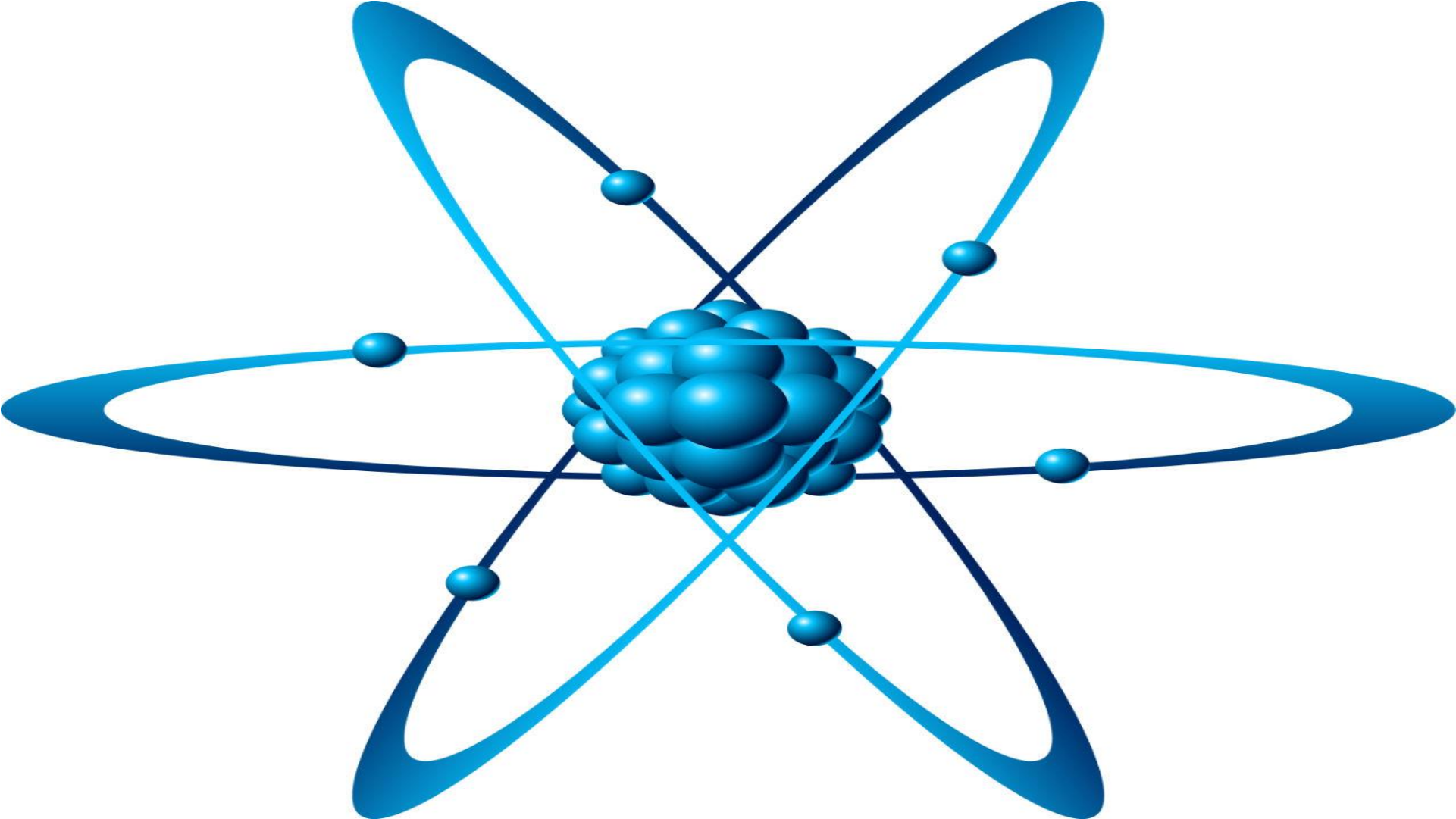


The image depicts a vast, desolate landscape under a turbulent sky. A bright sun is partially obscured by dark, swirling clouds, casting a golden glow over the scene. The ground is a complex, layered terrain of dark rock and earth, with a lone figure standing in the distance, looking out over the horizon. The overall mood is one of chaos and uncertainty.

2020-2050  
Age of Chaos











**NYENRODE**  
BUSINESS UNIVERSITY

**TiasNimbas**  
Business School







“

Netflix is not even on  
the radar screen in terms  
of competition.

Jim Keyes, Blockbuster - Netflix  
2008

“There is no reason for any  
individual to have a computer  
in his home.”



**"Airplanes are interesting toys  
but of no military value."**

*Marechal Ferdinand Foch,  
Professor of Strategy, Ecole  
Superieure de Guerre , France.*



There's no chance that the iPhone is  
going to get any significant market  
share. No chance.

— Steve Ballmer —

AZ QUOTES

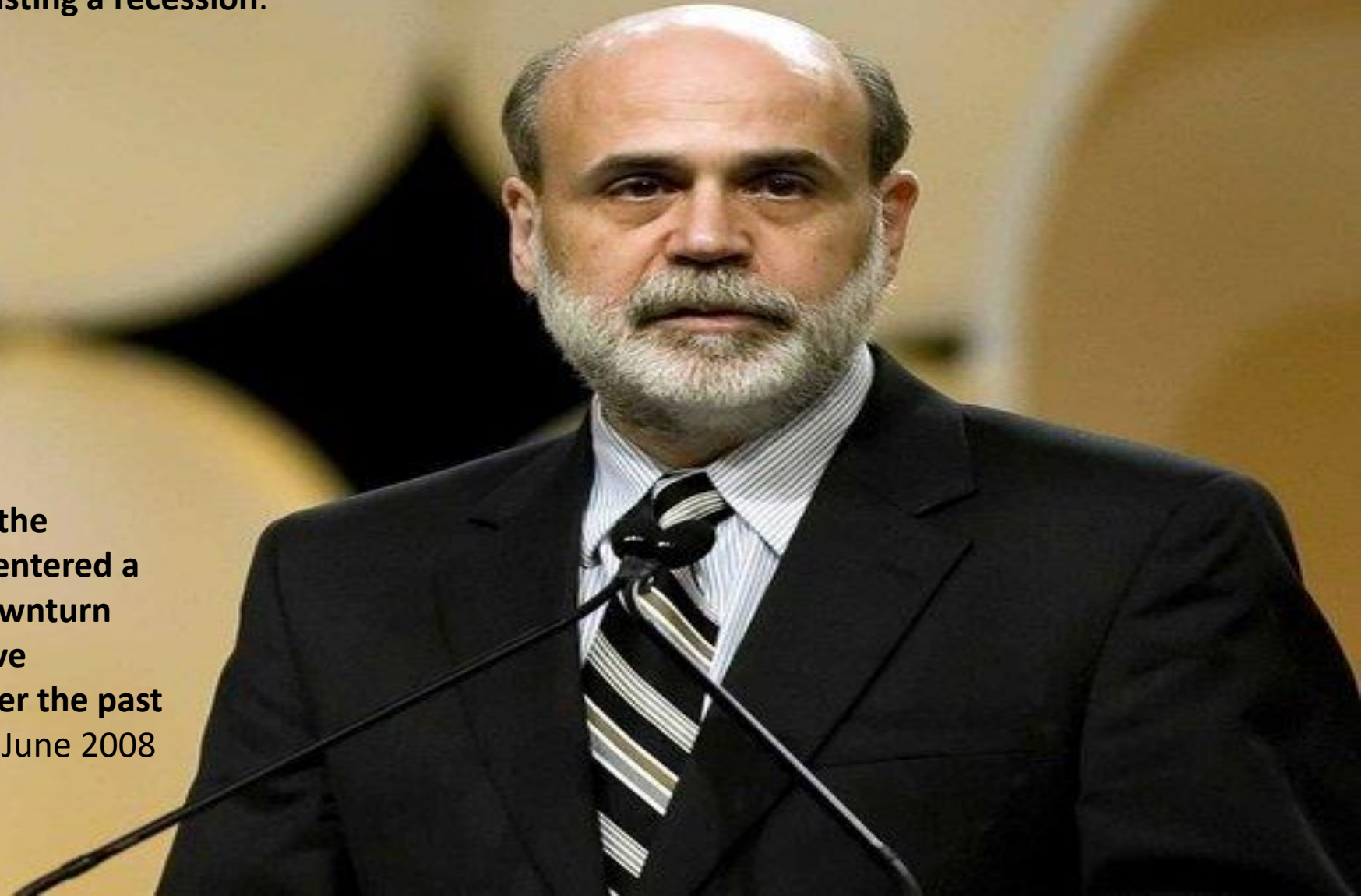
"Stocks have reached what looks like a permanently high plateau."



Irving Fisher,  
Professor of Economics,  
Yale University, 1929

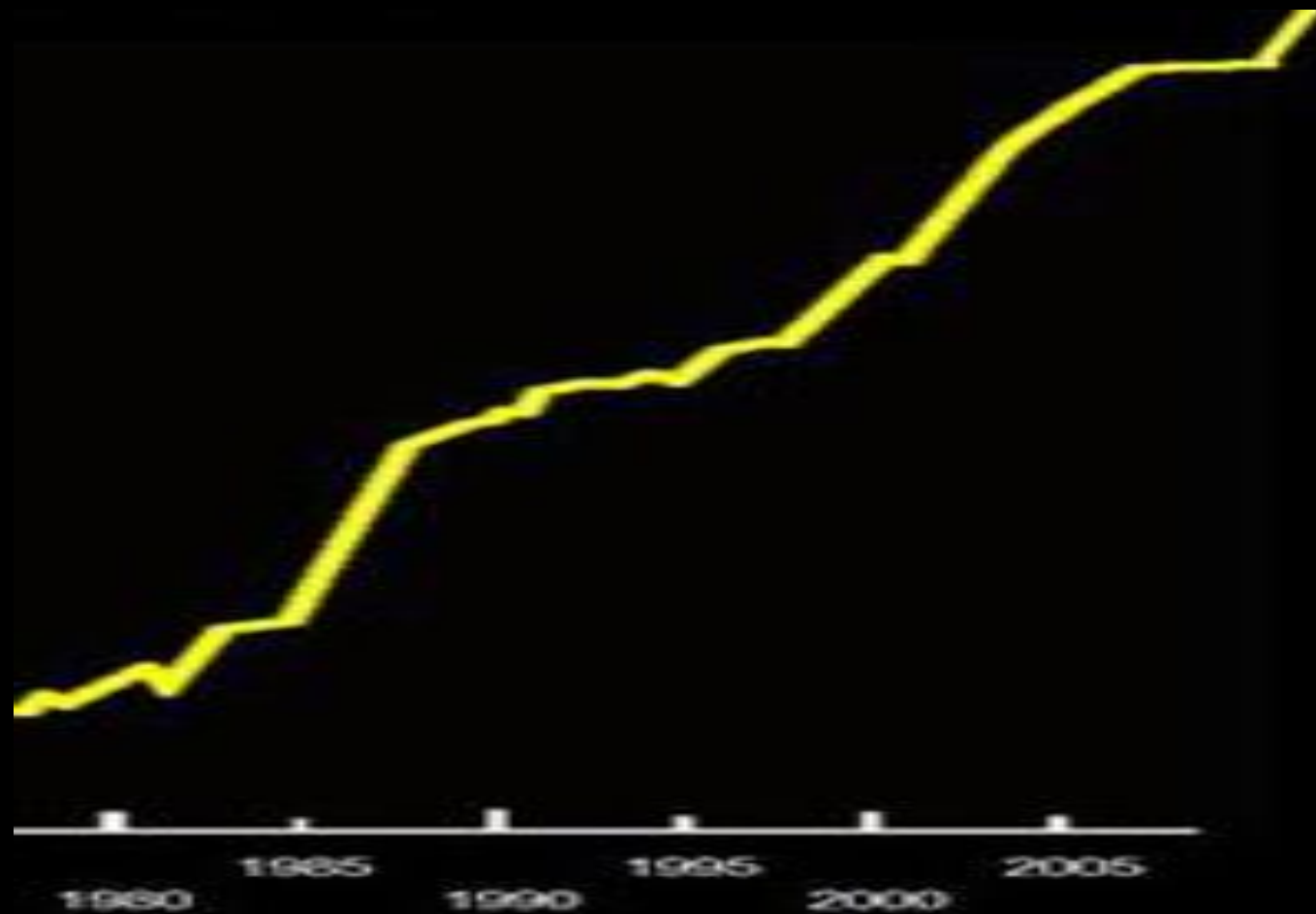
**"The Federal Reserve is not  
currently forecasting a recession."  
(jan 2008)**

**"The risk that the  
economy has entered a  
substantial downturn  
appears to have  
diminished over the past  
month or so." June 2008**





