design prize in a prestigious show.





Fabric Refresehner

The active ingredients (the detergent itself), considered to be the most essential component in laundering clothes, was removed.

Clothing refreshers can be utilized in combination with detergents in a wash cycle to add a fresh scent to the clothing.





Daviplata

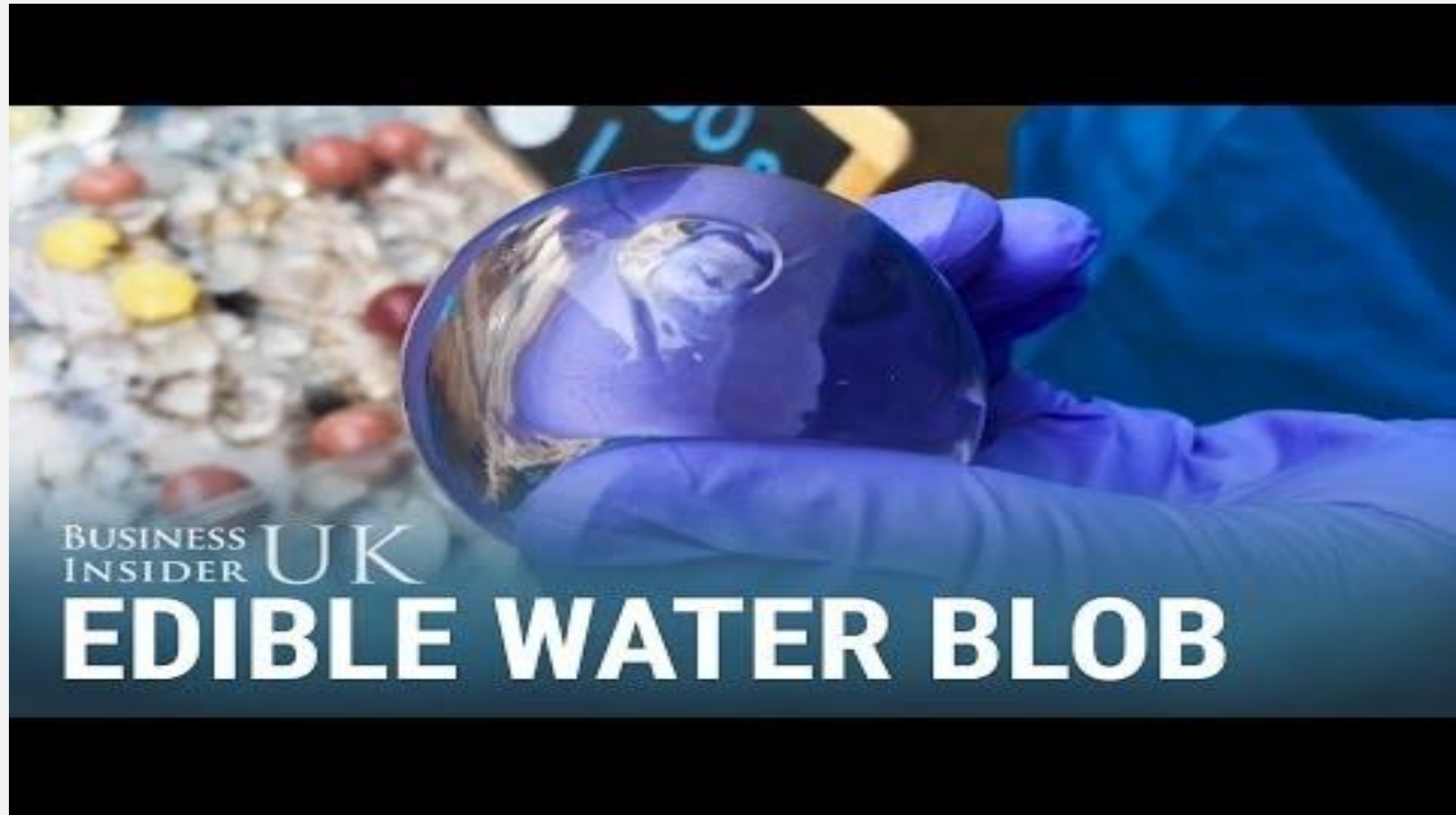
In Colombia, 38% of the population doesn't use a bank. Davivienda Bank wanted to create a product that would be simple enough to be used by people who traditionally did not have the opportunity.

