



Exponential transformation  
and intelligent organisation:  
technology, humanity and the  
next 10 years: **9 key points**



[techvshuman.com](http://techvshuman.com)



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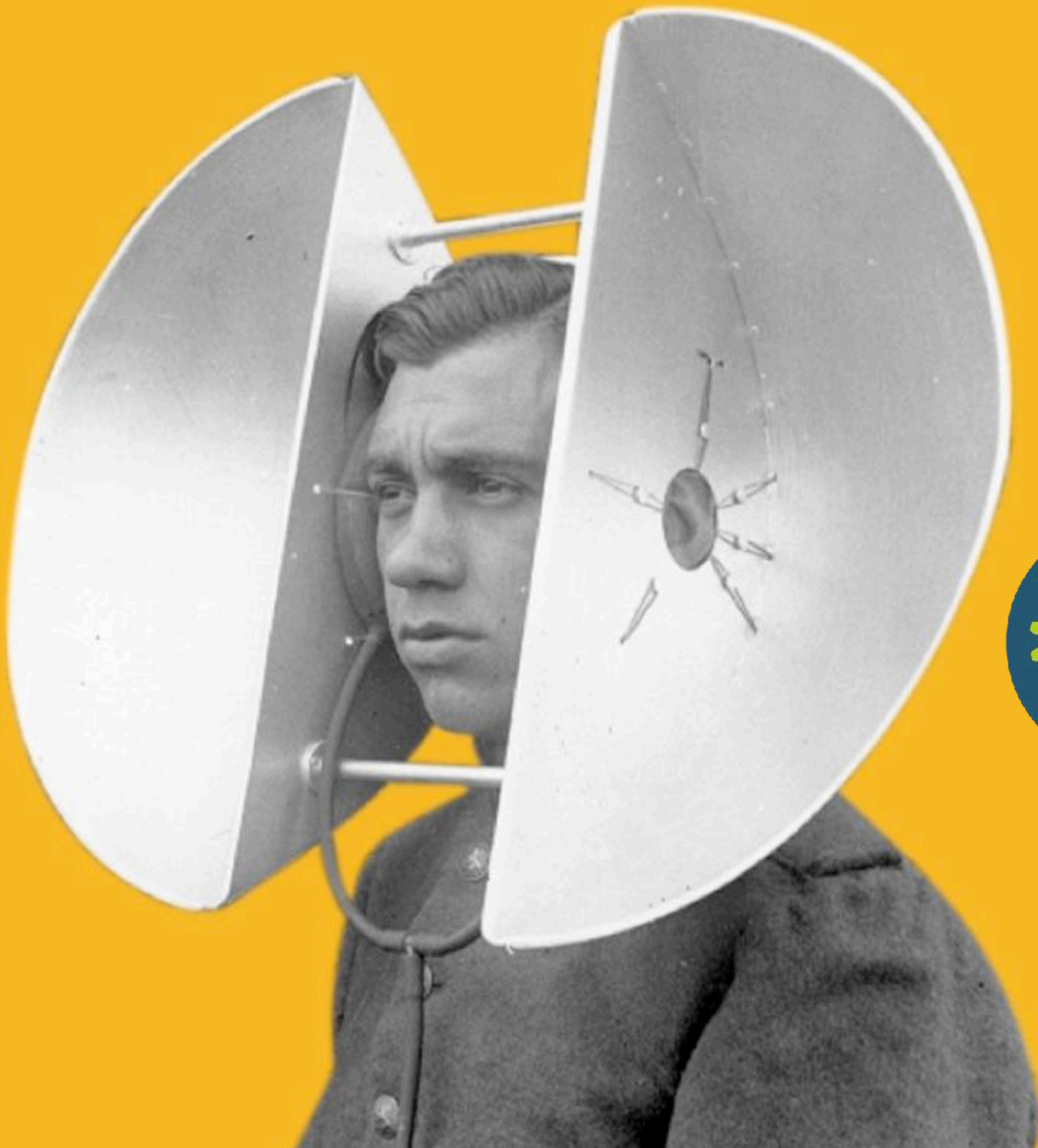


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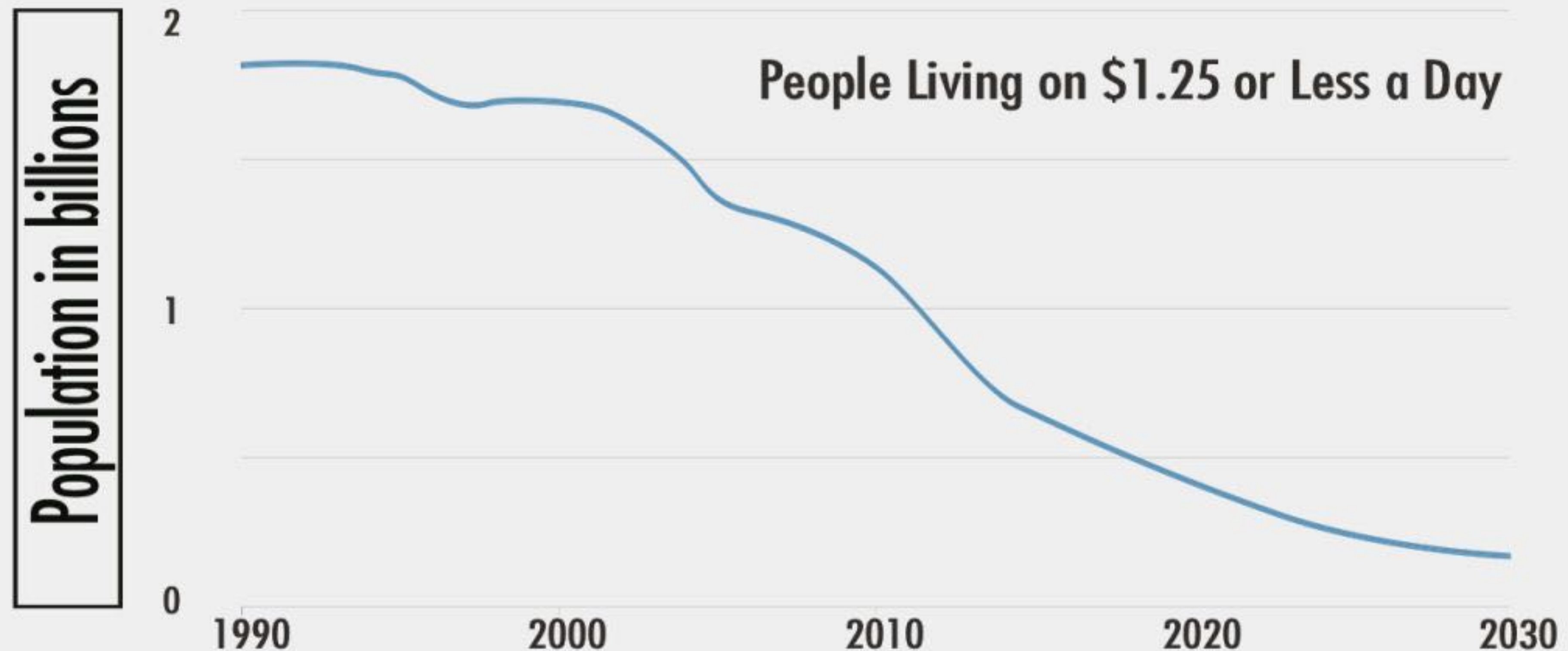






# The future is better than we think \*

## The End of Poverty (June 2013)

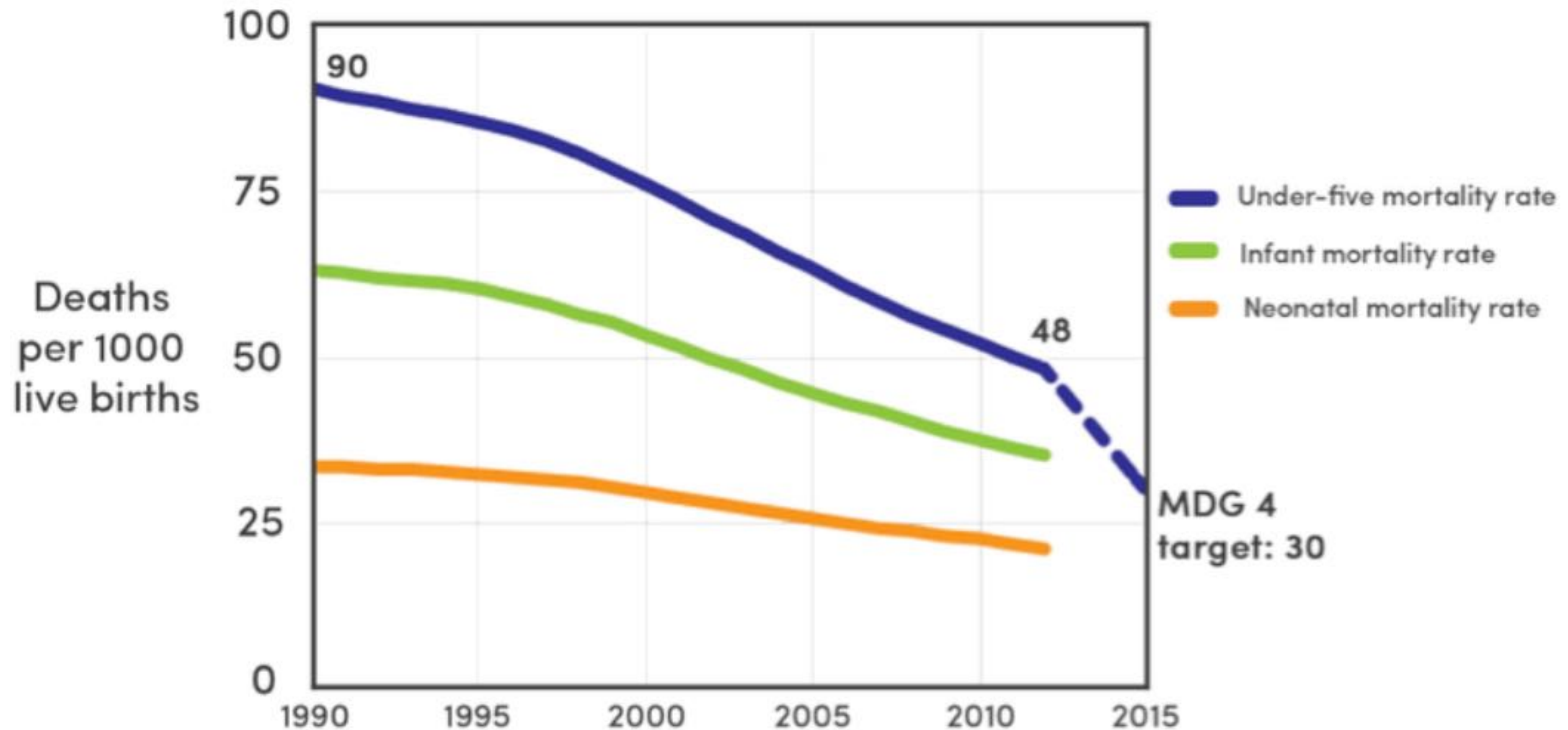


Source: The Economist

# The future is better than we think \*

## The Global Under-Five Mortality Rate

Infant and neonatal mortality rates, 1990-2012

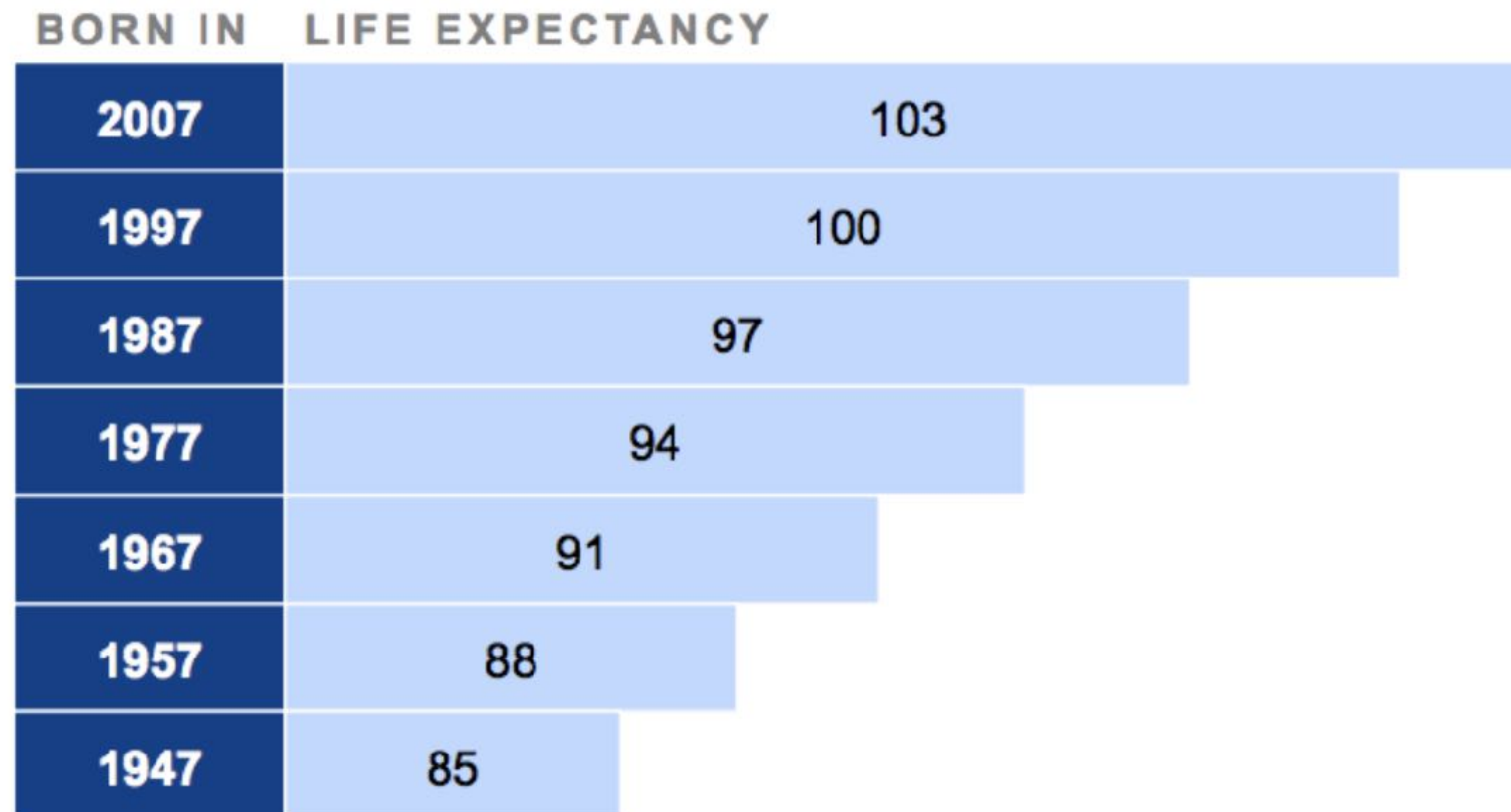


Infant Mortality Rate (Source: Devpolicy, UN Interagency Group for Child Mortality Est. 2013)



# The future is better than we think \*

**Figure 1:** Longevity has been increasing steadily since the middle of the 20th century<sup>4</sup>

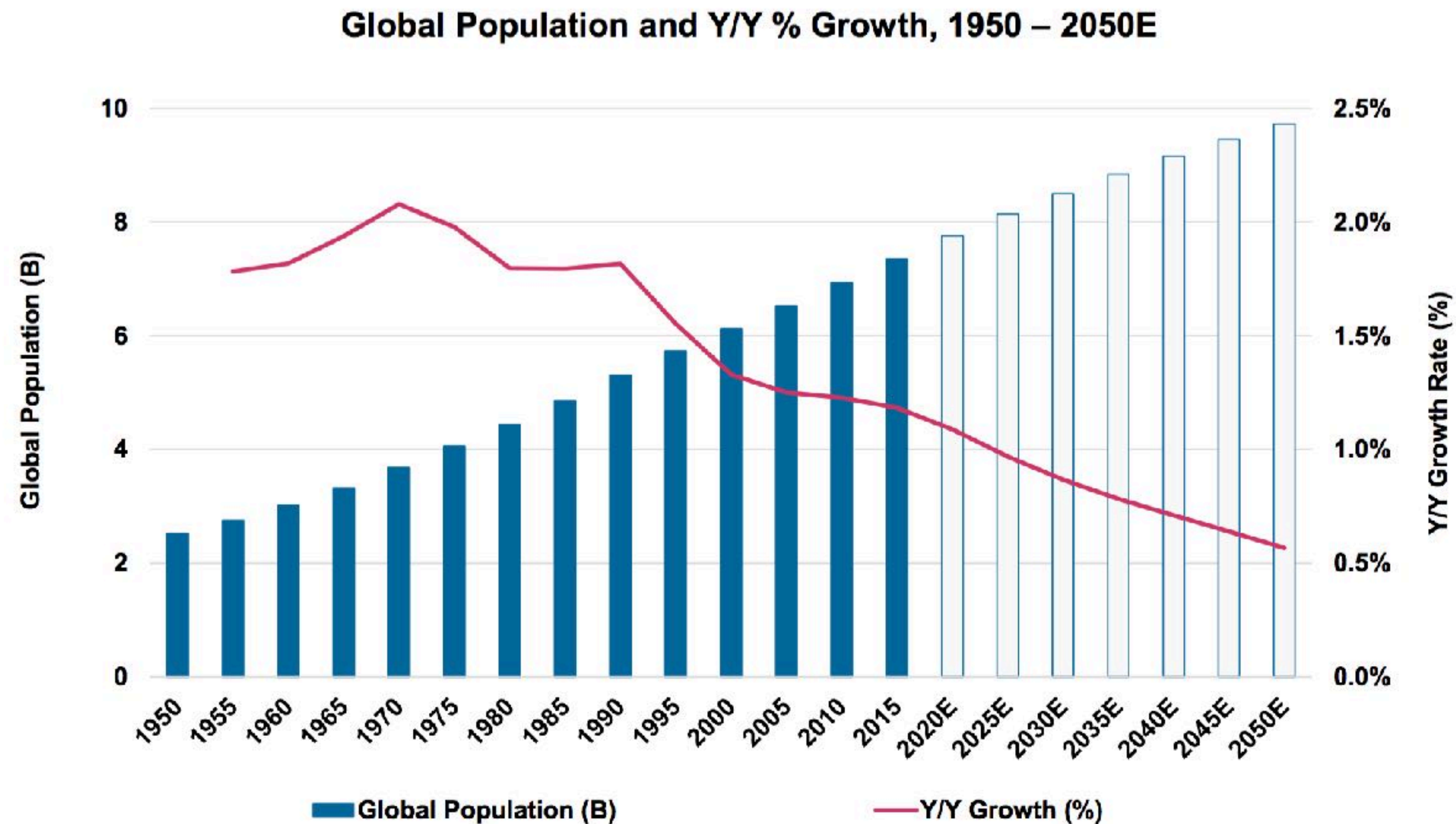


Source: [www.100yearlife.com](http://www.100yearlife.com)