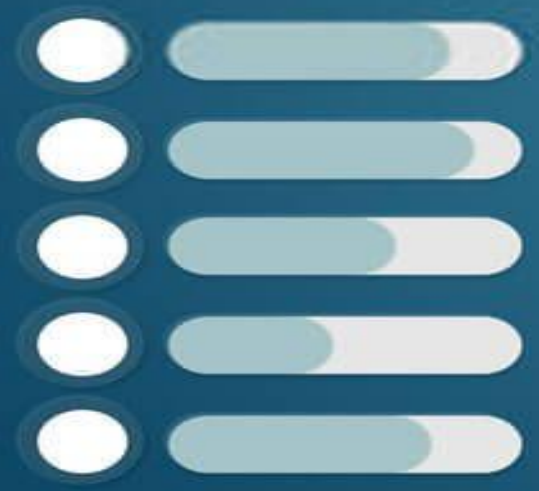
## A Historic Level of Debt



# A Historic Level of Debt



# Generalist



# Specialist







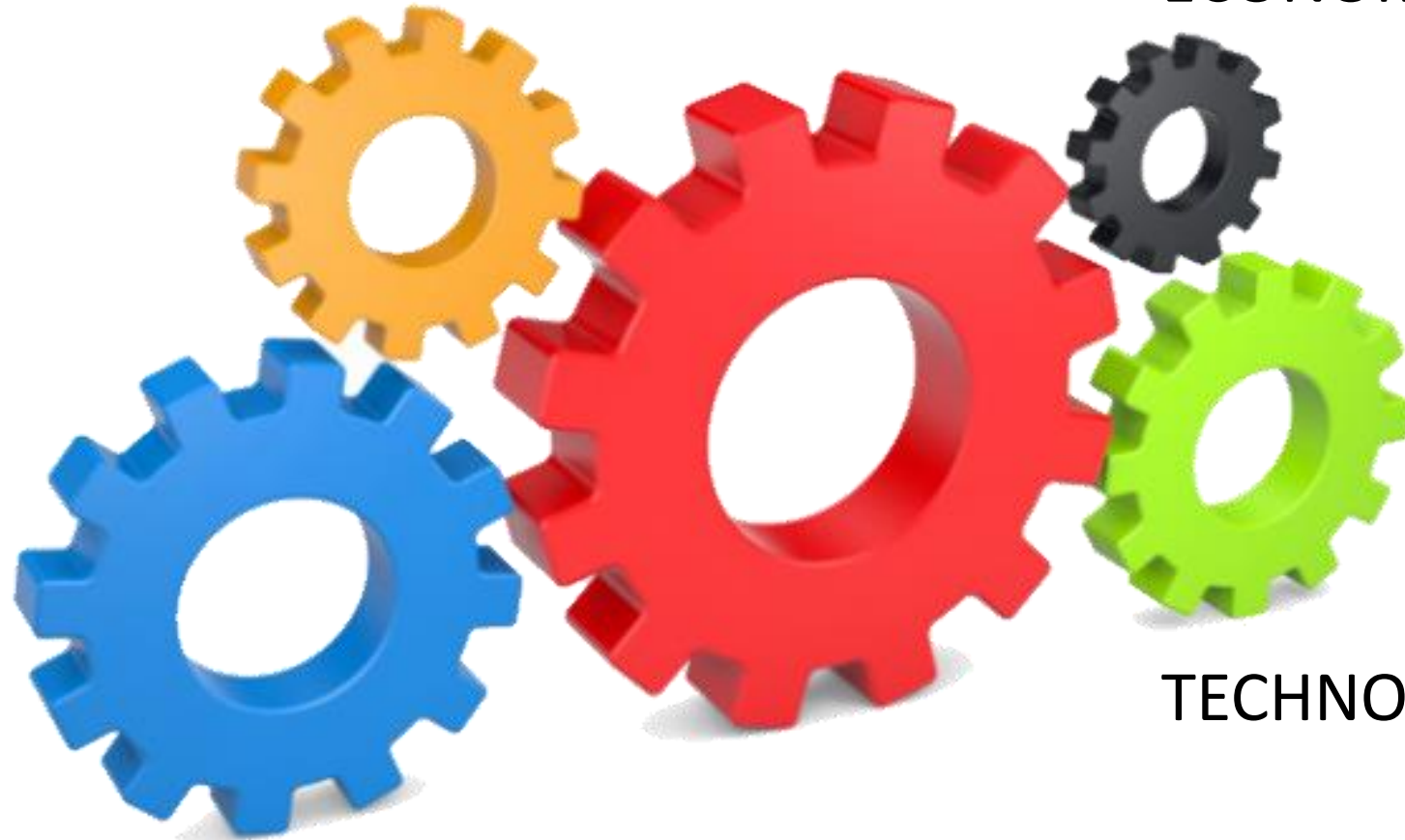
**IF YOU ONLY  
FOCUS ON THE PROBLEM**



**YOU MIGHT  
MISS THE EASY SOLUTION**

DEMOGRAFIE

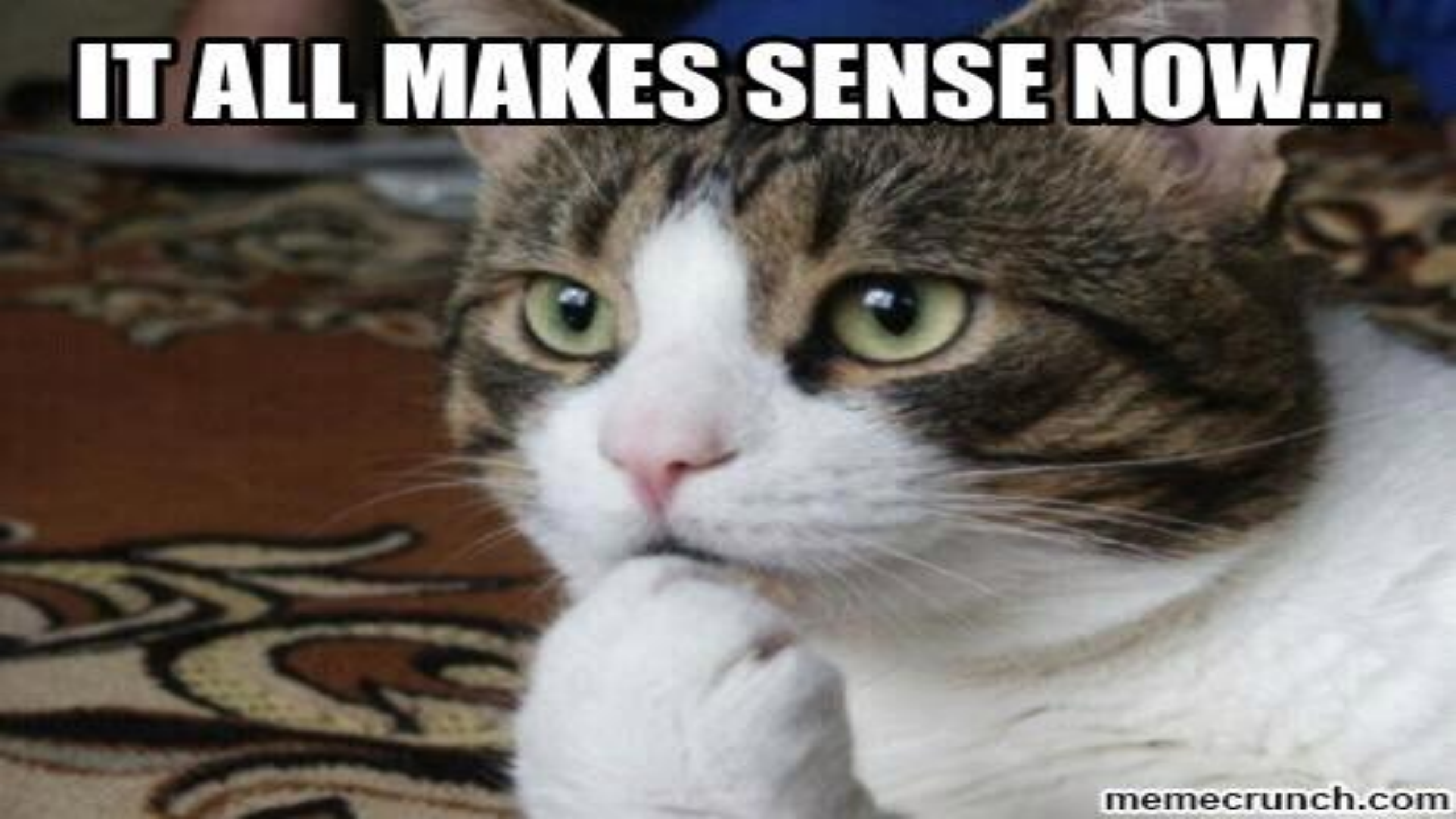
ECONOMIE



TECHNOLOGIE

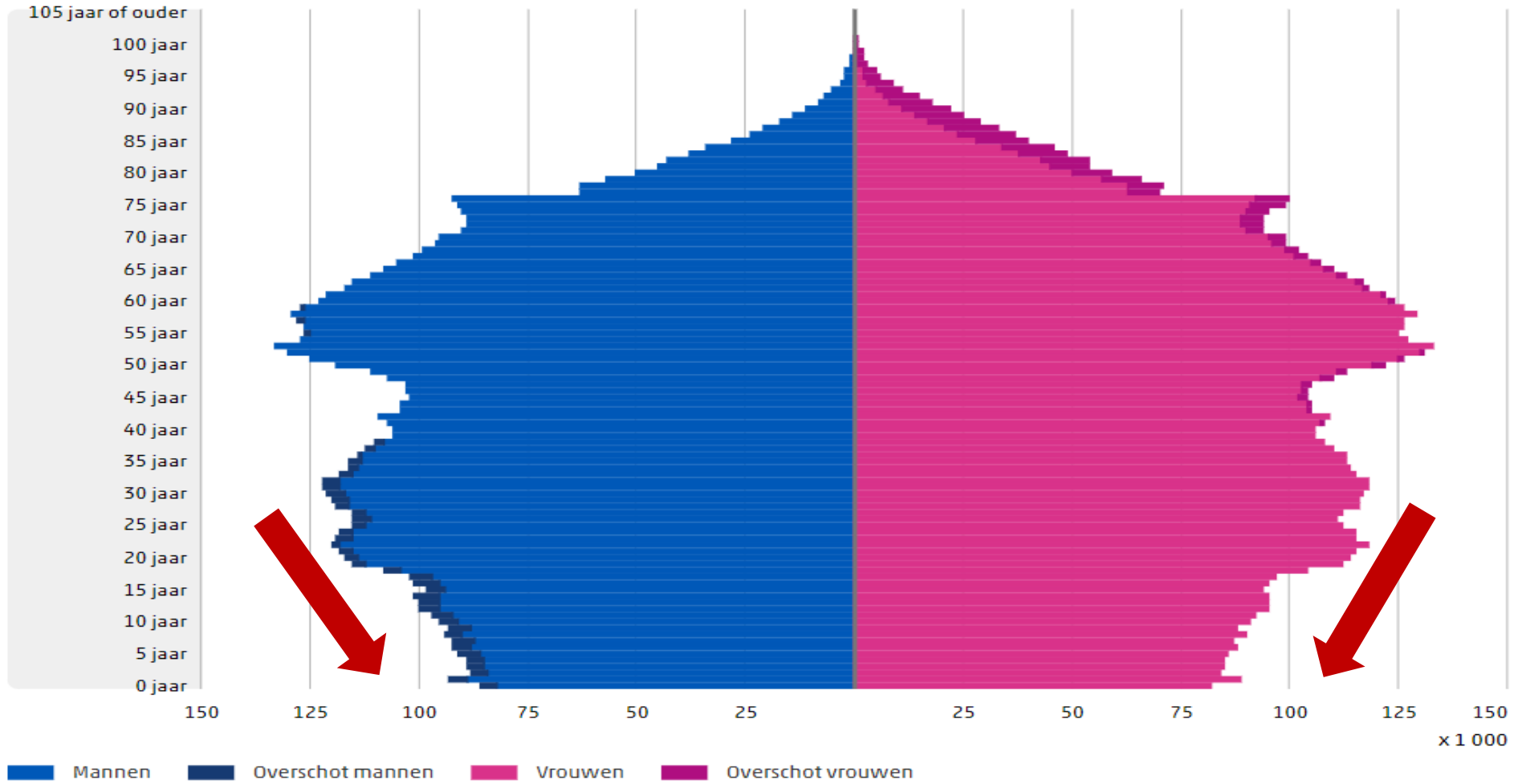
SOCIOPOLITIEK

**IT ALL MAKES SENSE NOW...**



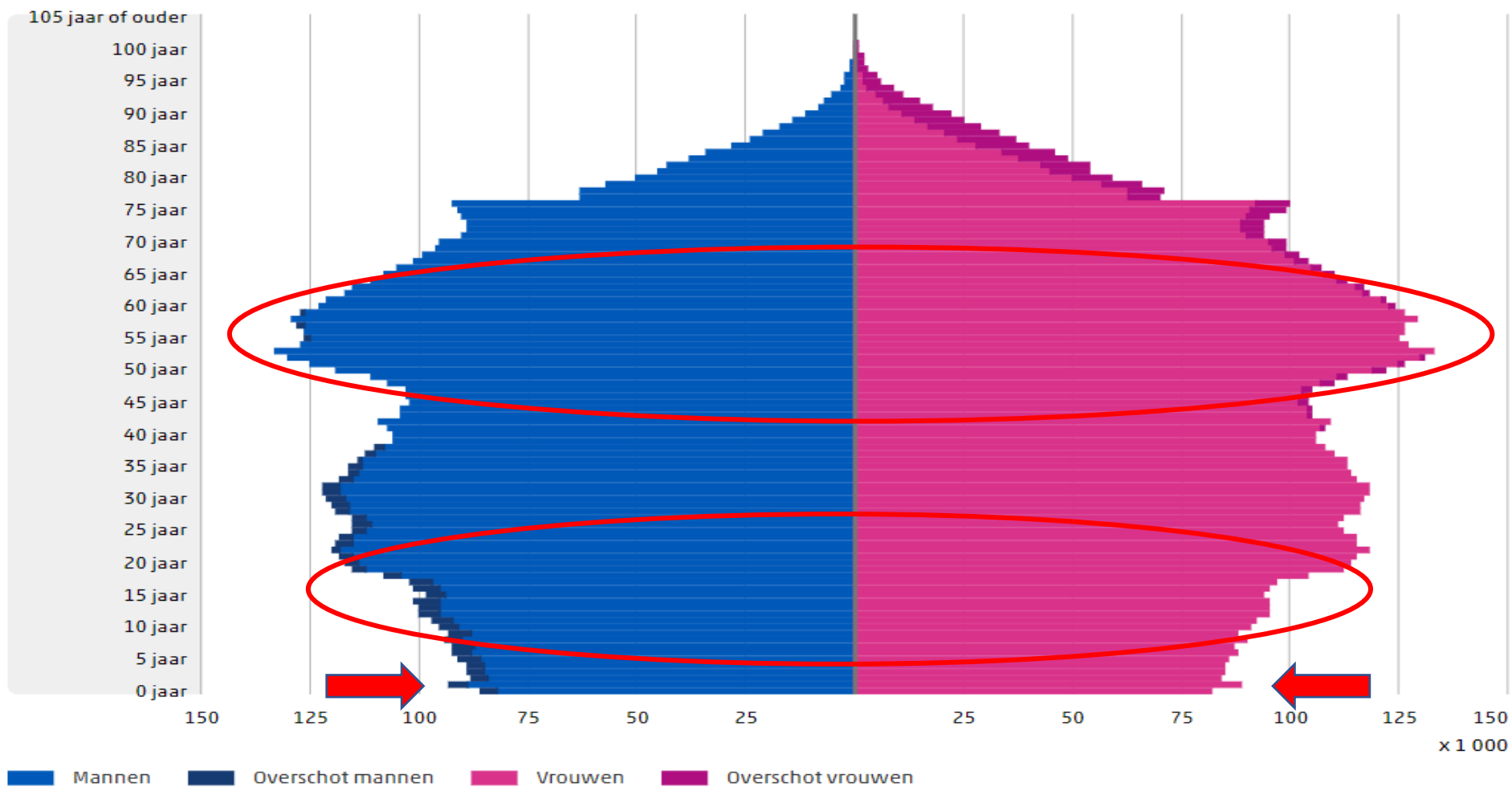
## Leeftijdsofbouw Nederland 2023 (prognose)

Totaal: 17 817 000 inwoners



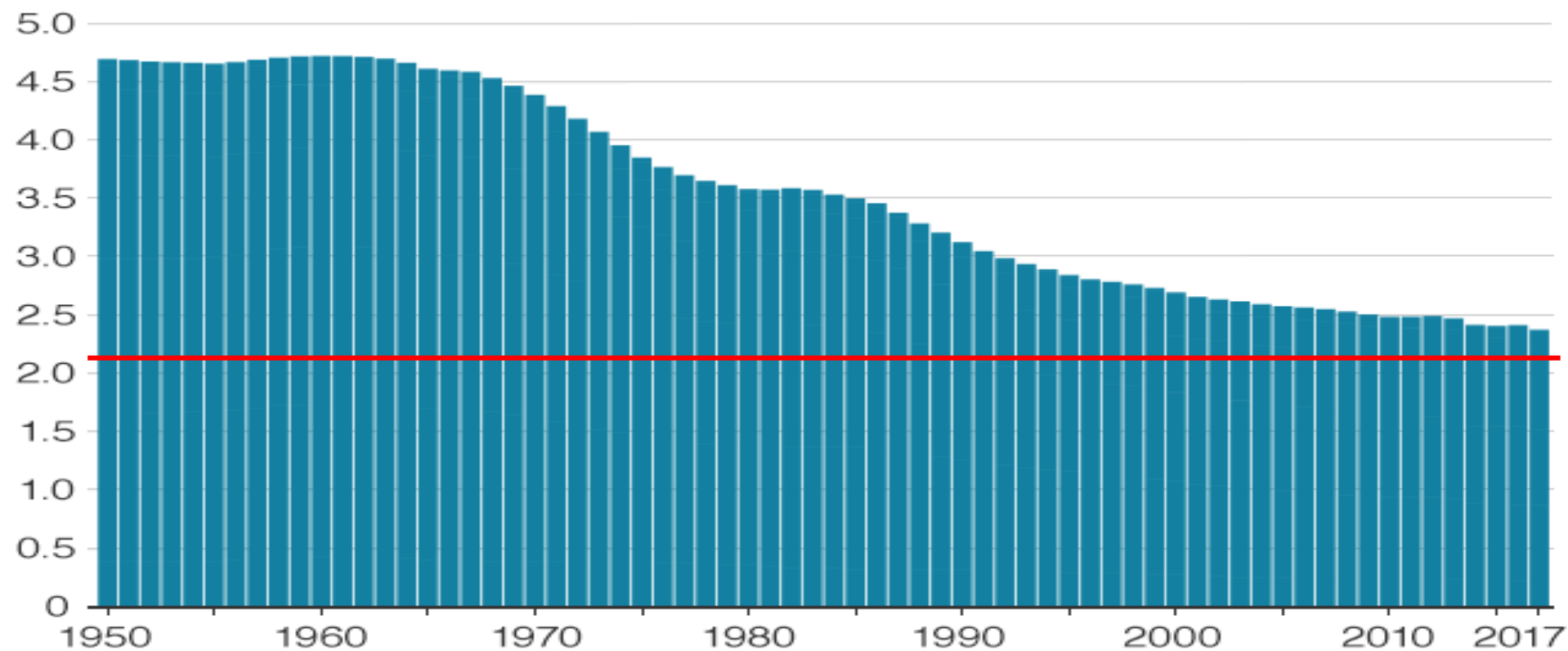
## Leeftijdopbouw Nederland 2023 (prognose)