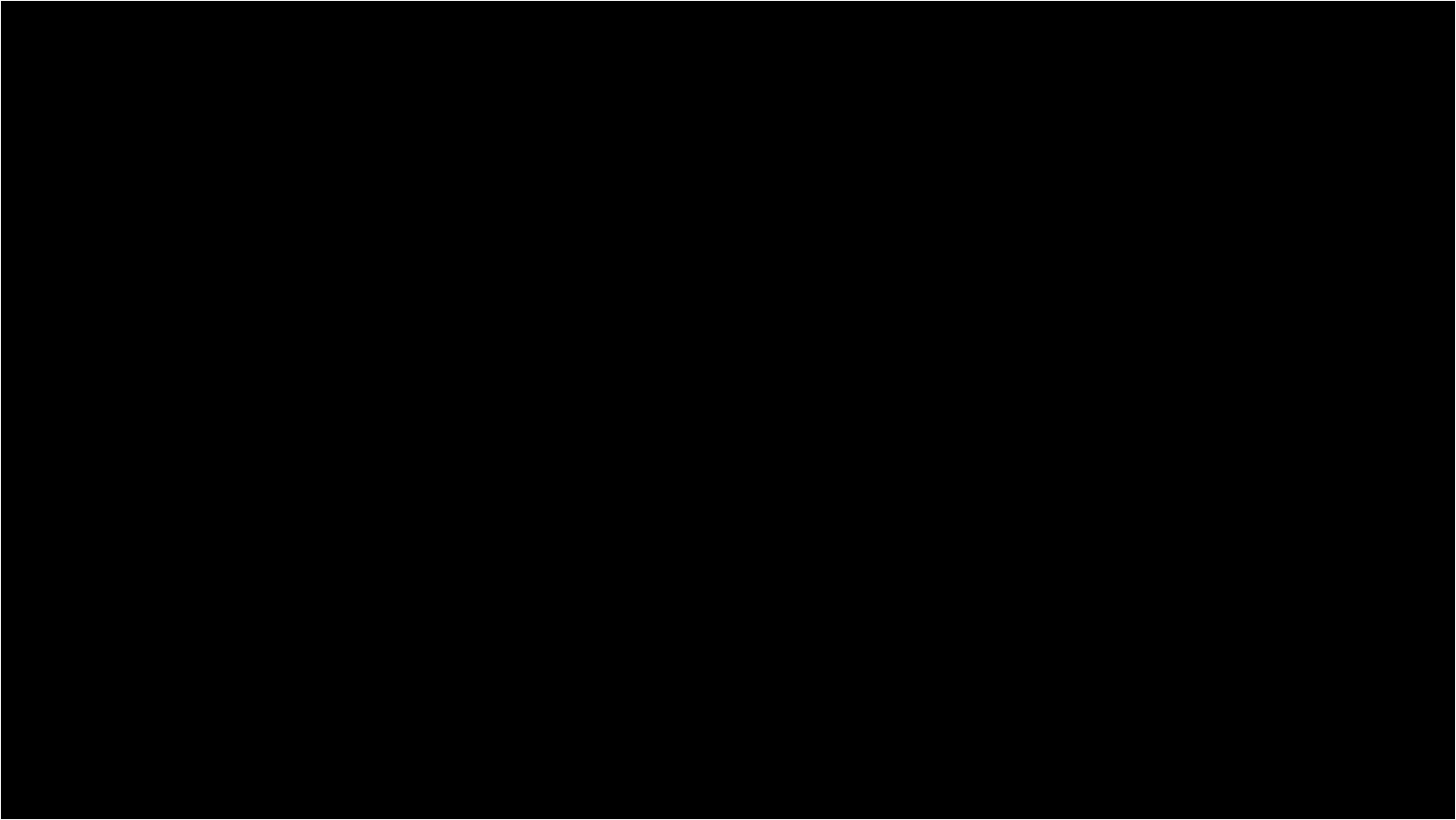
By using SIT's innovation approach, the bank developed and launched DaviPlata, a revolutionary electronic wallet that allows all people to manage their money for free, without having an account, using a card or filling out forms.



