

2022 ANNUAL CONFERENCE  
JUNE 6-9, 2022  
NEW ORLEANS > HYBRID



# Humanity-Centric Innovation: Redefining Purpose to Build a Better World

**Pete Dulcamara**

**Chief Scientist & Technical Vice President**

**Kimberly-Clark Corporation**

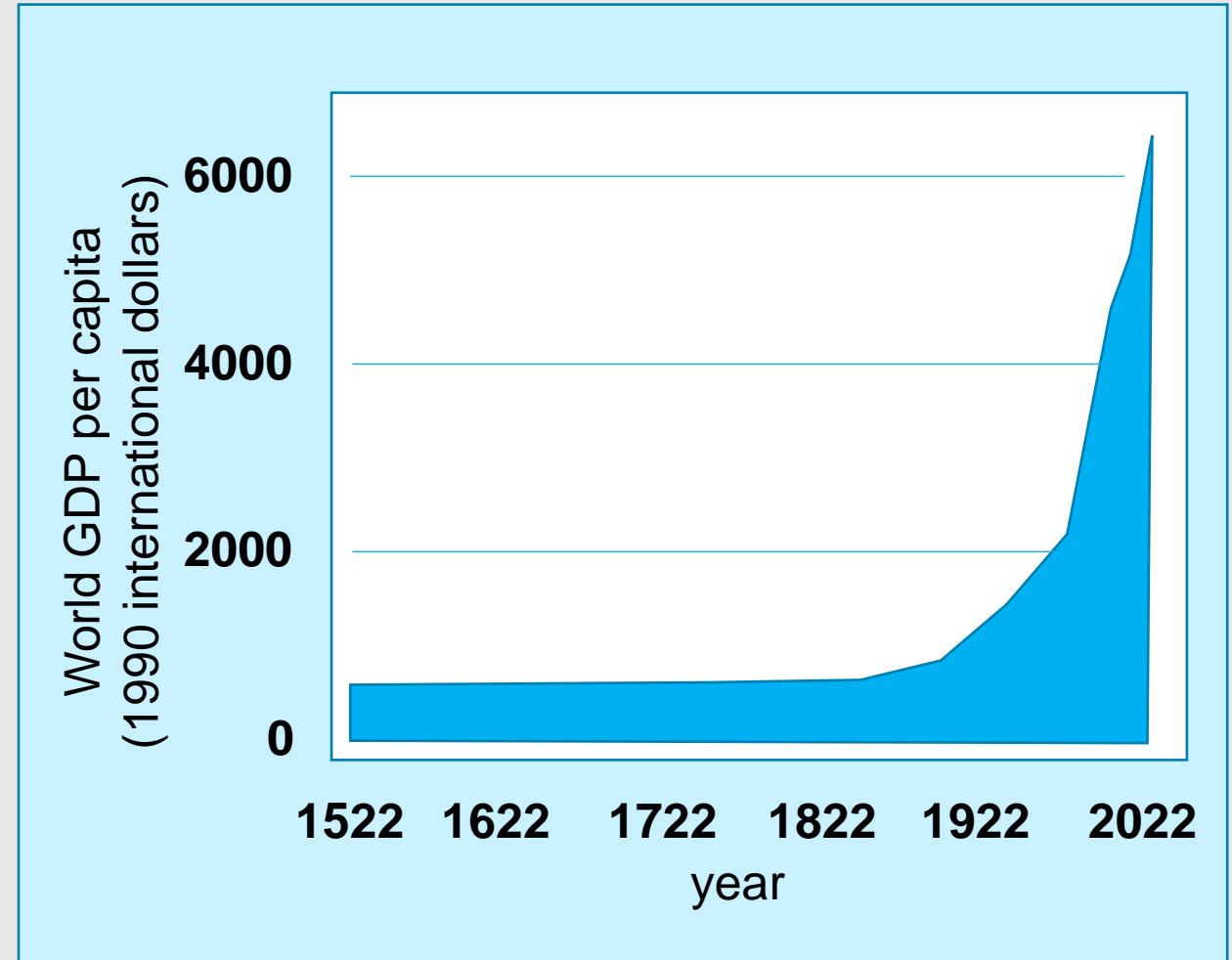
# The Best Way to Predict the Future is to Create It















# We Are Living in Exponential Times

Generations Ago	Technology
5,000	Speech
750	Agriculture
500	Writing
400	Libraries
40	Universities
20	Printing
15	Accurate Clocks
5	Telephone
4	Radio
3	Television
2	Computer
1	Internet
0	Social Media



# Populations are Becoming Digital



## Top 10 Populations ('000,000)

1		<b>Facebook</b>	<b>1,860</b>
2		China	1,388
3		<b>YouTube</b>	<b>1,324</b>
4		India	1,240
5		<b>Twitter</b>	<b>646</b>
6		USA	326
7		<b>Instagram</b>	<b>275</b>
8		Indonesia	263
9		Brazil	211
10		<b>LinkedIn</b>	<b>200</b>

# Populations are Becoming Digital

2018

Top 10 Populations ('000,000)

1		<b>Facebook</b>	<b>1,860</b>
2		China	1,388
3		<b>YouTube</b>	<b>1,324</b>
4		India	1,240
5		<b>Twitter</b>	<b>646</b>
6		USA	326
7		<b>Instagram</b>	<b>275</b>
8		Indonesia	263
9		Brazil	211
10		<b>LinkedIn</b>	<b>200</b>



2022

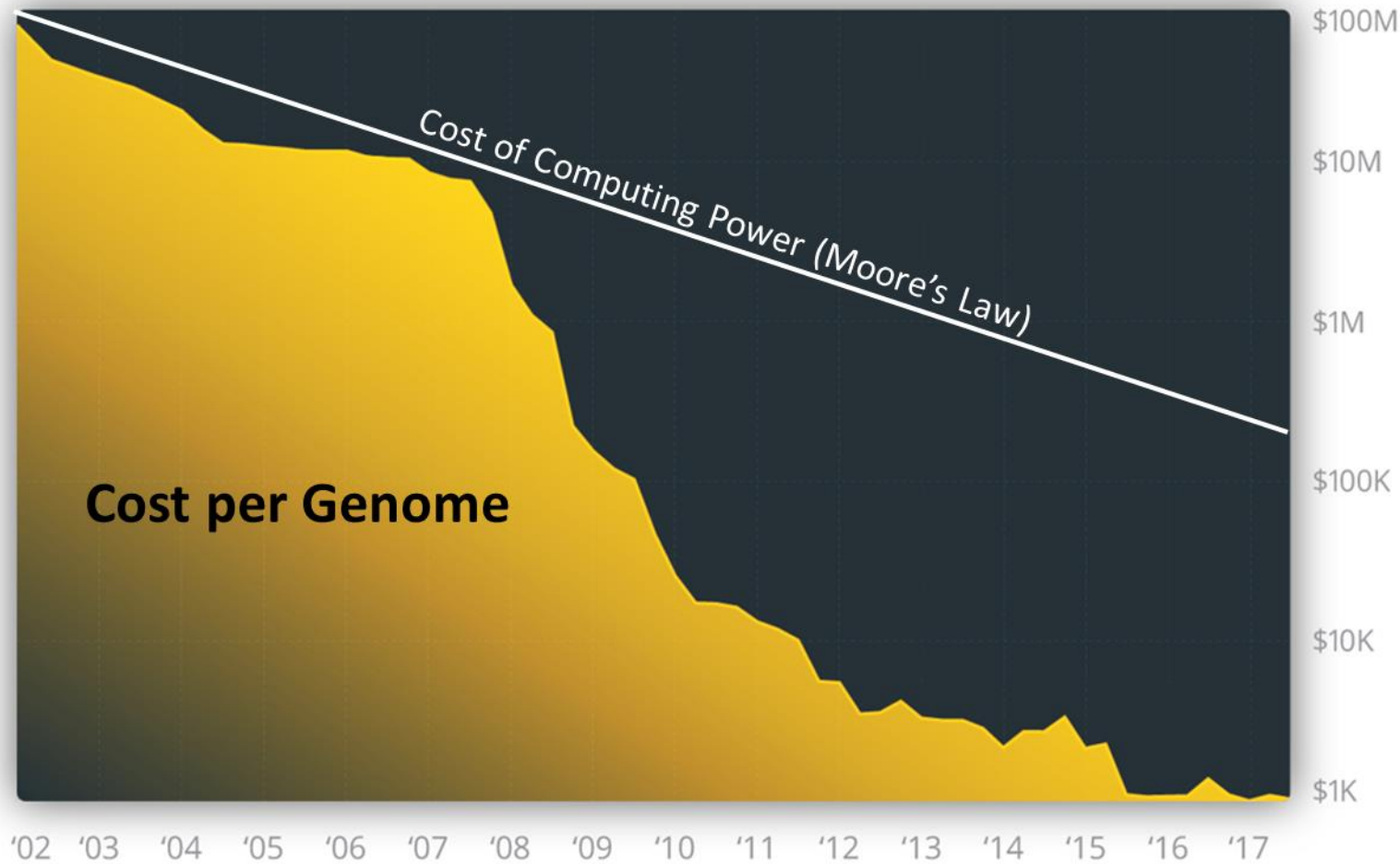
Top 10 Populations ('000,000)

1		<b>Facebook</b>	<b>2,898</b>
2		<b>YouTube</b>	<b>2,200</b>
3		<b>What's App</b>	<b>2,020</b>
4		<b>Instagram</b>	<b>2,000</b>
5		China	1,439
6		India	1,380
7		<b>WeChat</b>	<b>1,265</b>
8		<b>TikTok</b>	<b>1,000</b>
9		QQ	731
10		<b>Sina Weibo</b>	<b>573</b>

# Exponential Economics of Genetic Sequencing



**13 Years**  
**\$3 Billion**



**3 Weeks**  
**\$125**

# People are Living Longer





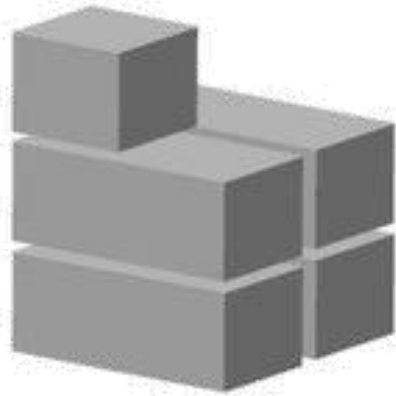
# The World is Urbanizing




# China Used More Concrete in 3 Years Than the US did in 100 Years

United States 

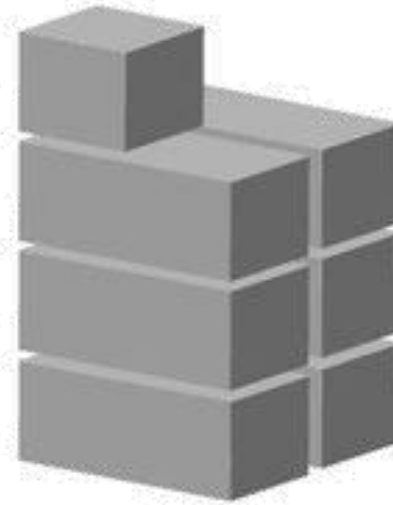
In 100 years



4.5 gigatons  
(1901-2000)

China 

in 3 years




6.6 gigatons  
(2011-2013)

# Consumption is outstripping resources

If everyone had the same standard of living as you and me,

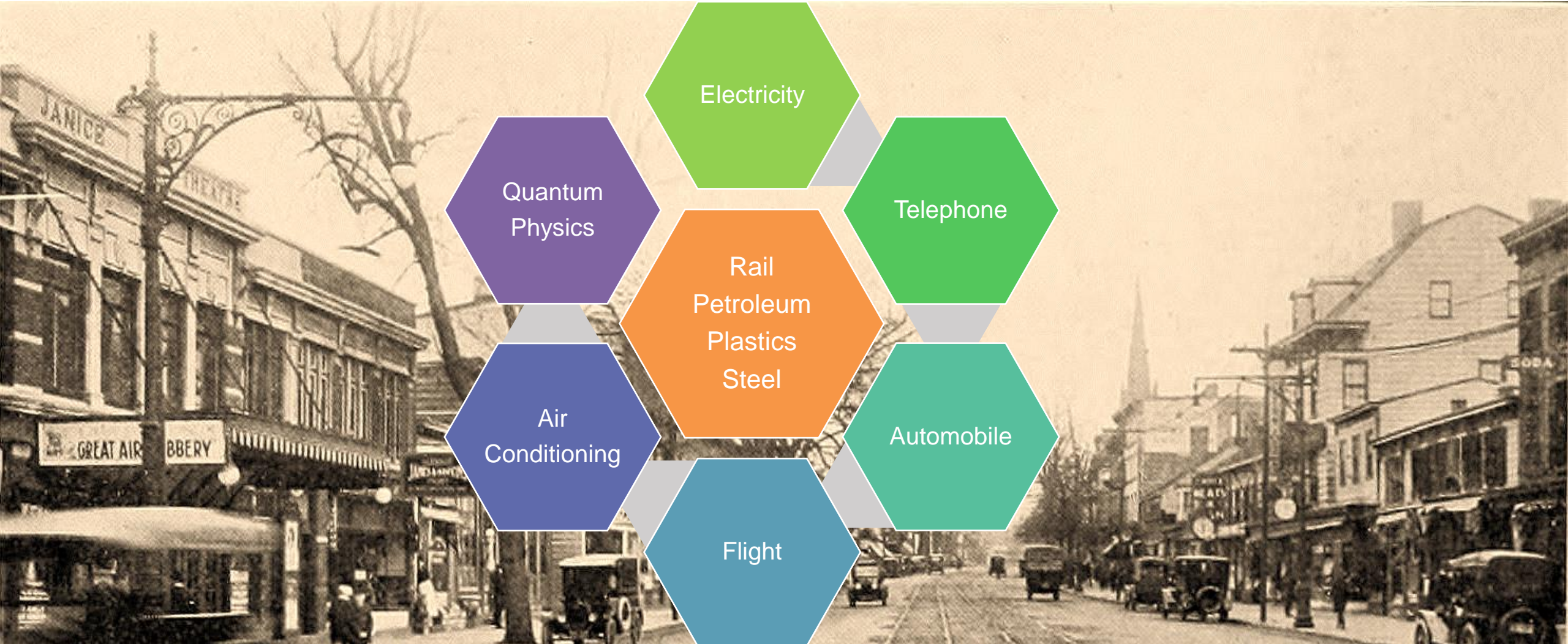


we would need three planets to sustain us all.



HOW DO WE  
NAVIGATE IN  
THIS RAPIDLY  
CHANGING  
WORLD?