Totaal: 17 817 000 inwoners



## Women are having fewer children

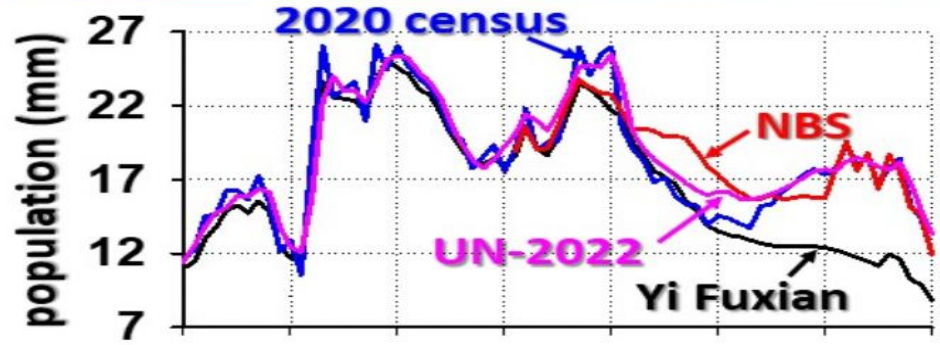
Global fertility rate (livebirths per woman)



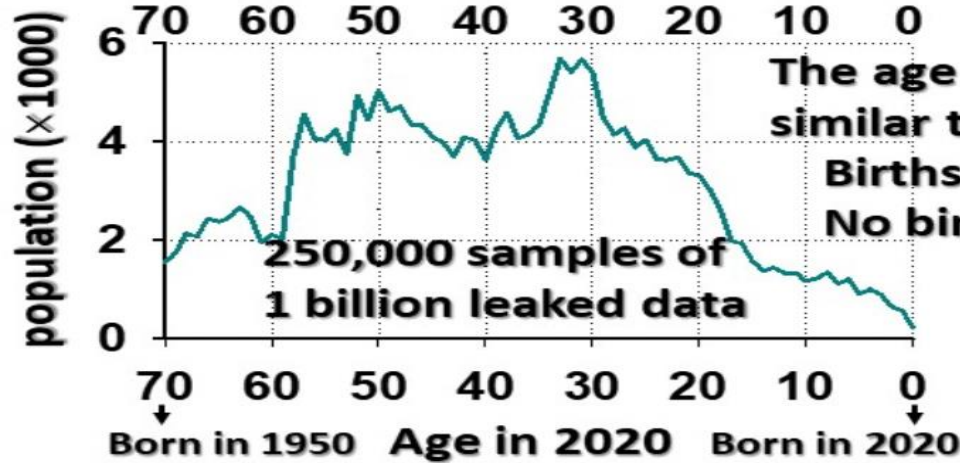
Source: Institute for Health Metrics and Evaluation at the University of Washington

**BBC**

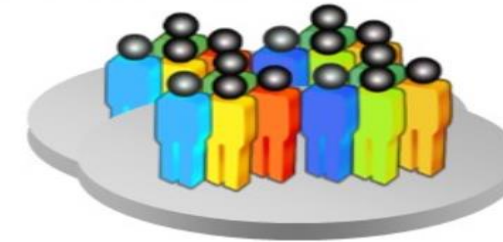
## Leaked data, official data, UN data



Population in 2020	
2020 census	1.41 billion
NBS	1.41 billion
UN-2022	1.42 billion
Yi Fuxian	<1.28 billion
Leaked data	<1.28 billion

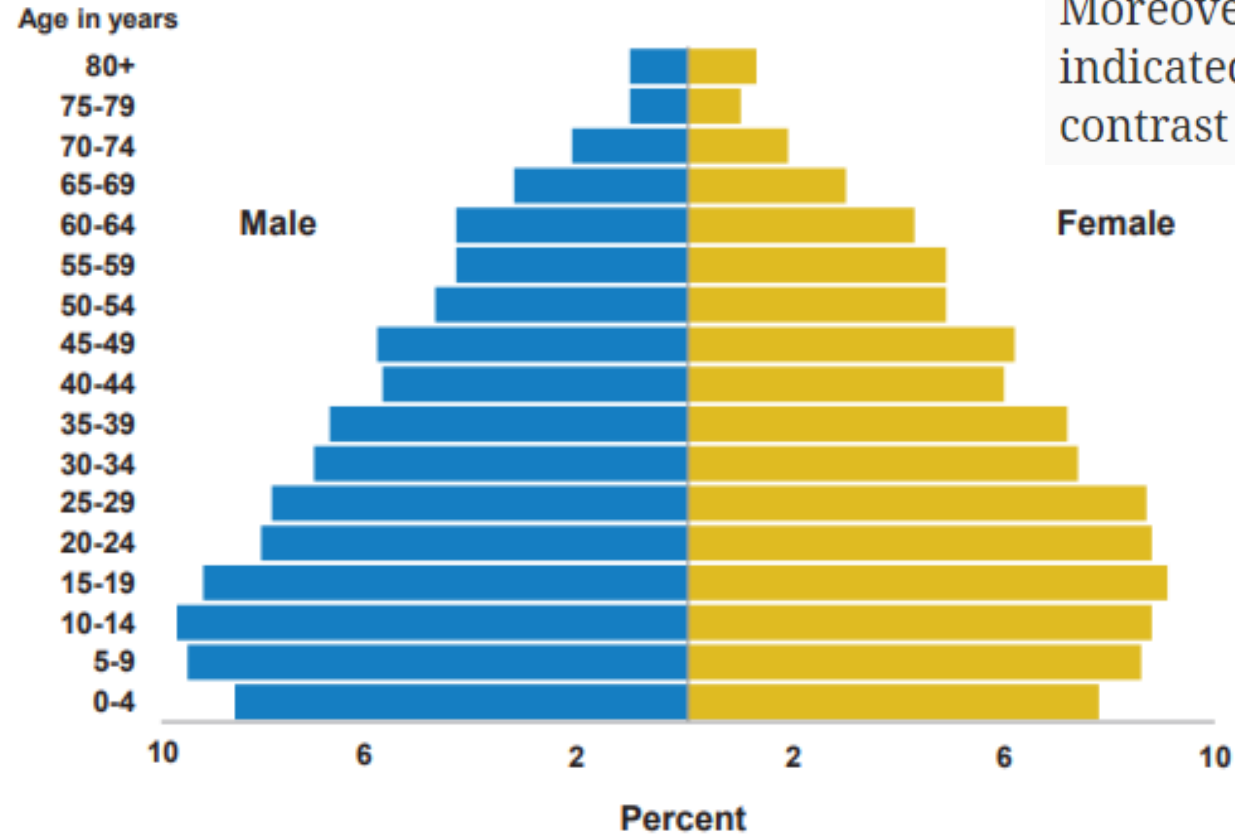


The age pattern of the leaked data is similar to Yi's:  
 Births continued to decline after 1990  
 No birth peak in 2004 or 2011



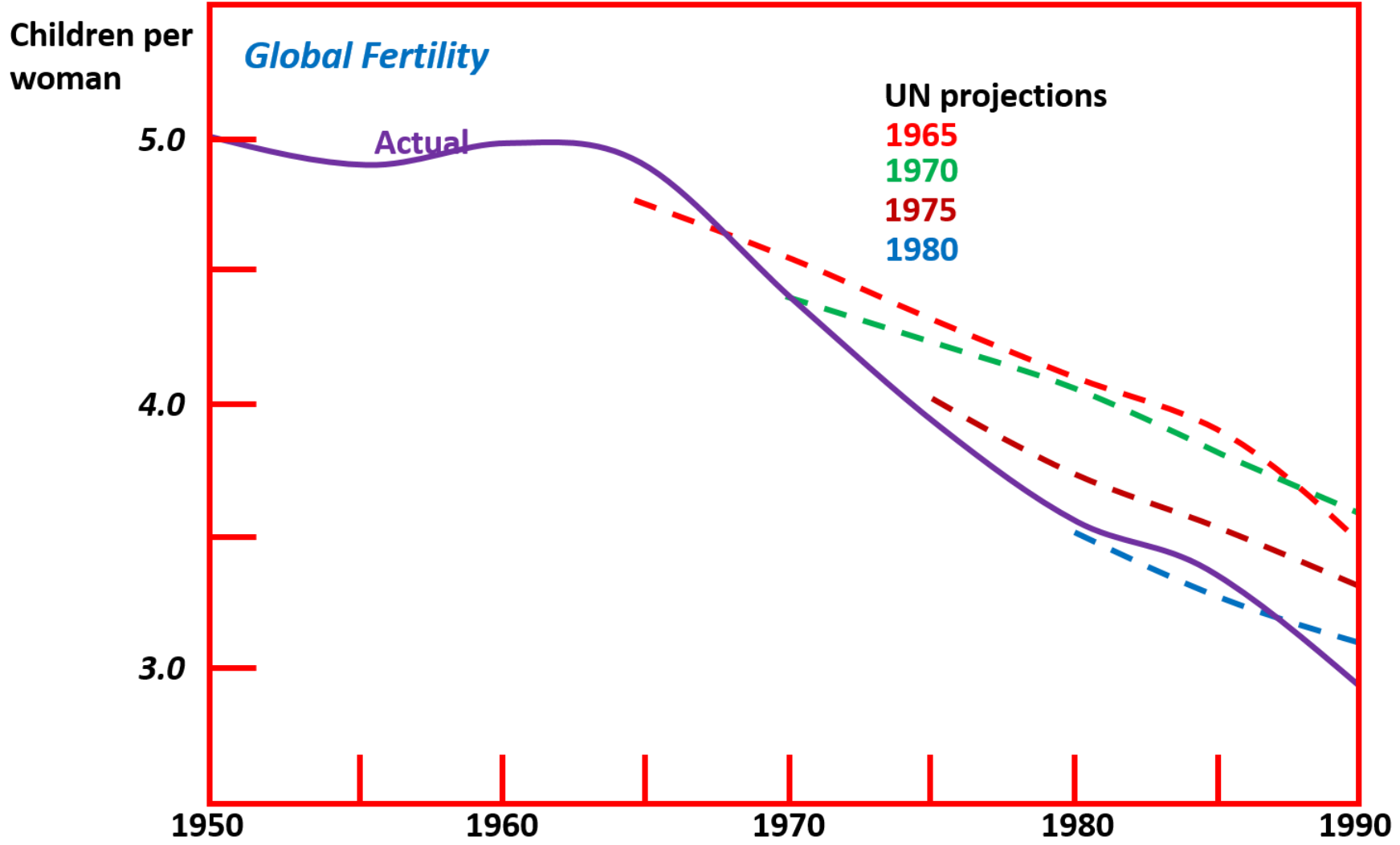
## Figure 2.4 Population Pyramid

Percent distribution of the de facto household population

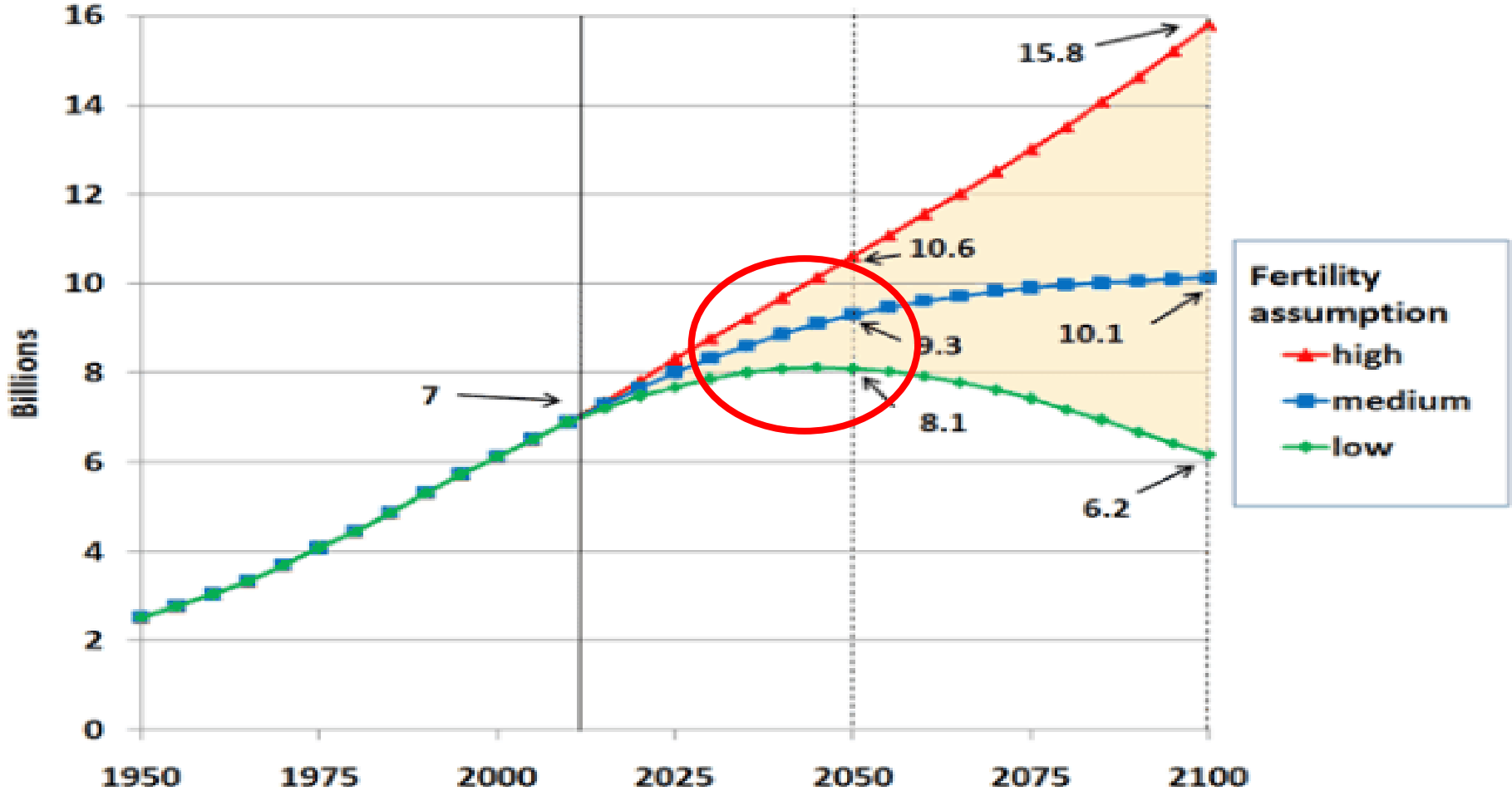


Moreover, India's National Family Health Survey indicated a **fertility rate of 1.99** in 2017-19, in contrast to the *WPP*'s estimate of 2.16.