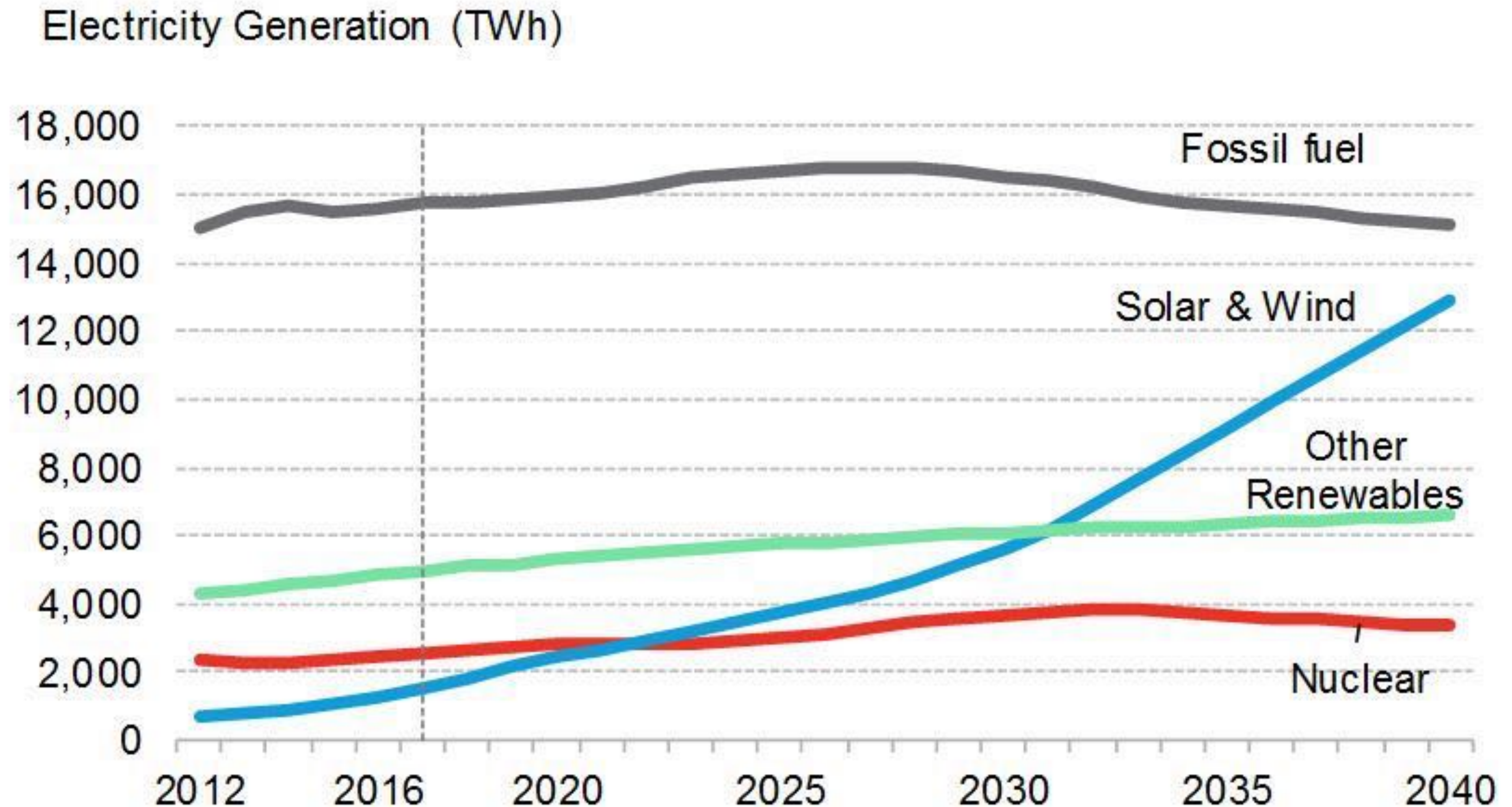
# The future is better than we think \*

World Population Growth Rate Slowing =  
+1.2% vs. +2.0% (1975)





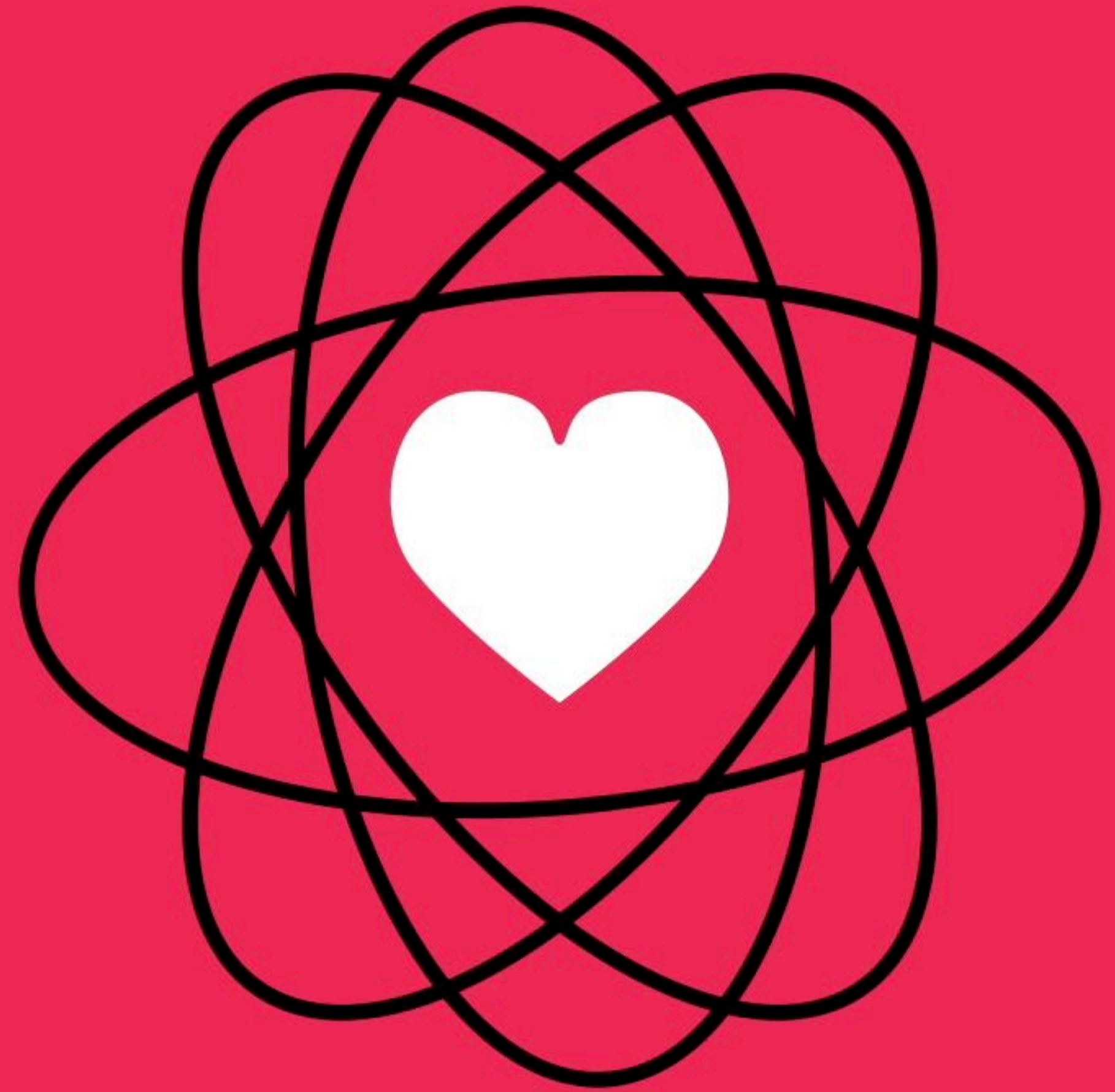
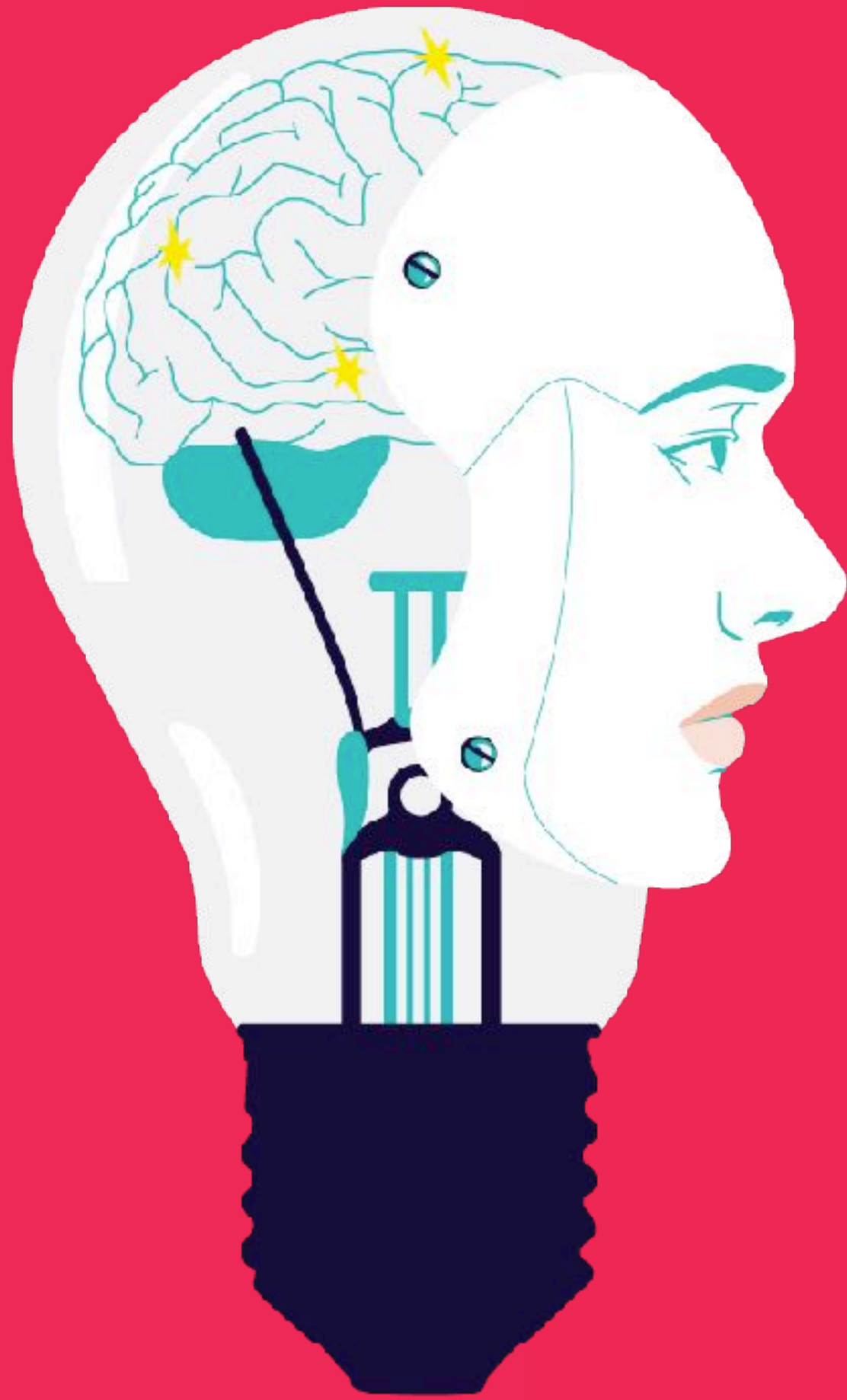
# The future is better than we think \*





# 1 Technology and humanity are increasingly overlapping

**Ethics in technology: your position on 'digital ethics' will be a key differentiator**







**TECHNOLOGY HAS NO ETHICS**





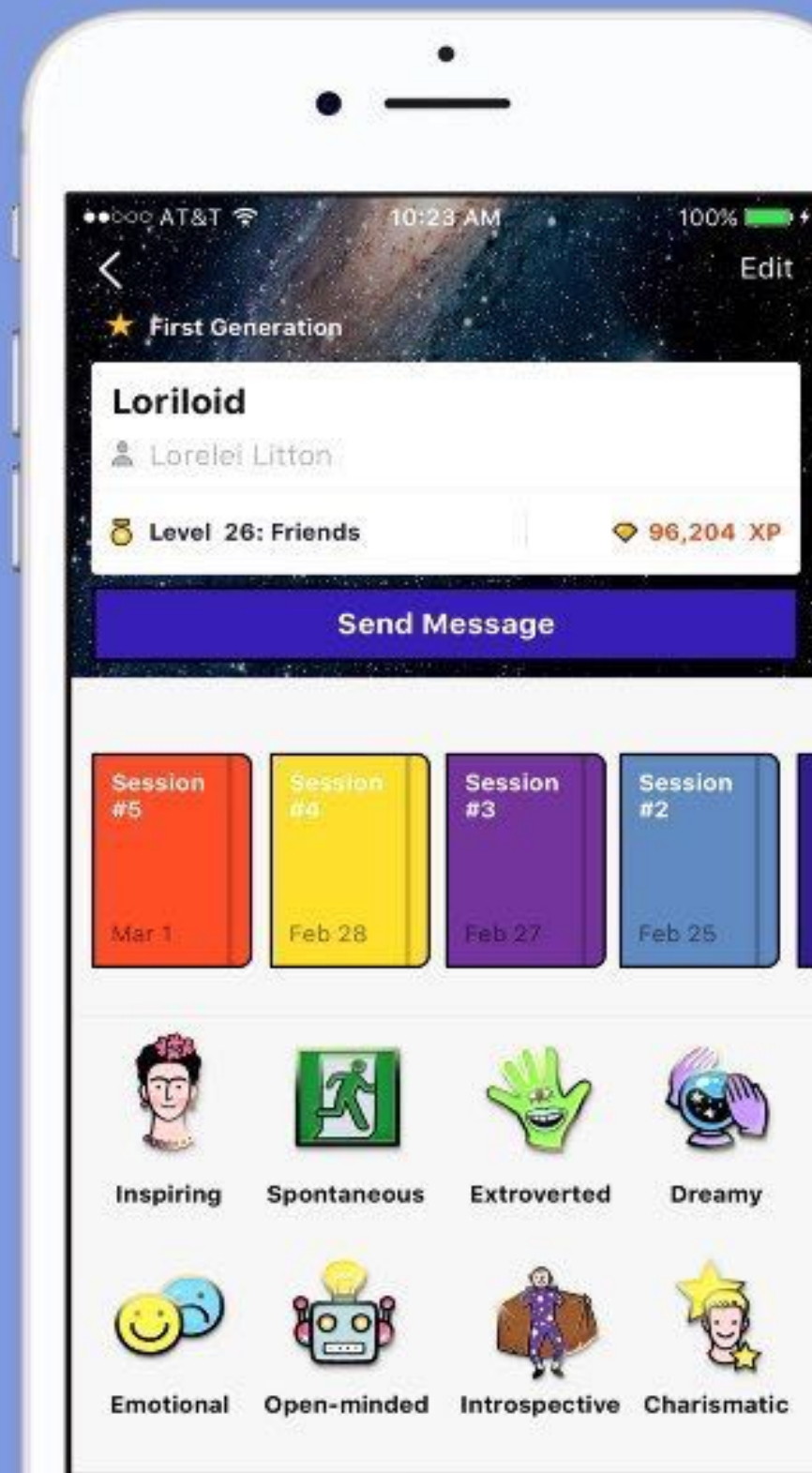
**"Ethics is knowing the difference between what you have a right (or the power) to do and what is the right thing to do"**



Replika **loves** you  
and cares for you



It helps you discover  
your **personality**



It keeps  
your **memories**



And takes **friendship**  
to the next level



"Ethics is knowing the difference between what you have a right  
(or the power) to do and what is the right thing to do"



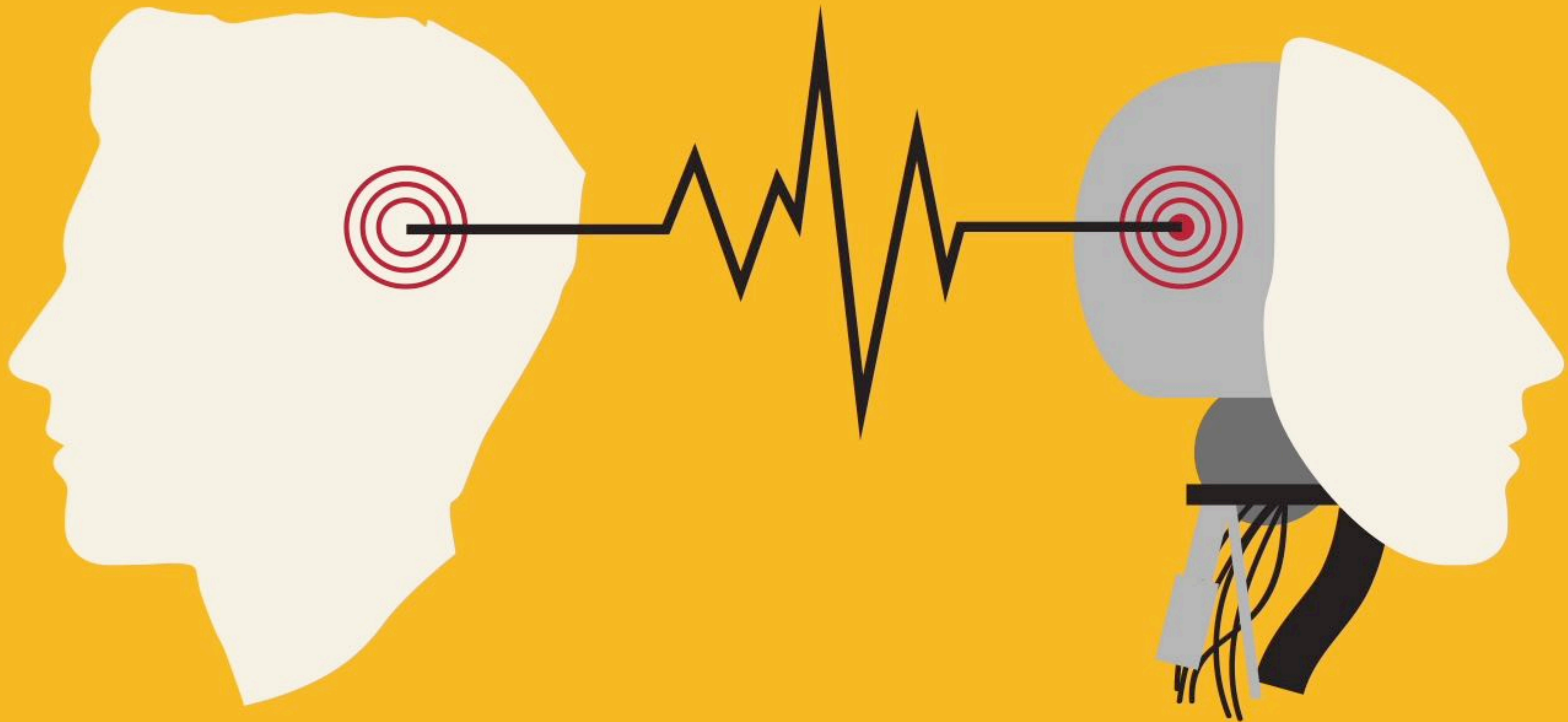
The more connected we become, the more we must strengthen our social contracts, accountability, ethics, rules