# The World in 1922 – 100 Years Ago Today



# The World Today in 2022

NANO  
TECH

BIO  
TECH

QUANTUM  
Computers

AI

ROBOTICS

BLOCK  
CHAIN

3D  
Printing



# Disruption Happens Fast...

1900



Spot the car

1913



Spot the horse

# ...and it's about to happen again.

## Spot the driver



**2022**



**2030**

**“No one will own or operate a vehicle by 2030.”**



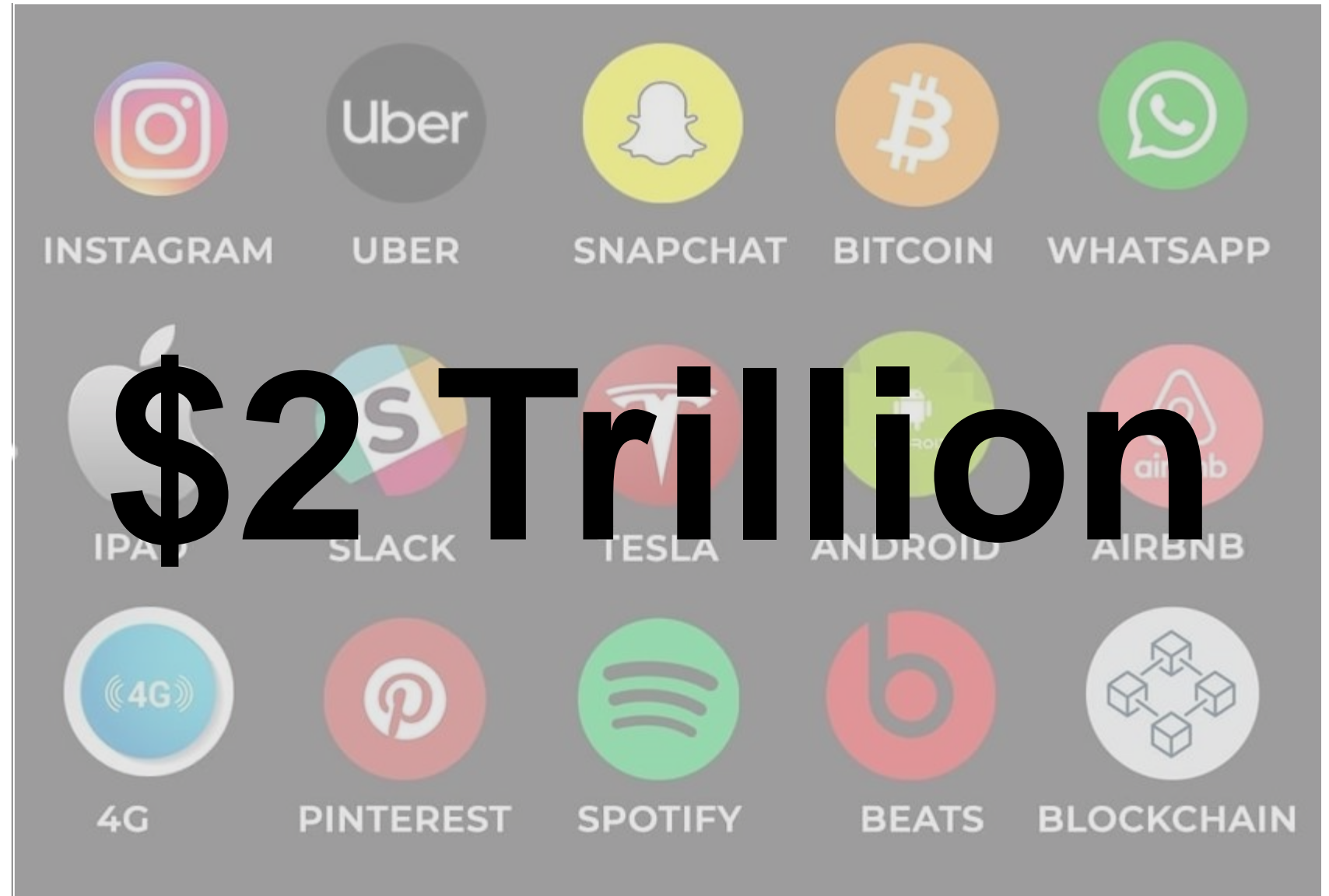
# The Future is Already Here



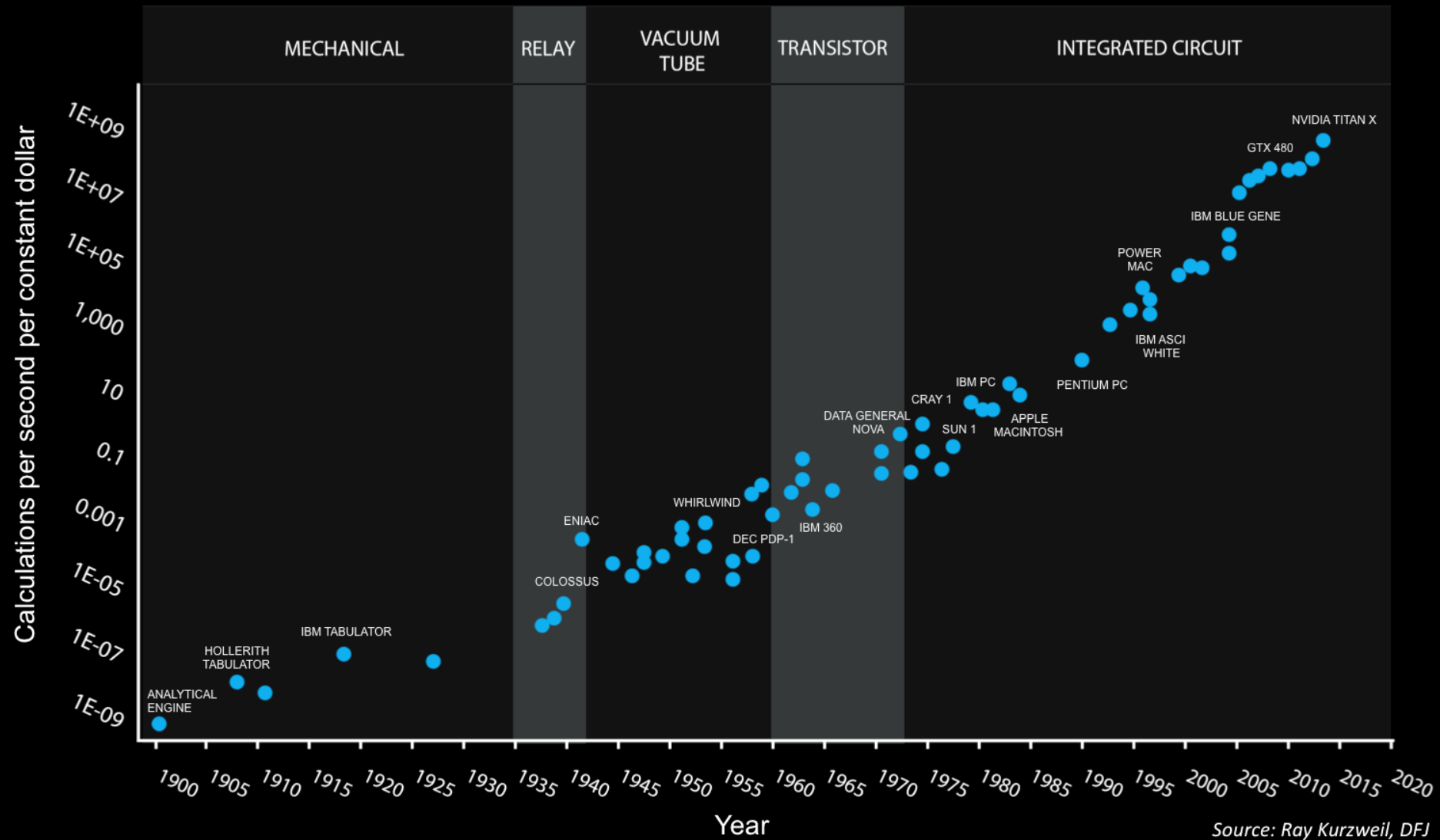
None of these existed in 2007



Today,  
they are  
valued at  
over



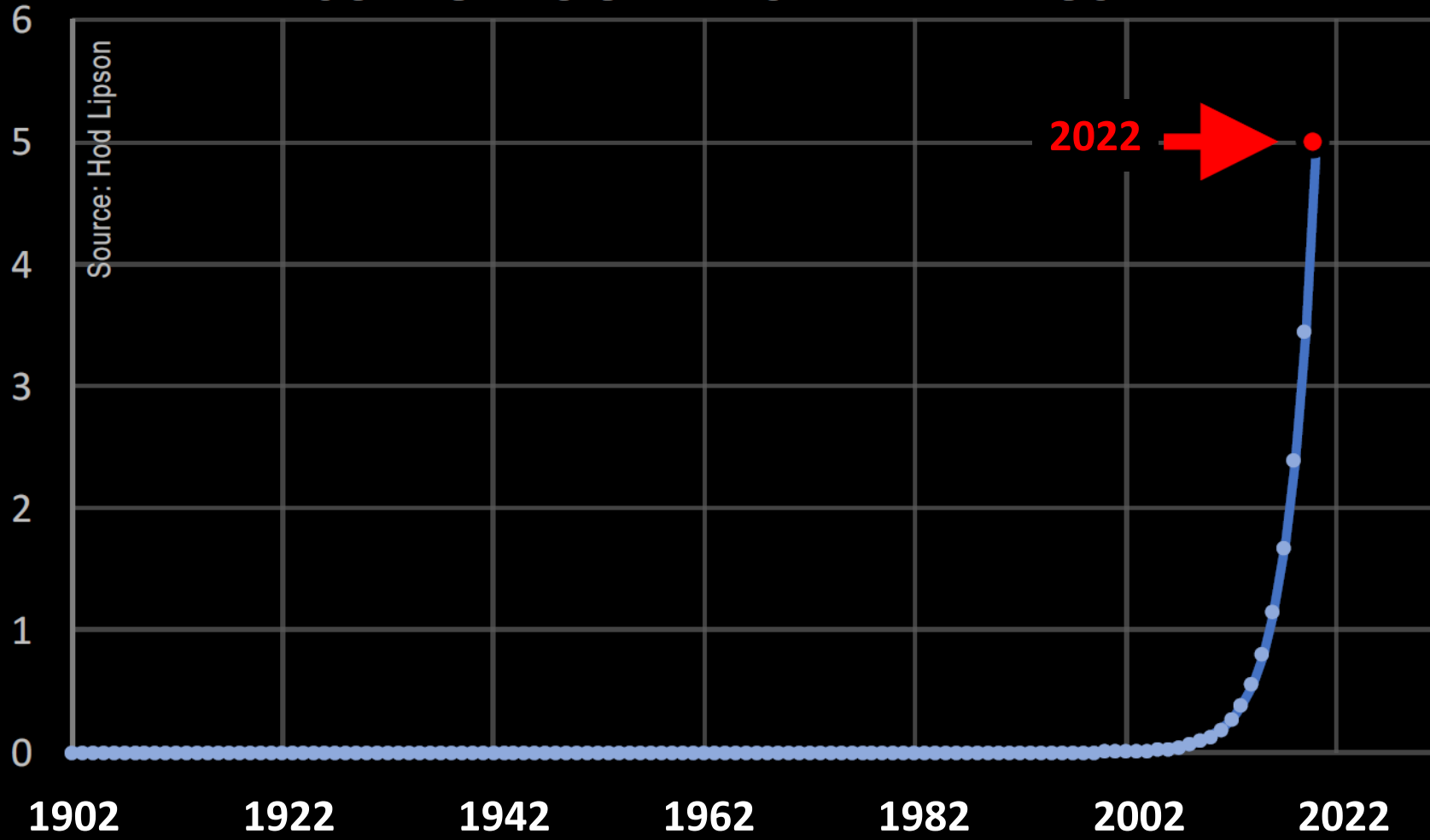
# 120 Years of Moore's Law



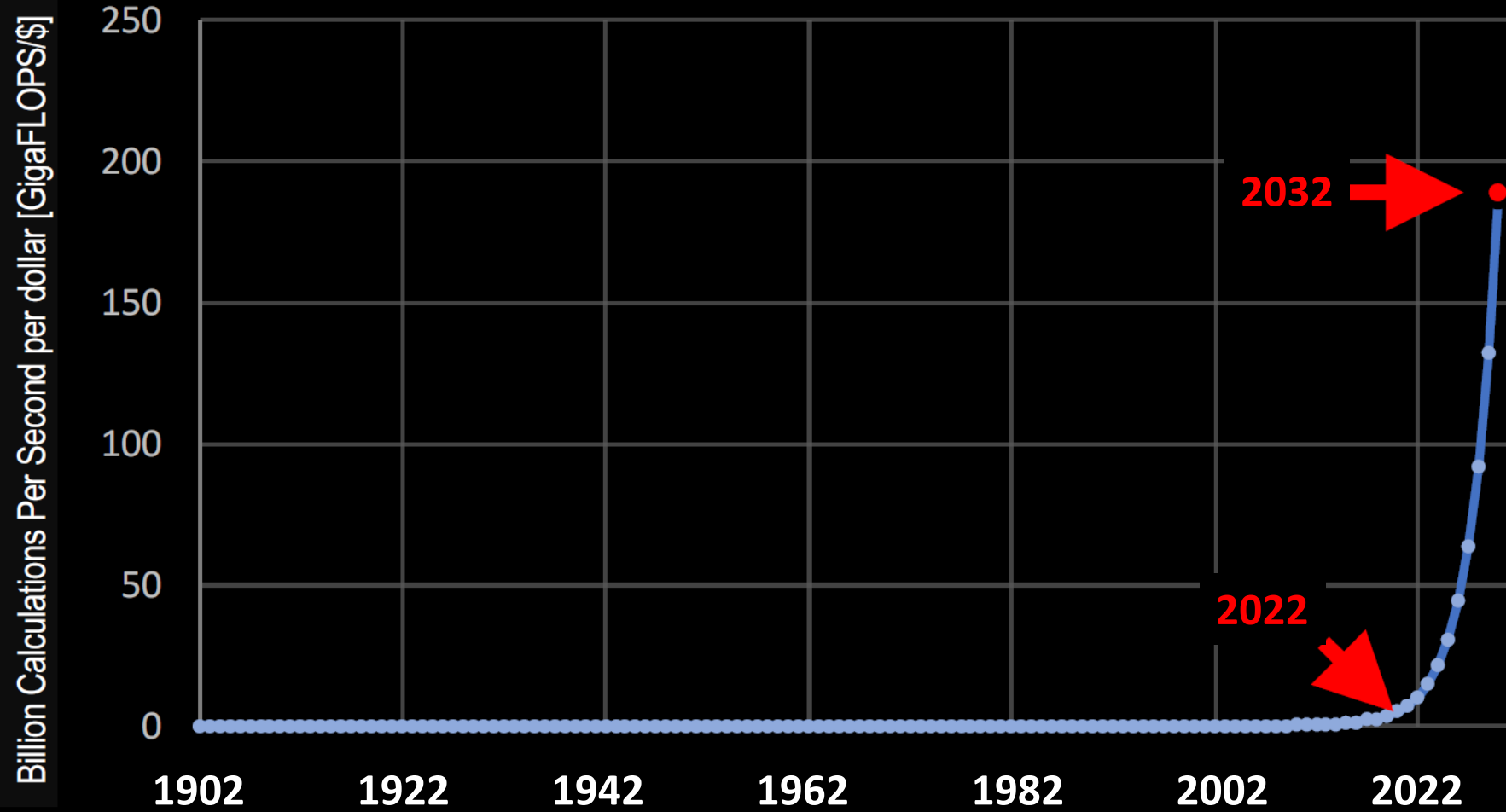
Source: Ray Kurzweil, DFJ

# COMPUTING SPEED ON A LINEAR SCALE

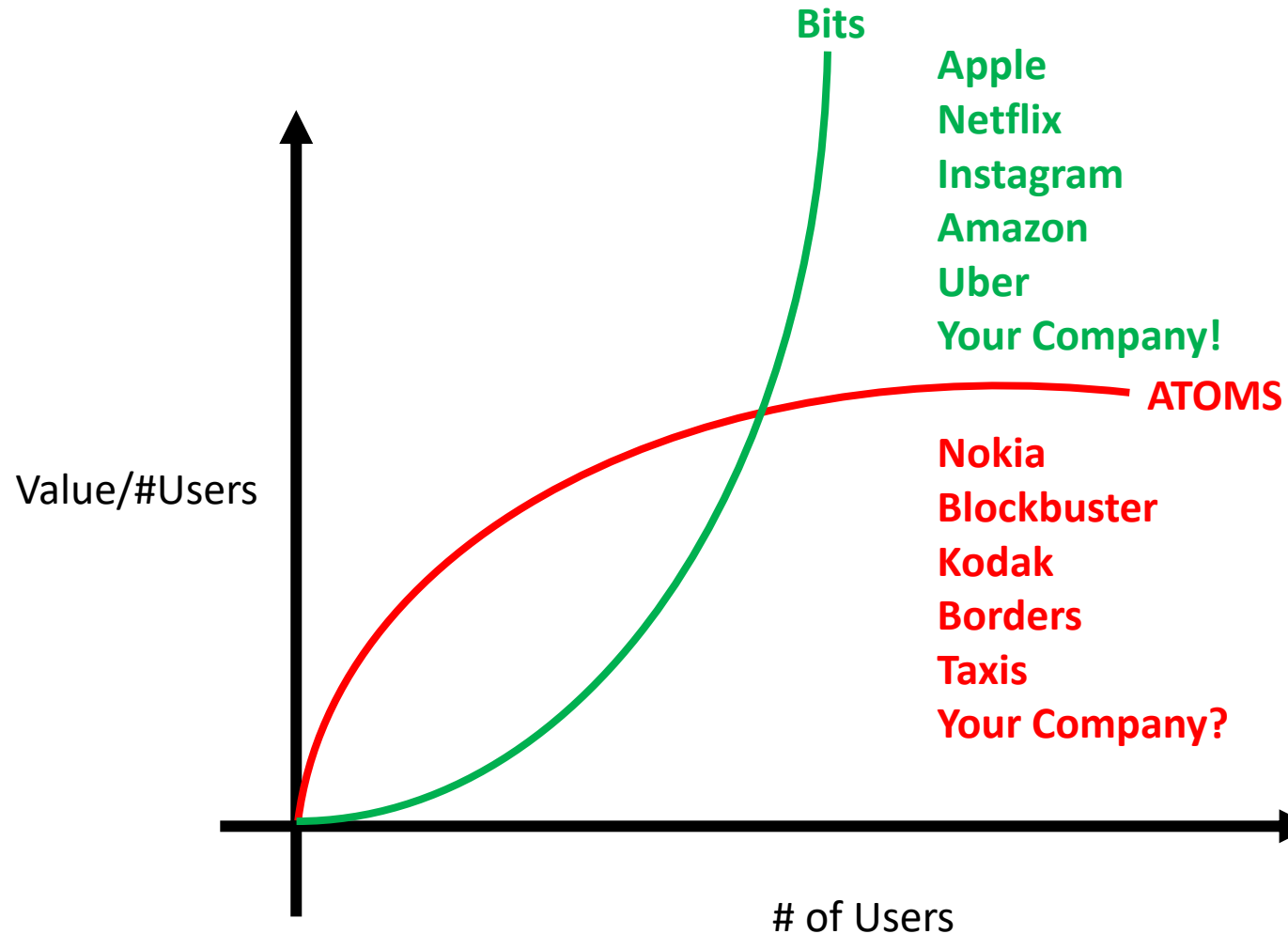
Billion Calculations Per Second per dollar [GigaFLOPS/\$]