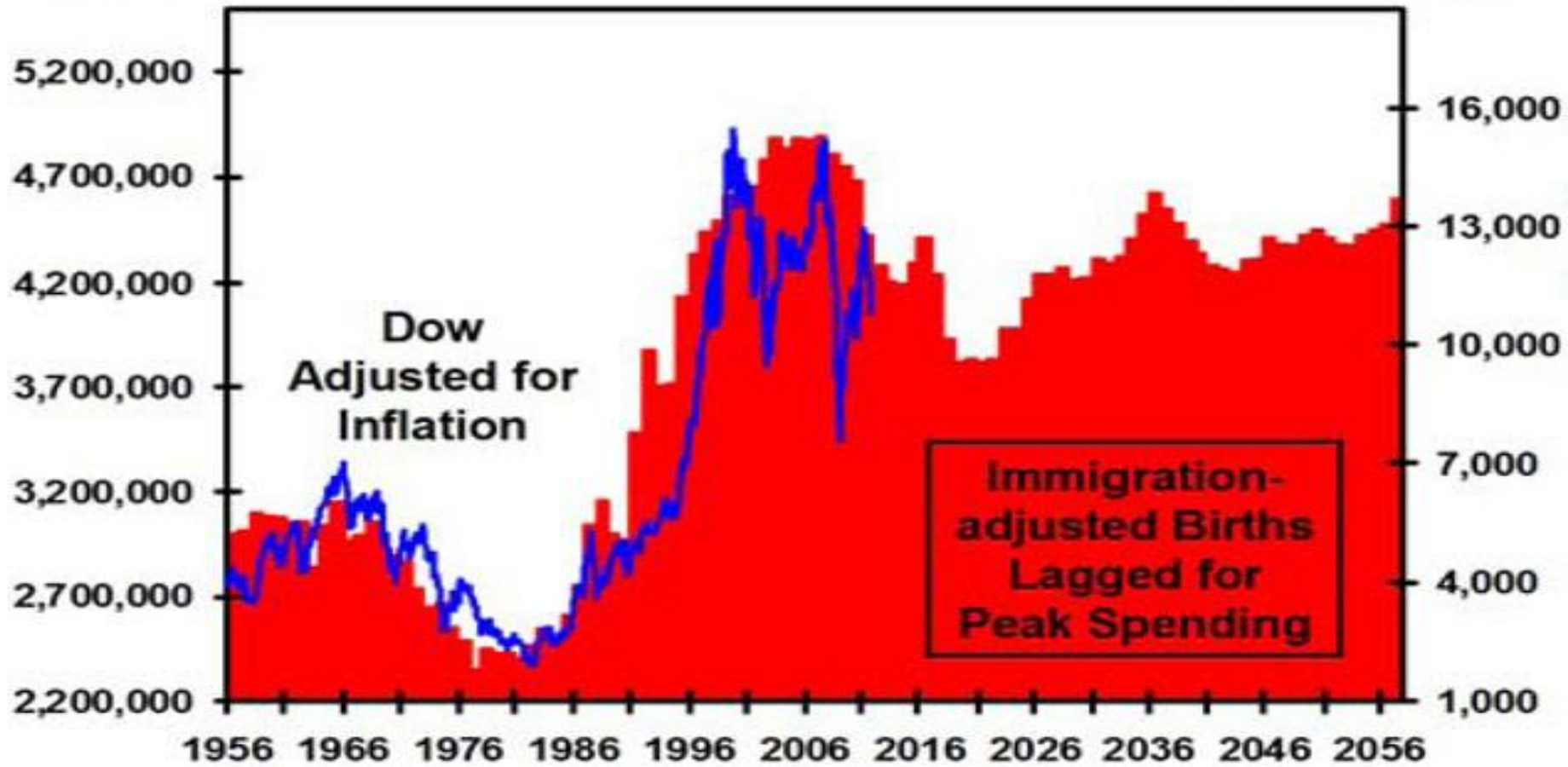
UN Projections of World Population Under Three Fertility Assumptions





# The Spending Wave

## Births Lagged for Peak in Family Spending

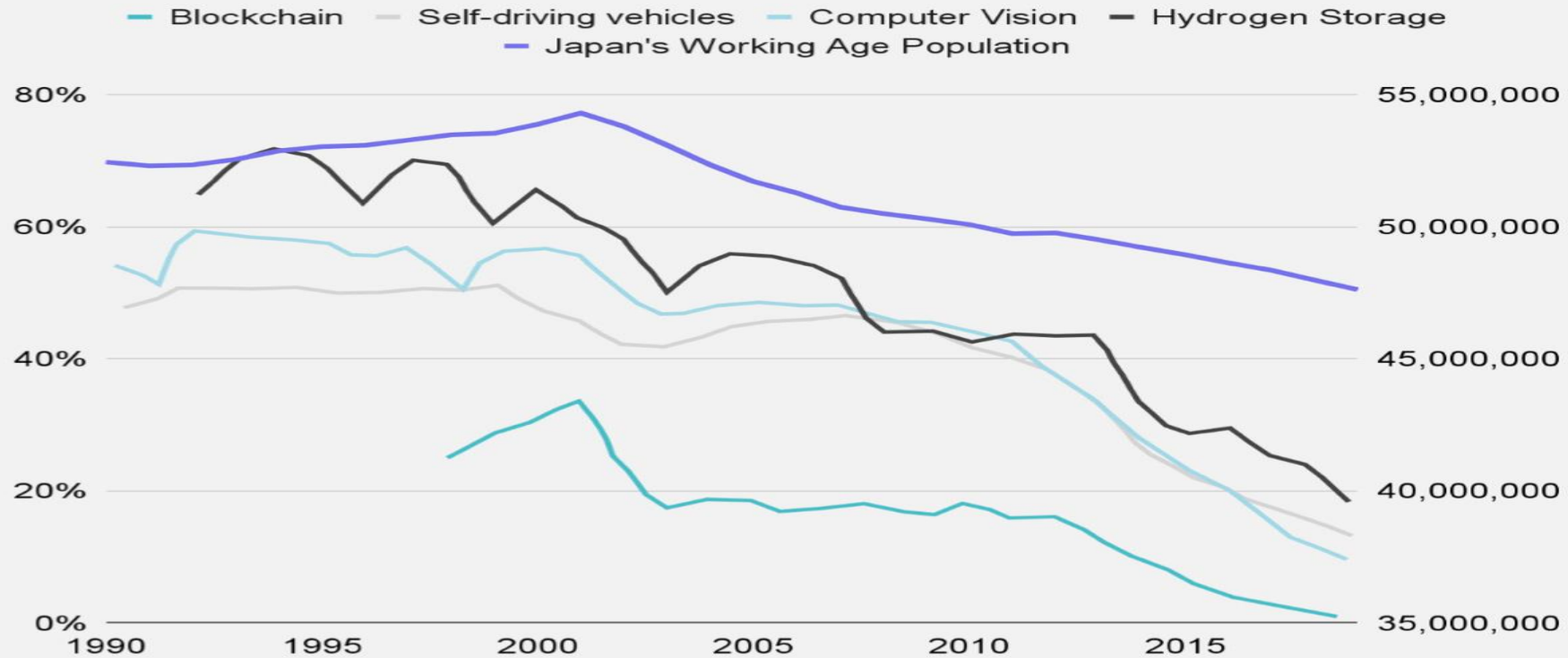


Copyright HS Dent 2012

## As the population declines, so does innovation



Left Axis: % of total patents filed for technology by Japan  
Right Axis: Japan's working age population (25-54)