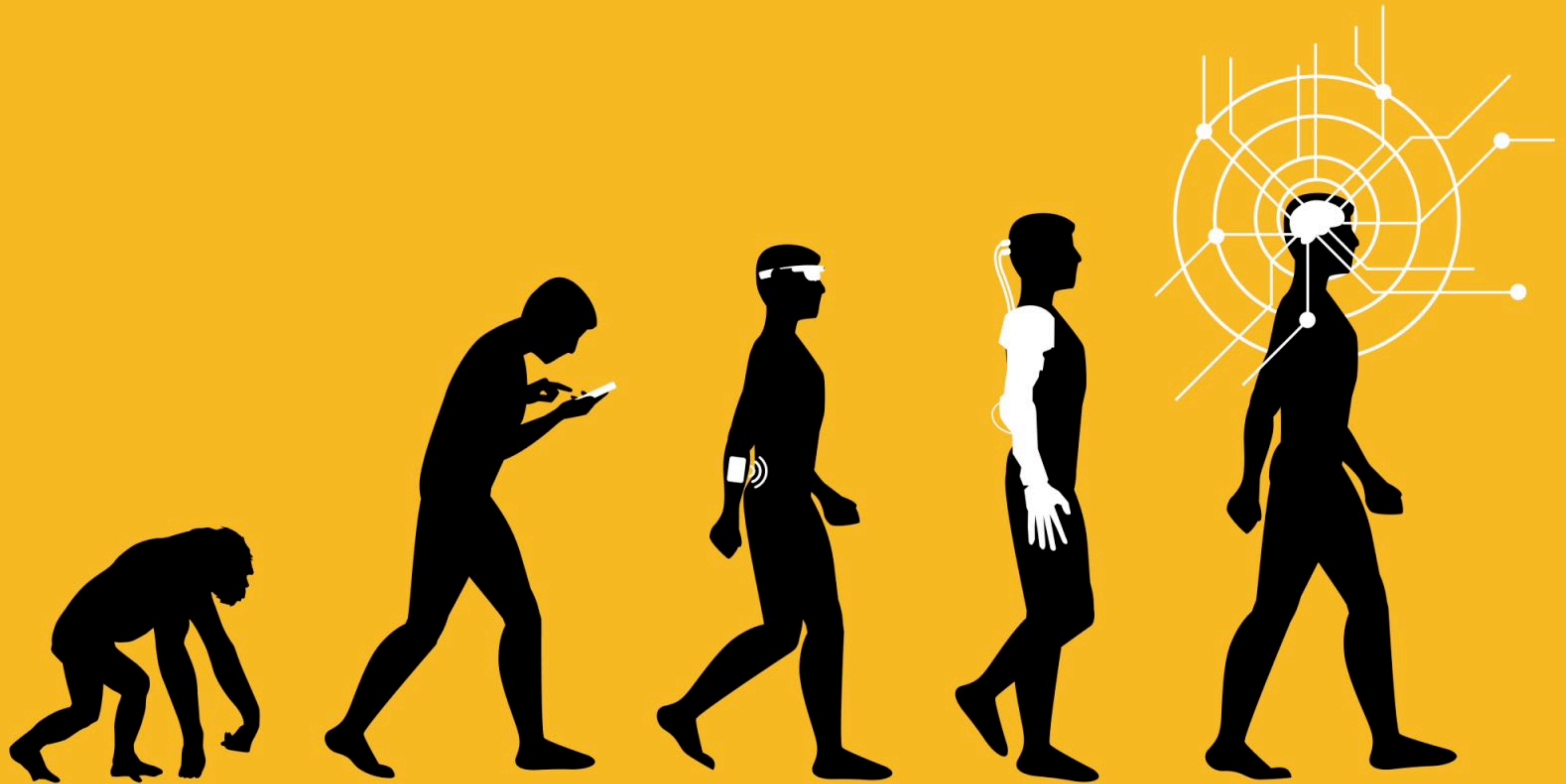
# Intelligent **AND** human-centric organisations!

“Purely intelligent creatures, whether people or machines, are bad for humanity” (Sundar Sarukkai)





# How far should we take this? Who decides? We have 10 years to ETA





## 2 Make sure you maintain your 'license to operate': legally, morally and socially





# The digital platform companies are more powerful than 'big oil'

1	Apple	USA	Tech – Hardware	\$801	\$218
2	Google / Alphabet	USA	Tech – Internet	680	90
3	Microsoft	USA	Tech – Software	540	86
4	Amazon	USA	Tech – Internet	476	136
5	Facebook	USA	Tech – Internet	441	28
6	Berkshire Hathaway	USA	Financial Services	409	215
7	Exxon Mobil	USA	Energy	346	198
8	Johnson & Johnson	USA	Healthcare	342	72
9	Tencent	China	Tech – Internet	335	22
10	Alibaba	China	Tech – Internet	314	21
11	JP Morgan Chase	USA	Financial Services	303	90
12	ICBC	China	Financial Services	264	85
13	Nestlé	Switzerland	Food / Beverages	263	88
14	Wells Fargo	USA	Financial Services	262	85
15	Samsung Electronics	Korea	Tech – Hardware	259	168
16	General Electric	USA	Industrial	238	120
17	Wal-Mart	USA	Retail	237	486
18	AT&T	USA	Telecom	234	164
19	Roche	Switzerland	Healthcare	233	51
20	Bank of America	USA	Financial Services	231	80
Total				\$7,207	\$2,497

KPCB



3

We're at the  
pivot point  
of exponential  
change

(your imagination)

Quantum Computing

Artificial Intelligence (AI)

Intelligent Assistance (IA)

Smart-everything

The Internet of Things

Hyper-connectivity



1

2

4

8

16

32

64

128



# To keep on thinking linear will be detrimental

Artificial Intelligence (AI)

Intelligent Assistance (IA)