# COMPUTING SPEED ON A LINEAR SCALE

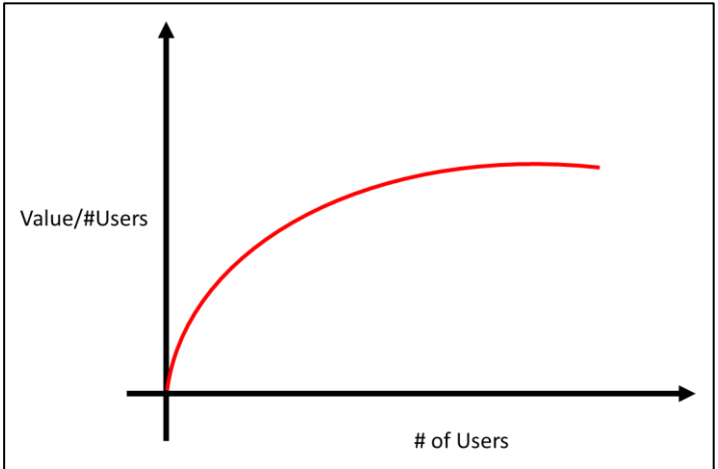


# Two Types of Companies

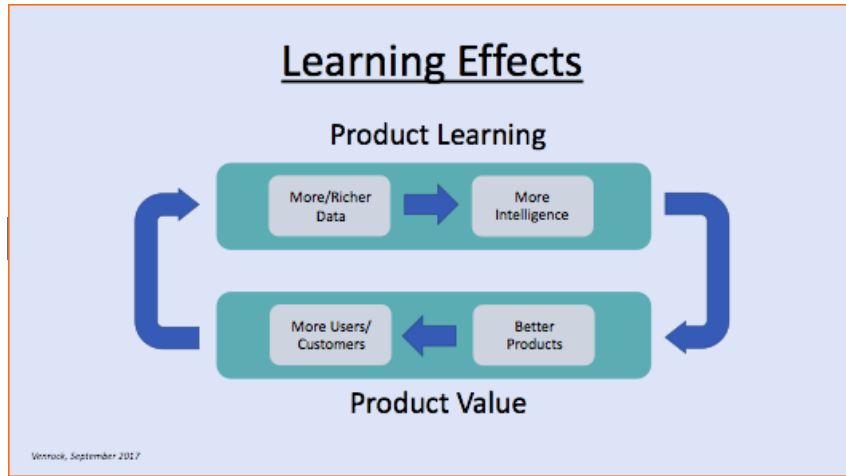


# How to Transform Your Business

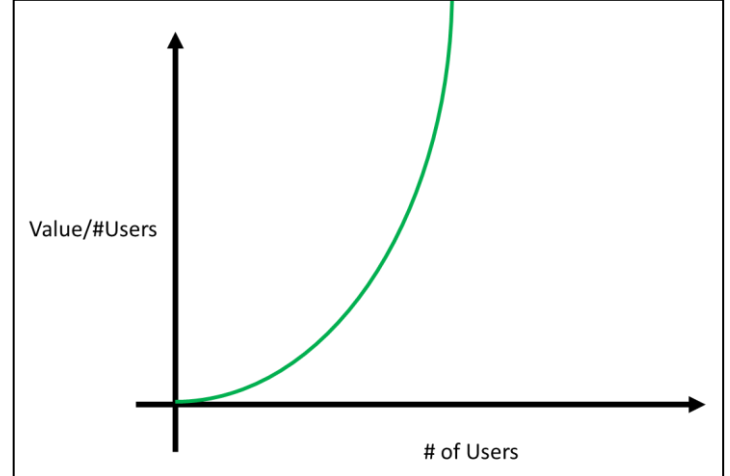
Traditional Value Curve



Data Learning Multiplier



Increasing Returns

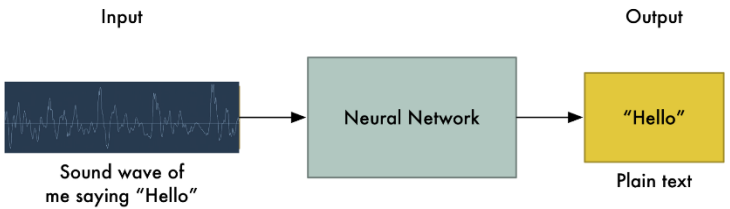


X

=



Highly Competitive Market



X

Increasing Returns Technology

=

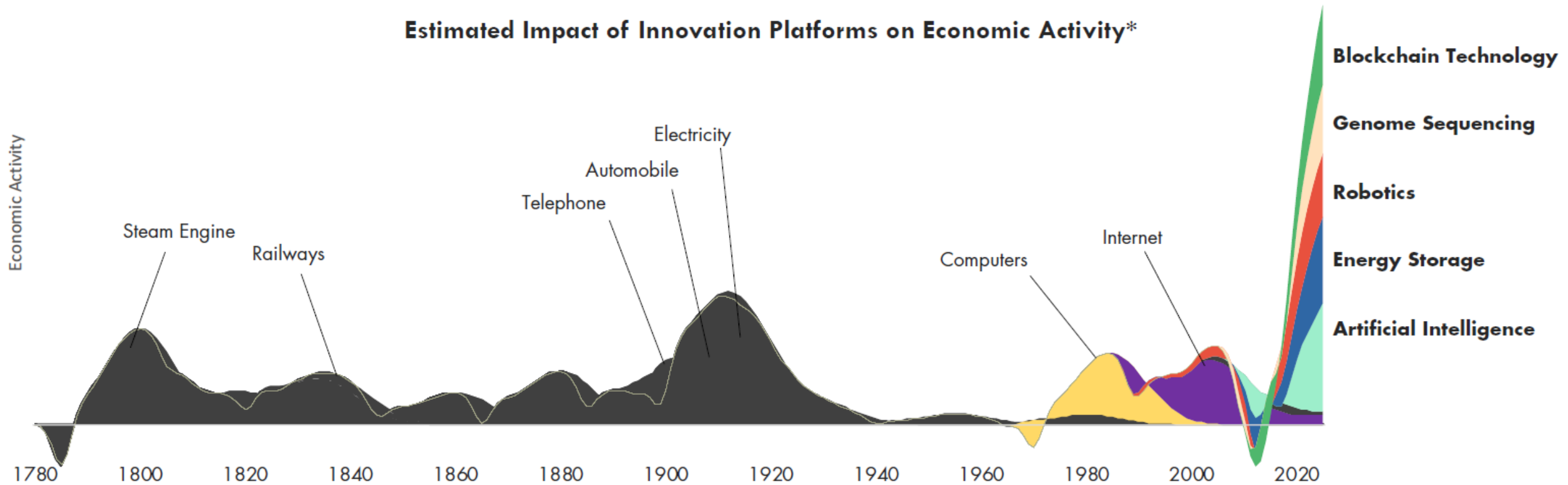


Amazon Echo with >70% share





# More Wealth in next 10 than last 100



\*ARK created this chart based on the relative impact of an innovation scaled by the degree of consensus between economic historians that a particular innovation should be considered an innovation platform. The underlying data assumes that all innovation platforms follow a characteristic investment and realization cycle of similar duration.

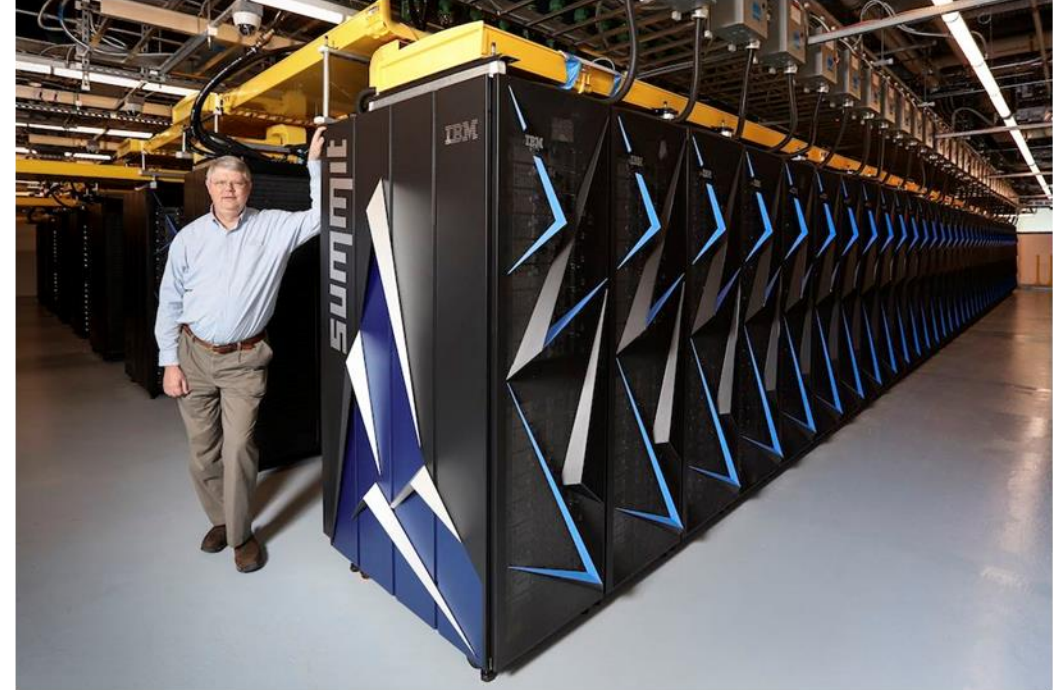
# Computers will be **BILLIONS** of times faster

Google Quantum Computer



200 seconds

World's Fastest Supercomputer



10,000 years

Quantum Supremacy reported on September 23, 2019

China reported in December 2020, their computer is 10 billion times faster than Google.

# A Laptop the Size of a Dust Particle



# More Devices Connected than People

Next Decade,  
**100B**  
Devices

10x People



NETWORK  
CONNECTIVITY



BIG DATA



SMART GRID



HEALTHCARE  
SYSTEMS



INFRASTRUCTURE  
MANAGEMENT



AUTOMATION



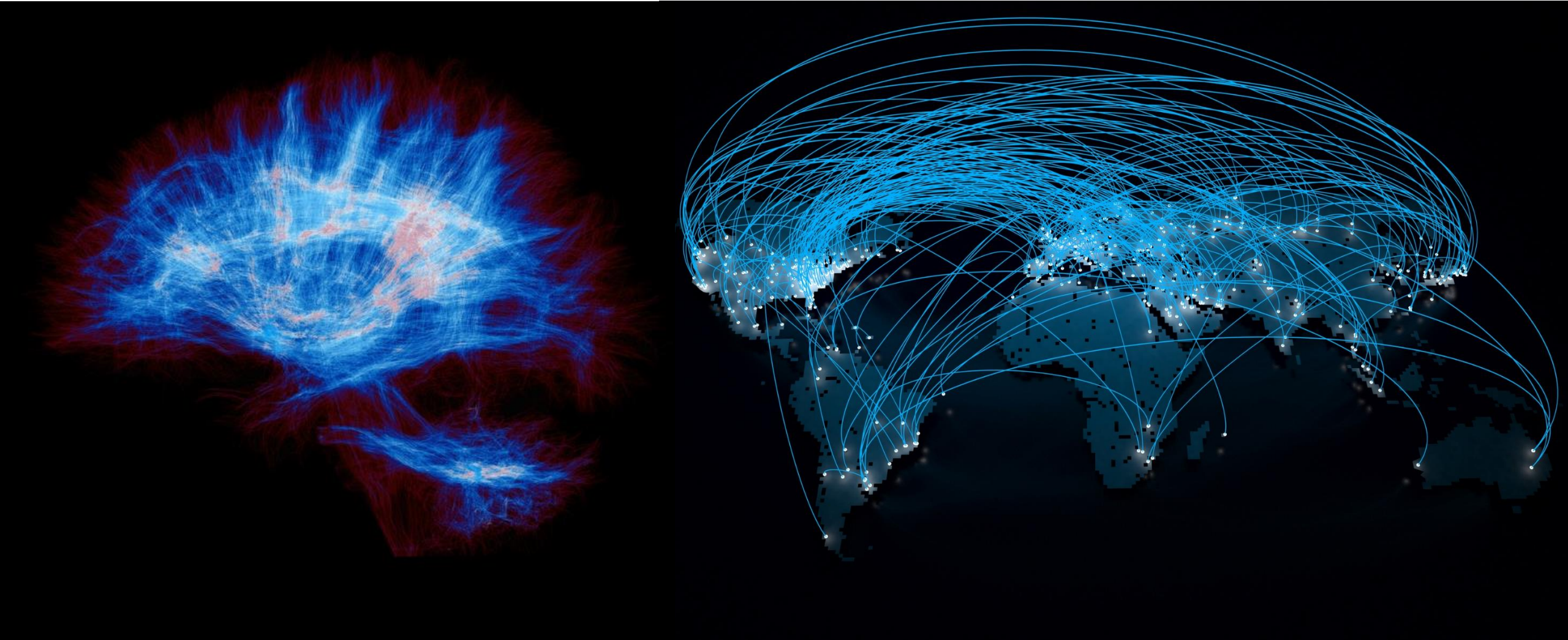
CYBER-PHYSICAL  
SYSTEM



SMART HOME

# INTERNET OF THINGS

# Internet Gains Consciousness



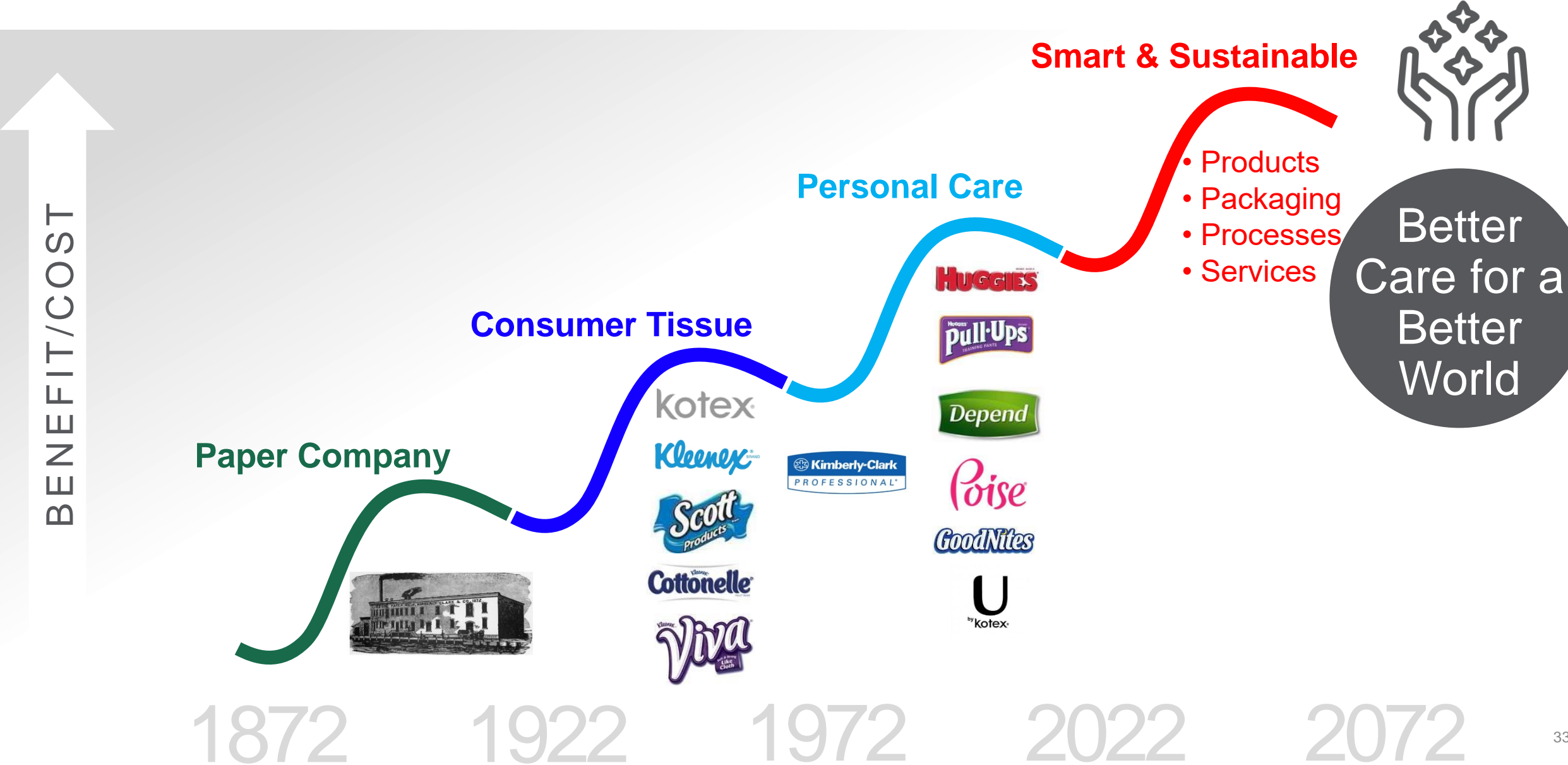
# We Need a Breakthrough Mindset



**What is impossible today,  
but if could be done,  
it would fundamentally  
change our business?**



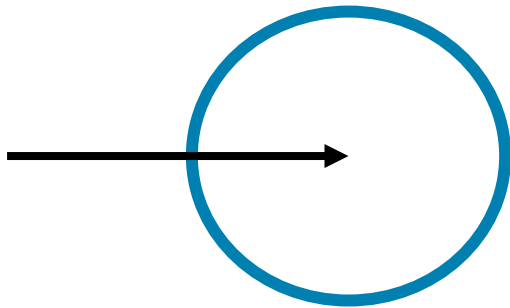
# A History of Breakthrough at Kimberly-Clark



# Brand and Innovation is Not Enough



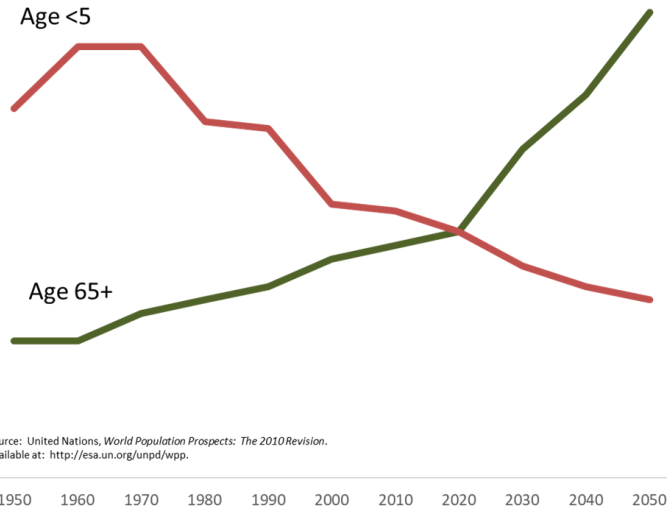
Our  
Comfort  
Zone



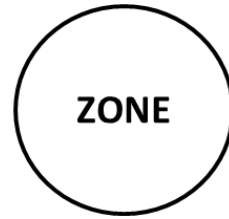
# More Grandparents than Grandbabies

## The World is Aging

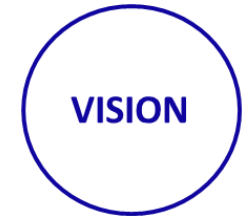
Young and Old as a Percentage of Global Population: 1950 - 2050



Source: United Nations, *World Population Prospects: The 2010 Revision*.  
Available at: <http://esa.un.org/unpd/wpp>.

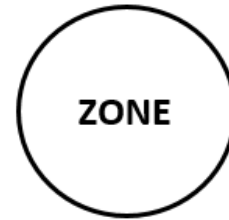
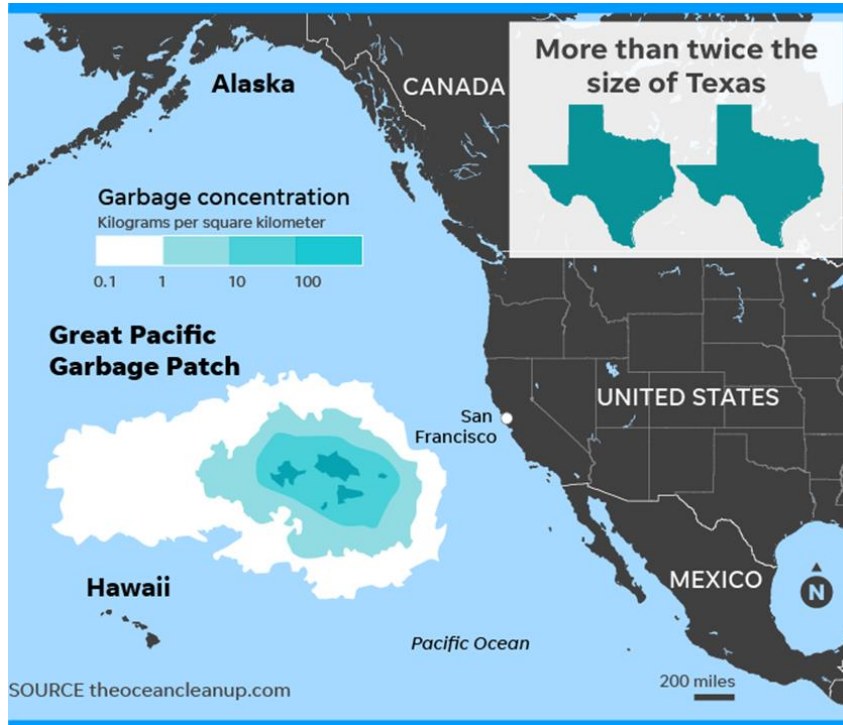


Today, babies are the biggest focus for K-C, accounting for half of our revenue.