Source: The Economist, Bergeaud & Verluise (2022), FRED

exponentialview.co

**SLOW  
ECONOMY  
AHEAD**

UNITED STATES OF AMERICA

DEBT

IN GOD WE TRUST

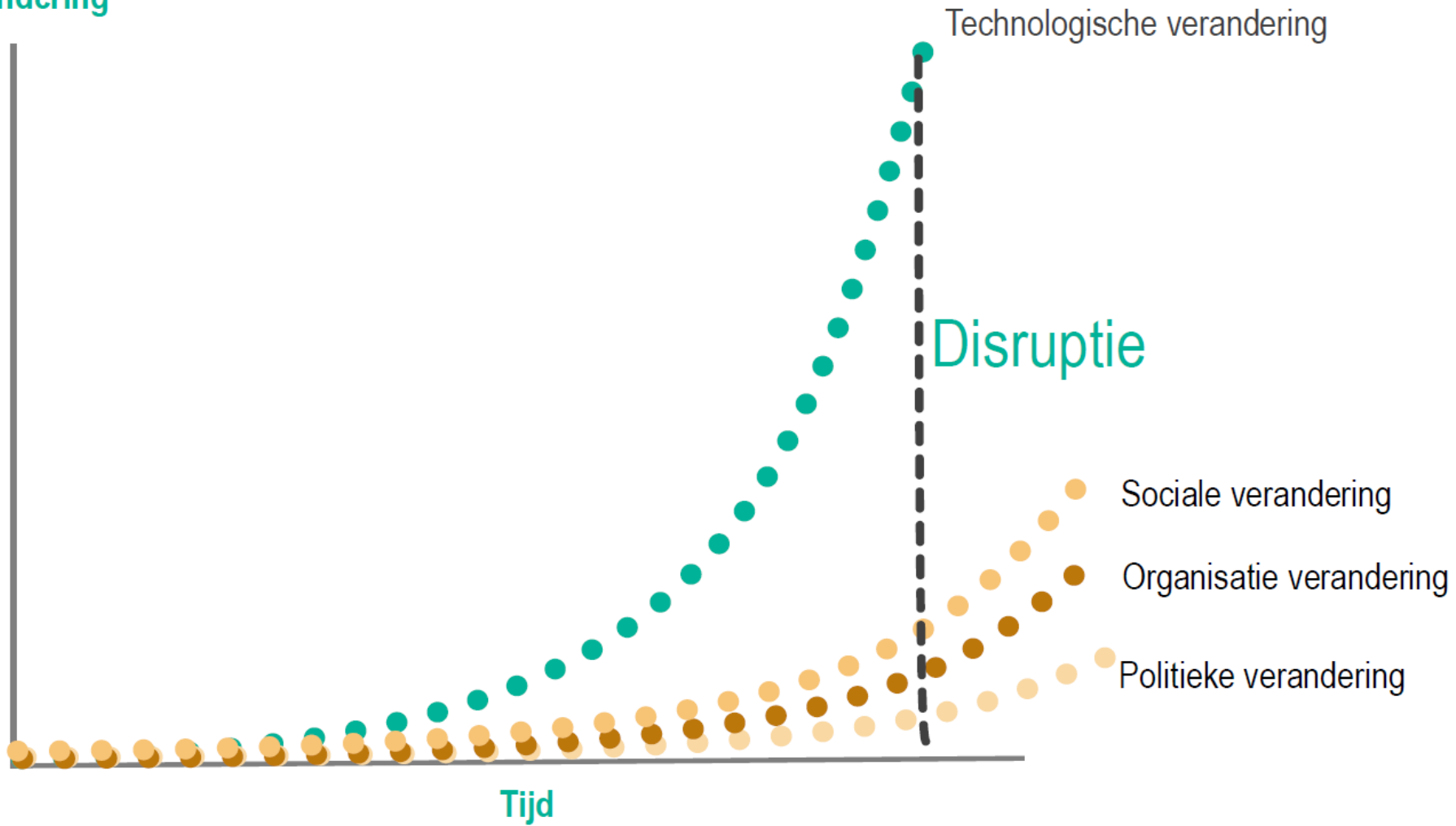
ONE HUNDRED

**politics** |'pälə,tiks| *poly*: many  
*ticks*: blood-sucking parasites

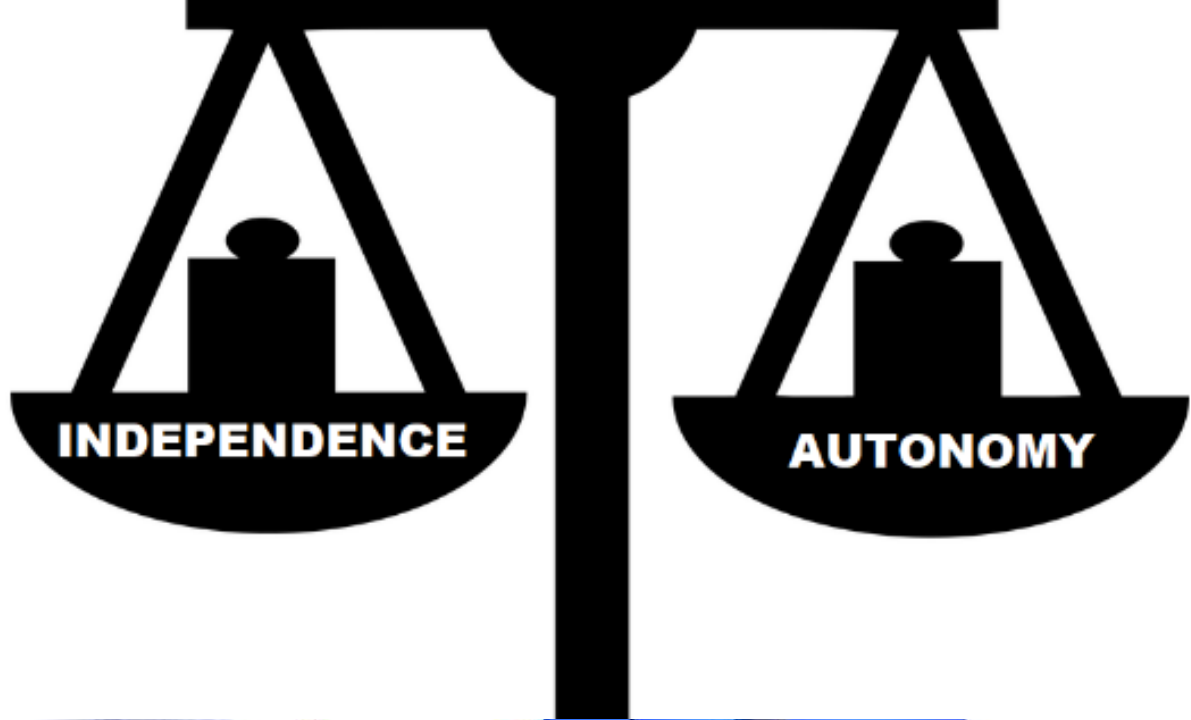


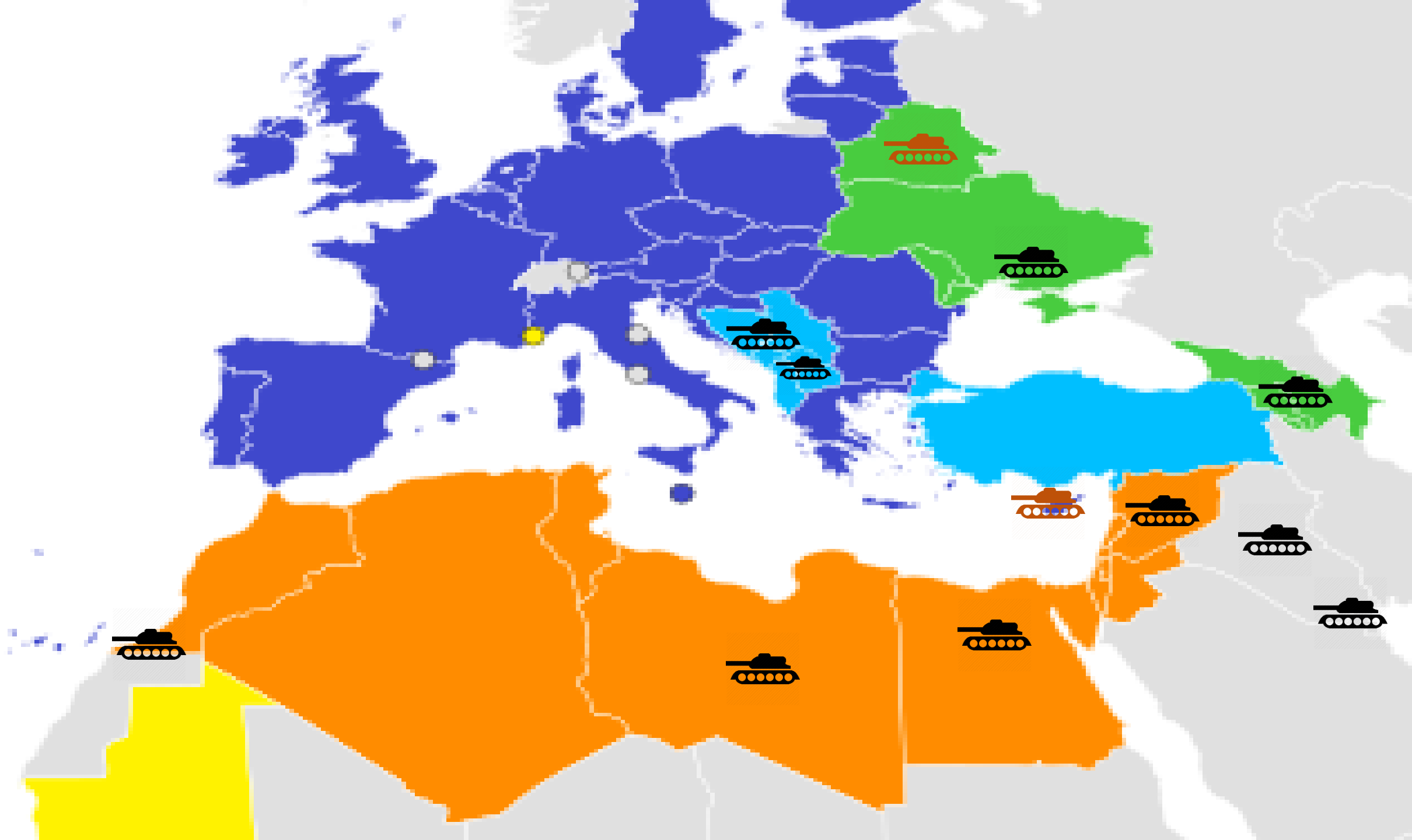


Verandering





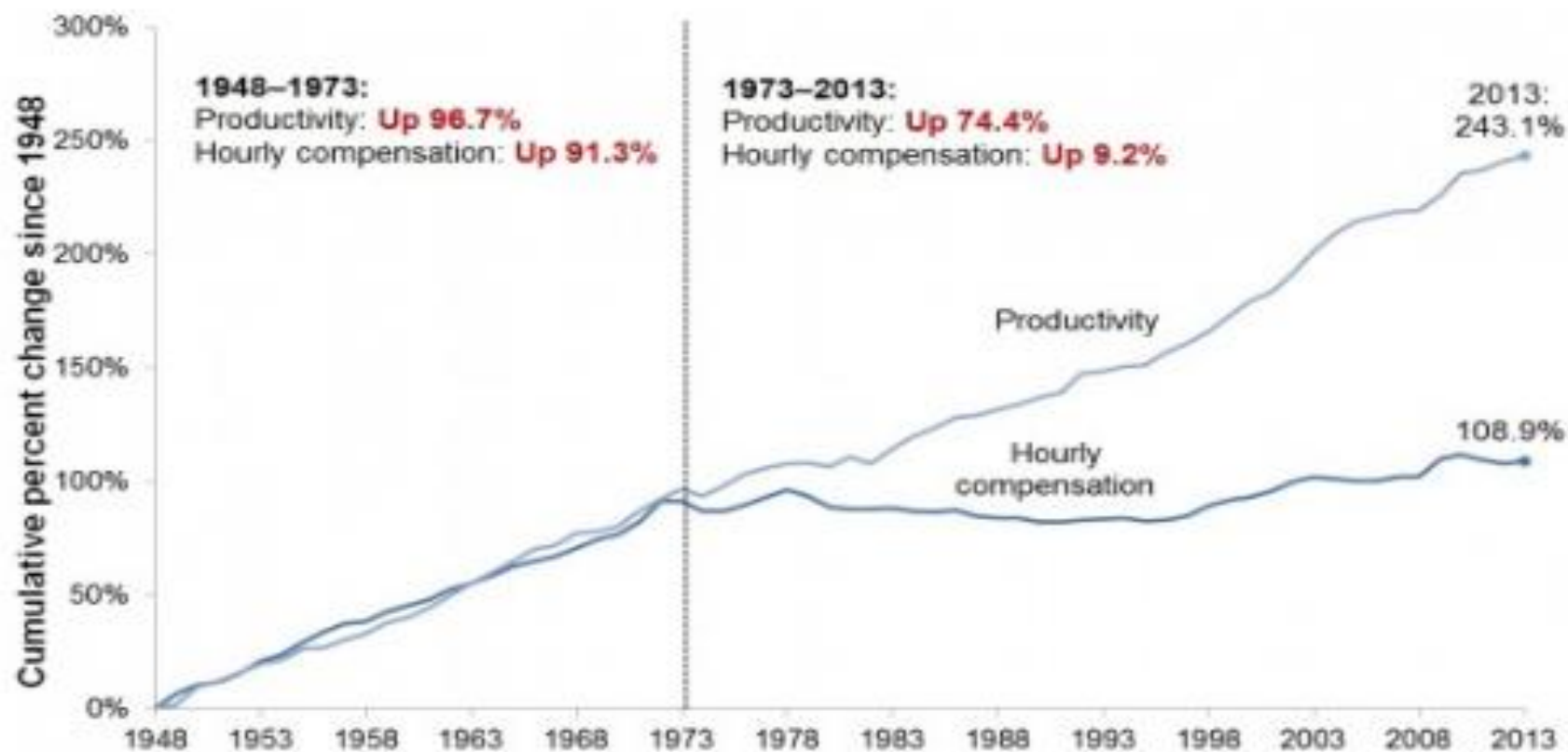






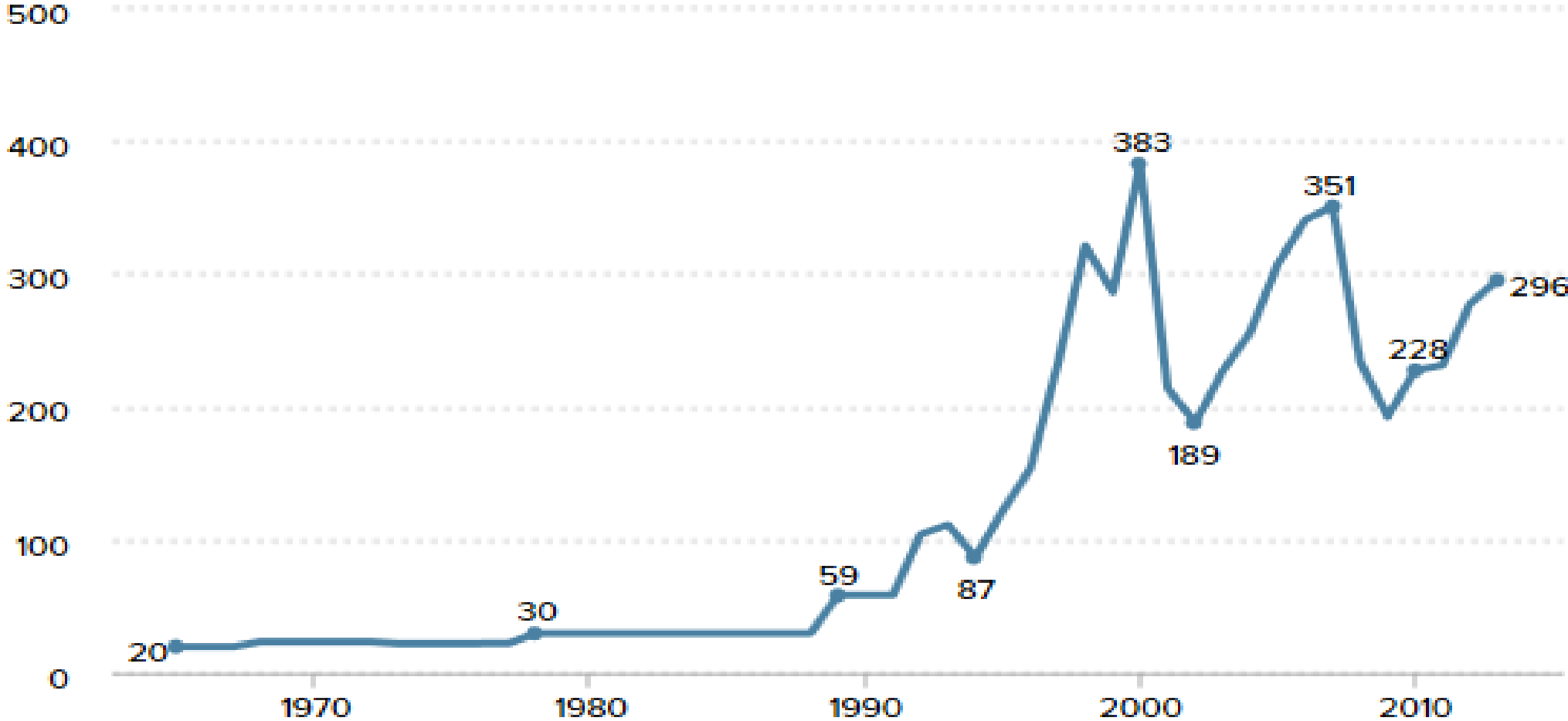
## Workers produced much more, but typical workers' pay lagged far behind

Disconnect between productivity and typical worker's compensation, 1948–2013

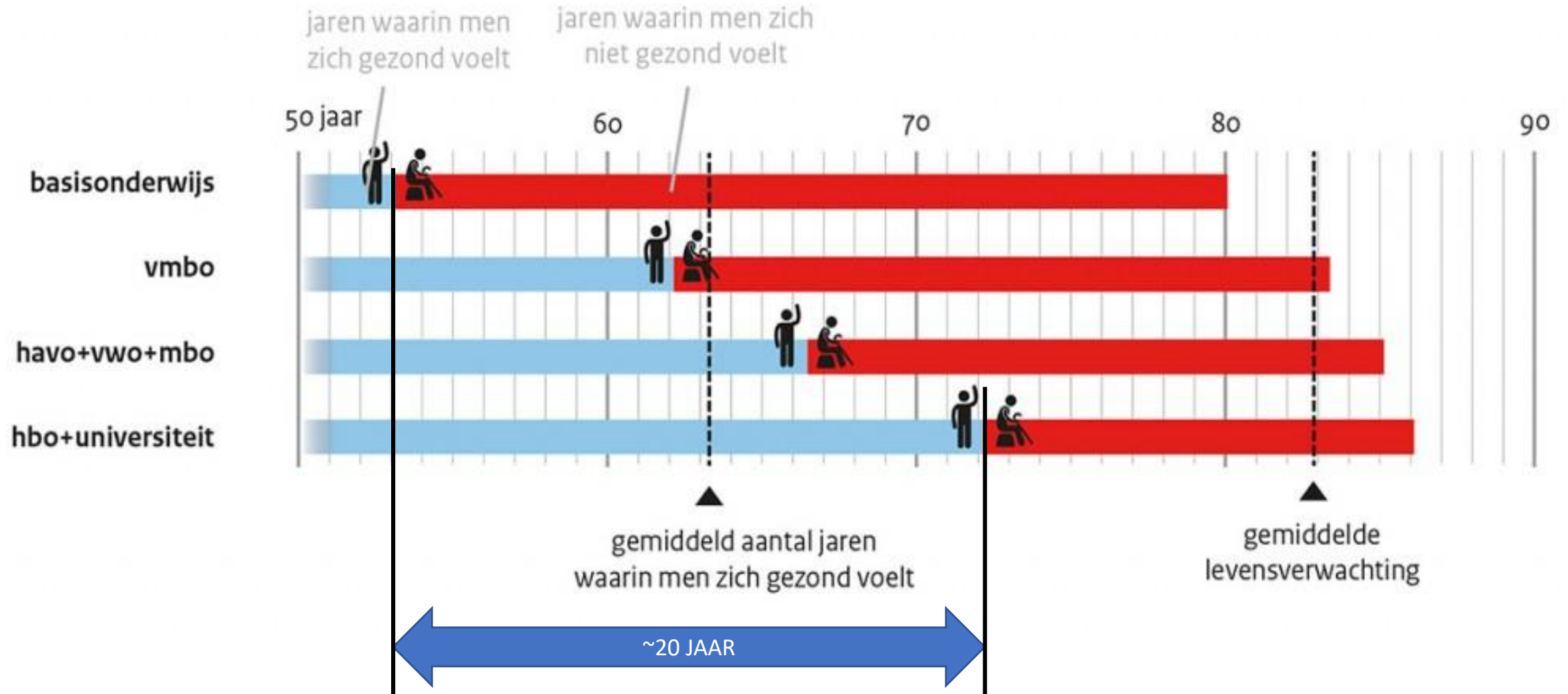


# CEOs now make 296 times what a typical worker earns

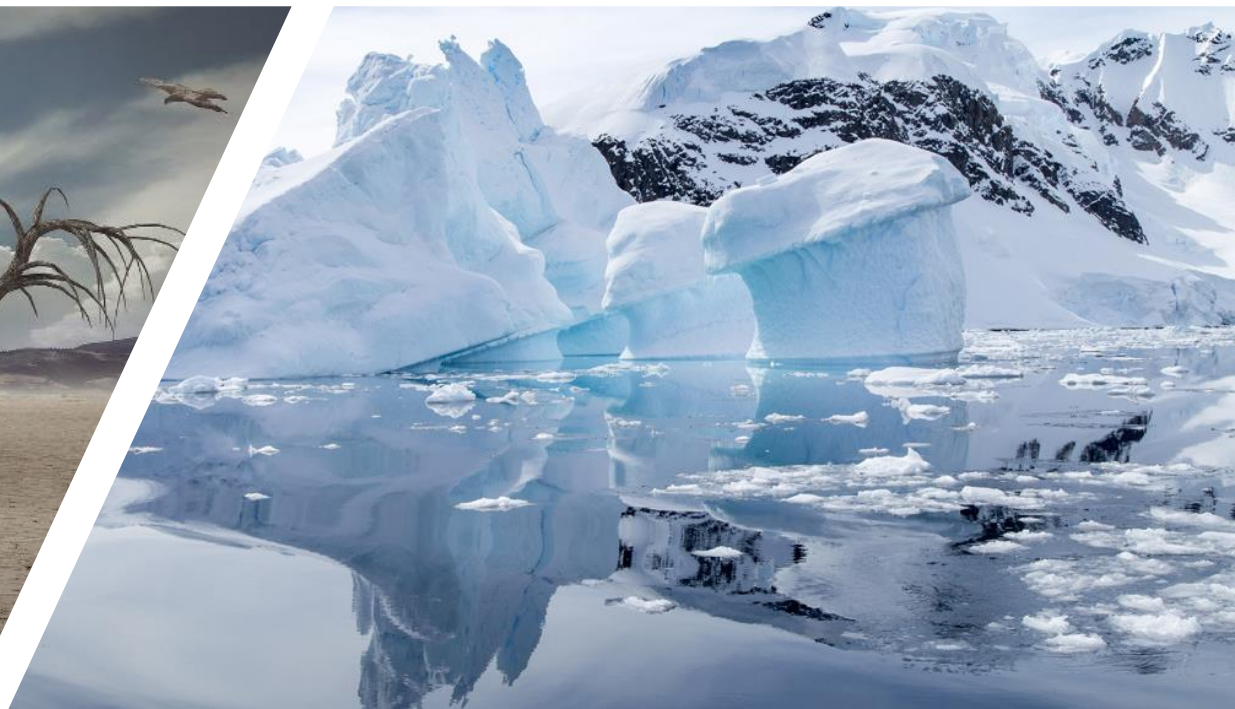
CEO-to-worker compensation ratio, 1965–2013