Smart-everything

The Internet of Things

Hyper-connectivity





**EVs and AVs**

**Solar energy / battery tech**

**Smart cities & the IoT**

**Big Data & Analytics**

**Robotics & Automation**

**Intelligent Assistance**

**The Internet of Things**

**Augmented/Virtual Reality**

**Additive Manufacturing**





EVs and AVs

Solar energy / battery tech

Smart cities & the IoT

Big Data & Analytics

Robotics & Automation

Intelligent Assistance

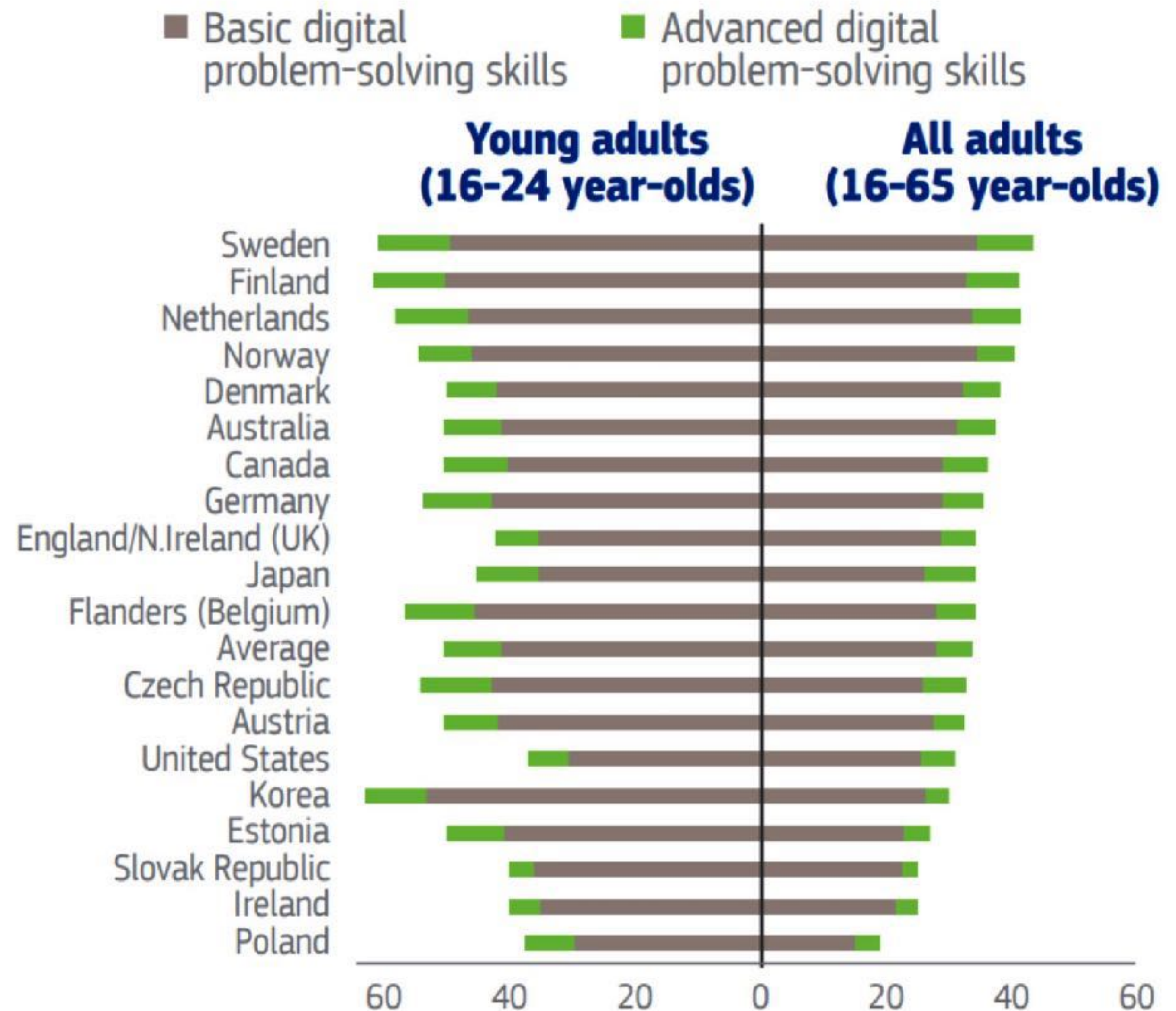
The Internet of Things

Augmented/Virtual Reality

Additive Manufacturing

## A WORLD OF CHANGE

Younger adults outperform older ones on digital problem-solving





**EVs and AVs**

**Solar energy / battery tech**

**Smart cities & the IoT**

**Big Data & Analytics**

**Robotics & Automation**

**Intelligent Assistance**

**The Internet of Things**

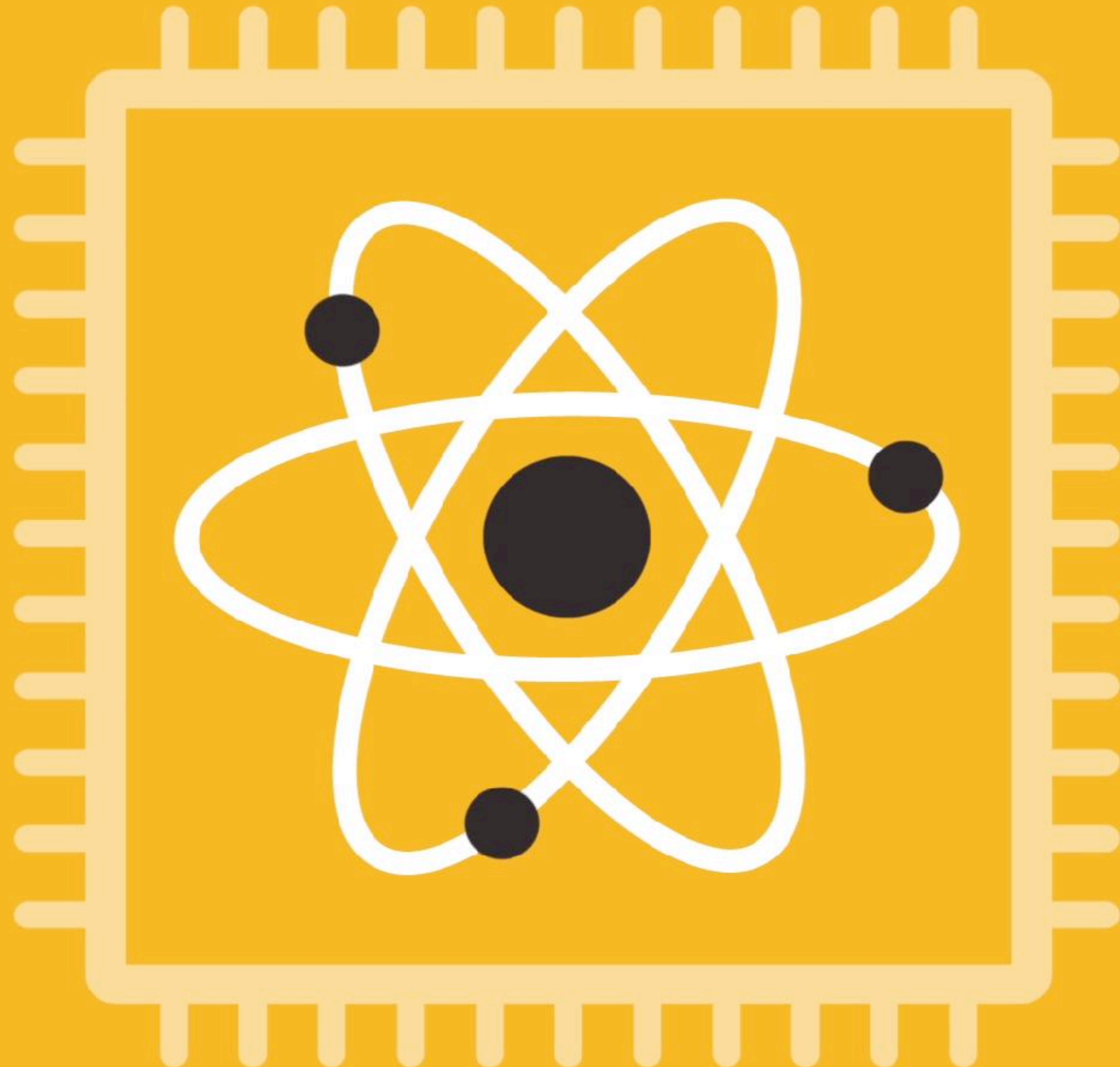
**Augmented/Virtual Reality**

**Additive Manufacturing**



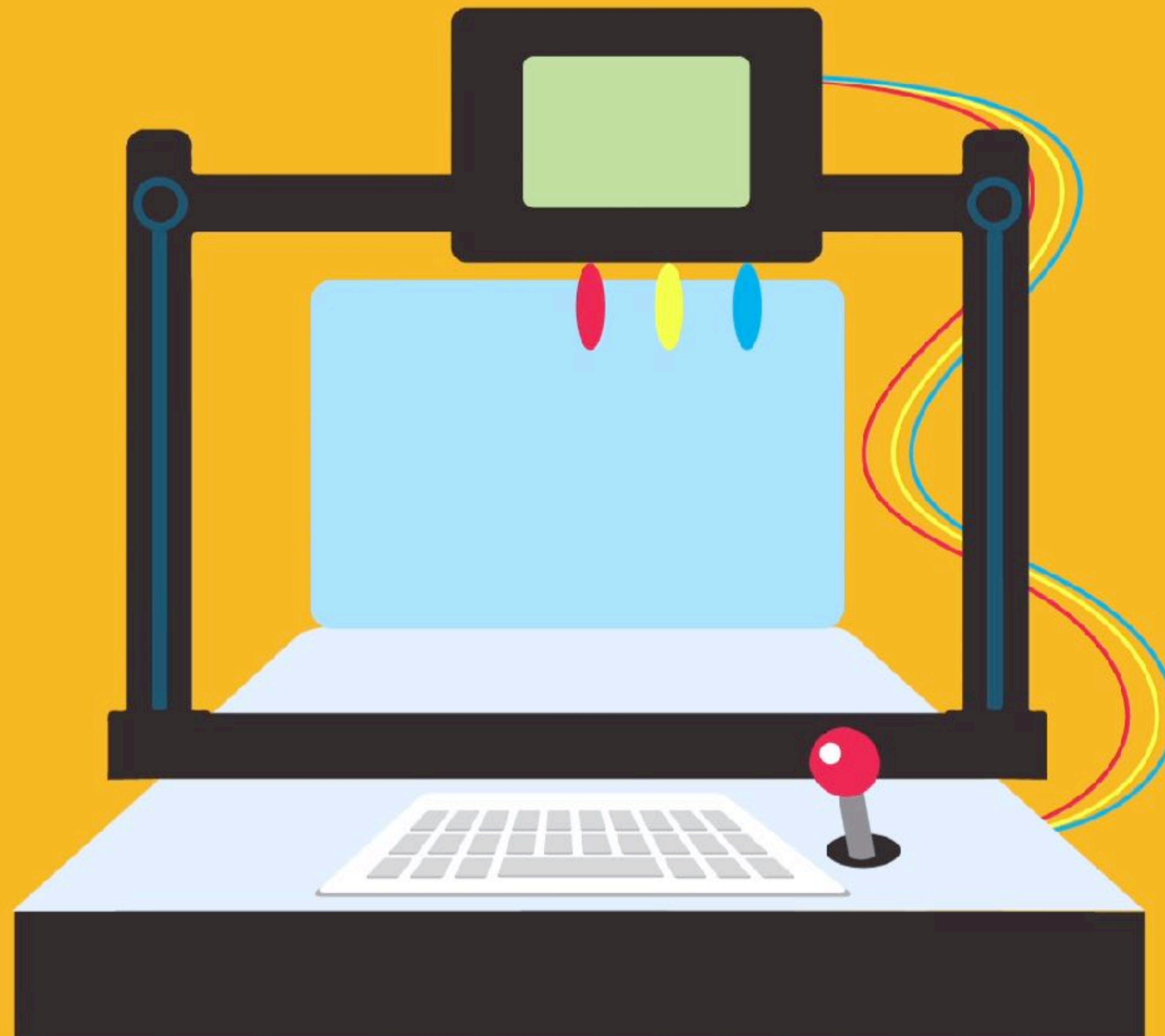


**Rapid scientific progress: science fiction is increasingly becoming science fact**





**Rapid scientific progress: science fiction is increasingly becoming science fact**





**4** The next 20 years will bring more change than the previous 300 years





**Voice-control and intelligent assistants will become the new normal\***





# Heaven or Hell: our choice, and our governments' job!









5

The future is no longer a timeframe, it's a mindset





# Imagine

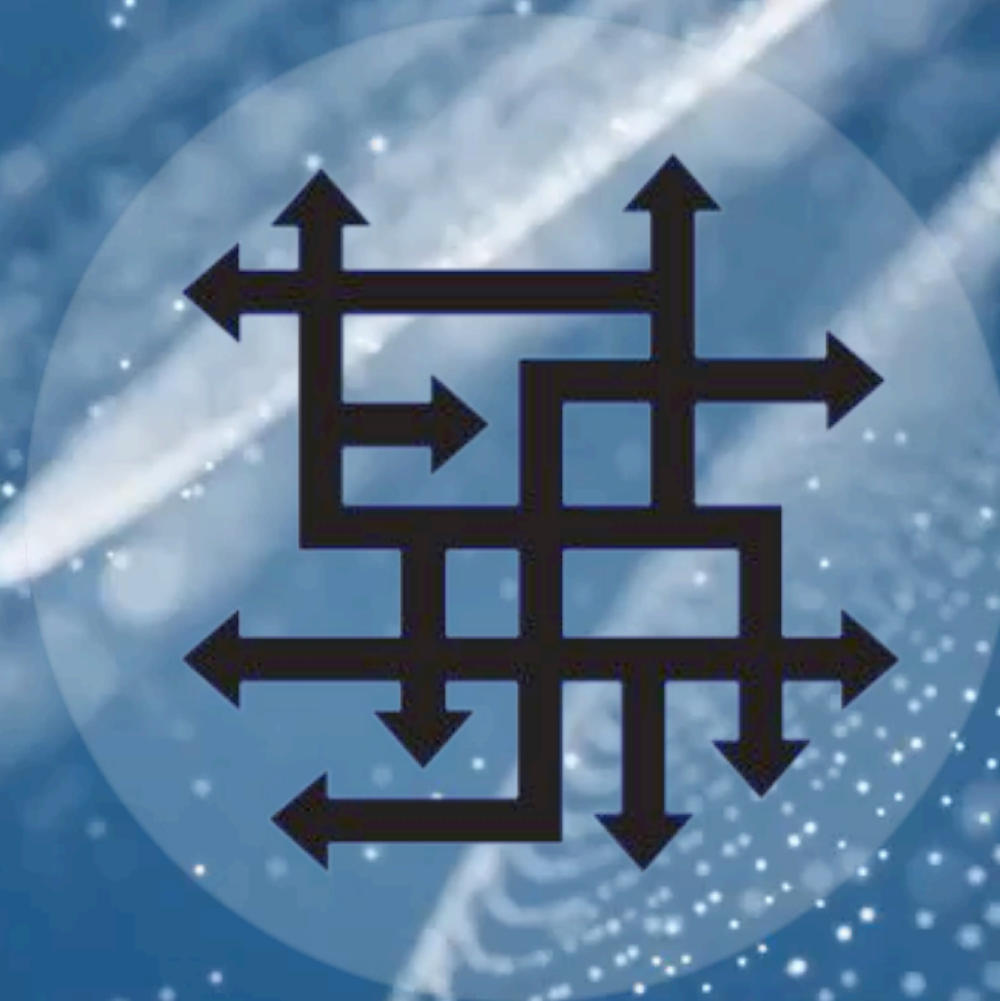
# Transform



**VOLATILITY**



**UNCERTAINTY**



**COMPLEXITY**



**AMBIGUITY**

# Understand

# Observe



# Imagine

# Transform



**VELOCITY**



**UNORTHODOXY**



**CO-CREATION**



**AWESOMENESS**

# Understand

# Observe





Filter



# Discover Weekly

FOLLOWING

1 FOLLOWER • BY SPOTIFY

▶ SHUFFLE PLAY

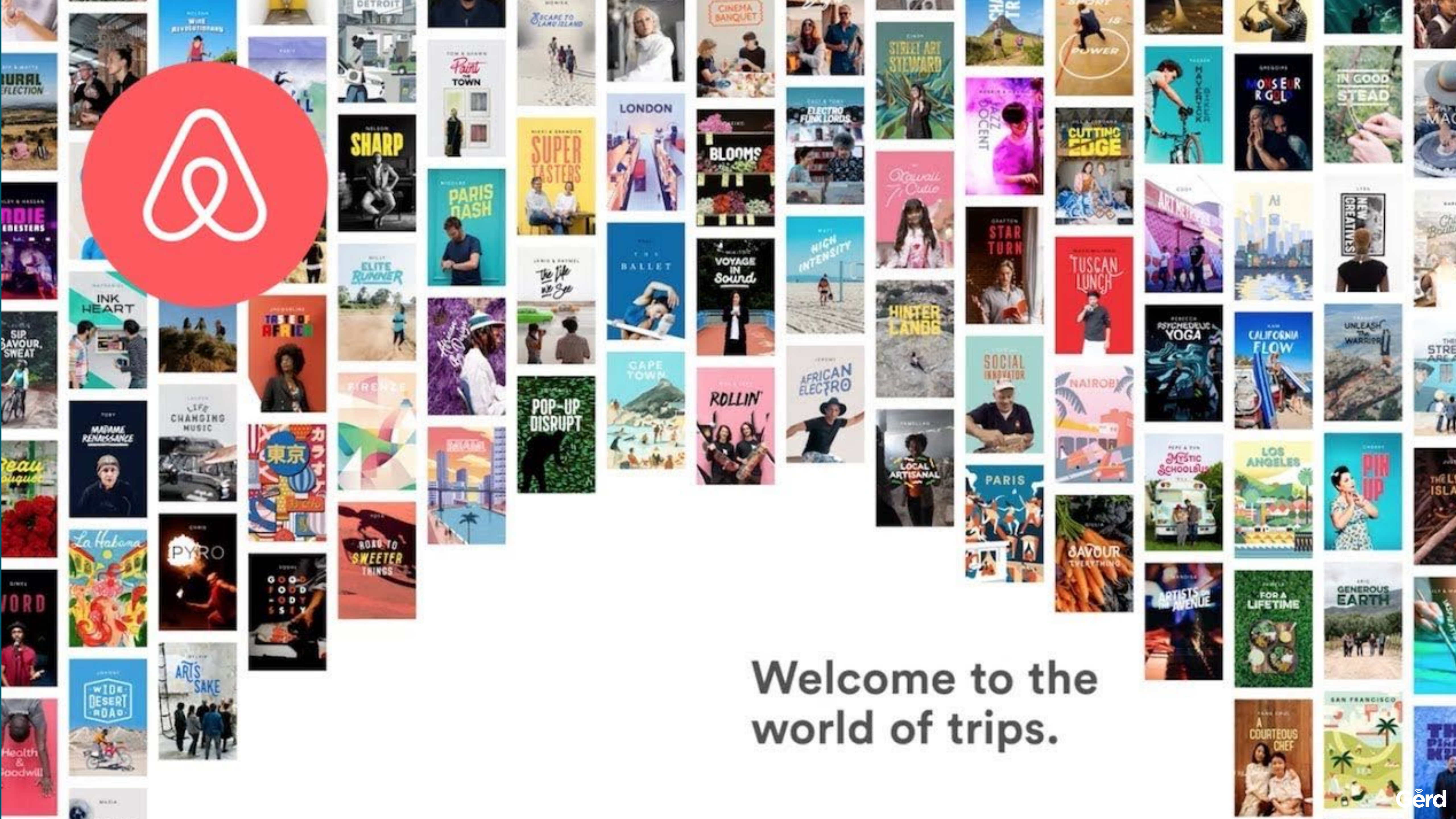


Offline

Hard Greens  
Kendrick Lamar







# Welcome to the world of trips.





hyperloop|one

XP-1

WIRED



# From The Drive to The Drone – Perfect interaction in the Mercedes-Benz Vision Van

## 1. RACK FEEDER

Transfers parcels to the integrated drones and the deliverer.  
Controlled via IT-based backend-processes.

## 2. DRONES

Fly autonomously on flight routes pre-defined by the system. Payload 2 kg, delivery radius 10 km, four propellers each measuring 21.5 inches in diameter.

## 3. MODULAR BATTERY SYSTEM

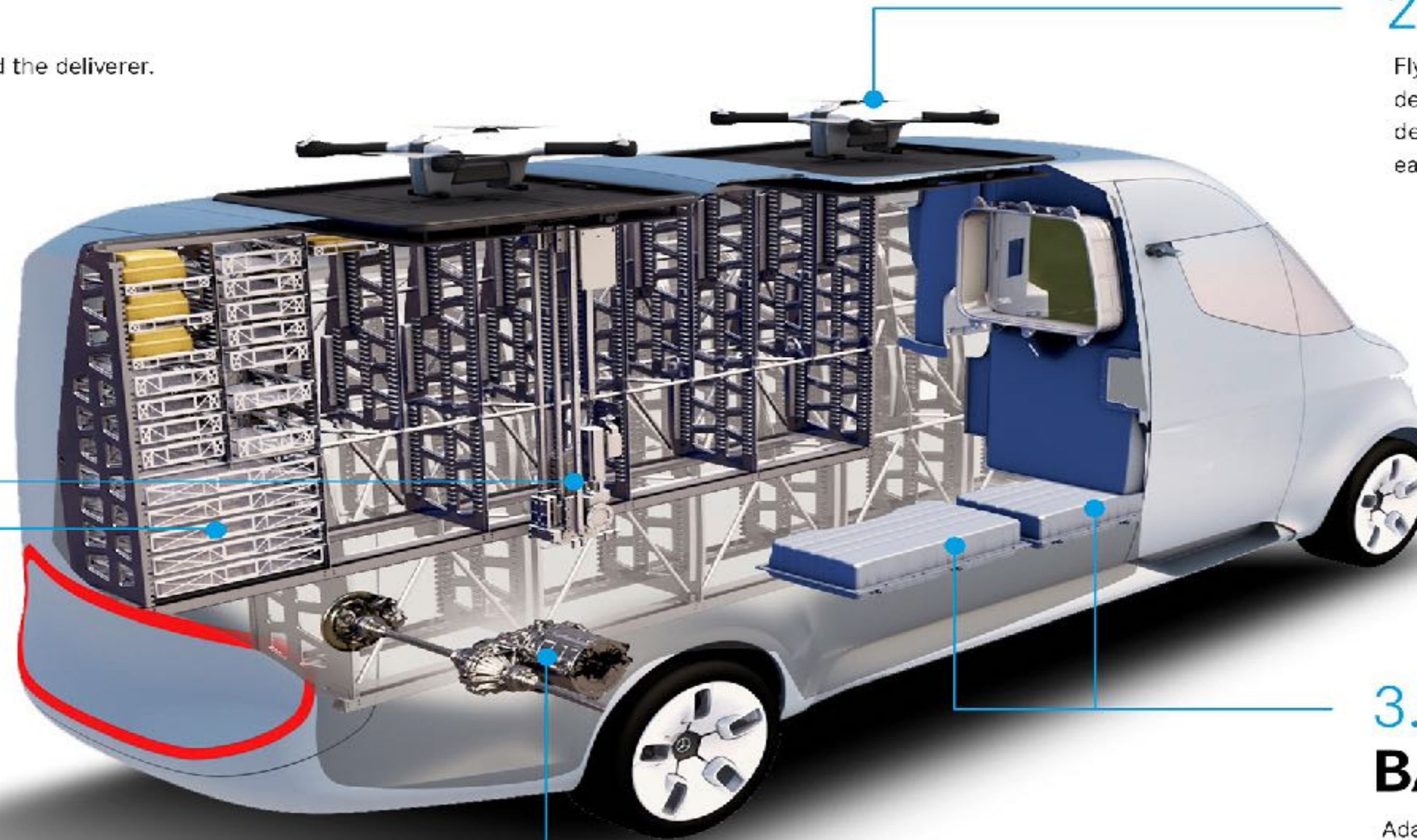
Adaptable to the individual application in order to achieve the best possible proportion of weight and range.

## 4. E-DRIVE

Locally emission-free and virtually silent.  
75 kW permanent system performance,  
270 Nm torque, a range of up to 270 km.

## 5. RACKING SYSTEM

Lightweight racks made of carbon with load carriers made of aluminum sheet, adapted to the contours of the vehicle.