Build life-long relationships and empower older consumers to thrive and enjoy their longer lives

# By 2050, More Plastic in the Ocean than Fish



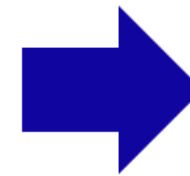
**Linear and Depletive**

Today K-C's products are single-use and made of synthetic materials such as plastics, deplete natural resources such as trees, and end up in landfills



**Circular and Sustainable**

In the future, K-C's products will be made from circular and sustainable materials that will have ecological balance, and go even further by enhancing the health of the earth

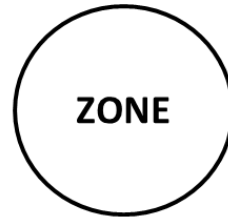


# “Everyone” is connected at Gigabit Speed

**THE 5G WORLD**

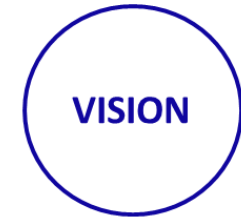
1. Testing in 2019
2. Deployment in 2020
3. 10 - 100 Gbps speeds

Technology	Speed	Year
3G	384 Kbps	2001
4G	100 Mbps	2009
5G	10 Gbps	2020



**Discrete Hygiene Products**

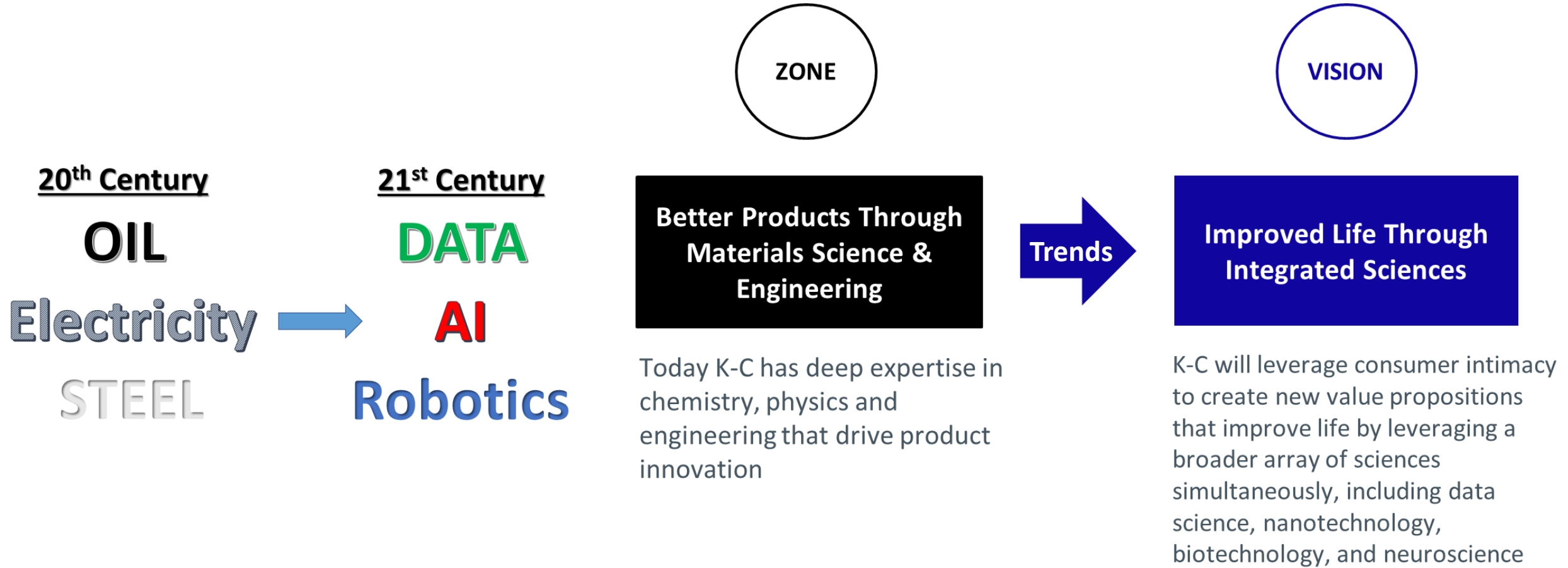
Today, K-C products “clean up the mess.” Our products are well designed but serve a limited range of consumer needs




**Smart Health & Wellness Systems**

In the future, K-C will elevate our products to create deeper connections with consumers, gathering data, enabling monitoring, diagnostics and life management

# Data is the new oil, AI is the new electricity, and Robotics is the new steel



A photograph of three children jumping joyfully in a lush green field. The child on the left is wearing a green shirt and blue shorts, with arms raised high. The child in the foreground is wearing a red shirt and blue shorts, also with arms raised. The child on the right is wearing a blue shirt and red pants, jumping with arms outstretched. The background shows a dense forest of tall trees under a soft, hazy sky.

A Vision for our Future

***Better Care for a Better World,  
powered by science,  
in balance with nature.***



# Provide Better Care for a Better World *for Every Single Person on Earth*

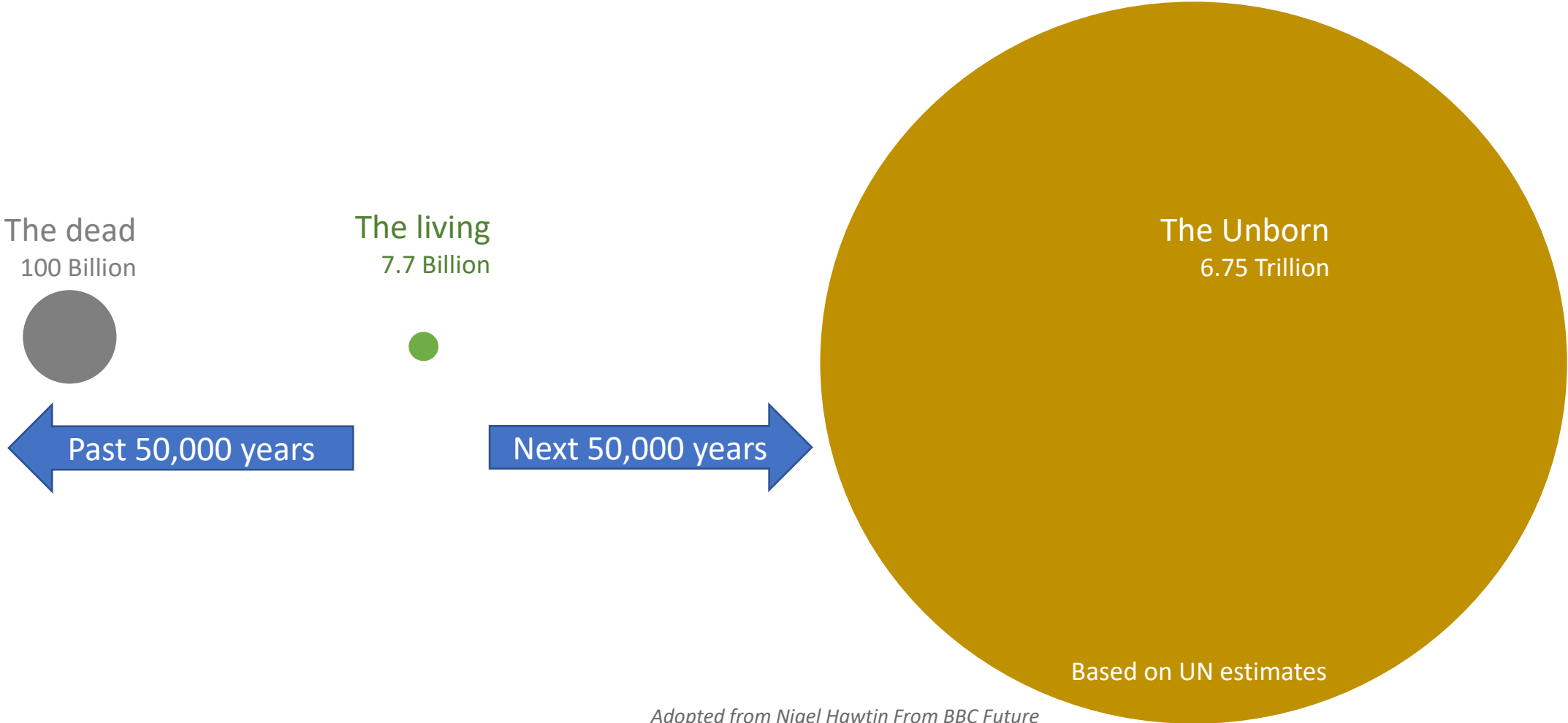
***DOUBLE***

***HALF***

***TWICE***



# Will We be Considered Good Ancestors?



A pair of hands is shown from the bottom, gently cradling a glowing, translucent globe of the Earth. The globe is the central focus, showing swirling blue oceans and white clouds. The text "SAVE THE PLANET" is superimposed in the center of the globe in a bold, white, sans-serif font. The background is dark and out of focus, with some blurred human figures, suggesting a crowd or a public gathering. The overall mood is one of care and environmental responsibility.

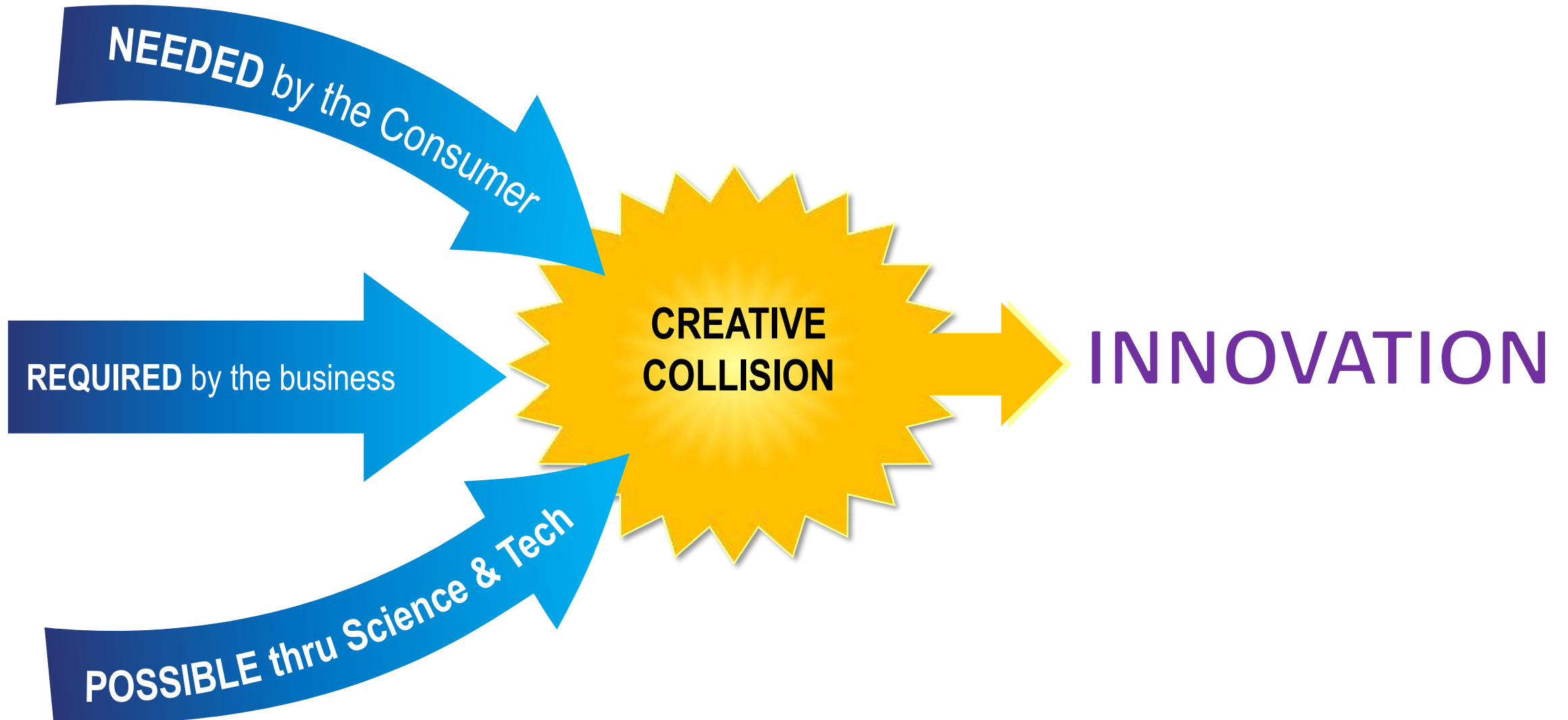
**SAVE  
THE  
PLANET**



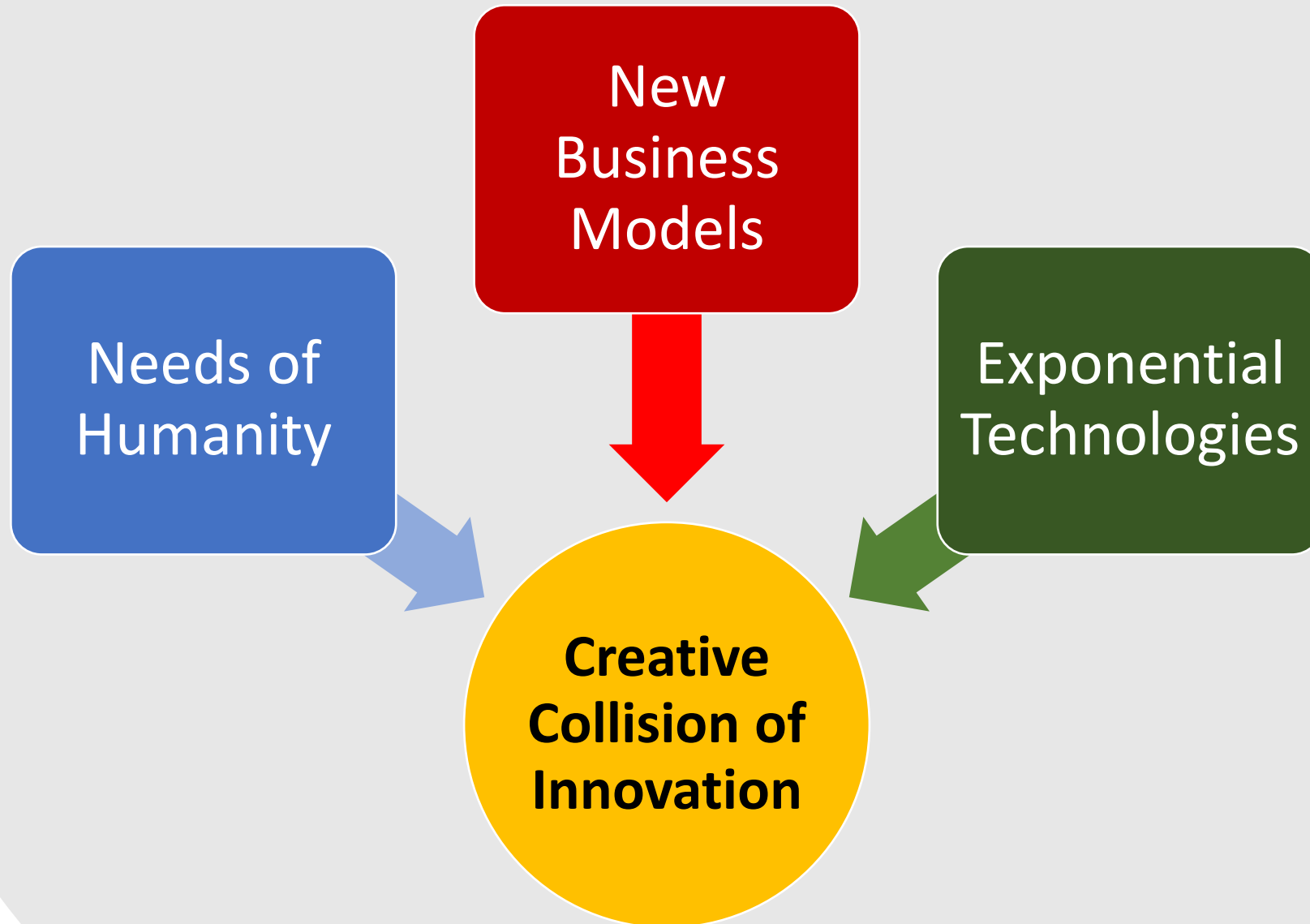
WHO WANTS TO  
BE A BILLIONAIRE?