# Samenhang opleidingsniveau en gezonde levensverwachting









**LOST**

**CONFUSED**

**UNSURE**

**UNCLEAR**

**PERPLEXED**

**DISORIENTED**

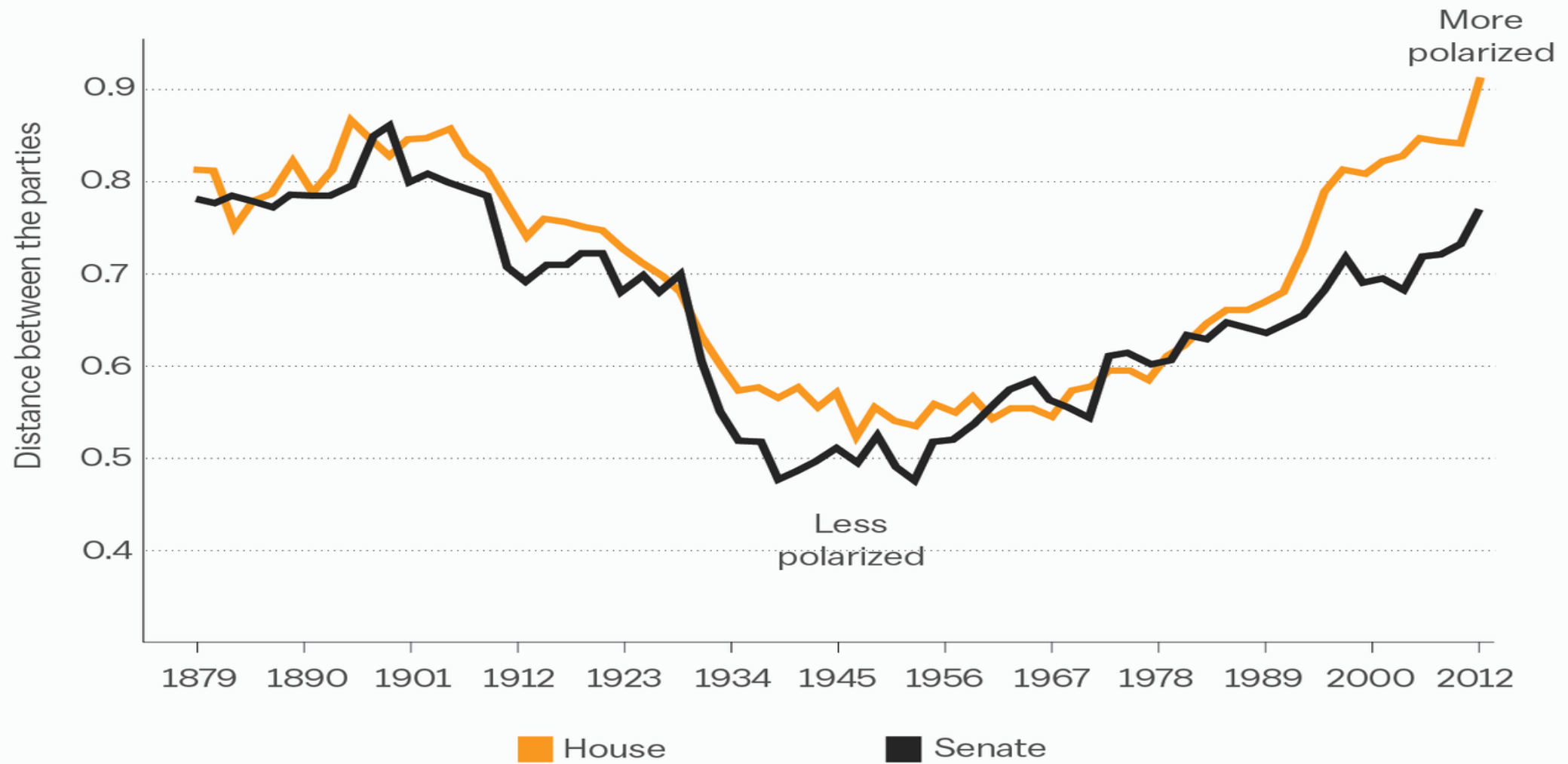
**BEWILDERED**



Matt herring

# Party polarization, 1879 - 2012

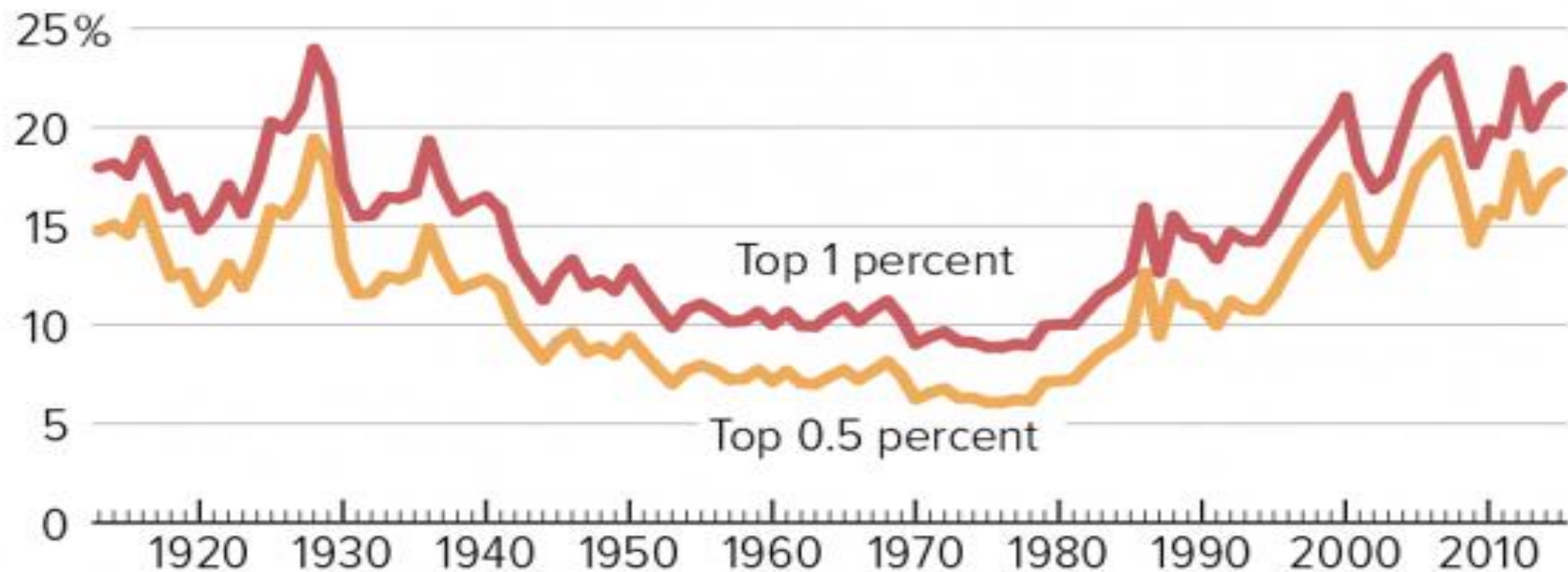
*The ideological gap between the Democratic and Republican caucuses*

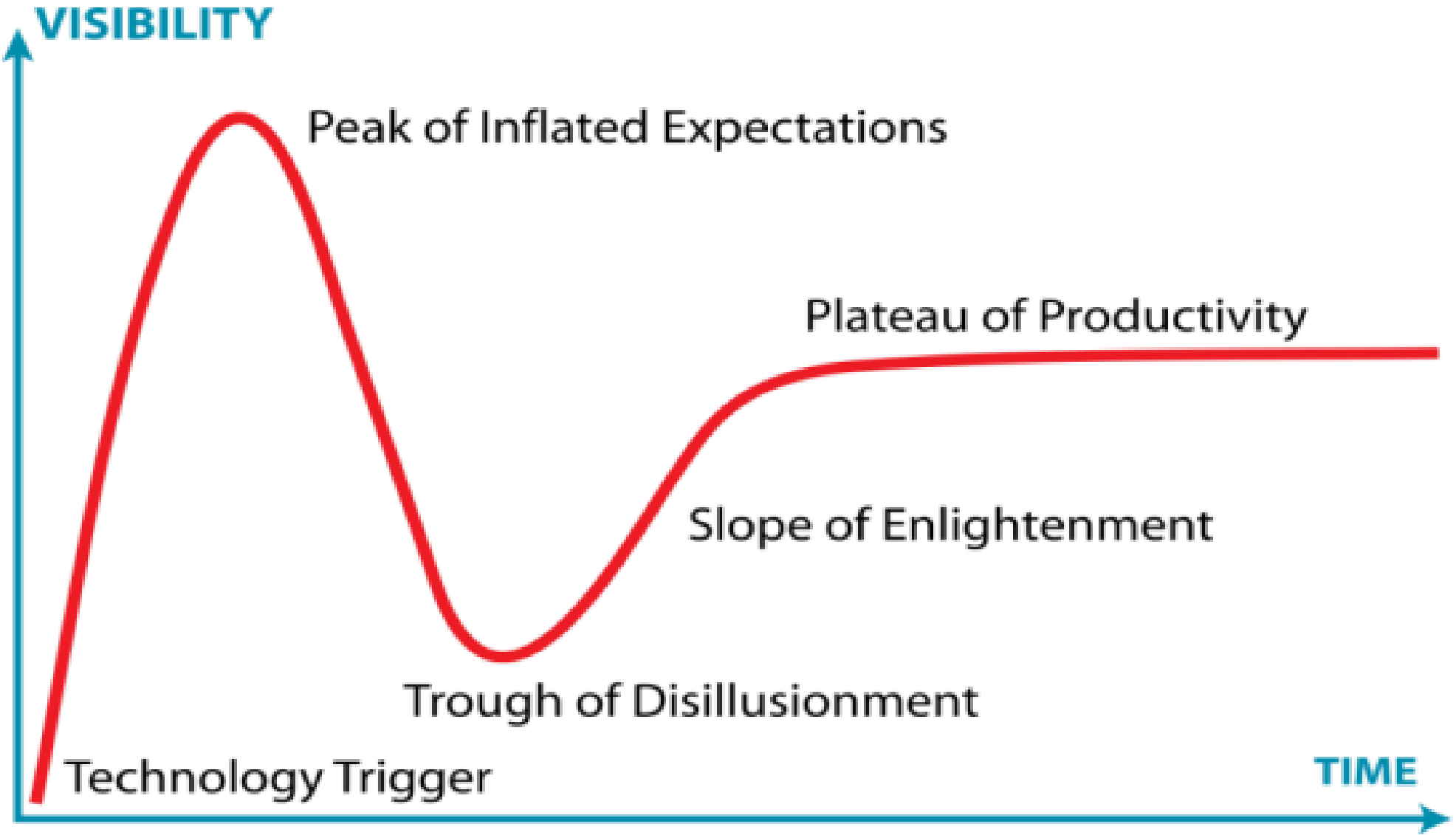


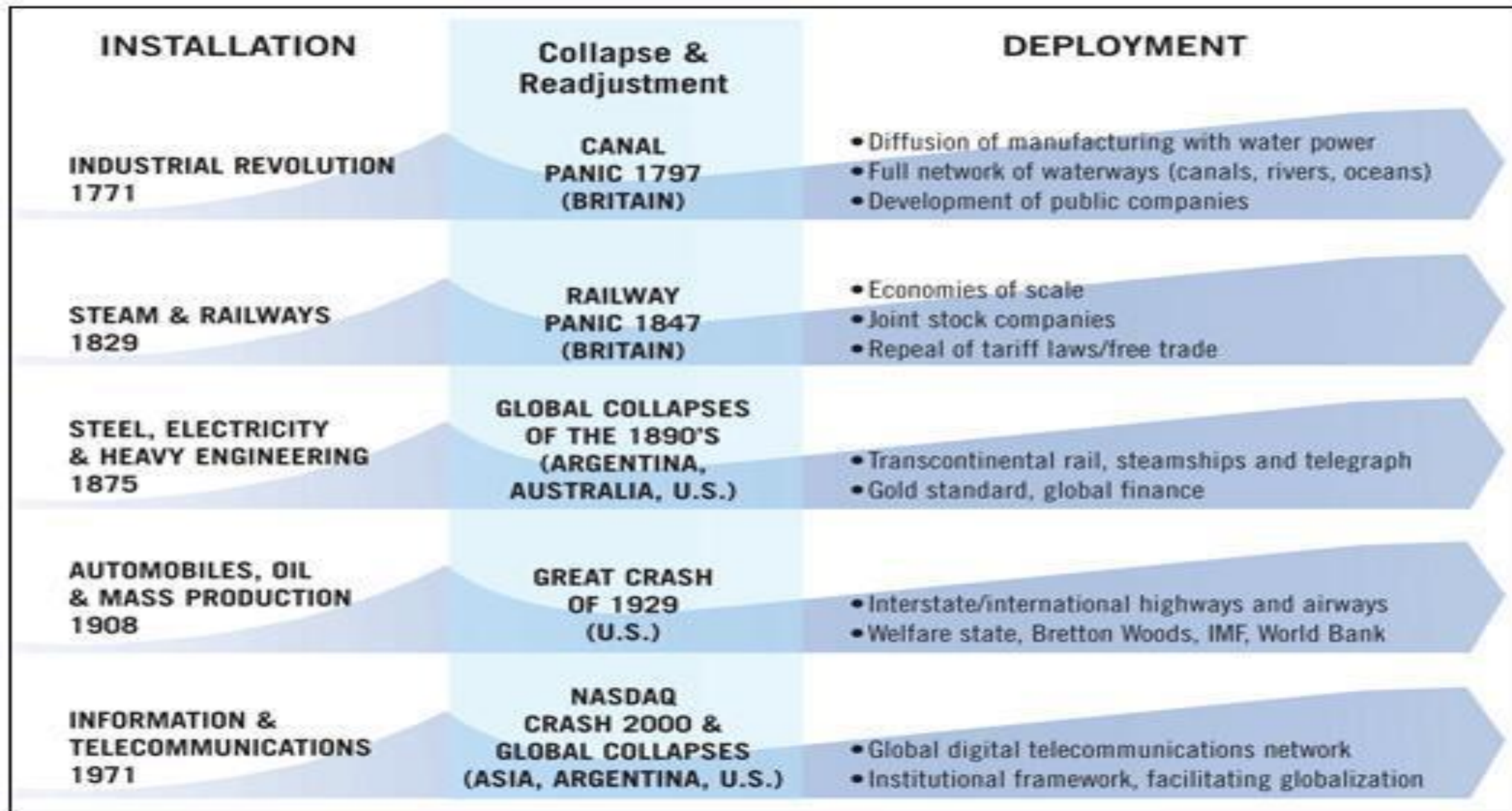
SOURCE: Voteview.com and DW-NOMINATE scores

## Income Concentration at the Top Has Risen Sharply Since the 1970s

Share of total before-tax income flowing to the highest income households (including capital gains), 1913-2015









## INSTALLATION

## Collapse & Readjustment

## DEPLOYMENT

**INDUSTRIAL REVOLUTION**  
1771

**CANAL PANIC 1797**  
(BRITAIN)

- Diffusion of manufacturing with water power
- Full network of waterways (canals, rivers, etc.)
- Development of public companies

**STEAM & RAILWAYS**  
1829

**RAILWAY PANIC 1847**  
(BRITAIN)

- Economies of scale
- Joint stock companies
- Repeal of tariff laws/free trade

**STEEL, ELECTRICITY & HEAVY ENGINEERING**  
1875

**GLOBAL COLLAPSES OF THE 1890'S**  
(ARGENTINA, AUSTRALIA, U.S.)

- Transcontinental rail, steamships
- Gold standard, global finance

**AUTOMOBILES, OIL & MASS PRODUCTION**  
1908

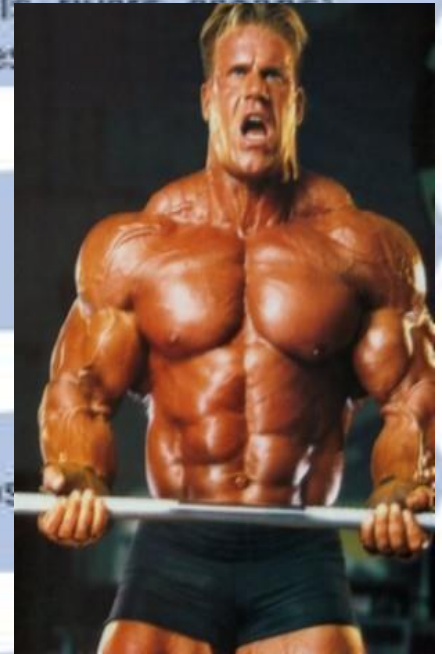
**GREAT CRASH OF 1929**  
(U.S.)