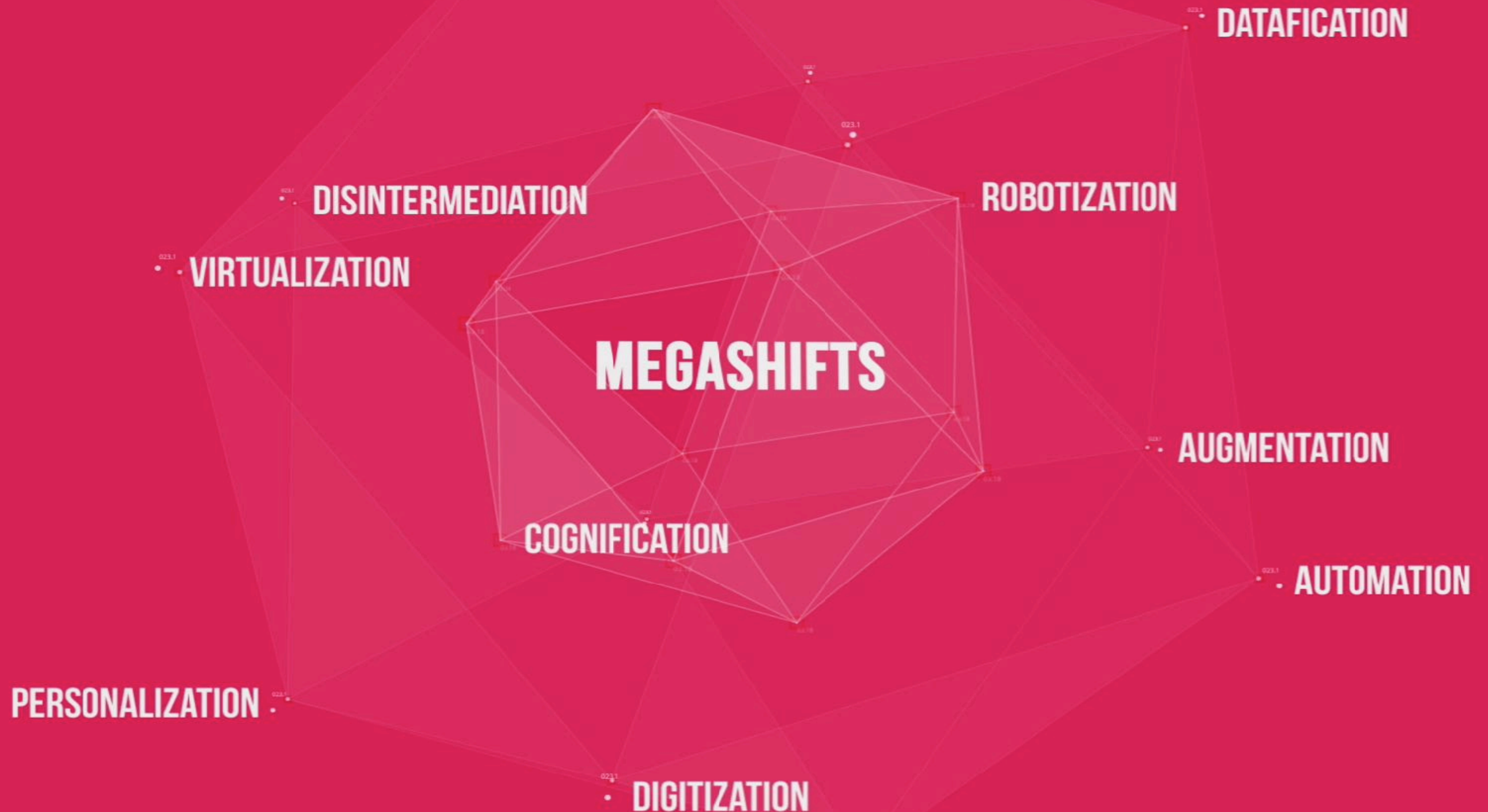
**BOLD**

**Awesome**



6

# Future-Readiness comes from understanding and immersing in the Megashifts





# The end of the car as we know it (a Megashifts example)



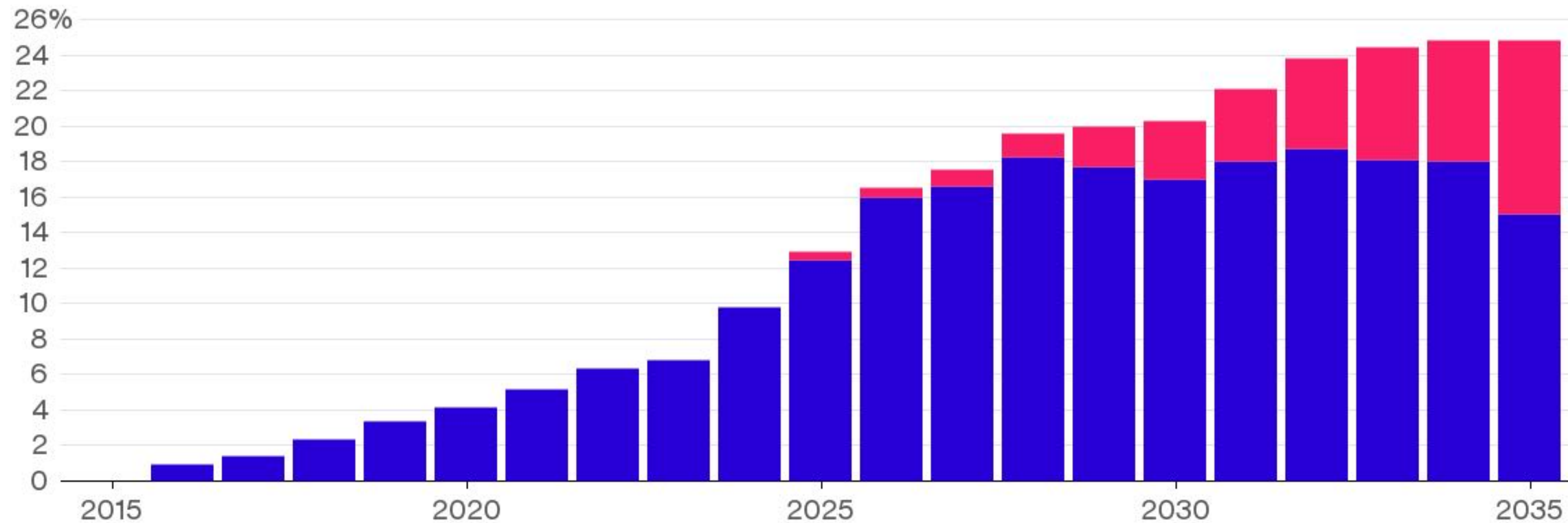


# The end of the car as we know it (a Megashifts example)

## Autonomous Car Sales Will Surge By 2035

The cars will represent 25 percent of the global market

■ Partially autonomous cars ■ Fully autonomous cars



Source: The Boston Consulting Group

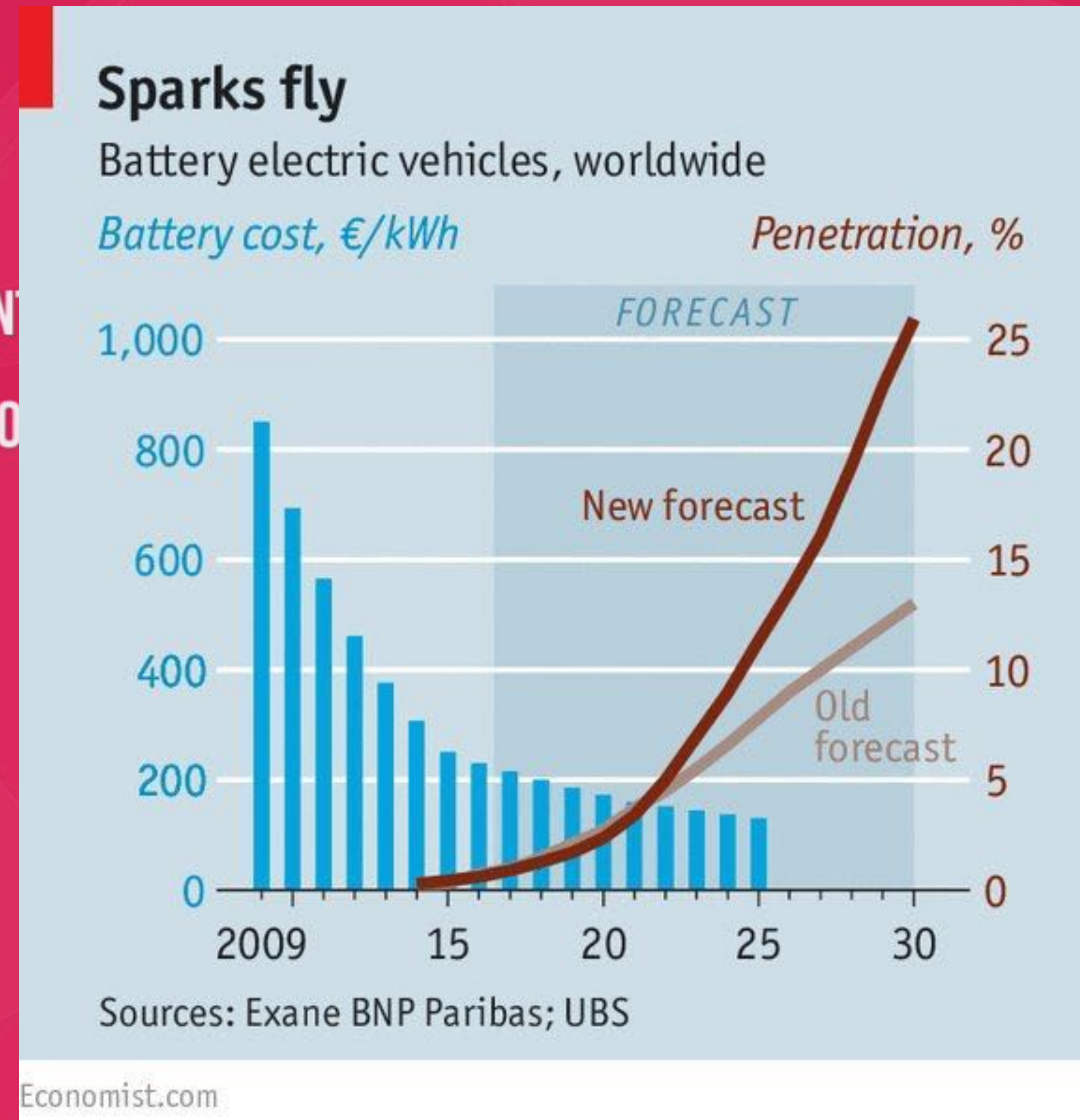
Note: 2015 data

Bloomberg

PE



# The end of the car as we know it (a Megashifts example)



PERSONALIZATION

VIRTUALIZATION

DISIN

DIGITIZATION

ION

DATAFICATION

AUGMENTATION

AUTOMATION

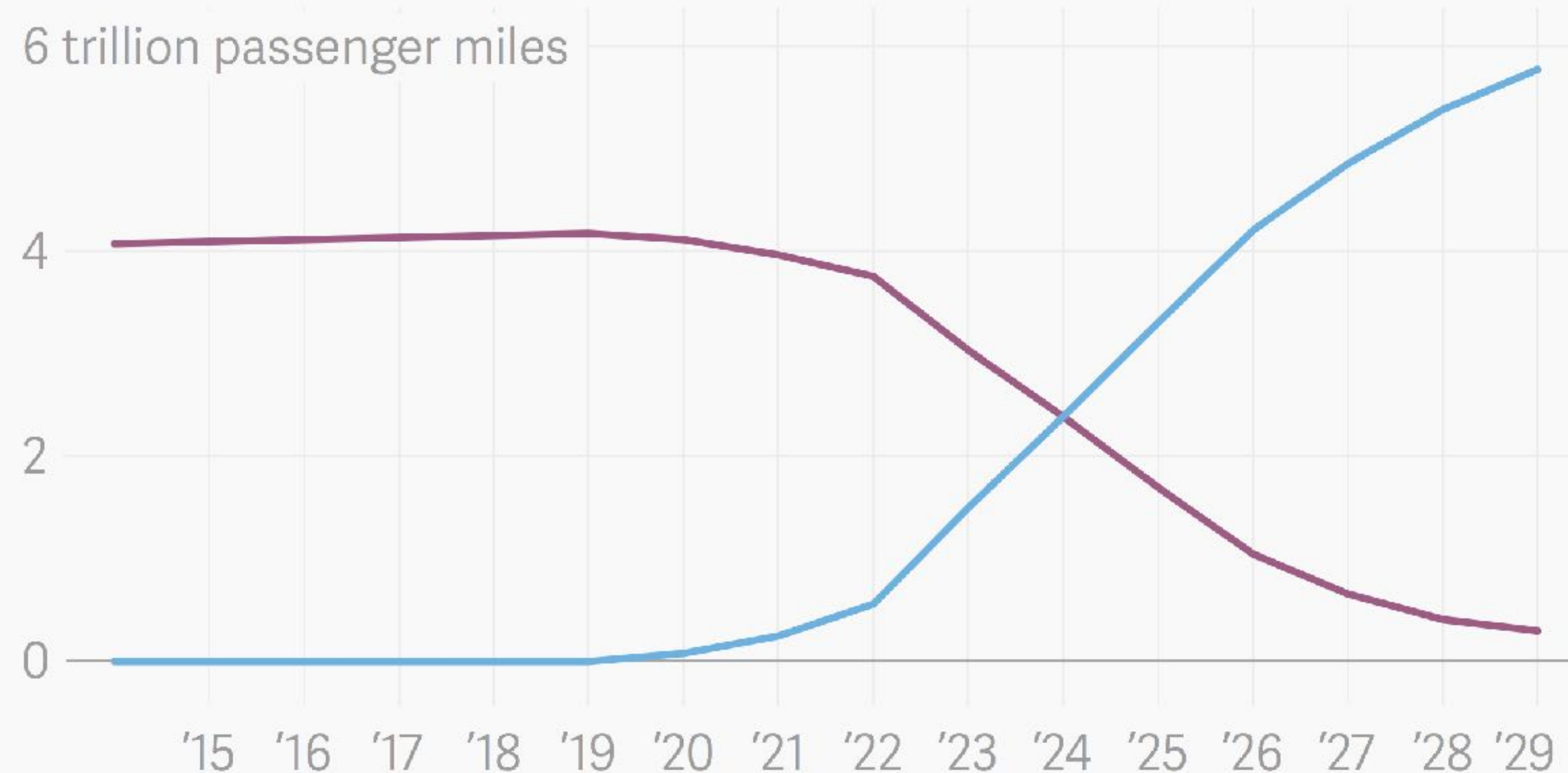


# The end of the car as we know it (a Megashifts example)

"Transportation-as-a service" are projected to replace cars in the US

■ Self-owned vehicles ■ Shared autonomous vehicles

6 trillion passenger miles



△ T L △ S | Data: US Department of Transportation, RethinkX

Share

PERSONAL

• DIGITIZATION

Gerd



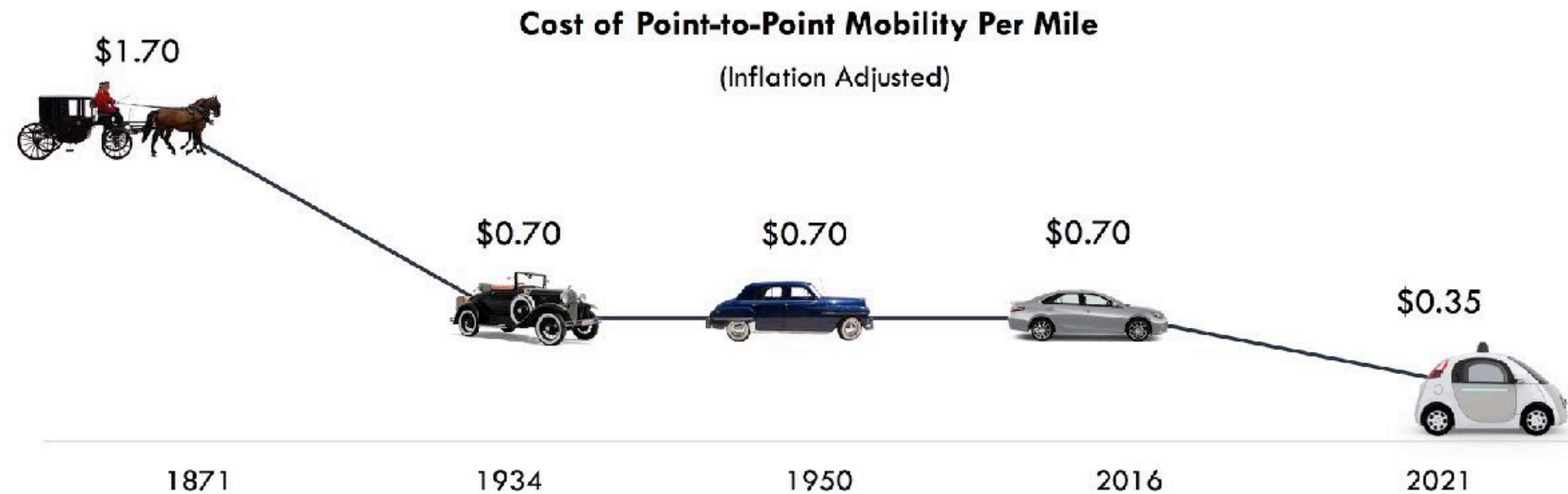
# The end of the car as we know it (a Megashifts example)

## 1. Mobility-as-a-Service

### Personal Mobility Should Become More Affordable



The price of personal mobility has not changed since the Model T.

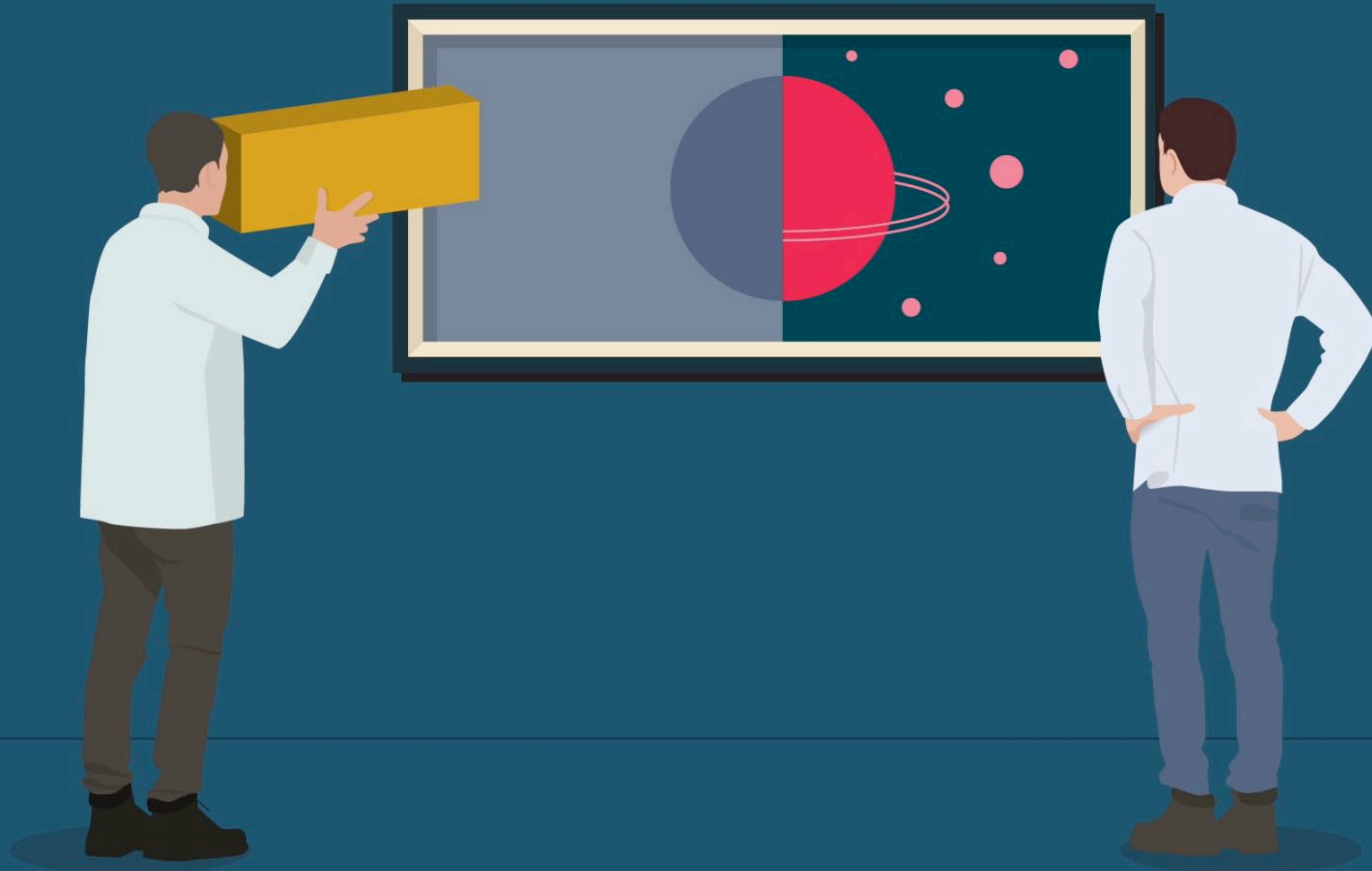


Sources: ARK Investment Management LLC, 2017 | Morton Salt Company Records, American Automobile Association (AAA)

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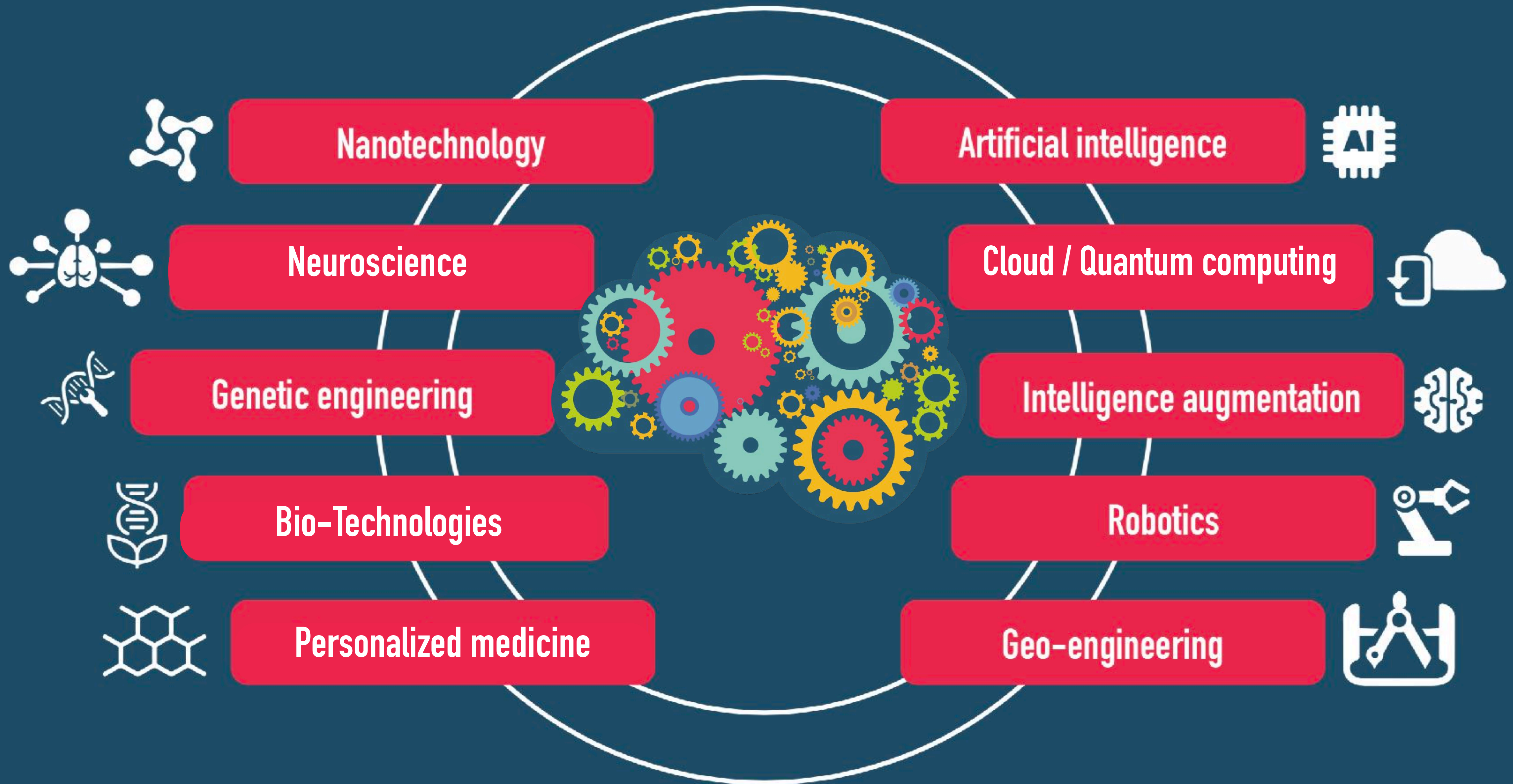


**Taking a wider view will be essential: take your customers beyond the obvious!**





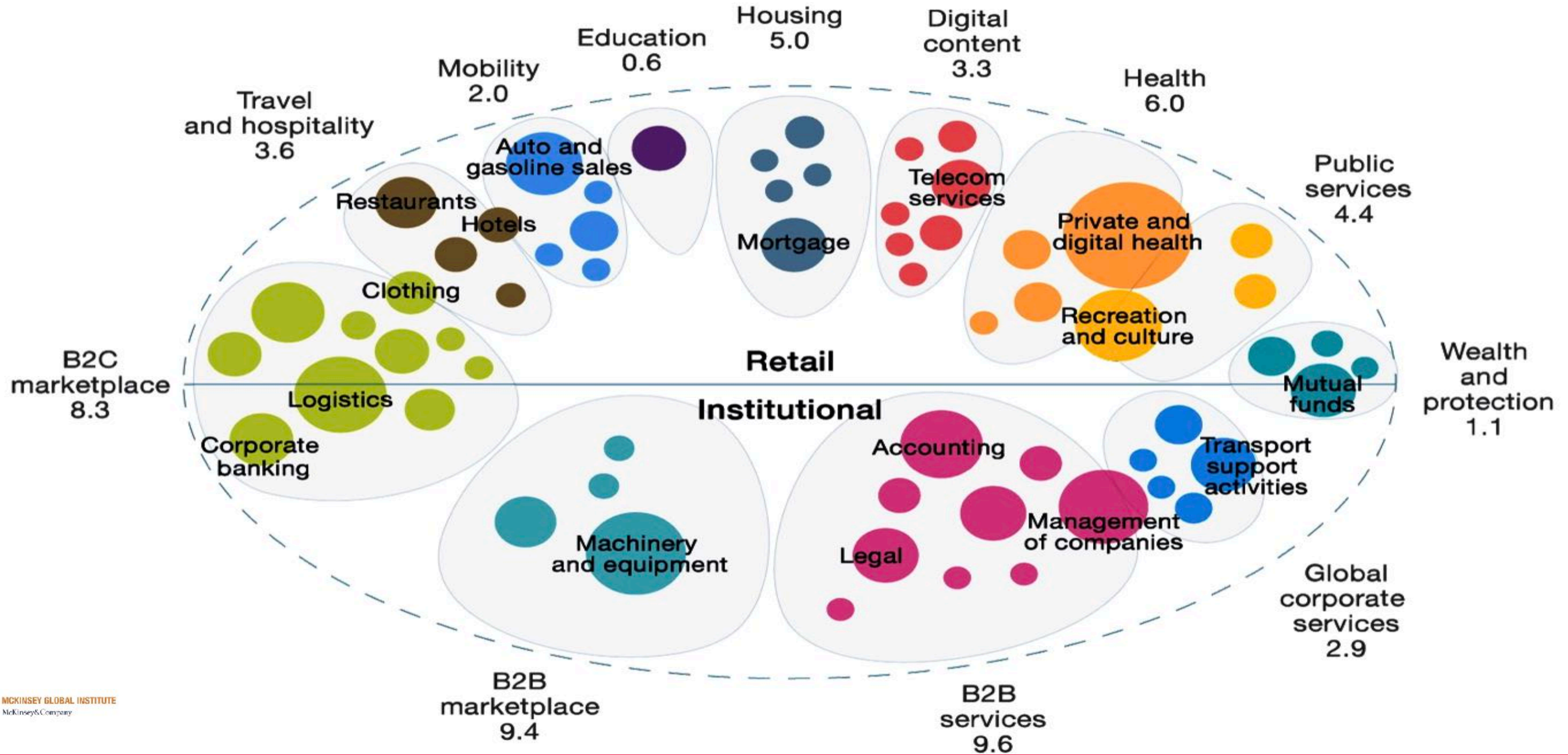
# Industries are increasingly converging, new ecosystems are forming