# Consumer-Centric Innovation



# Humanity-Centric Innovation



# Needs of Humanity

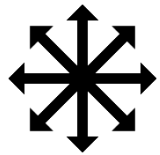






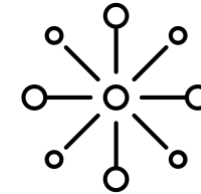
**Closed-Loop  
Economy**

**Free Data  
Economy**



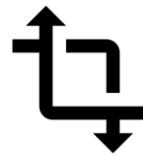
**Multiple  
World  
Models**

**Decentralized  
Autonomous  
Organizations**



**Crowd  
Economy**

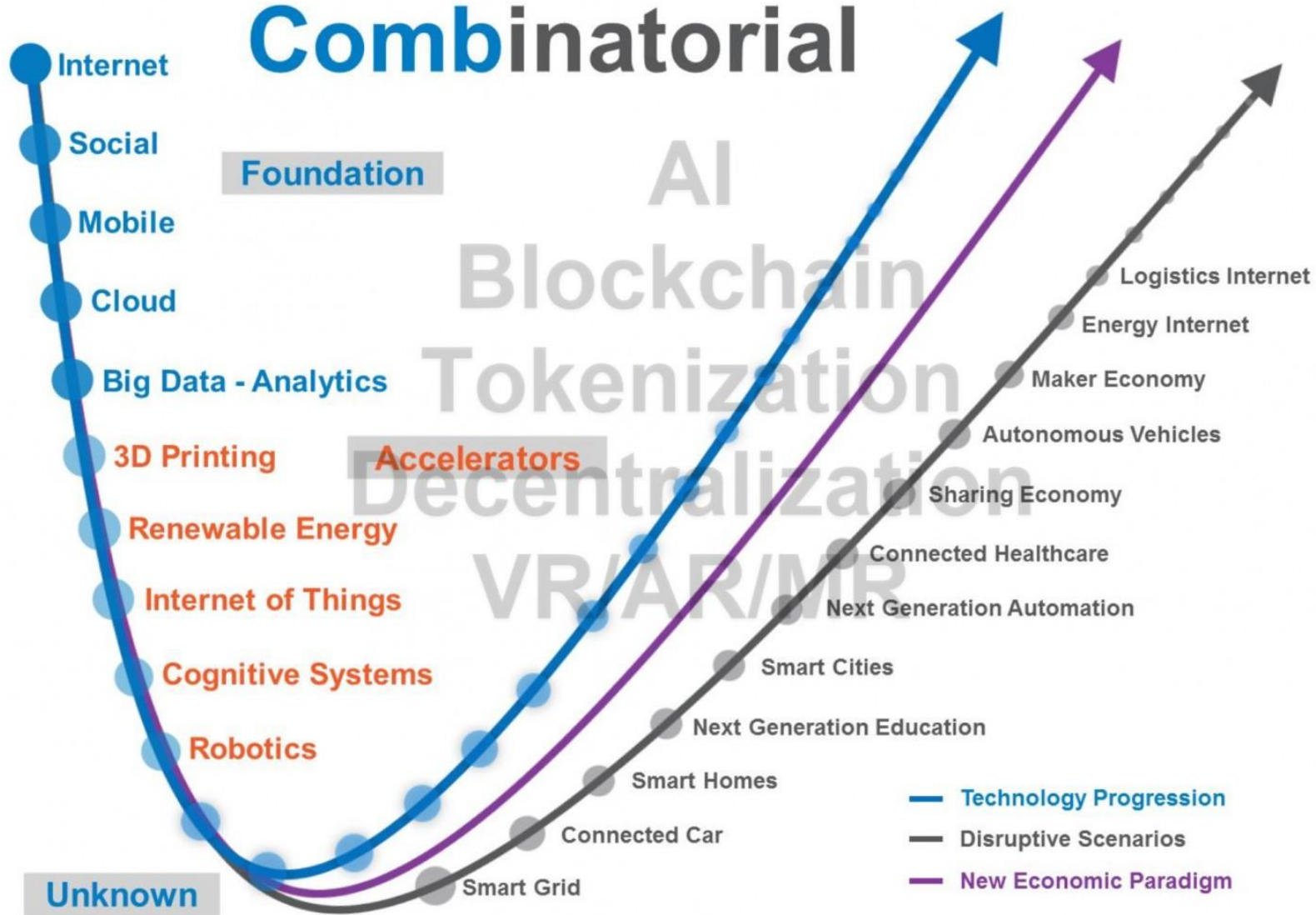
**Smart  
Economy**



**Transformation  
Economy**

# **Business Models of the 21<sup>st</sup> Century**

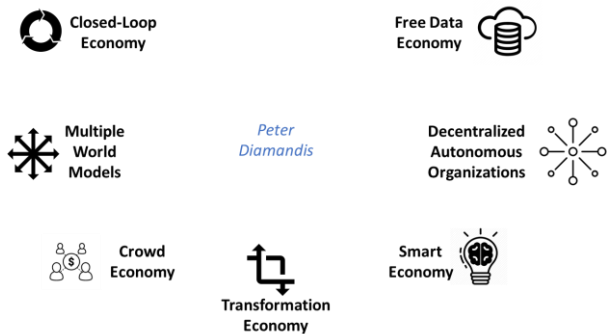
# Exponential Technologies



Needs of Humanity

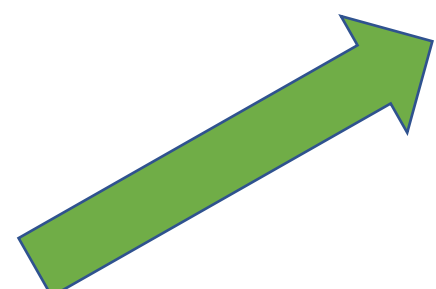
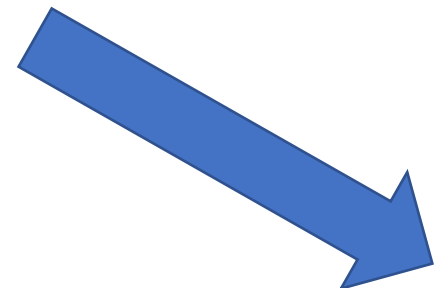
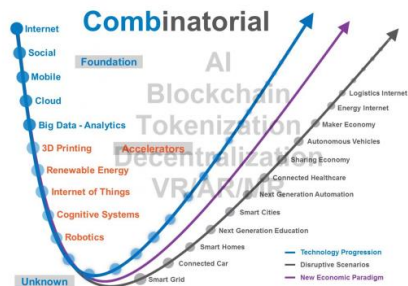


New Business Models

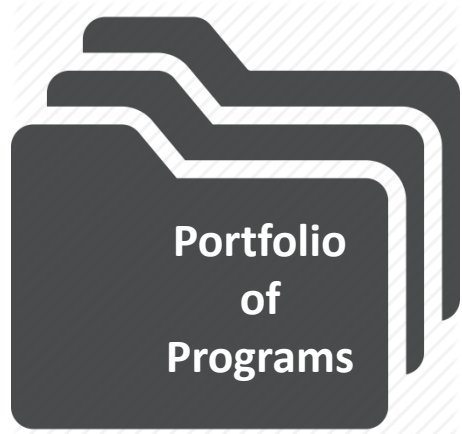
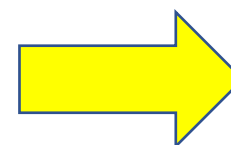


Exponential Technologies

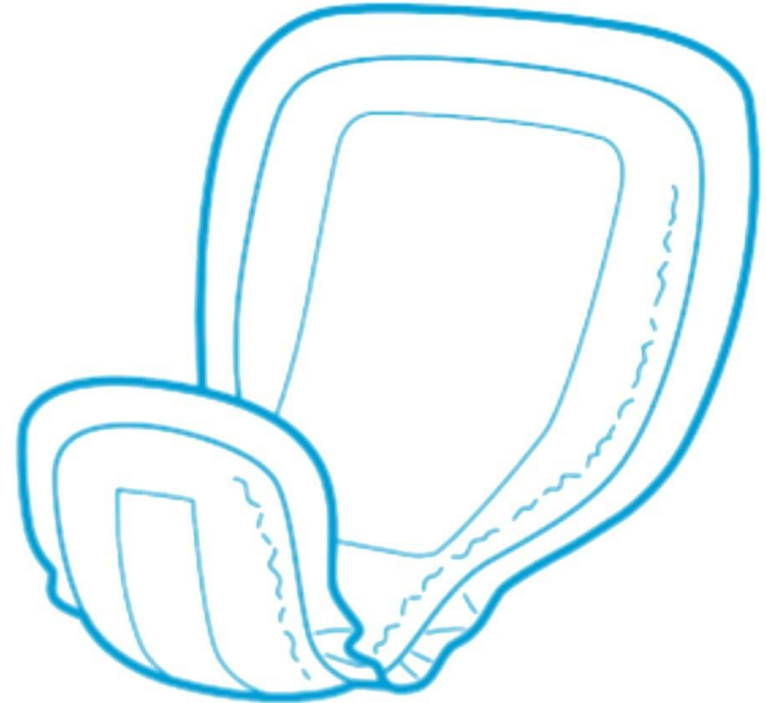
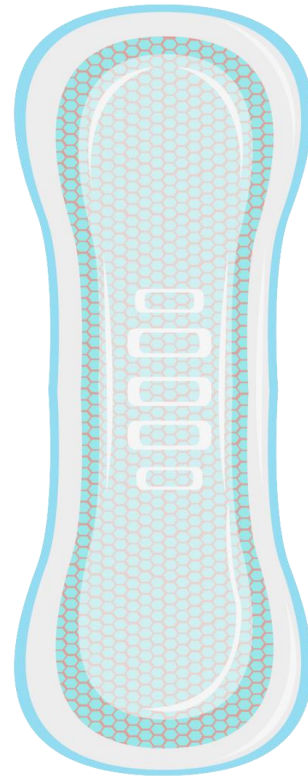
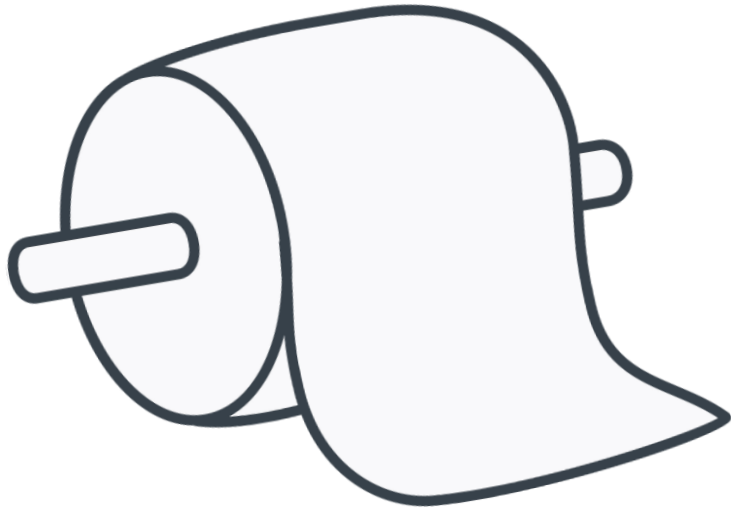
### Exponential Technologies



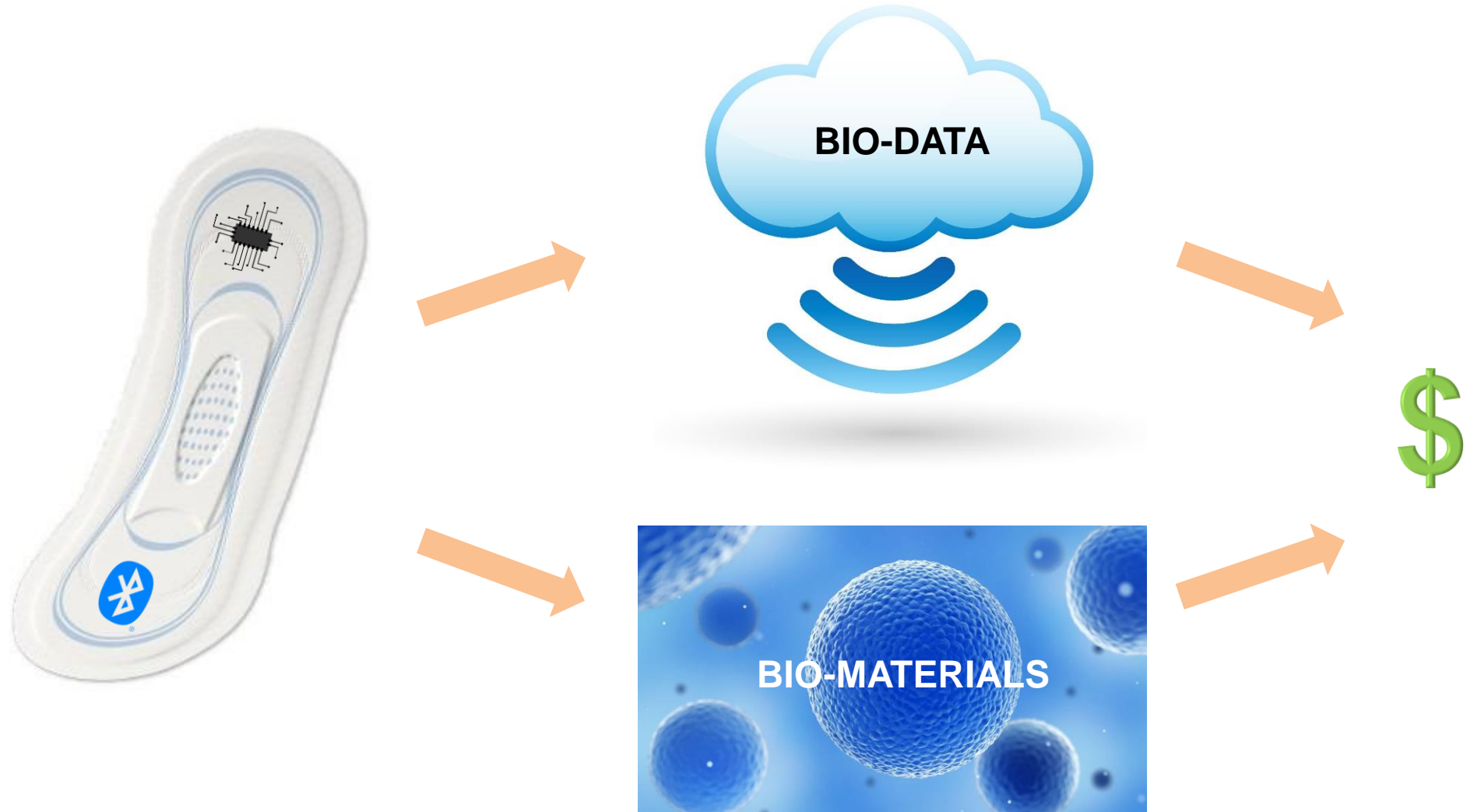
**Creative Collision of Humanity-Centric Innovation**



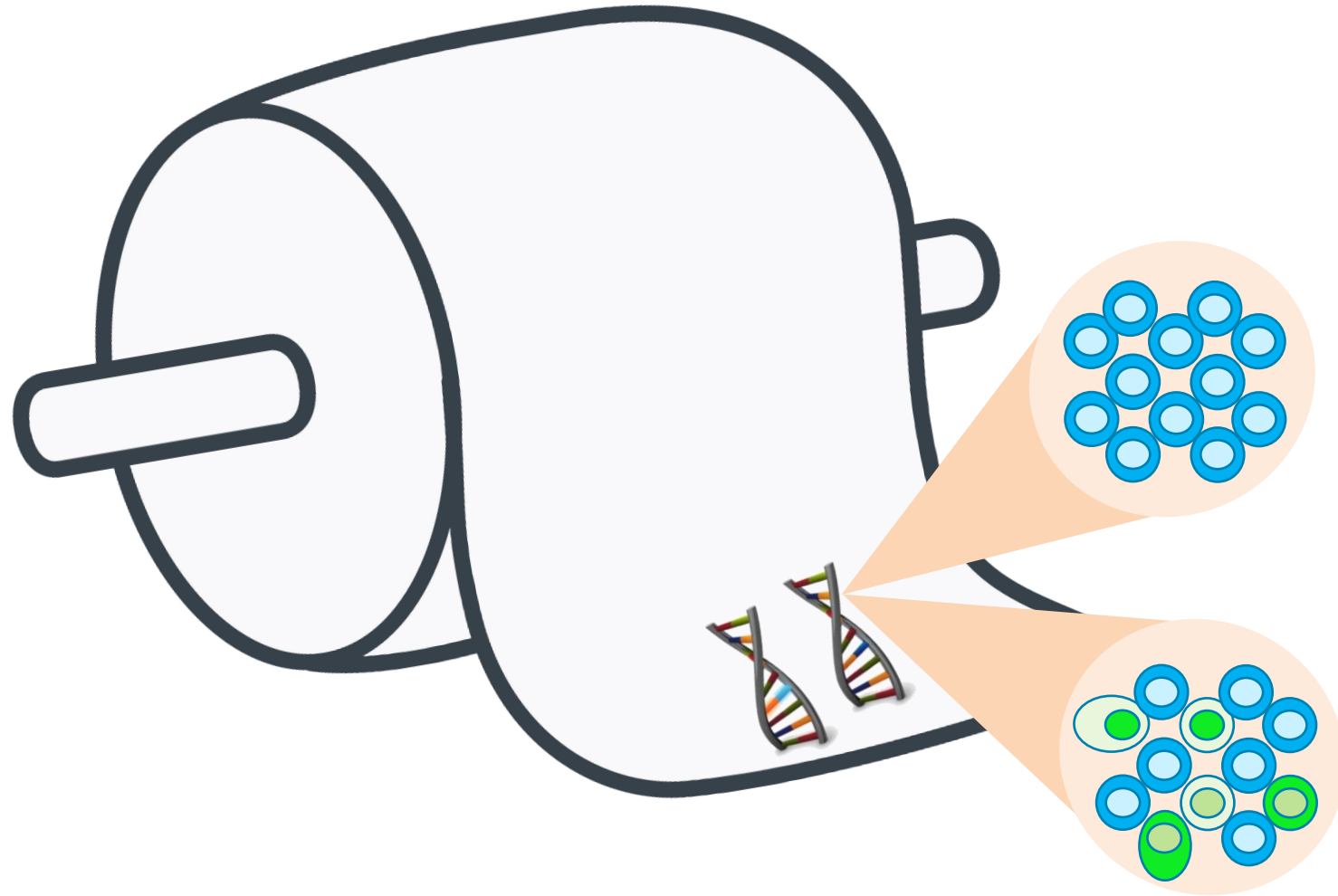
# How Do We Apply Humanity-Centric Innovation and Breakthrough Thinking to Everyday Products?



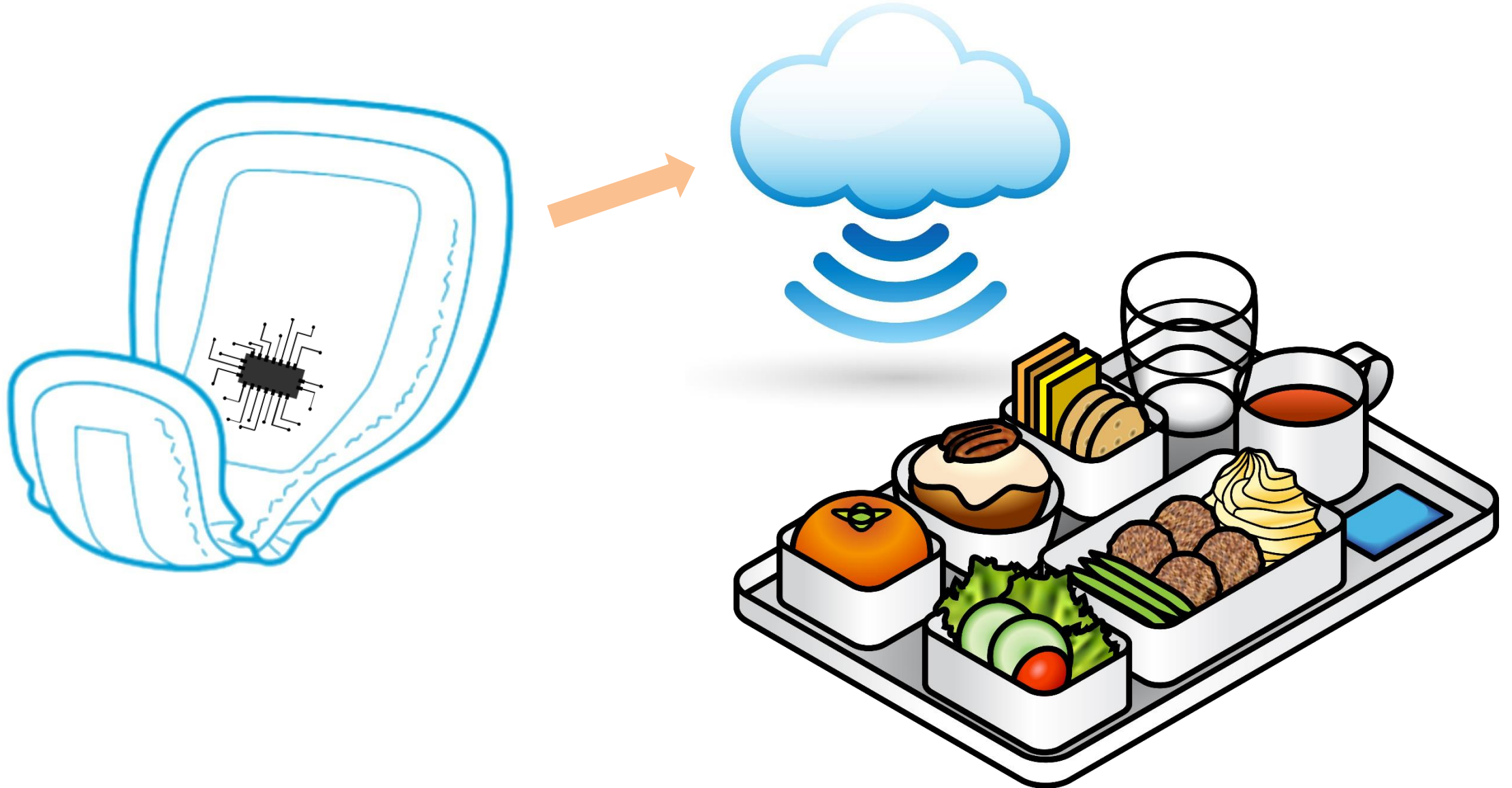
# A Used Product Worth More than a New Product