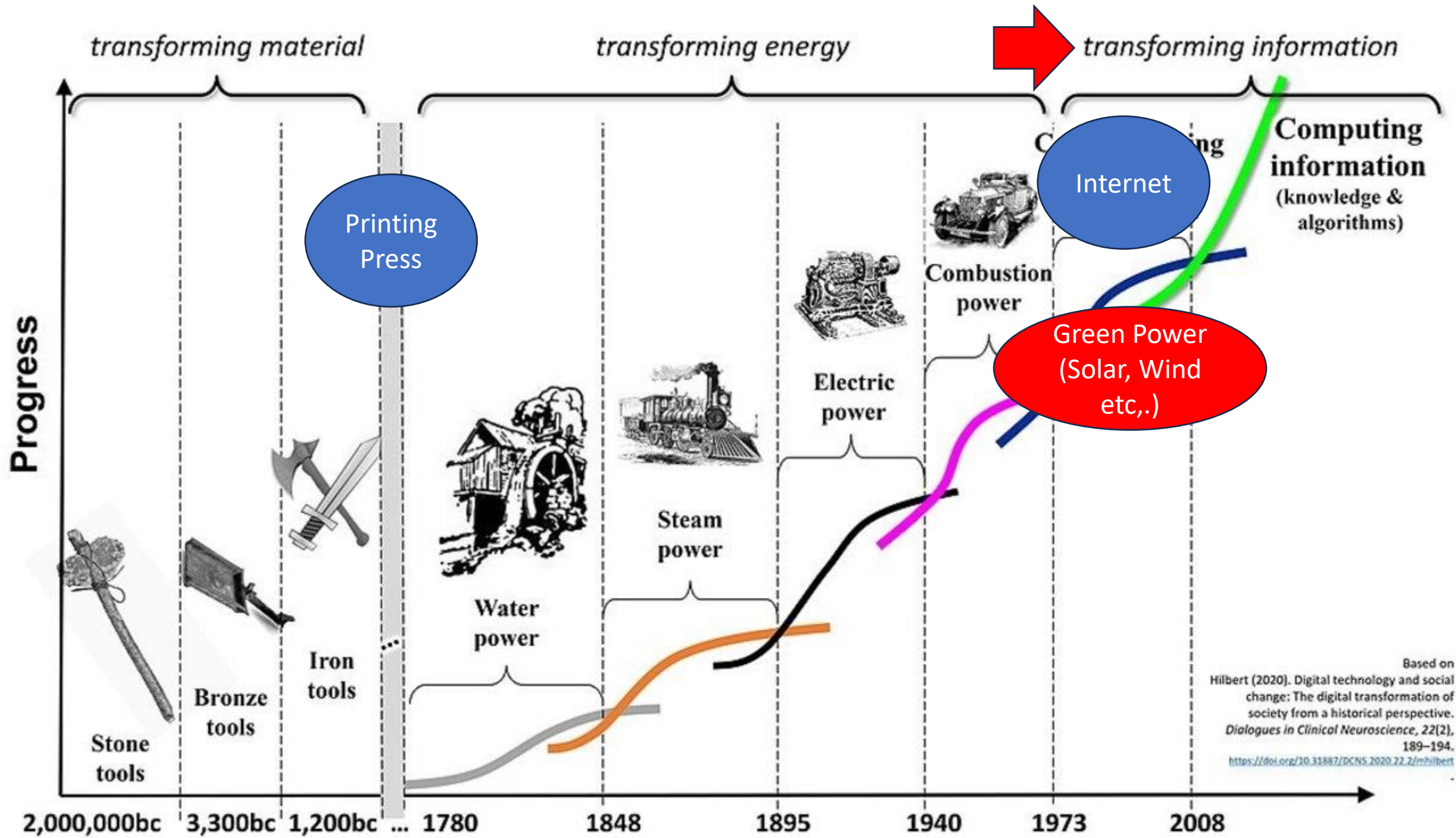
- Interstate/international highways and airways
- Welfare state, Bretton Woods, IMF, World Bank

**INFORMATION & TELECOMMUNICATIONS**  
1971

**NASDAQ CRASH 2000 & GLOBAL COLLAPSES**  
(ASIA, ARGENTINA, U.S.)

- Global digital telecommunications
- Institutional framework, facilitation





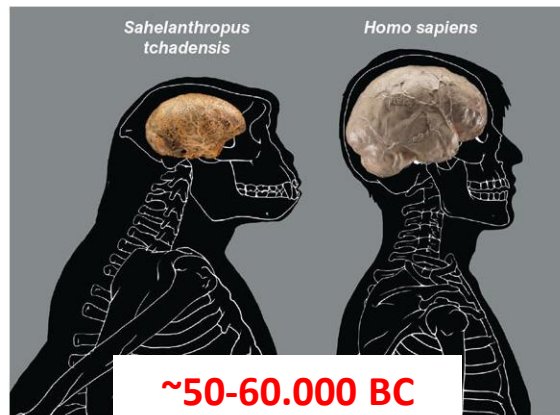
Based on  
 Hilbert (2020). Digital technology and social  
 change: The digital transformation of  
 society from a historical perspective.  
*Dialogues in Clinical Neuroscience*, 22(2),  
 189–194.  
<https://doi.org/10.31887/DCNS.2020.22.2/mhilbert>

# Cognitive Revolutions

Hunter-Gatherer

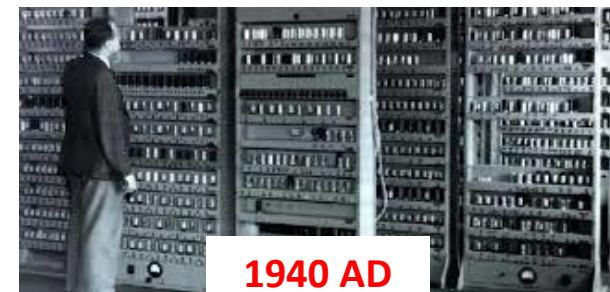


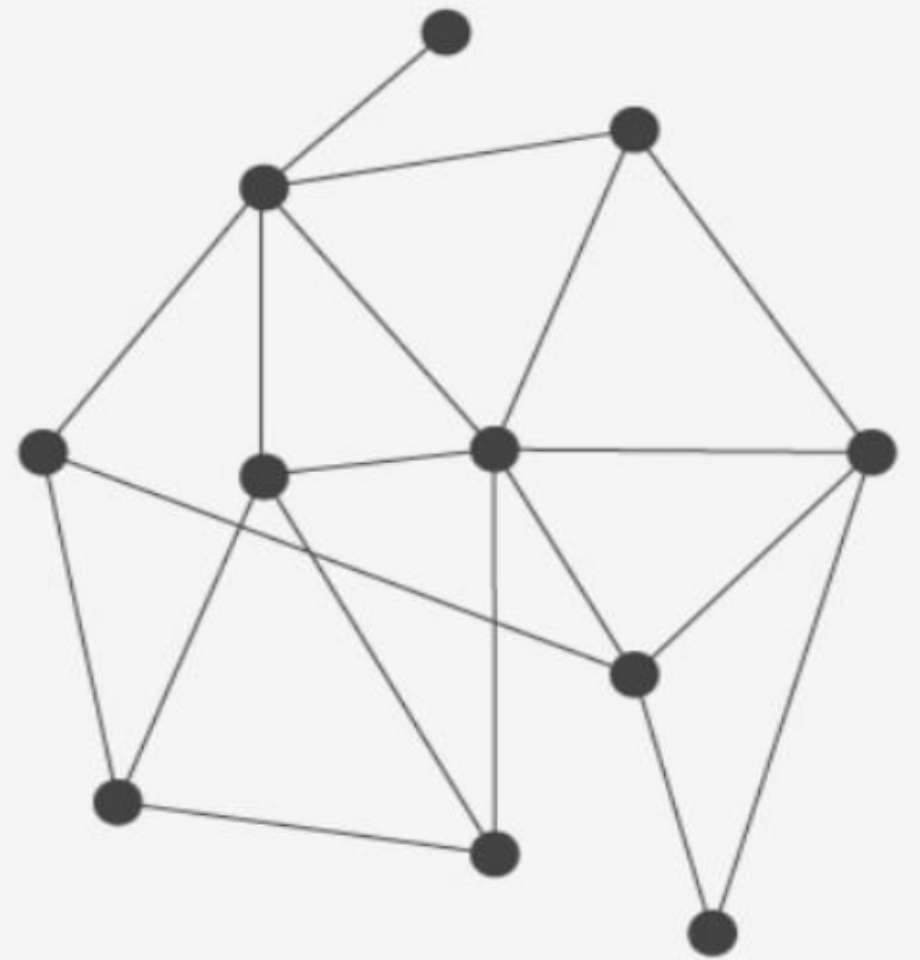
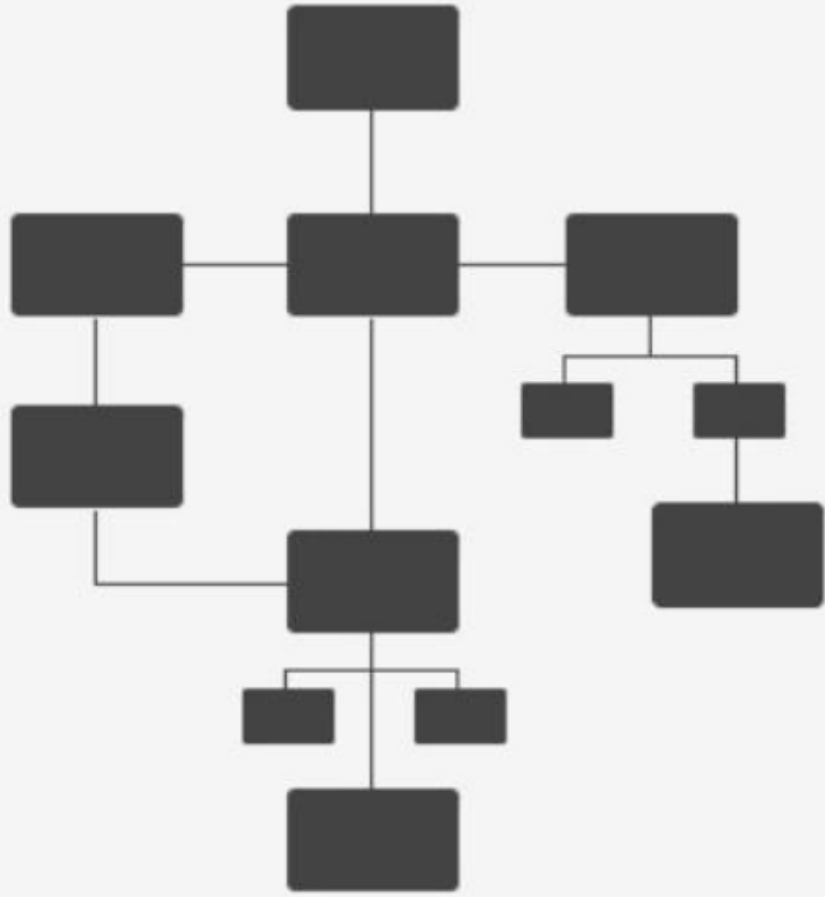
Industrial Age



Agricultural Age

Information Age

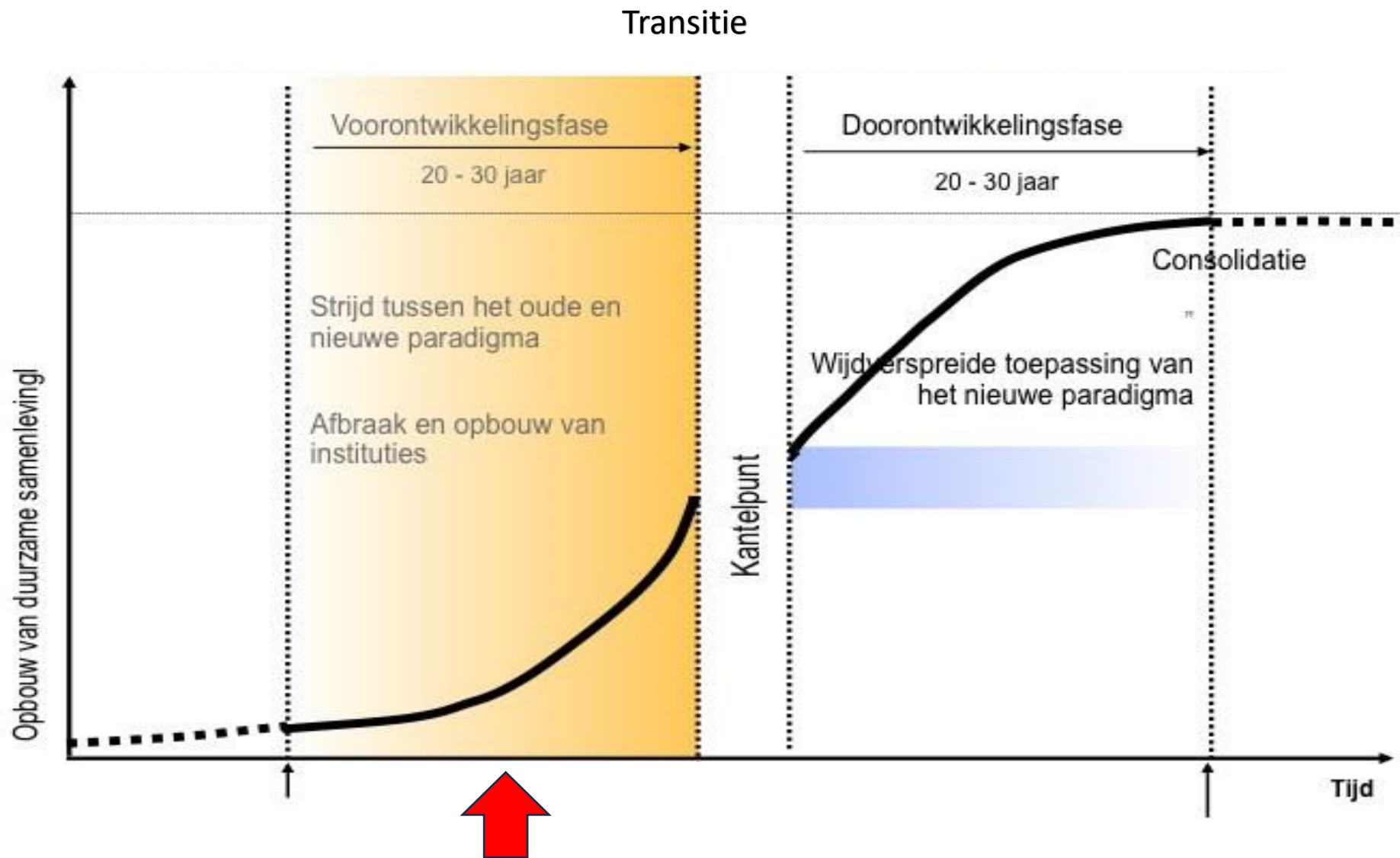




***Exploitatie***

***Exploratie***

Energie  
Technologie  
Grondstoffen  
Landbouw  
Voedsel (Vlees)  
Educatie  
Zorg  
Financieel stelsel  
Circulaire productie  
Democratie  
...