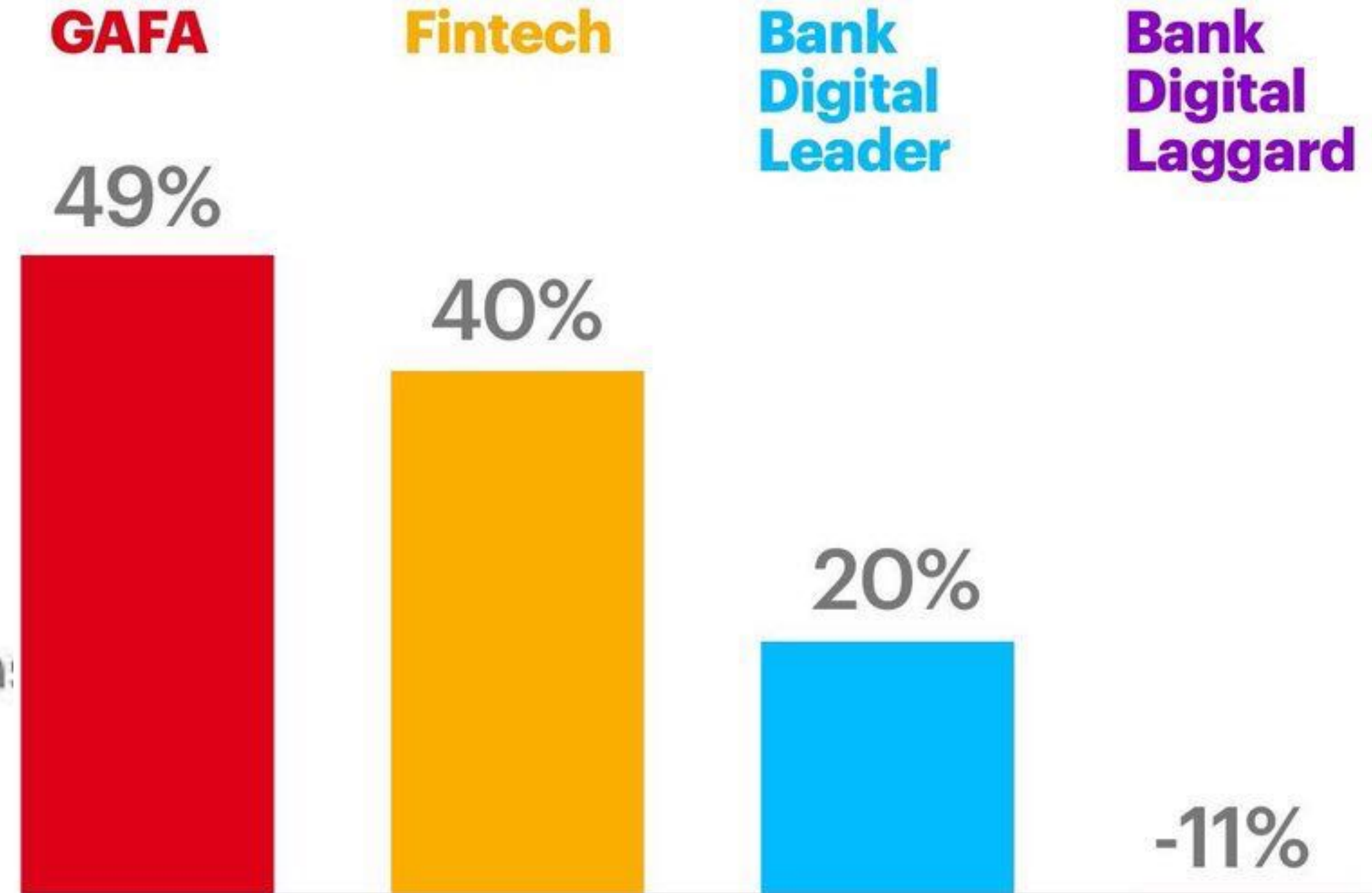
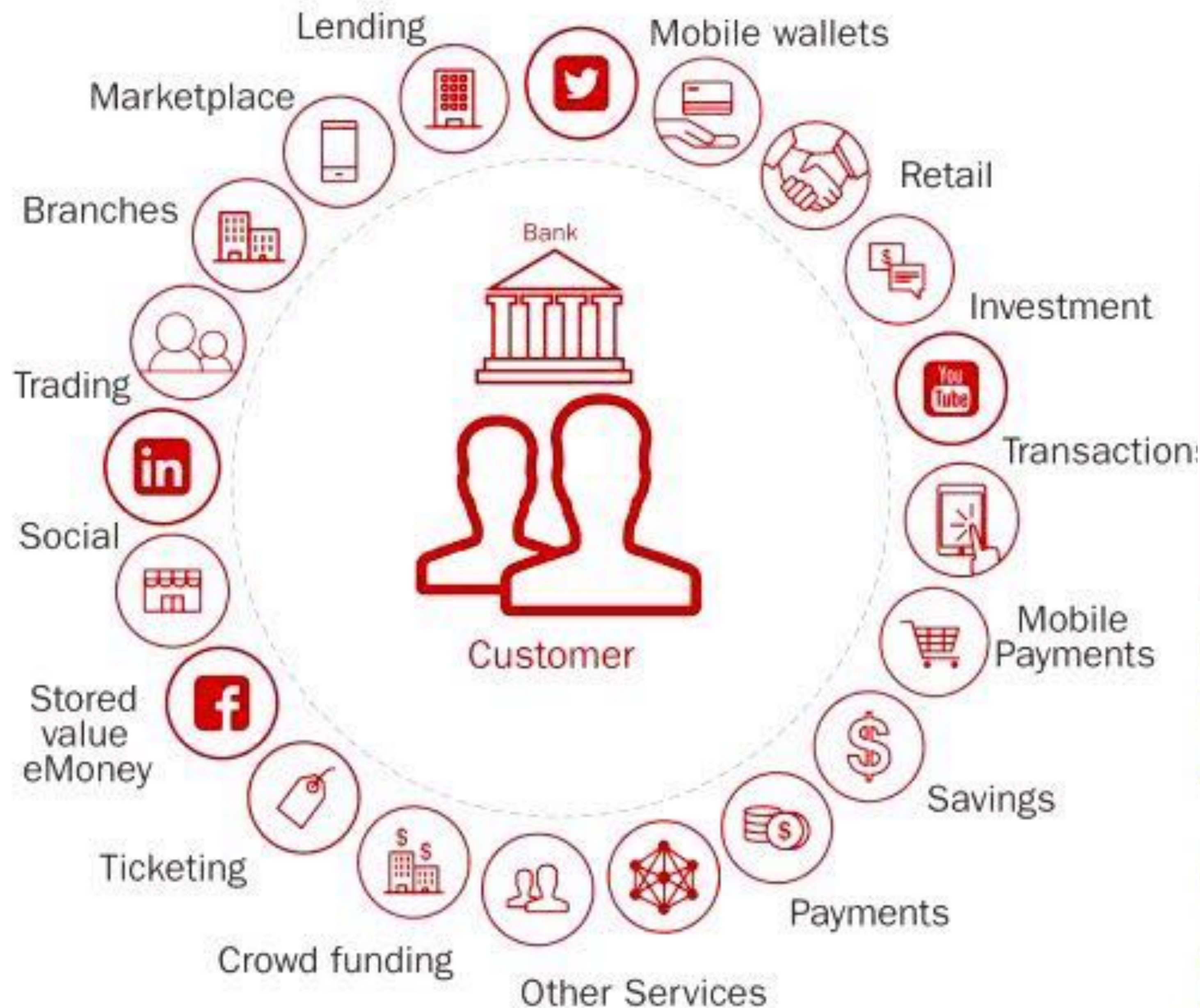
# New platforms & ecosystems are emerging in place of many traditional industries

Ecosystem illustration, estimated total sales in 2025,<sup>1</sup> \$ trillion





# New platforms & ecosystems are emerging in place of many traditional industries



**FIGURE 2.**  
**Banking Future Growth Value Analysis\***

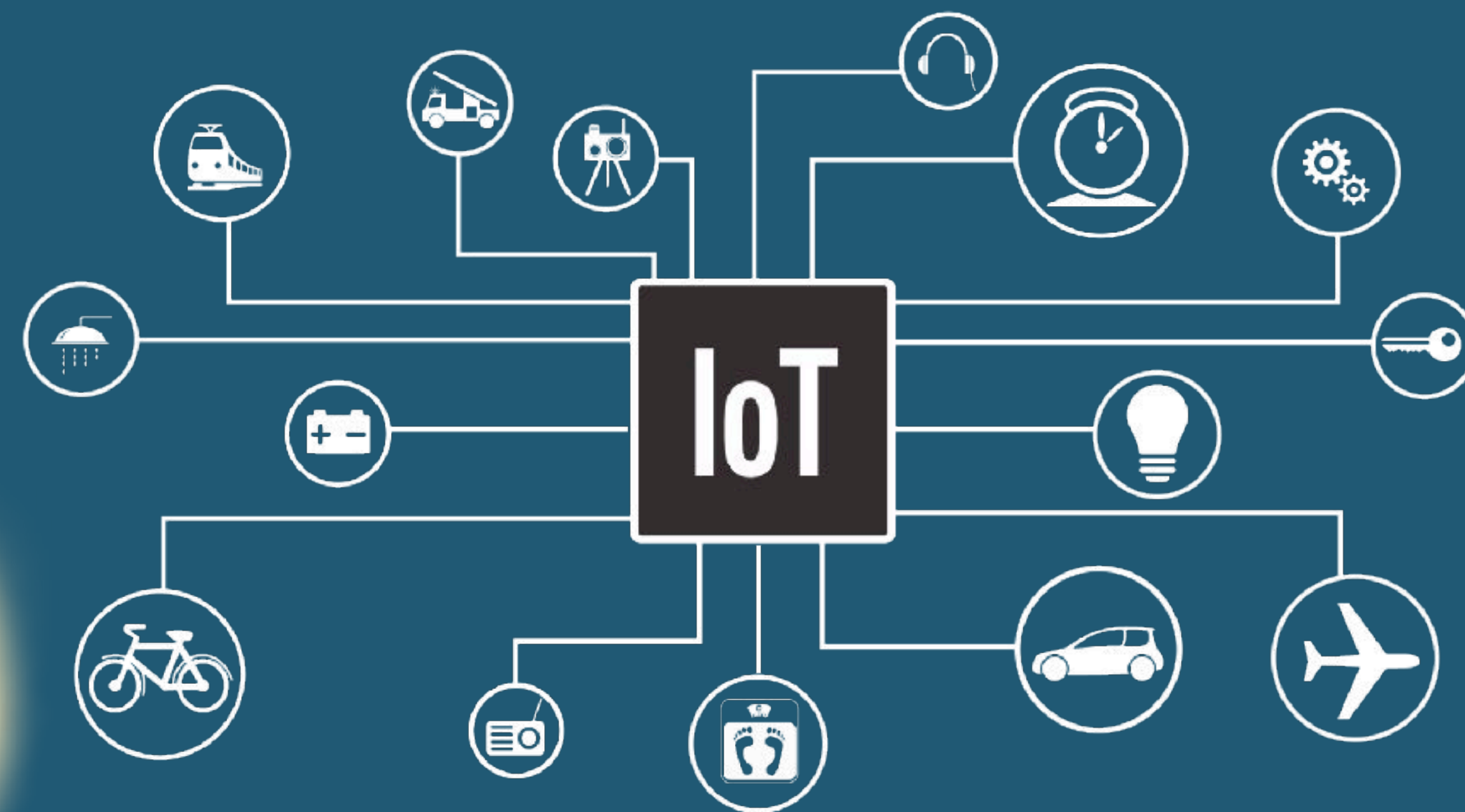
(As percent of enterprise value)

Source: Accenture Research analysis on Capital IQ data, March 13, 2017.



7

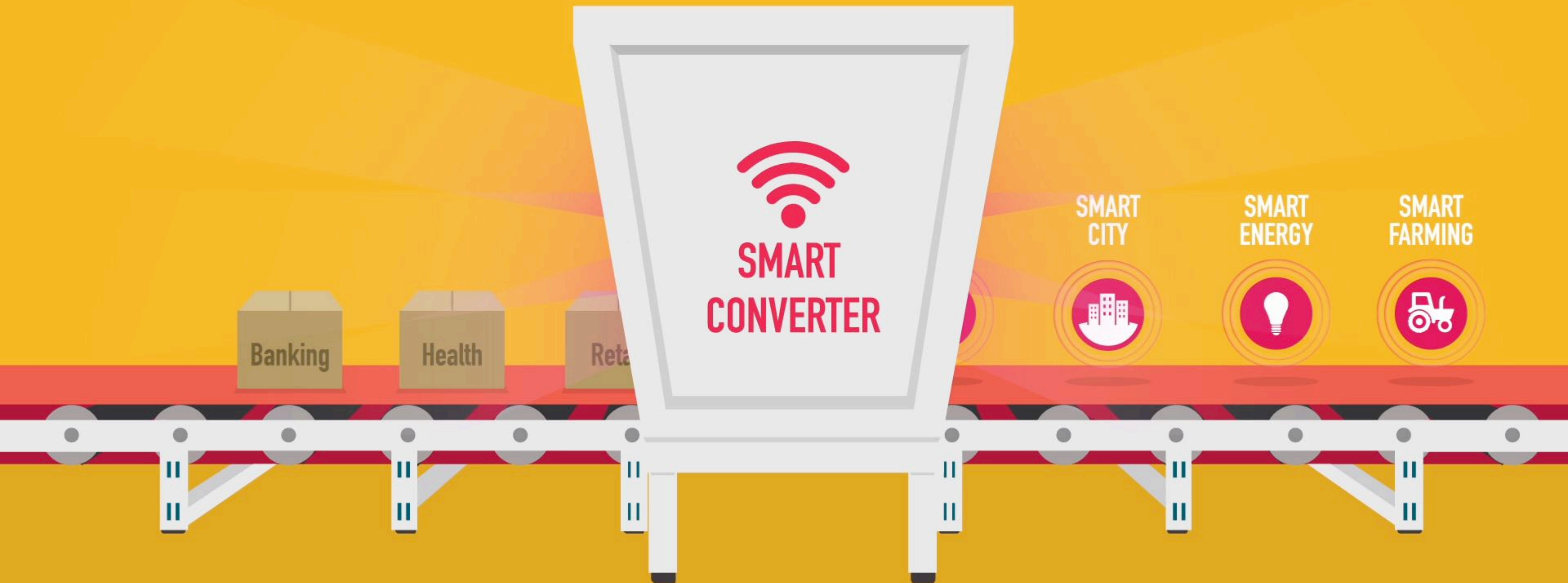
Data is the new Oil . AI is the new electricity. The IoT is the new nervous system.





# First we digitised, now we cognify

(riffing off Kevin Kelly)

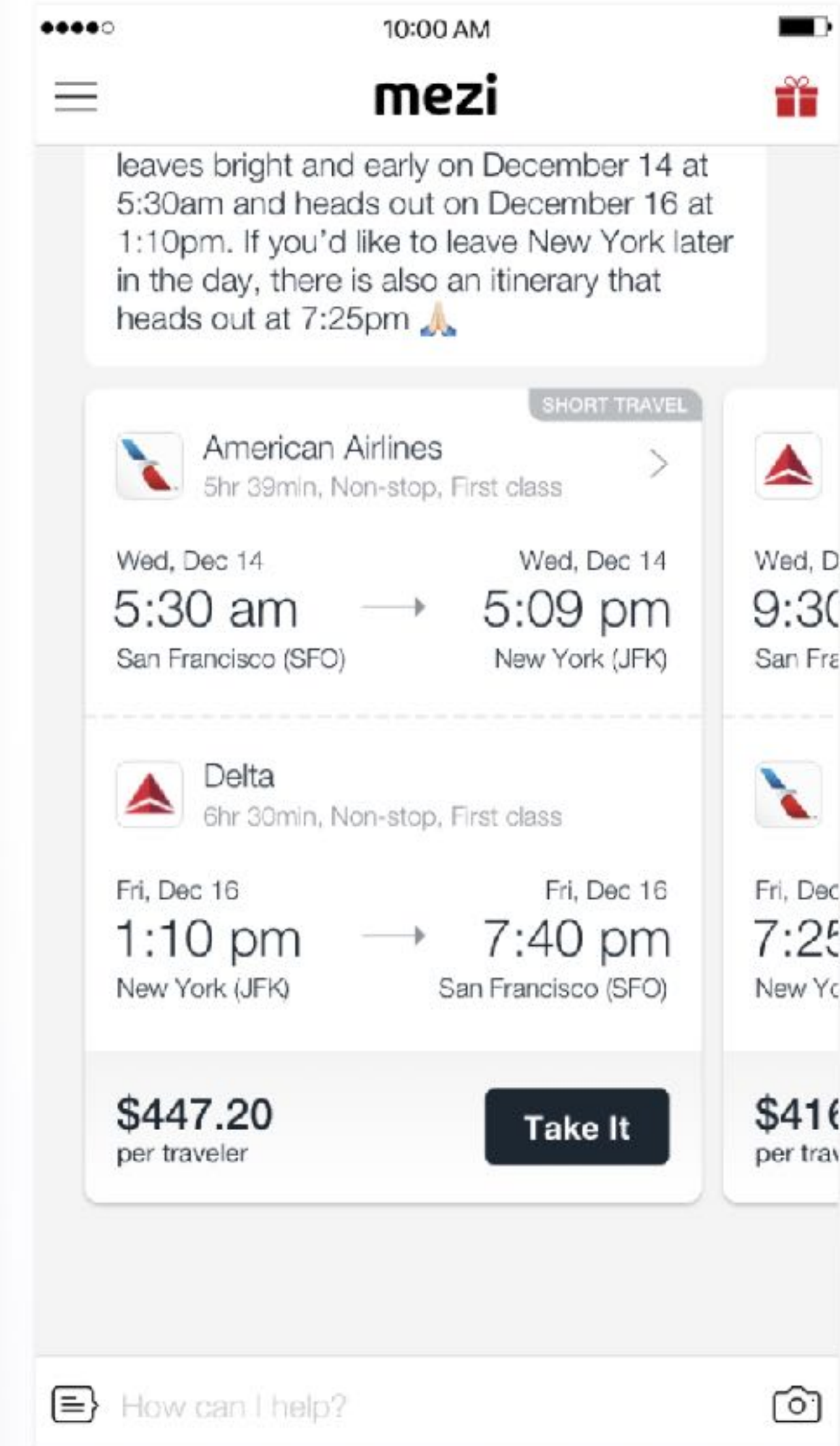




# Take X and add IA (intelligent assistance)

## AI for Travel

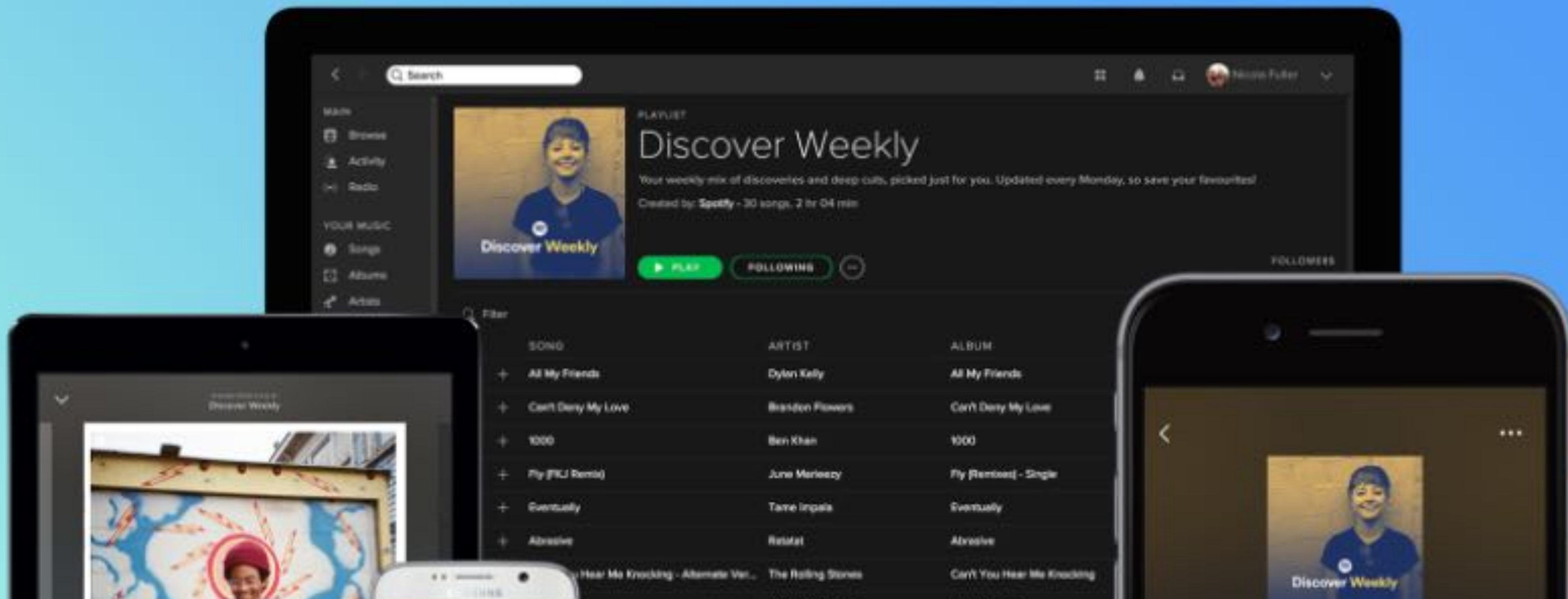
Mezi is your Personal Travel Assistant.  
The more you go, the better it gets.