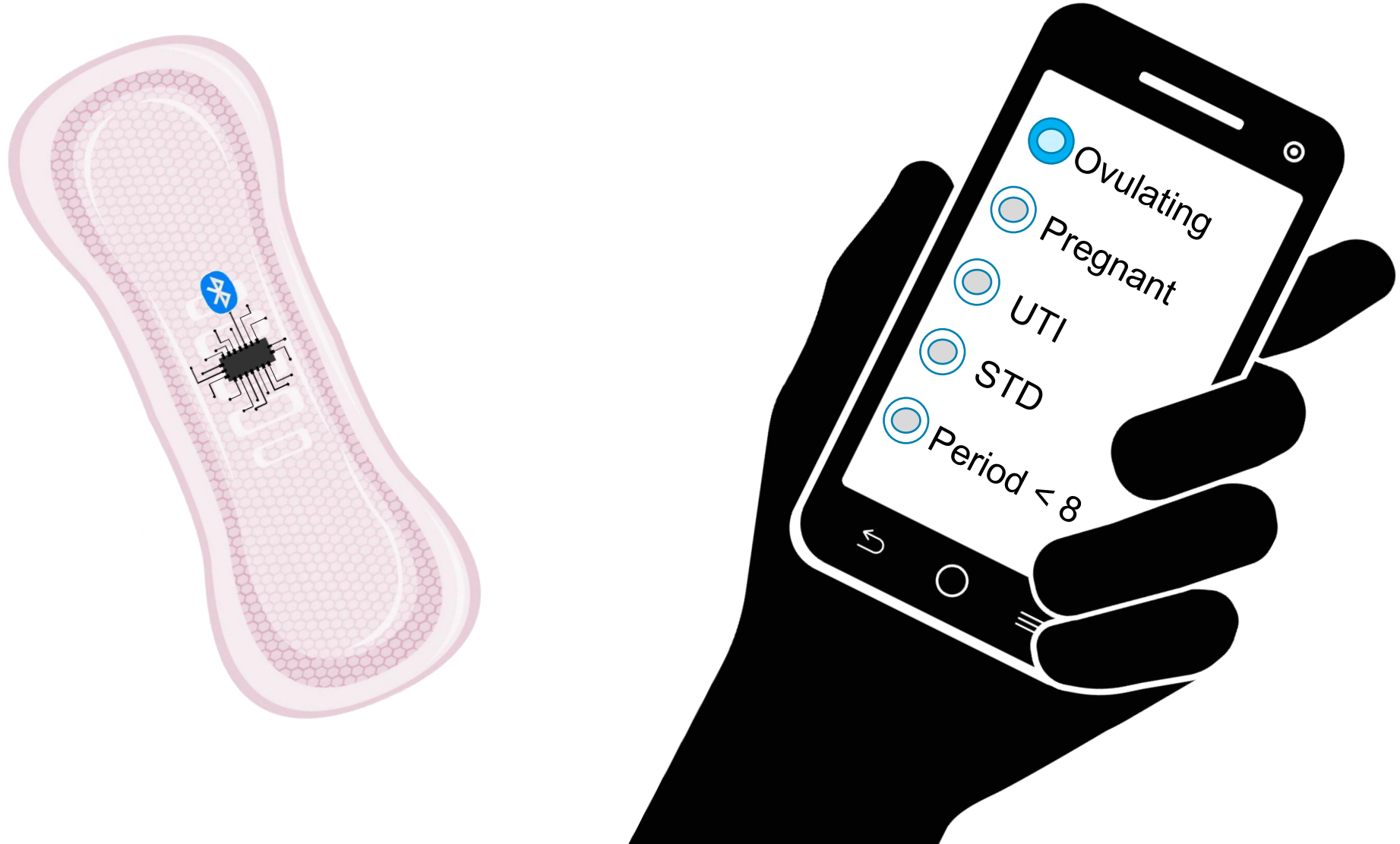
# Biomarker for Onset of Colon Cancer



# Product Informs Nutrition

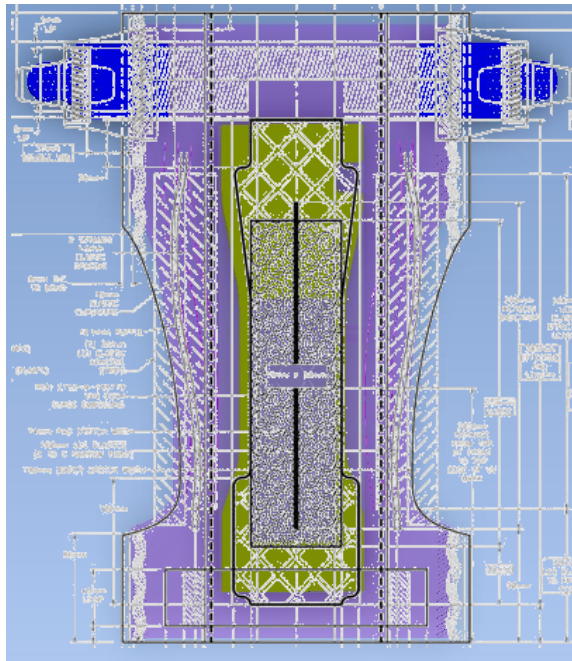


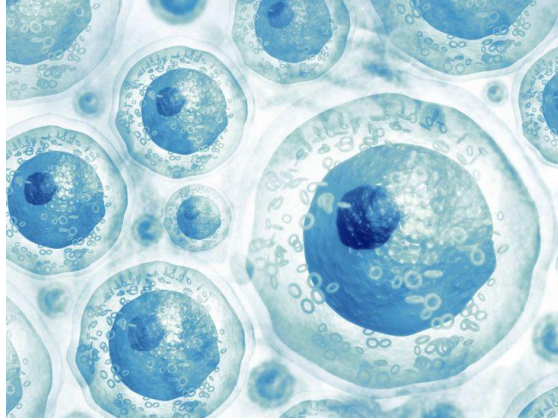
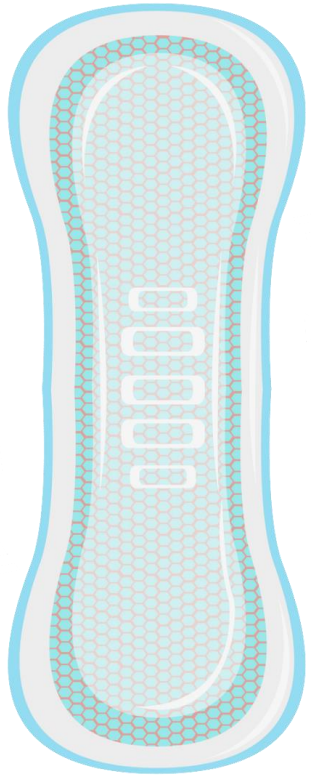
# Panty Liner Diagnostic





# Product On Demand





# Stem cell banking

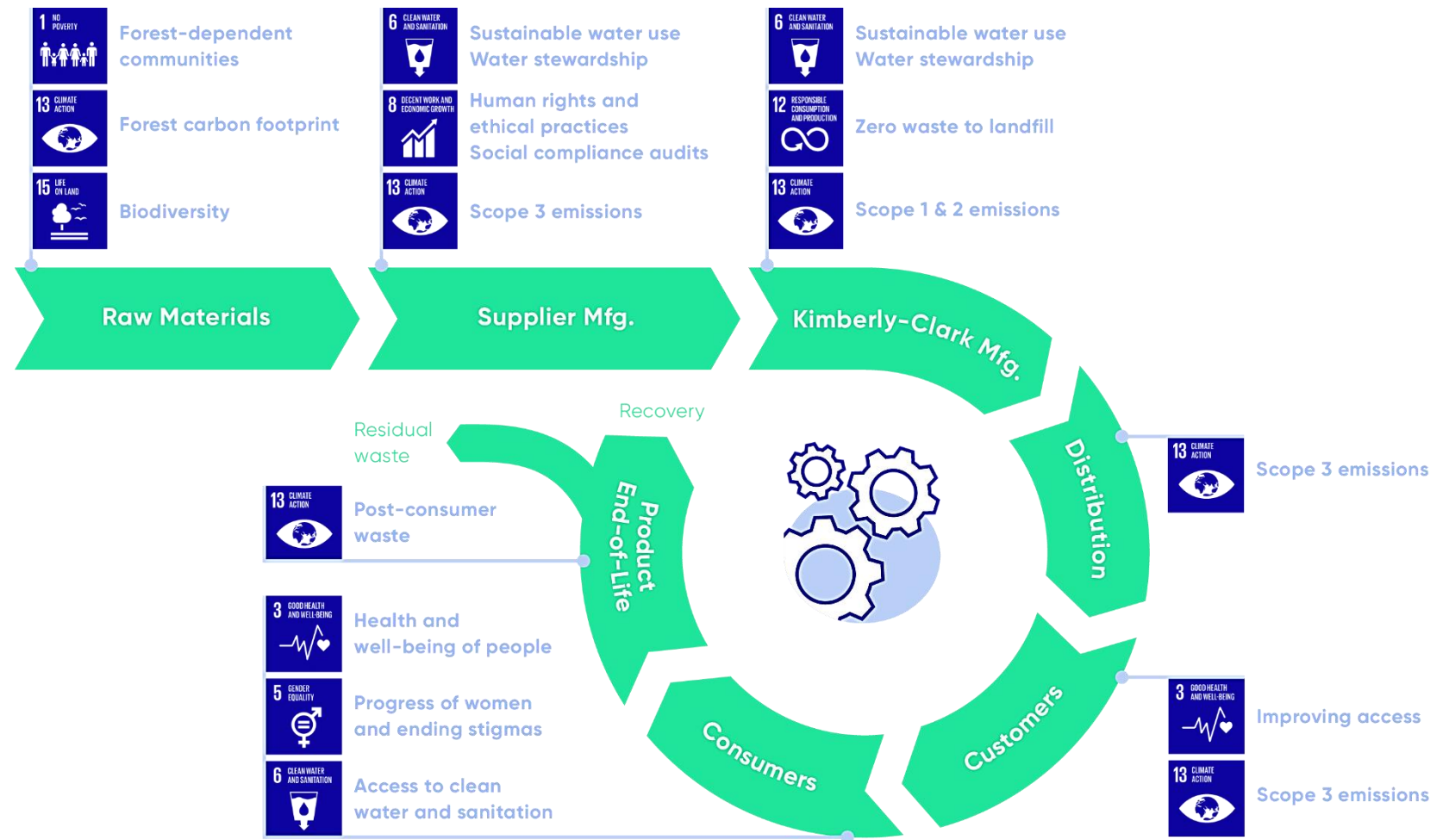


# Our entire value chain can make an impact

Strategy addresses the largest risks and opportunities across our value chain

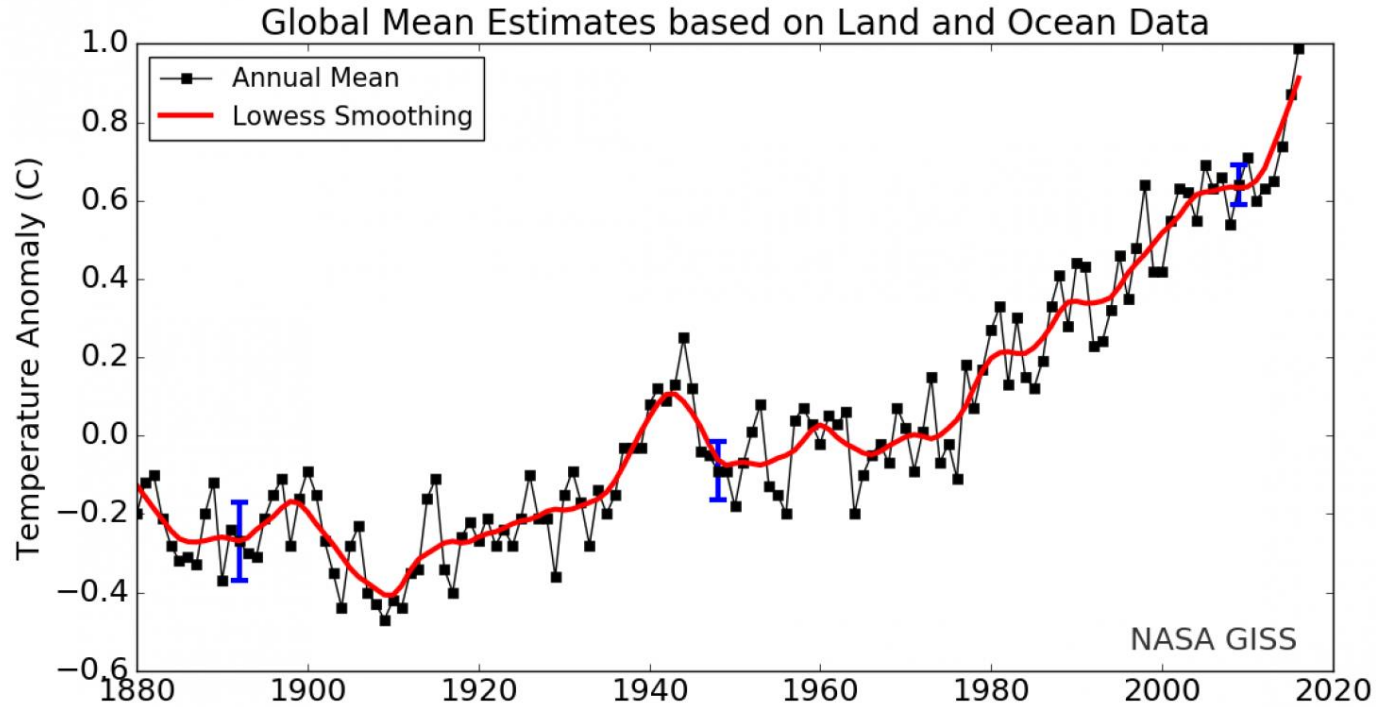
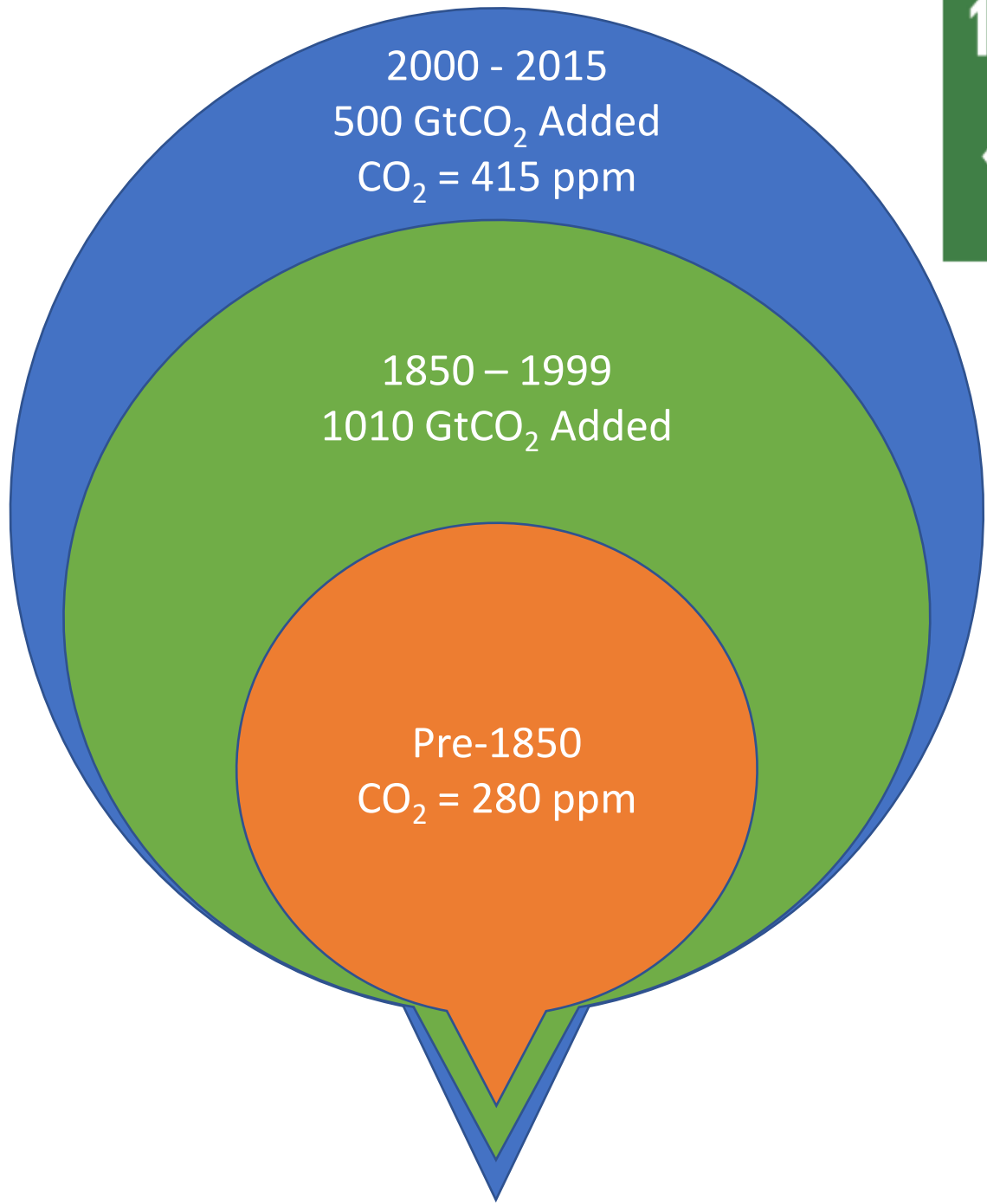
Objectives are aligned with the United Nations' Sustainable Development Goals