Tweel





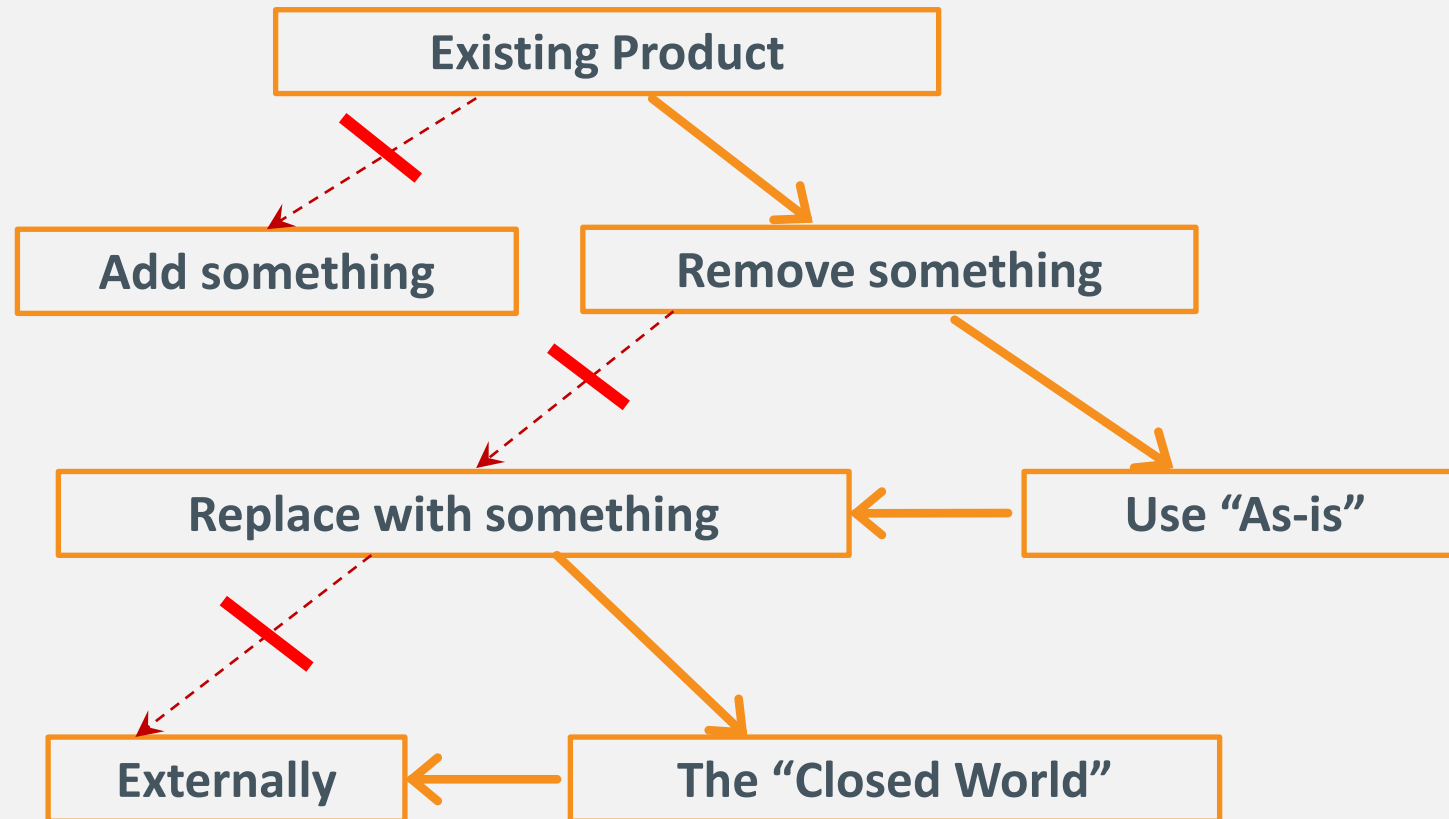


Apply Subtraction

1. List the product/process components
2. Remove one of the essential components
3. Visualize the resulting “virtual product/situation”
4. Identify potential market/customer needs “as is”
5. Identify potential challenges and suggest ways to overcome
6. Make adaptations
7. Document the idea
8. Iterate or modify the concept to improve it



The Path of Most Resistance









Thank you!