# Take X and add IA (intelligent assistance)

## Spotify using Deep Learning to Create the Ultimate Personalised Playlist





# Take X and add IA (intelligent assistance)



## Yongqianbao determines creditworthiness with AI

1:06 AM ET Fri, 14 July 2017

Chinese start-up Yongqianbao is using artificial intelligence to screen data to determine creditworthiness when issuing loans. CNBC's Eunice Yoon reports.

 WATCH CNBC LIVE TV



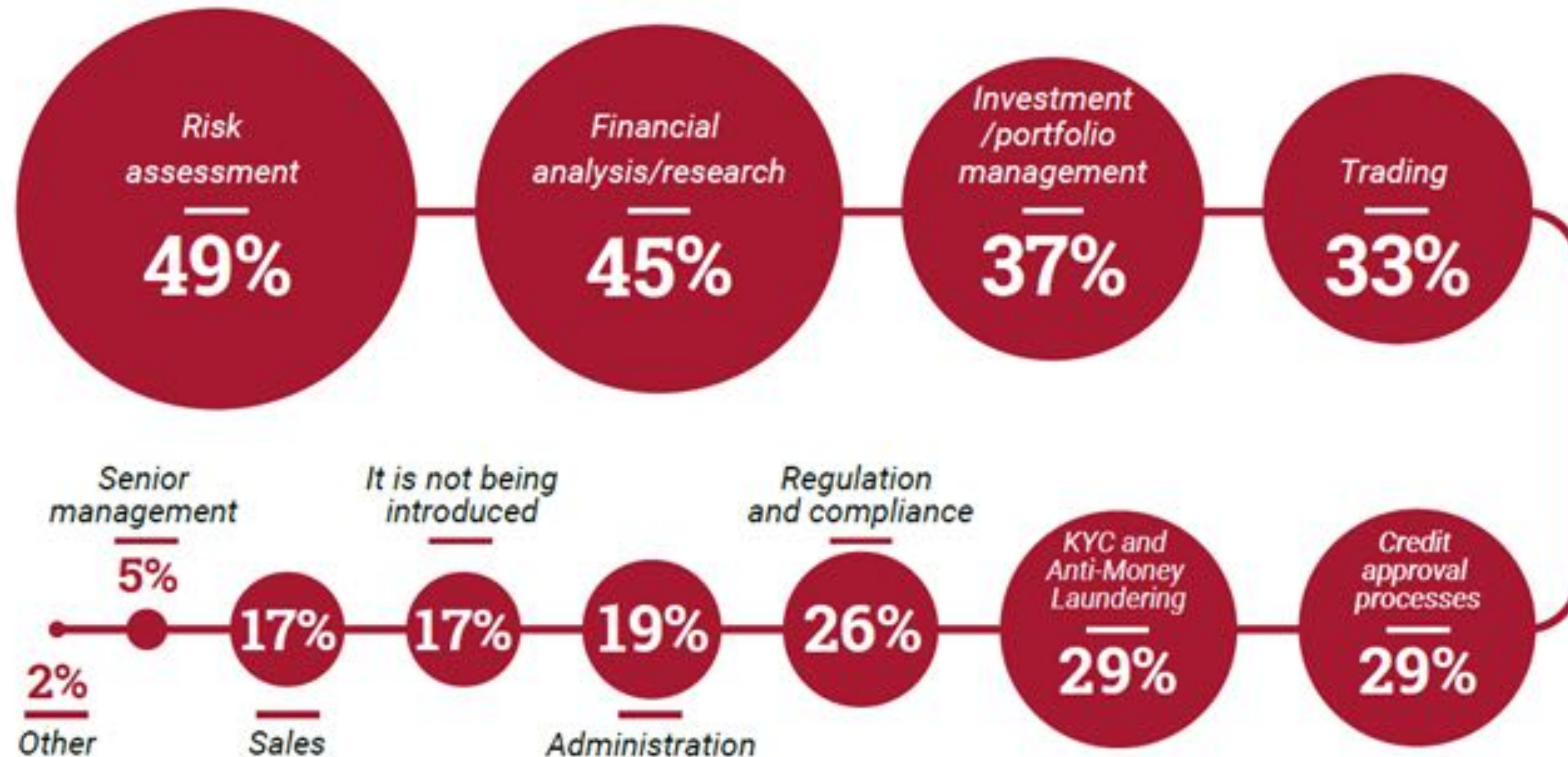
4  
SHARES



# Take X and add IA (intelligent assistance)

Where do you expect AI/machine learning technology to be introduced in your organisation in the next three years?

Source: Baker & McKenzie





# Intelligence is the new UI

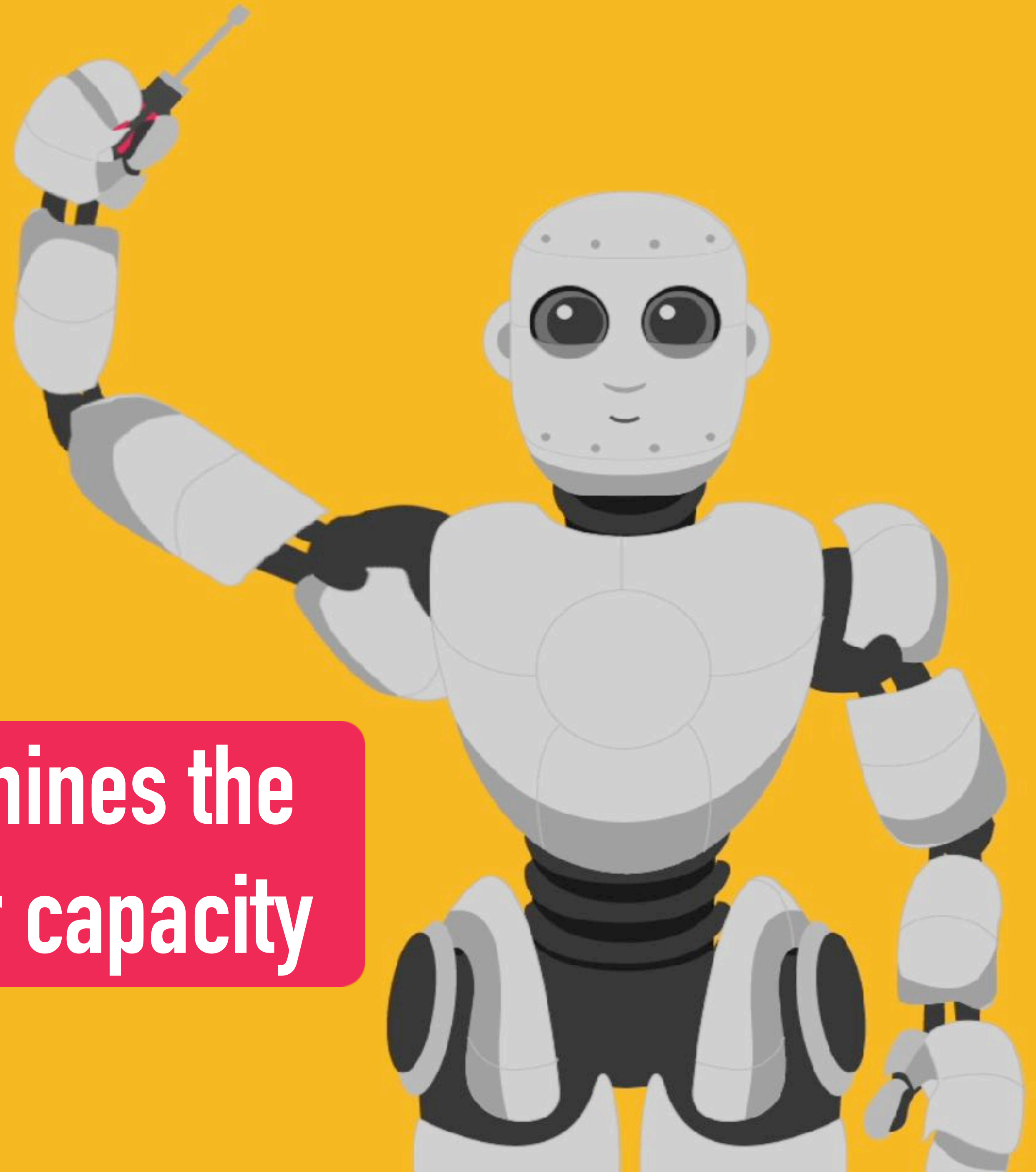




There is a **50%** chance AI will  
outperform humans in all tasks  
in **45 years time**



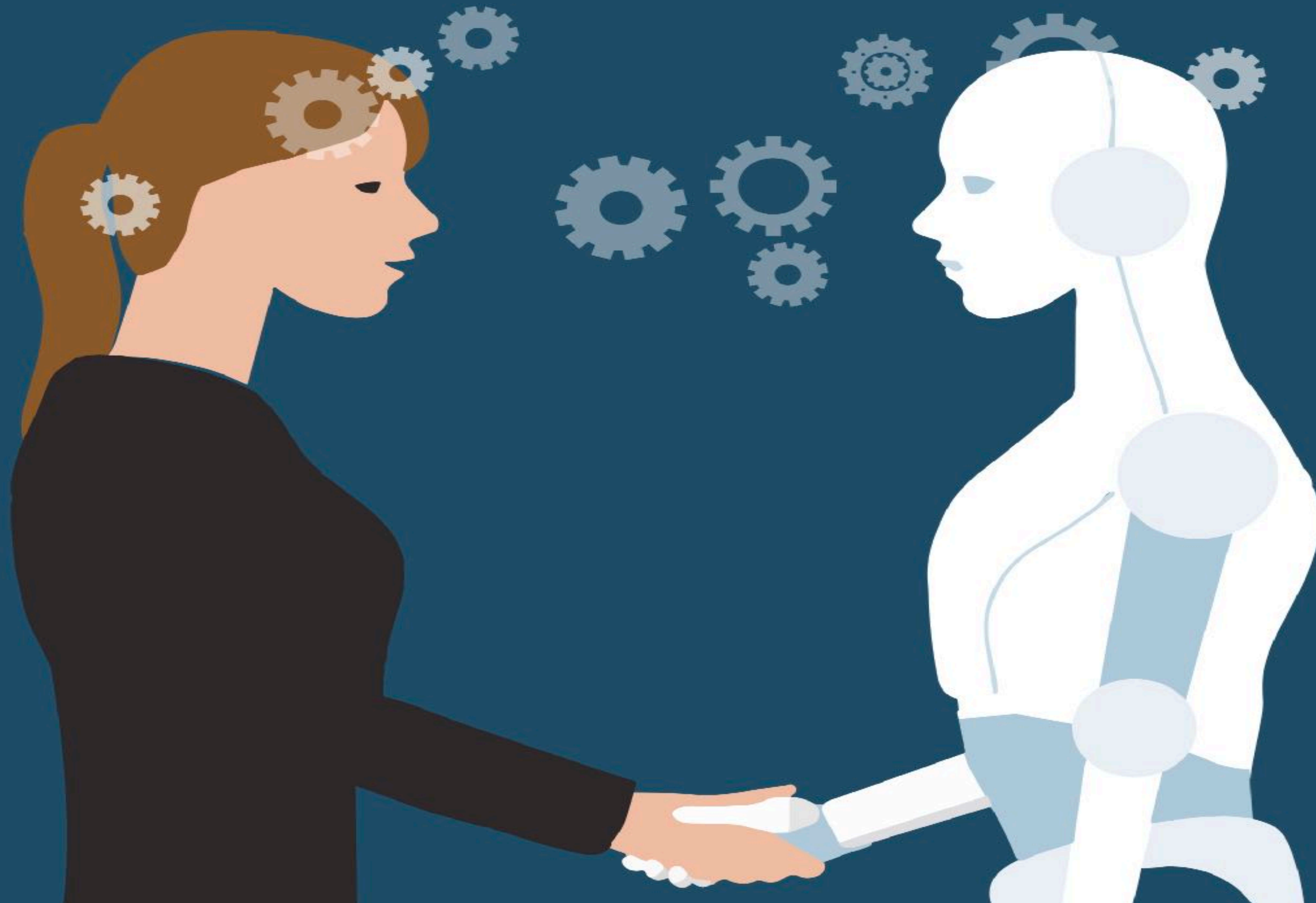
**We should not give machines the capacity to improve their capacity**





8

Intelligent machines will change our world more than any other invention before





Machine intelligence (IA, AI)

Human intelligence (HI)

... but how do we define 'intelligence'?



# Intelligence?

**The capacity to acquire capacity**

**The capacity to deal with not knowing**

**We are least aware of what our minds do best (Minsky)**





**Social intelligence (human)**  
**Emotional intelligence (human)**  
**Kinaesthetic intelligence (human)**  
**Intellectual intelligence (human)**  
**Artificial intelligence (machines)**



**Social intelligence (human)**

**Emotional intelligence (human)**

**Kinaesthetic intelligence (human)**

**Intellectual intelligence (human)**

**Artificial**



**“Algorithms outperform human intelligence when it is NOT about understanding emotional states, intentions, interpretations, deep semantic skills, consciousness, self-awareness and flexible intelligence”** (via Luciano Floridi)





The idea that a computer system supplements and supports human thinking, analysis, and planning, leaving the intentionality of a human actor at the heart of the human-computer interaction. Focusing on the interaction of humans and computers, rather than on computers alone.

# IA

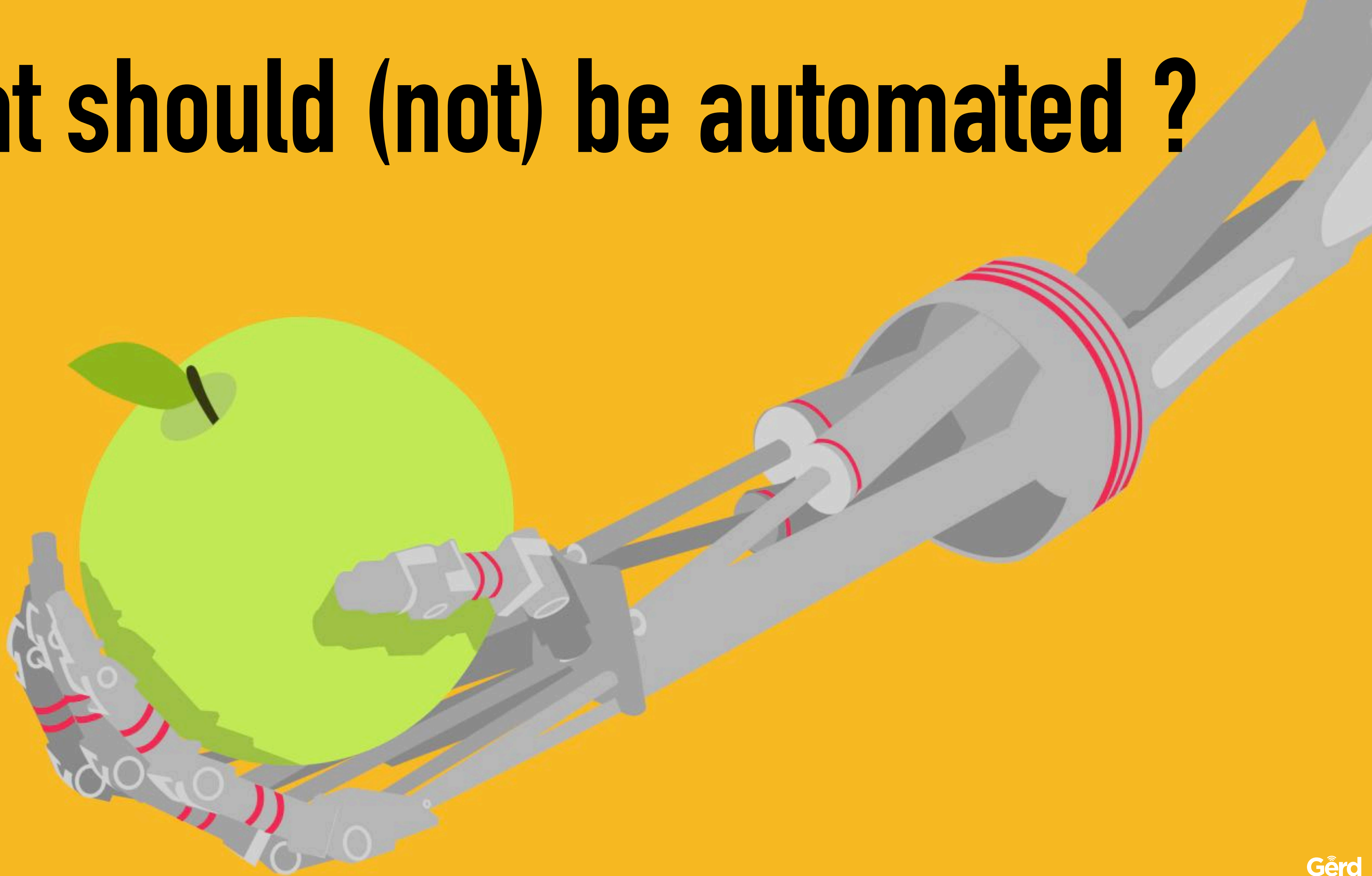
Source: Wikipedia: An Intelligence Augmentation tool