Enable a transition from linear material flows to a circular system





Take urgent action to combat climate change





## Ensure sustainable consumption and production patterns

**We Eat Three Credit Cards Per Year**



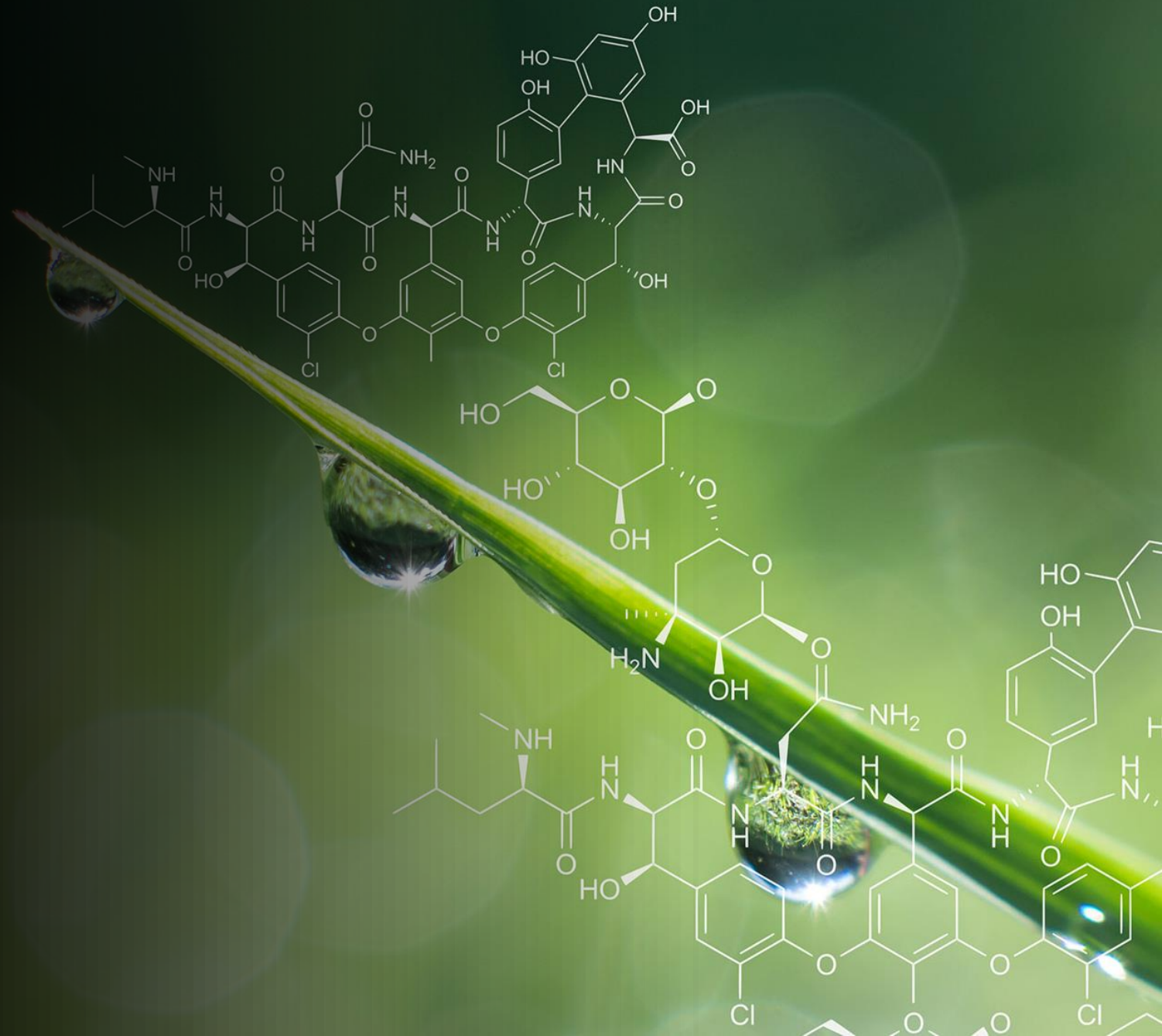
**Microplastics Found Circulating in Human Blood For The First Time – 3/25/2022**



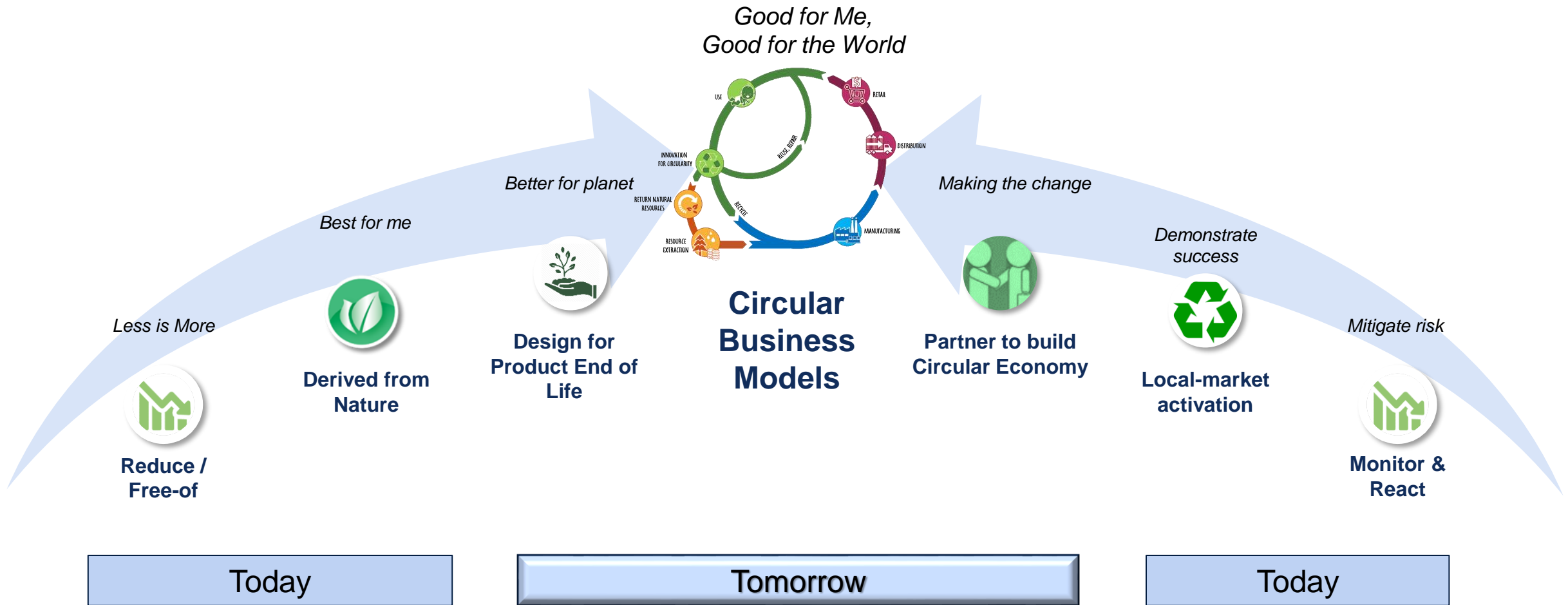


# Petroleum-Free Polymers

---



# Reduce, Renew, Reuse, Recycle, Rethink Resources



## Biodegradable Wipes



## Tree-Free Paper

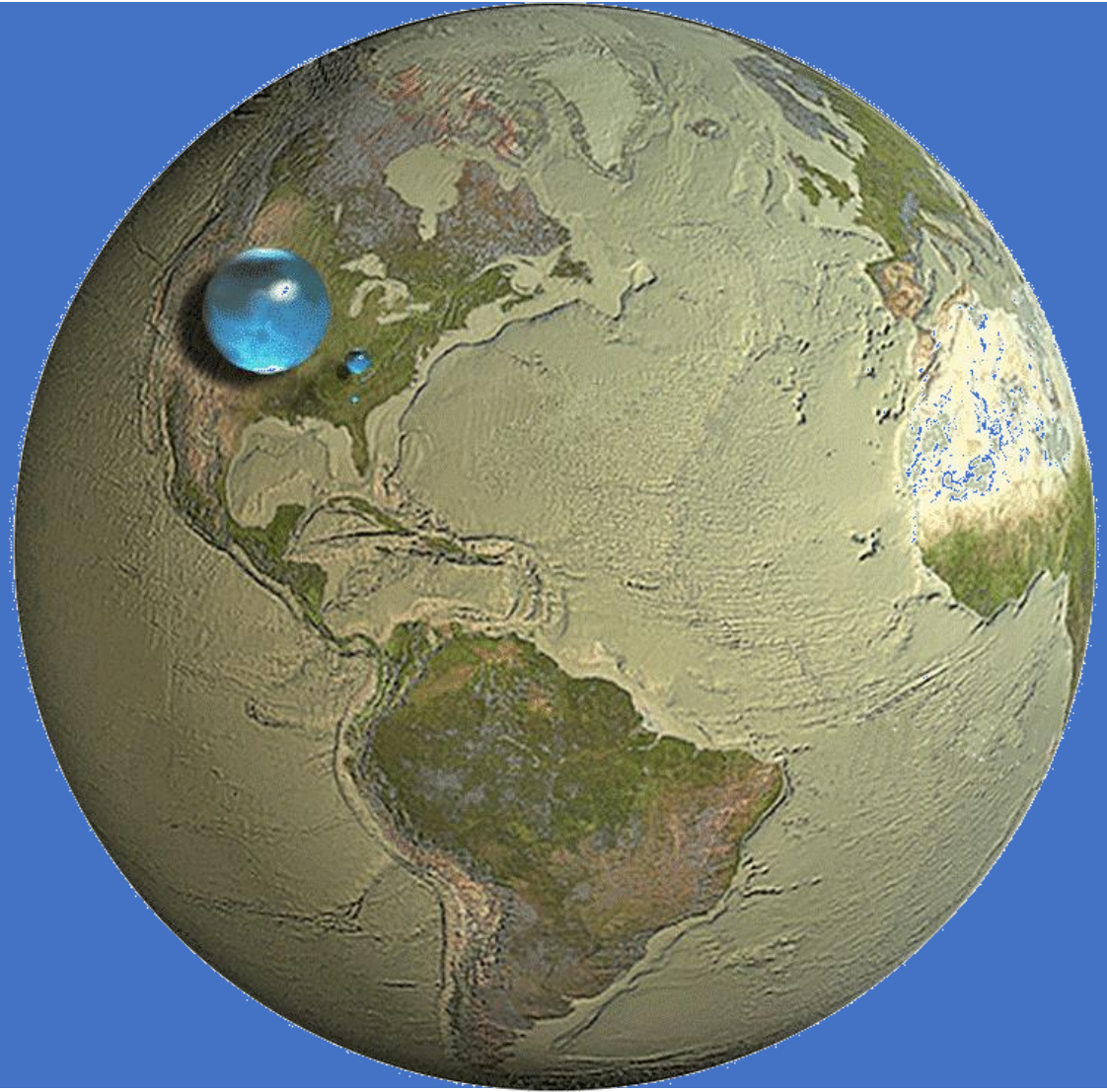


## Reusable Products





Ensure availability and sustainable management of water and sanitation for all



# Championing a world where all enjoy access to clean water and sanitation



## HOW

Product & Business Model Innovation

CSR Programs

Philanthropy & Advocacy

WHAT



Champion a world where all enjoy access to clean water & sanitation

In partnership with others, help develop entrepreneurial **solutions to the global sanitation crisis** that affects 2B people

Provide access to **clean water and sanitation to 4M people** (e.g., Toilets Change Lives)

Advocate for societal changes to address **water, sanitation and hygiene access** for all





# COVID-19

Last Updated at (M/D/YYYY)  
5/14/2022, 8:20 AM

Total Cases  
**520,688,335**

Total Deaths  
**6,262,638**

Total Vaccine Doses Administered  
**11,402,756,826**

Cases | Deaths by  
Country/Region/Sovereignty

28-Day Cases  
**17,028,332**

28-Day Deaths  
**67,080**

28-Day Vaccine Doses Administered  
**259,775,349**

**Germany**  
28-Day: 2,346,818 | 4,563  
Totals: 25,723,697 | 137,492

**US**  
28-Day: 1,806,578 | 10,840  
Totals: 82,422,052 | 999,519

**France**  
28-Day: 1,559,145 | 3,197  
Totals: 29,321,831 | 148,295

**Korea, South**  
28-Day: 1,543,876 | 2,772  
Totals: 17,756,627 | 23,661

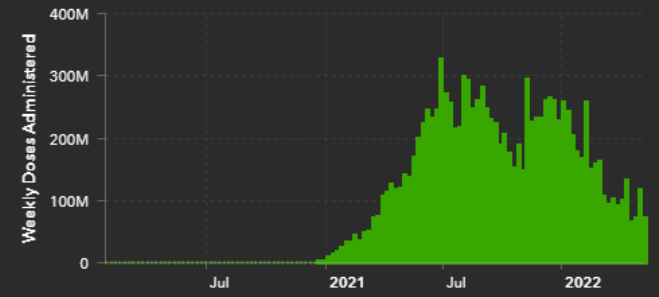
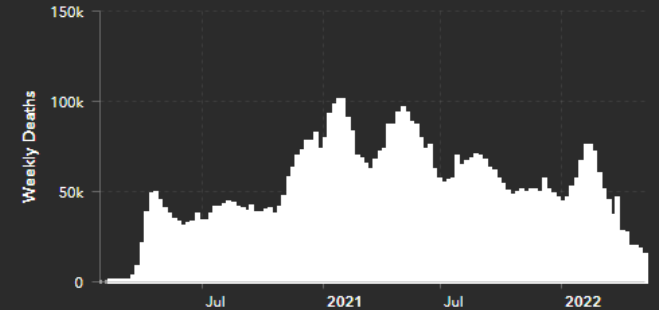
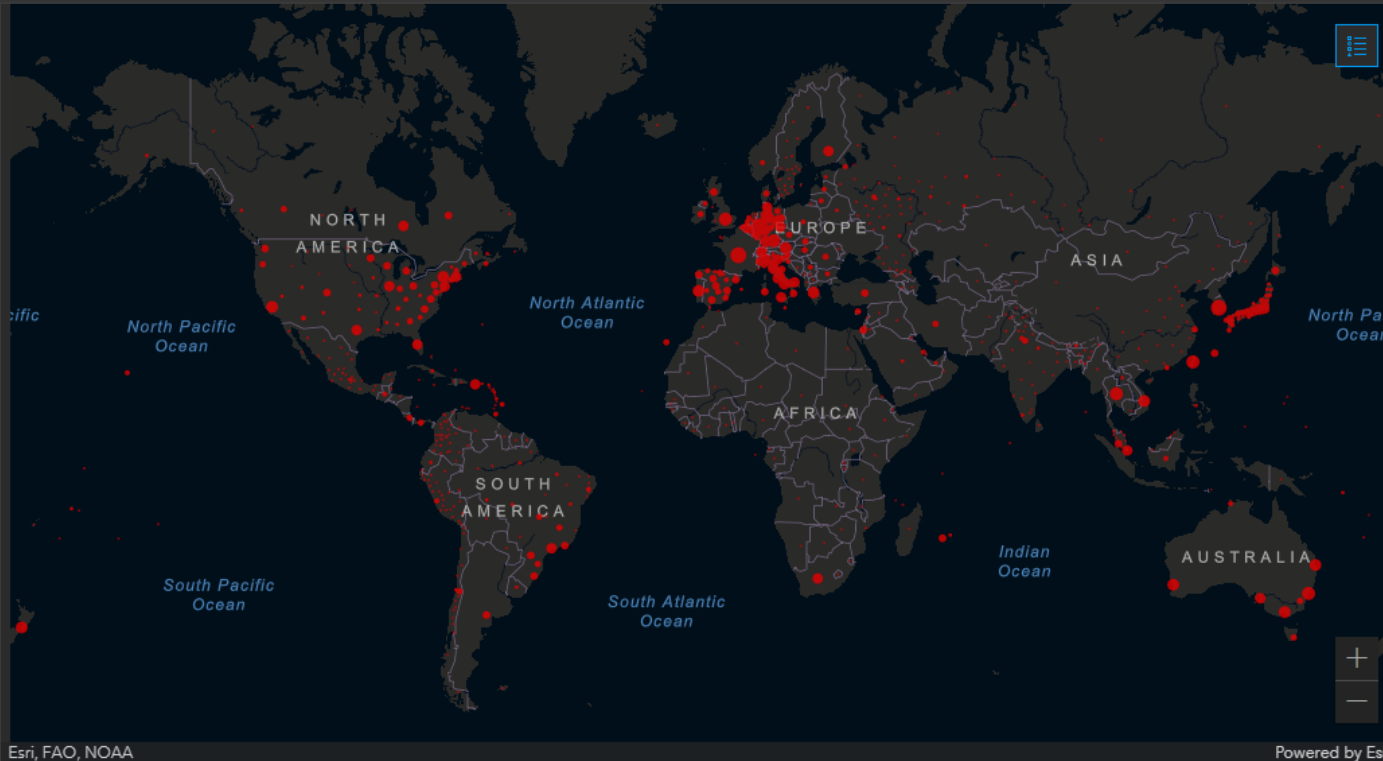
**Italy**  
28-Day: 1,398,511 | 3,622  
Totals: 16,993,813 | 165,091

**Australia**  
28-Day: 1,202,930 | 1,014  
Totals: 6,552,267 | 7,774

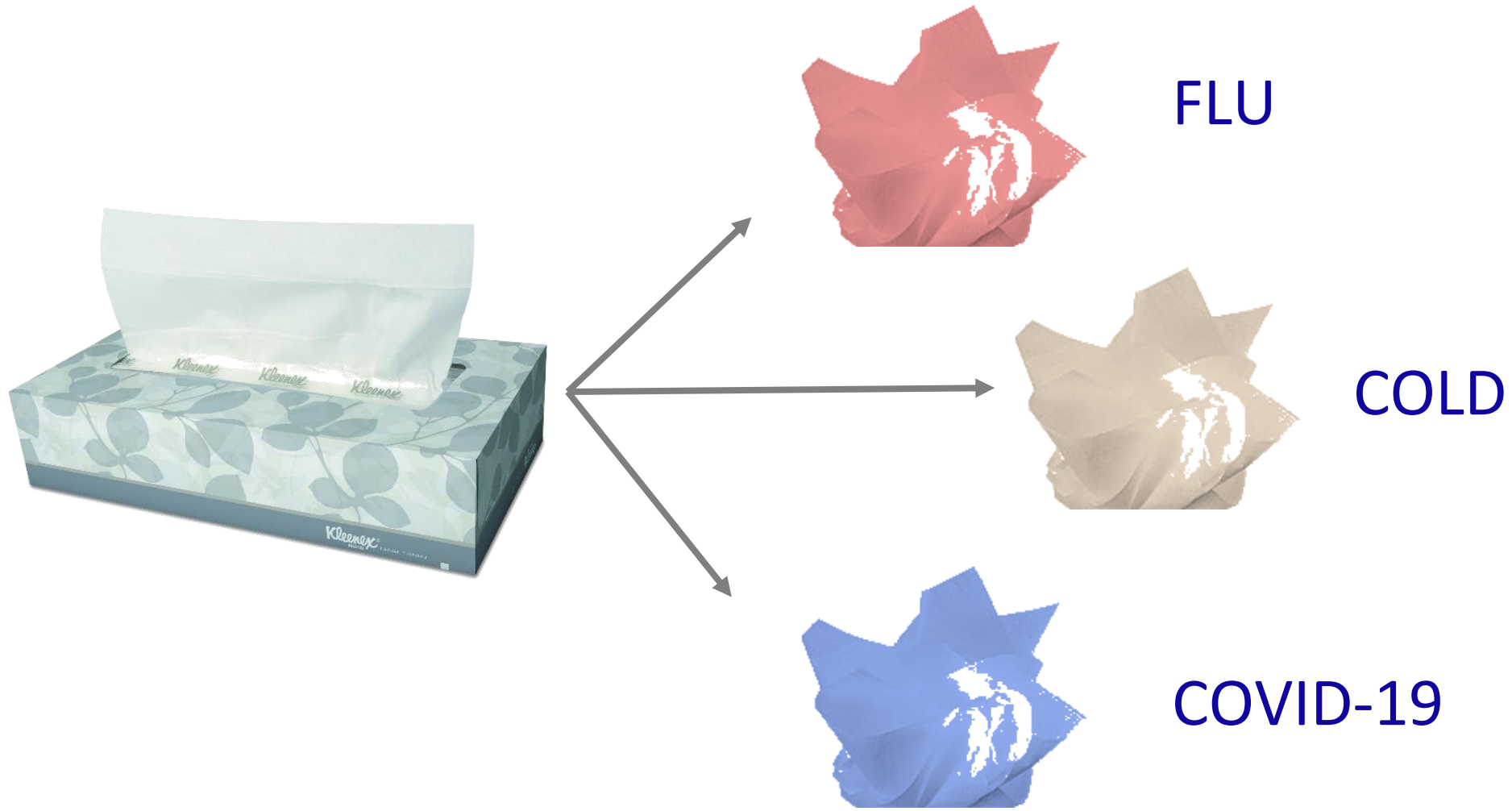
**Japan**  
28-Day: 1,010,792 | 1,056  
Totals: 8,295,520 | 30,006