# AI

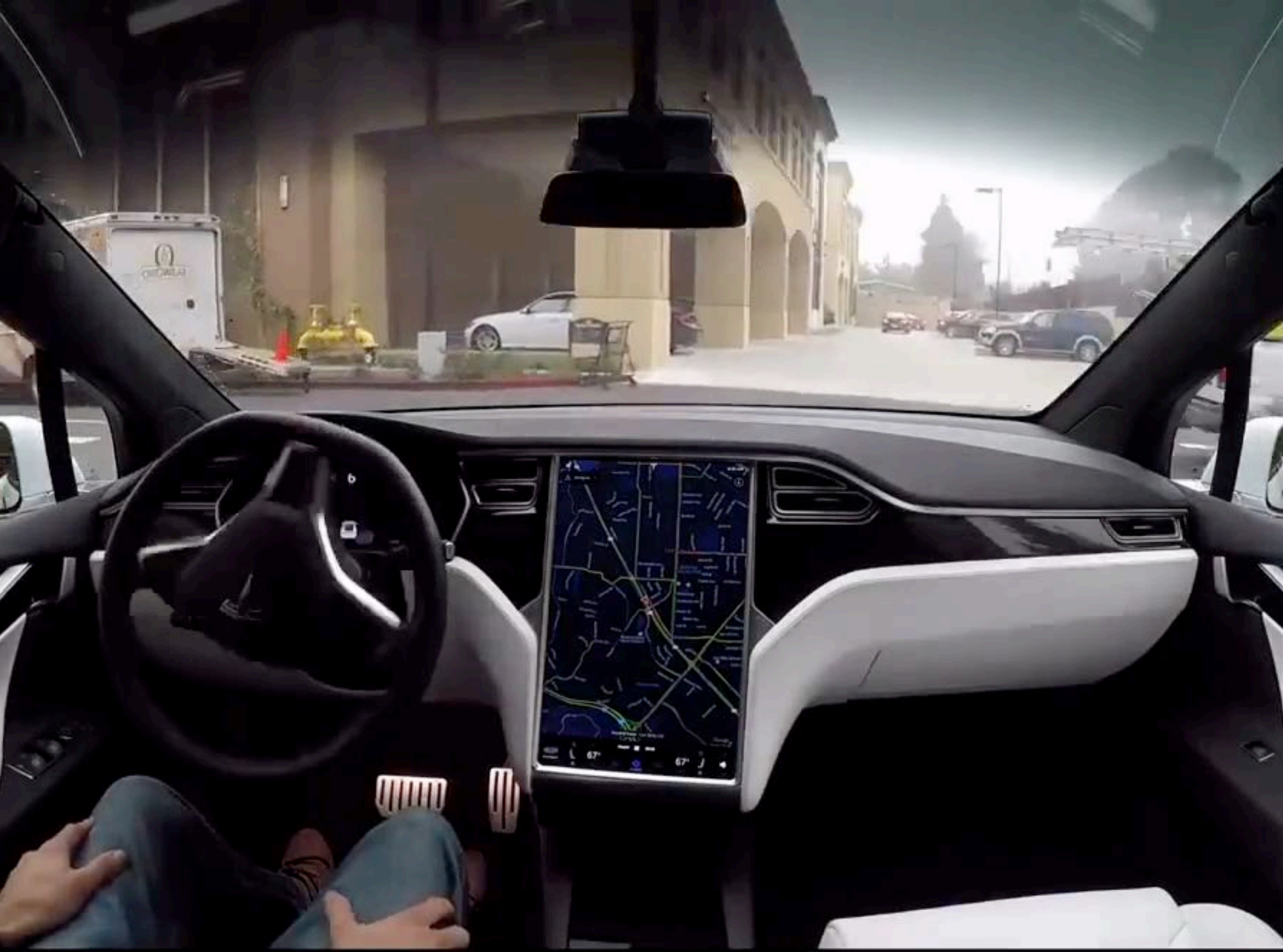
The idea of a computer system that, by reproducing human cognition, allows that system to function autonomously and effectively in a given domain. An AI system demonstrates a kind of intentionality—it initiates action in its environment and pursues goals.



# What should (not) be automated ?









**Thousands of AI experts support the  
call to ban autonomous weapons ...**





9

The end of routines will not mean the end of human work\*

ROUTINE

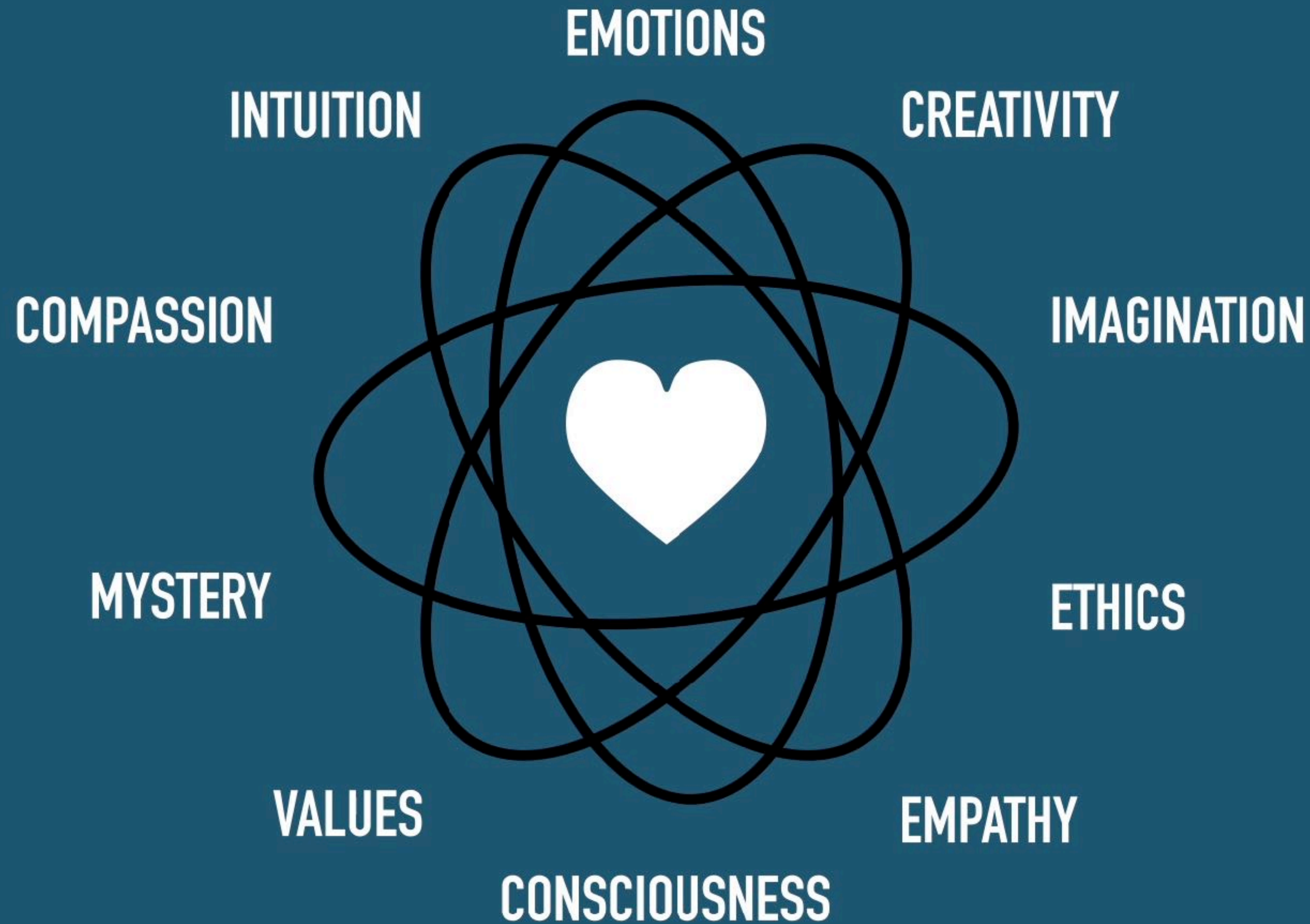


While anything that can be digitized, automated or virtualized, will be...





...anything that cannot be digitized or automated will become much more valuable







**How to DO the future . . .**



# How people (and their enterprises) actually change



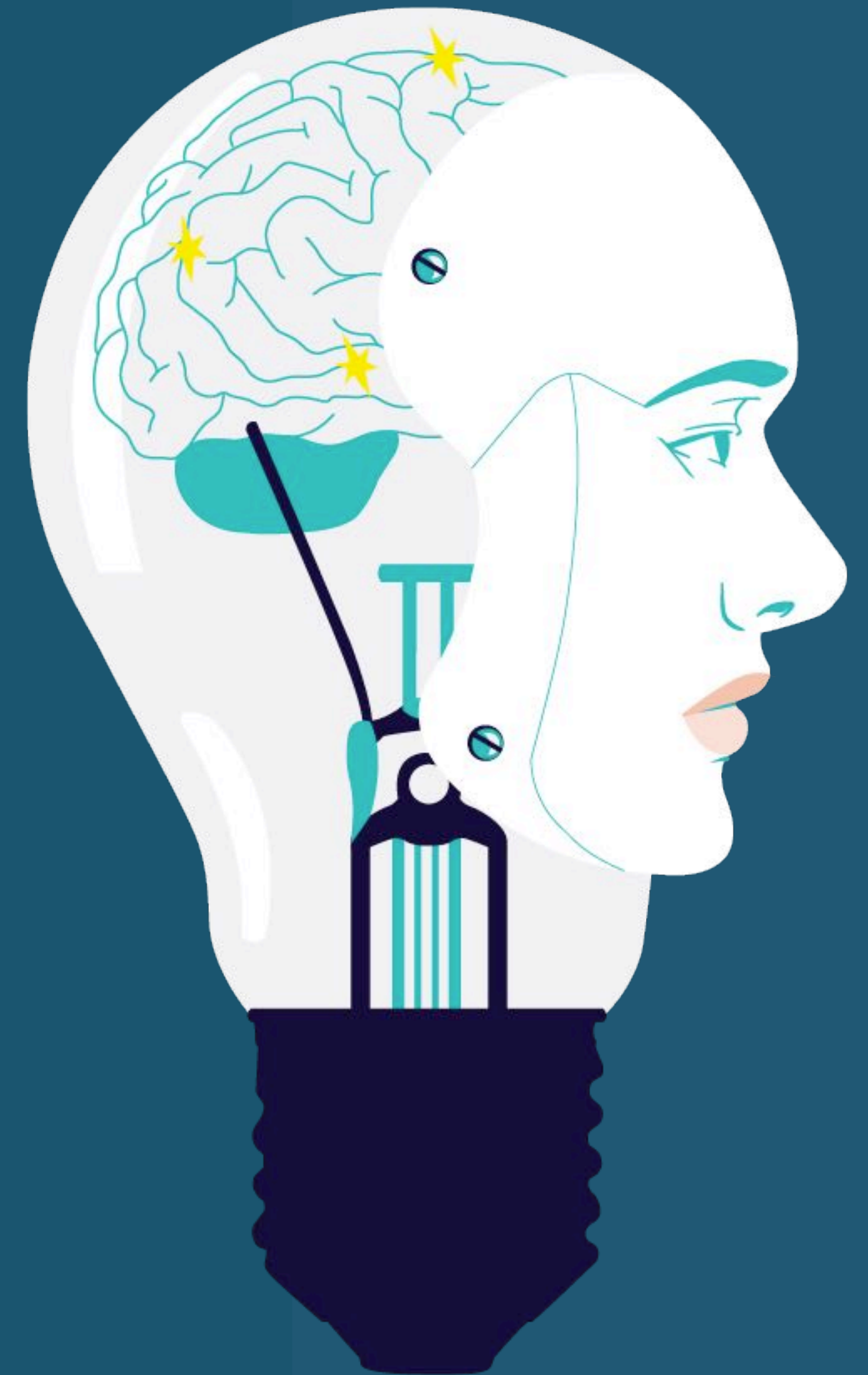
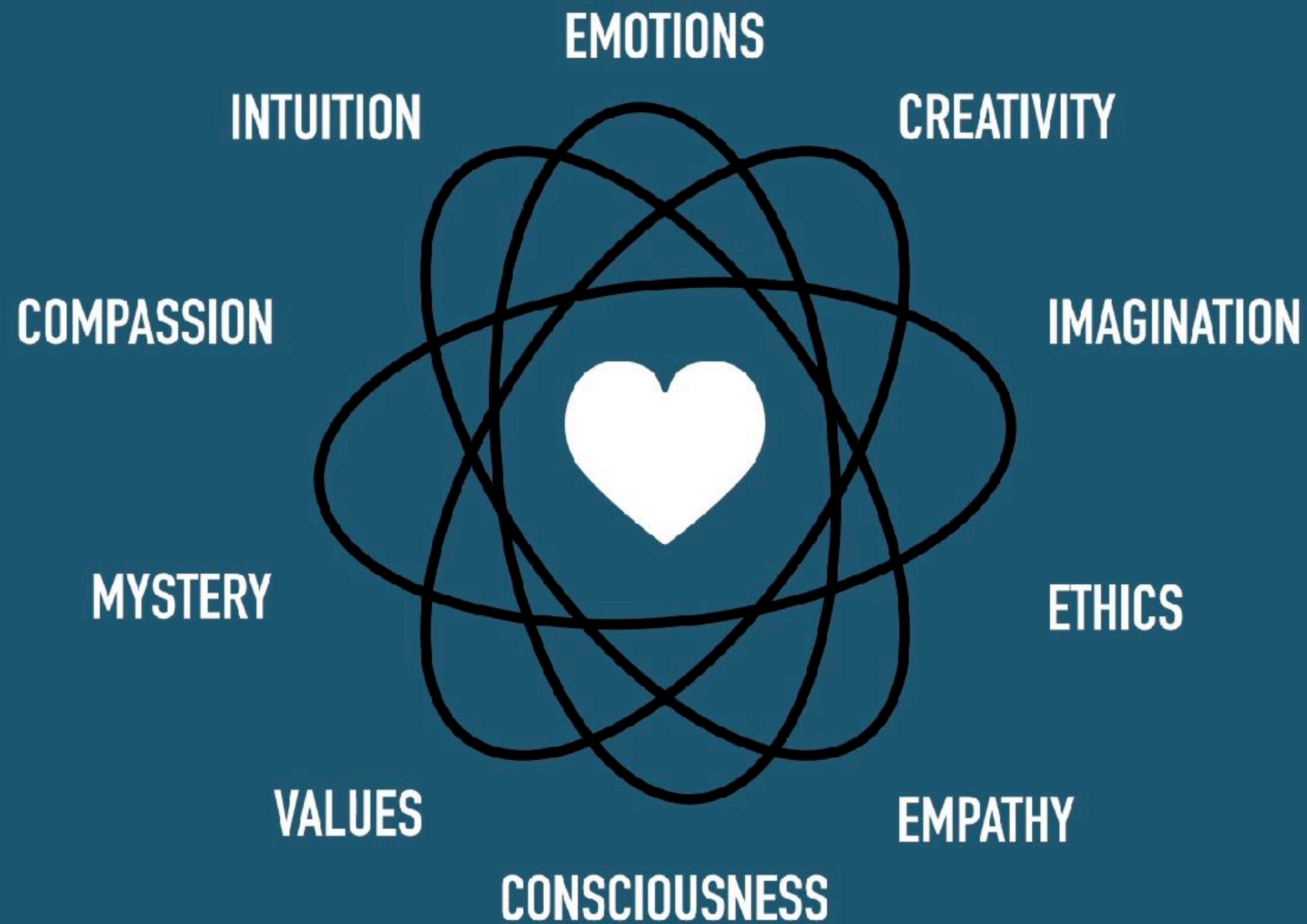


Don't just use technology to be more efficient: use it to do entirely new things!





# Invest in **BOTH** to enjoy sustainable growth





# Civilizations are driven by their technology but defined by their humanity (and so is your business!)

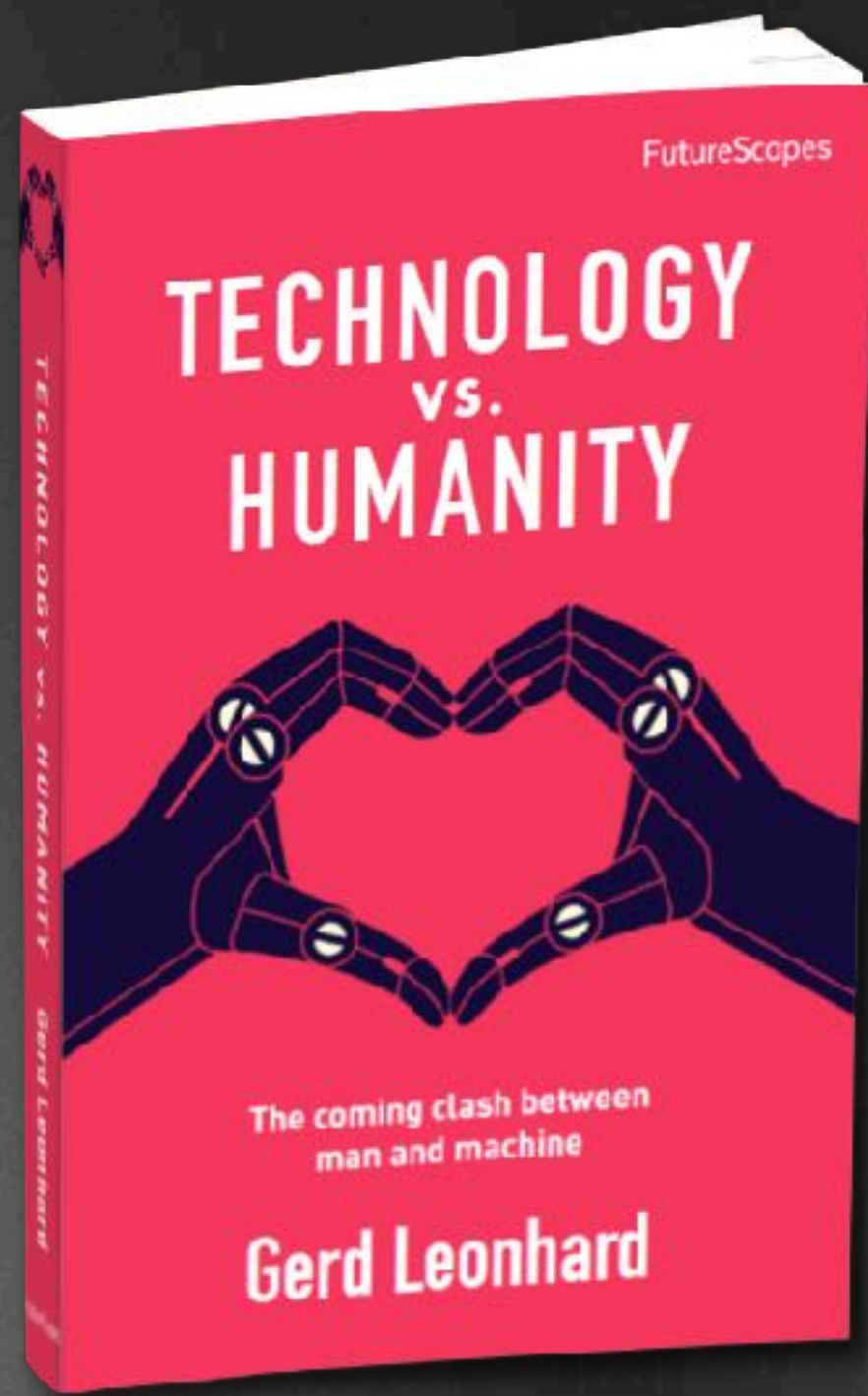




**'The Future  
belongs to  
those that can  
hear it coming'  
David Bowie**







# Thanks for your time!



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