**China**  
28-Day: 582,777 | 858  
Totals: 2,345,783 | 14,566

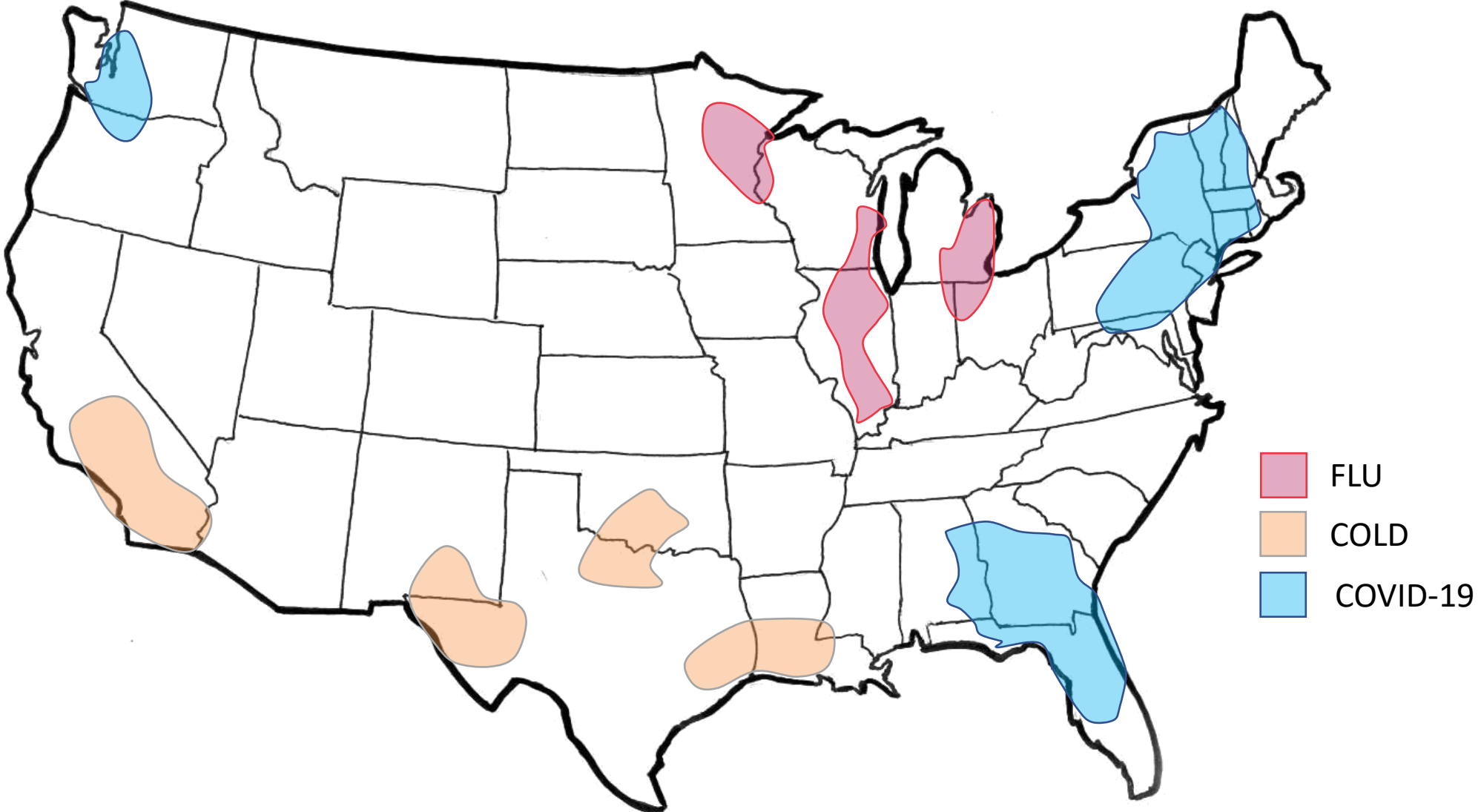
**Taiwan\***  
28-Day: 539,013 | 114  
Totals: 539,013 | 114



# Detect Infection & Disease



# Predict Infection & Disease



# Prevent Infection & Disease



**SURFACE**



**AIR**



**SKIN**

**So, What's Holding Us Back?**

# Imagination + Courage = Transformation

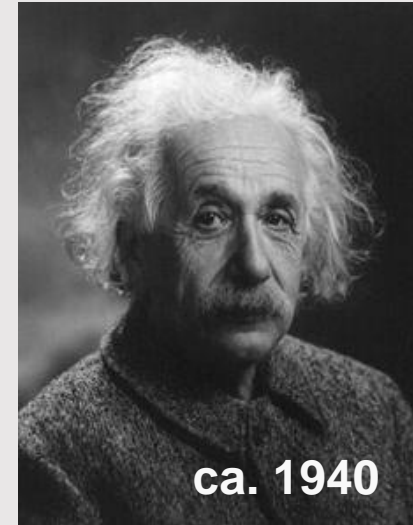


Knowledge is Power



Google

WIKIPEDIA



**Imagination** is more important than Knowledge!

YouTube





# **Innovation x Execution = Business Results**

If either term is zero,  
so is the product

# What's needed for business success:



A **value proposition** that the consumer understands and addresses an accepted consumer belief about some tension in their life.



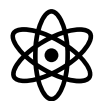
A **business model** where all the partners in the value chain have an acceptable return on investment.



A **go-to-market strategy** that can be executed and maintained through existing and new channels.



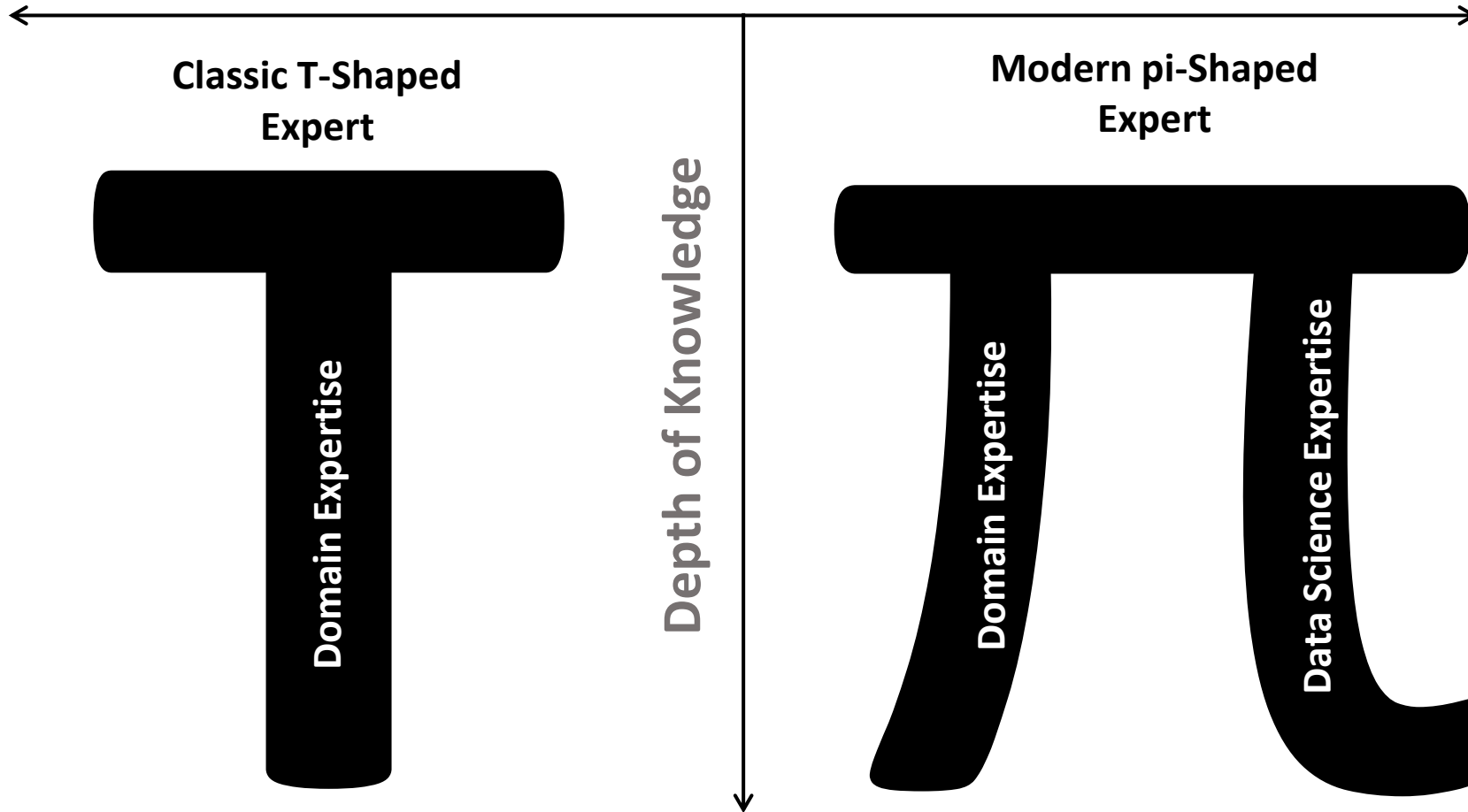
A **pipeline of innovation** that creates successive waves of anticipation in the consumer.



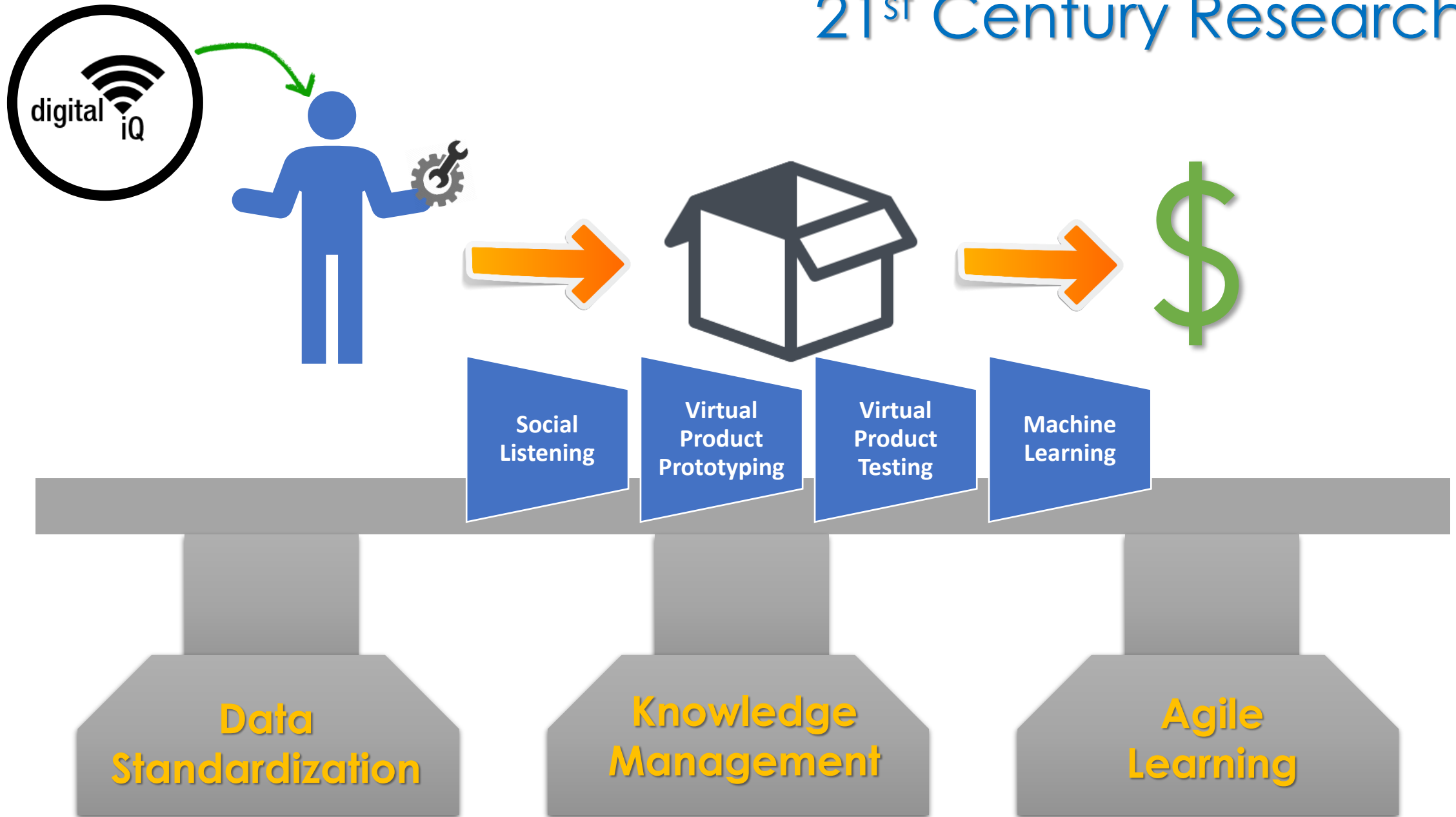
A **technology** that gives the consumer (and the business) a reason to believe at a price they can afford.

# 21<sup>st</sup> Century Researcher

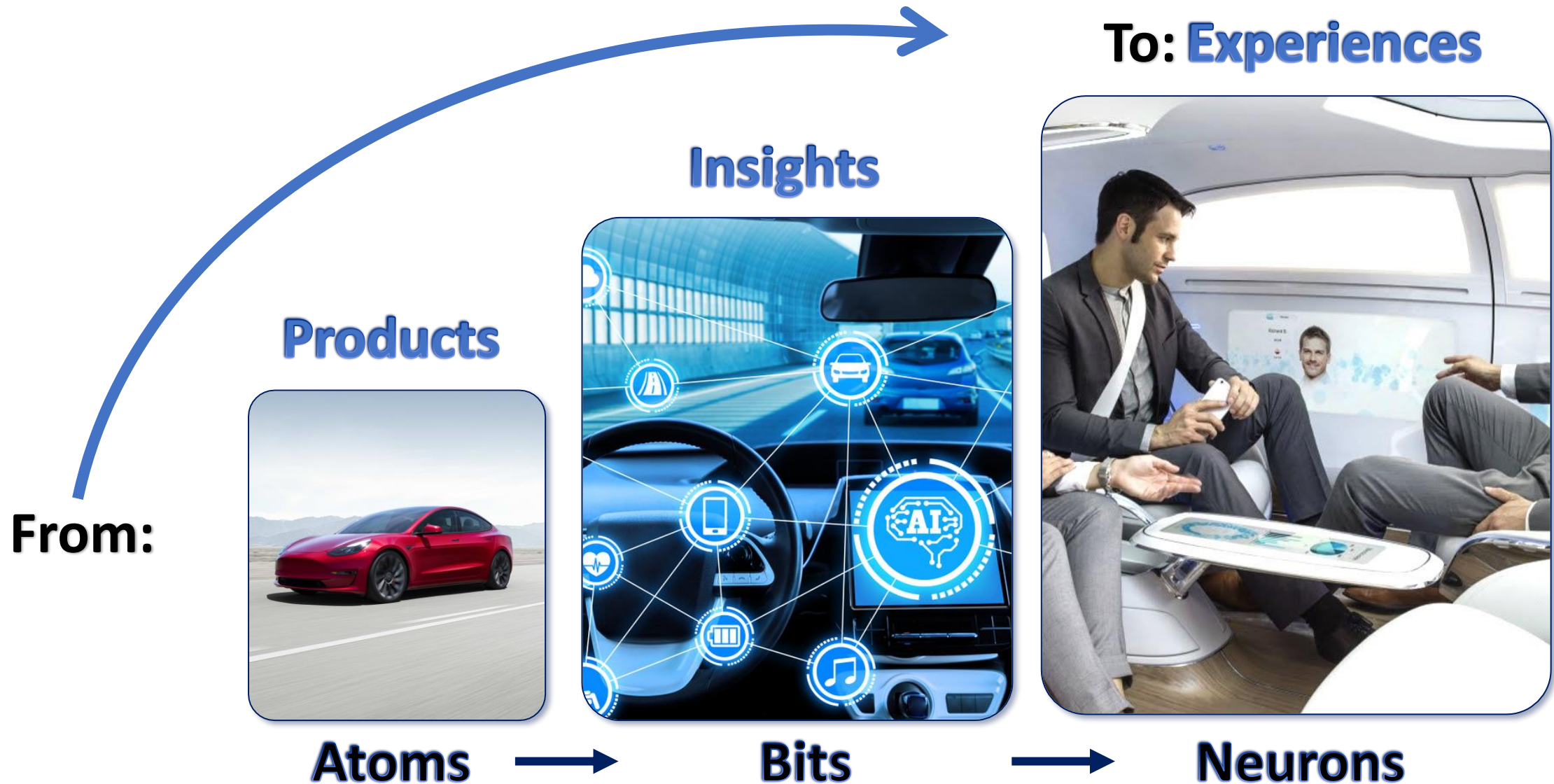
Breadth of Knowledge



# 21<sup>st</sup> Century Researcher



# Creating a Superior Customer Experience



# What's Your Moonshot?

*If you dream it,  
and believe it,  
you can achieve it.*



2022 ANNUAL CONFERENCE  
JUNE 6-9, 2022  
NEW ORLEANS > HYBRID

# [ RESET ] FUTURE FOCUS