2020-2050 're configuratie' van de samenleving



MIND THE GAP

89535670000	56701352679	56489854222	89535670000	56701352679
01444587901	886524.2134	30215021569	01444587901	886524.2134
89564875564	54654240404	87459823654	89564875564	54654240404
02654895465	23421404359	85123030213	02654895465	23421404359
13025165465	78553402213	13311000011	13025165465	78553402213
76540215497	49758672464	25468952654	76540215497	49758672464
87654860216	97968652031	78021328503	87654860216	97968652031
54897564202	25679561203	57920045685	54897564202	25679561203
15465465460	26456530979	48314904153	15465465460	26456530979
21654	86532031246	18946516746	21654	86532031246
40216	5616	421348	40216	5616
56102	1626	510	56102	1626
62165	36593625495	62064925493	62165	36593625495
13245450154	34659782135	35656497652	13245450154	34659782135
84987984301	64023100002	31200124556	84987984301	64023100002
24568765435	13656462857	87976423120	24568765435	13656462857
01235435435	55645622256	31655976421	01235435435	55645622256
43021648576	79866566433	05234605242	43021648576	79866566433
53441100000	59823101346	59257561221	53441100000	59823101346
00000001243	56457242104	56024565237	00000001243	56457242104
53727672034	23168976543	85421245454	53727672034	23168976543
25375763520	24212124567	45456402124	25375763520	24212124567

**SYSTEM FAILURE**



An Assembly Line  
of the  
Ford Motor Company

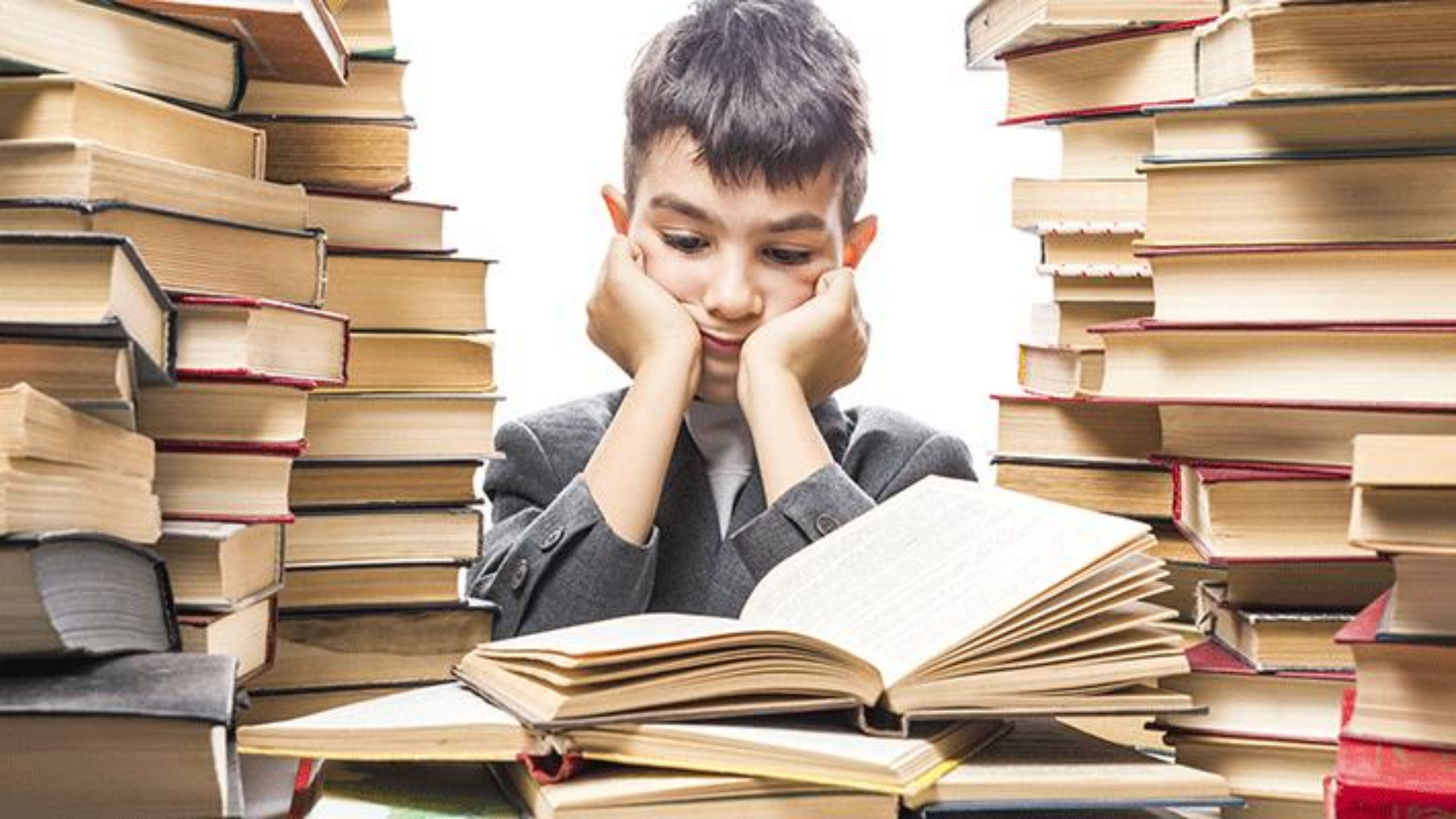












## In 2018

Active listening

Complex problem solving

Coordinating with others

Creativity

Critical thinking

Judgment/Decision making

Negotiation

People management

Quality control

Service orientation

## In 2020

Emotional intelligence

Complex problem solving

Coordinating with others

Creativity

Critical thinking

Judgment/Decision making

Negotiation

People management

Cognitive flexibility

Service orientation

## In 2030

Active learning

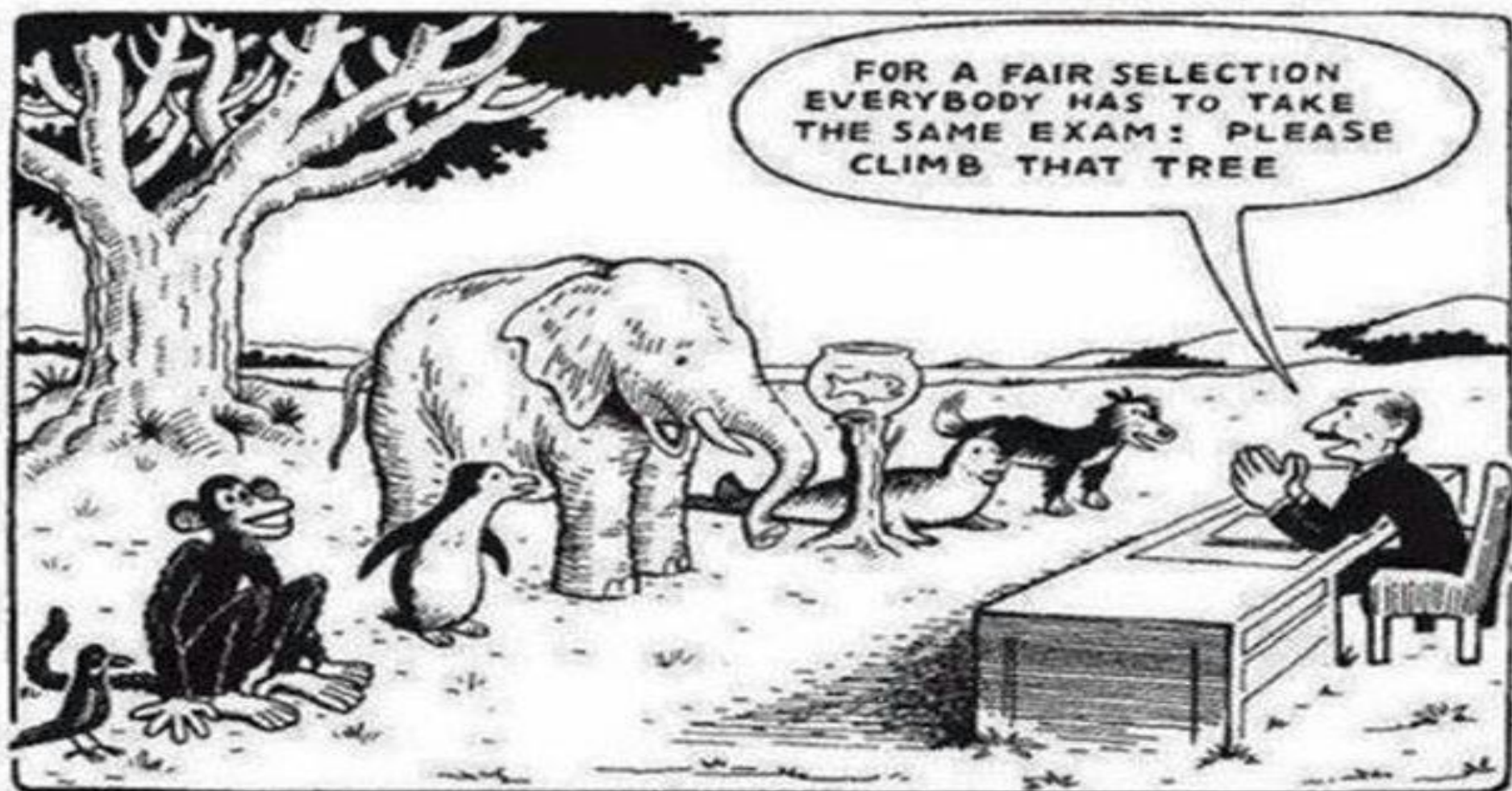
Fluency of ideas

Judgment/Decision making

Learning strategies

Originality





Our Education System



TRUST

**BASIS VAN WANTROUWEN**



**FOCUS OP CONTROL**



**FAT CAT PROBLEEM**

We zijn onze richting kwijt

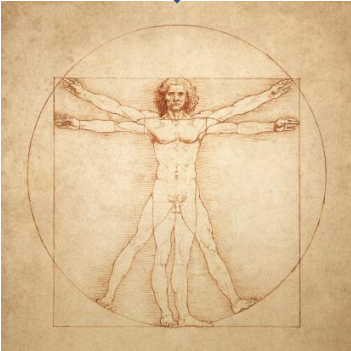


Steady as she goes...





Technologie



Politiek

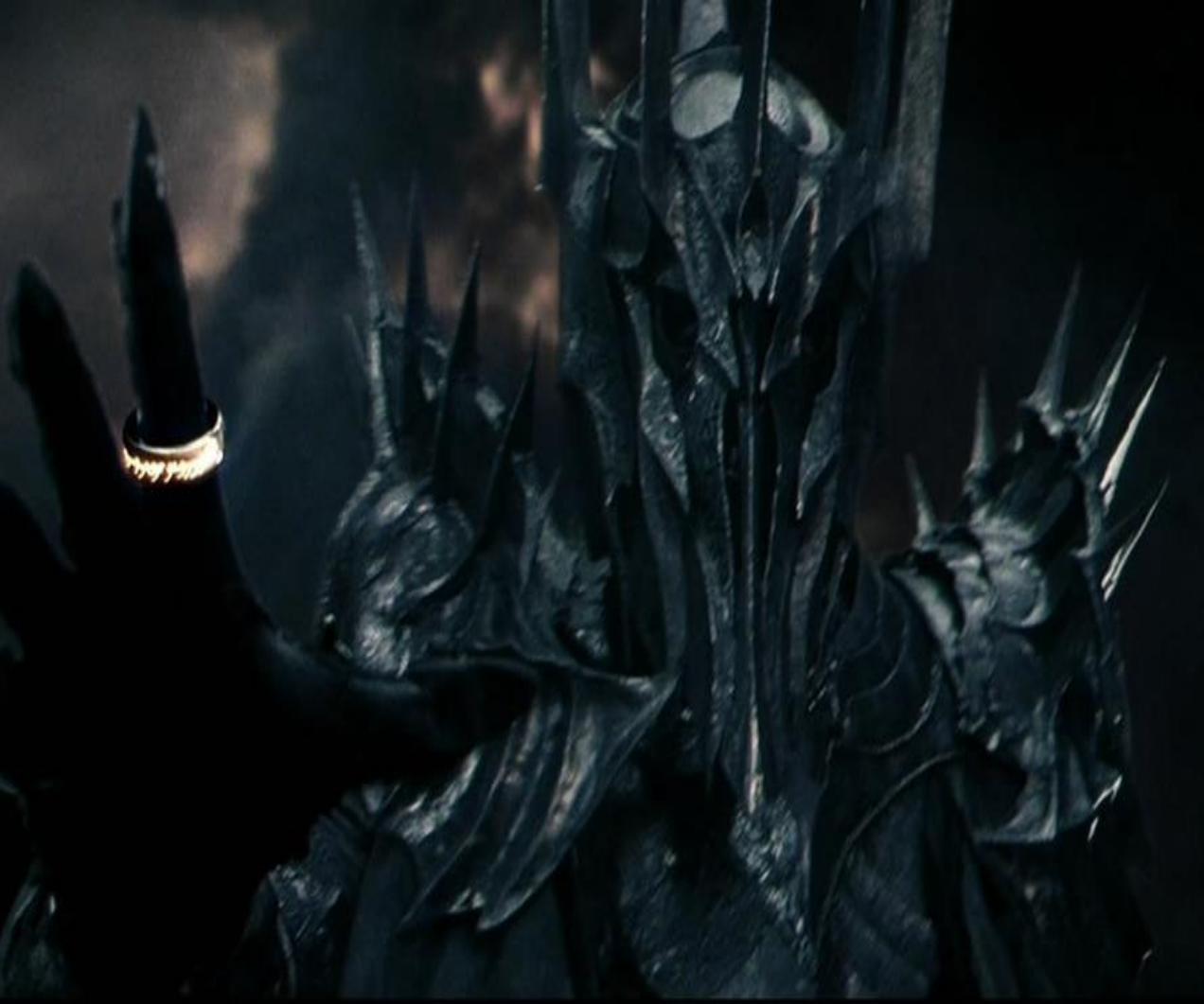


Natuur

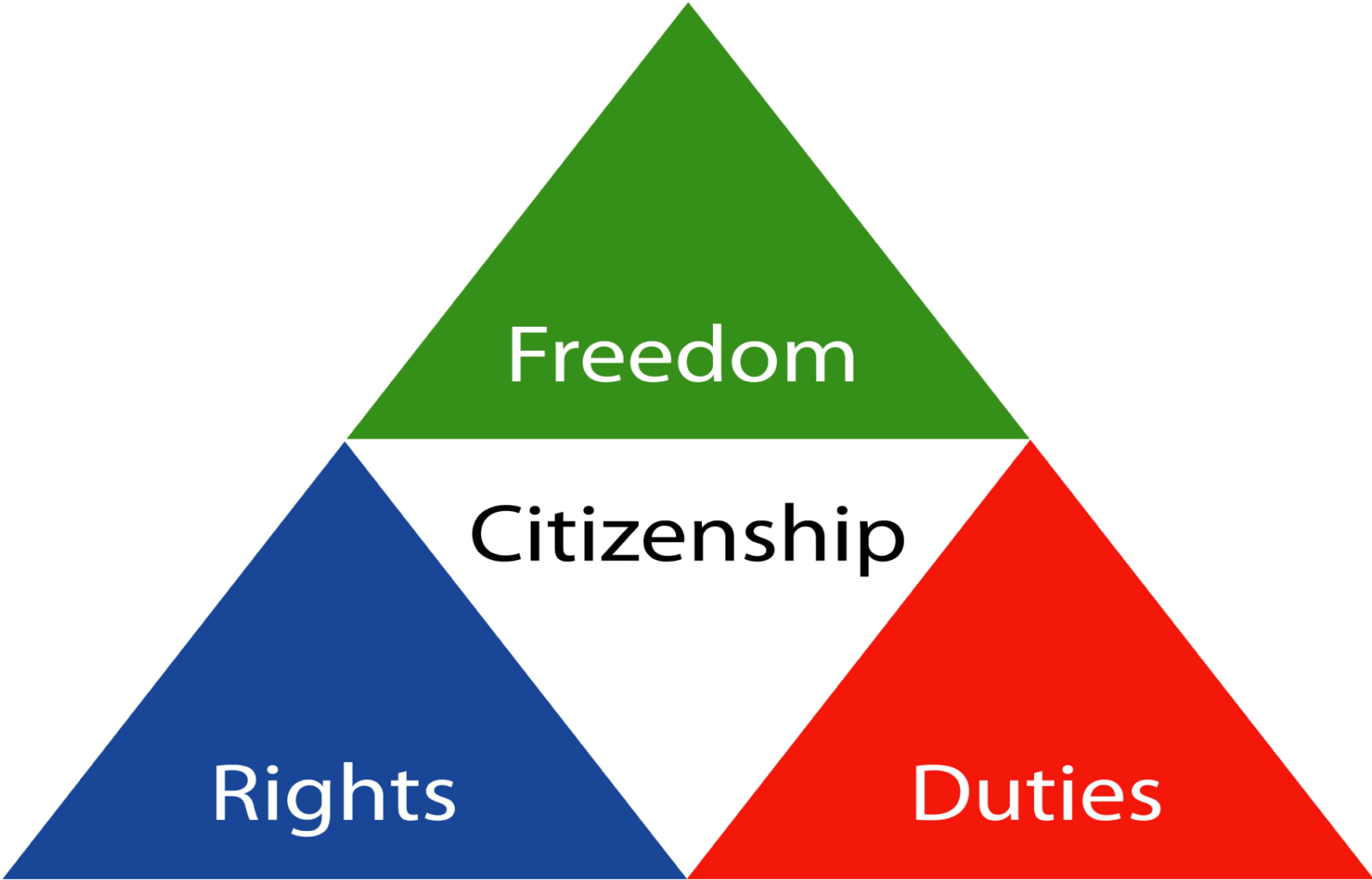


Economie

TECH FOR  
GOOD?



Nieuwe balans



Freedom

Citizenship

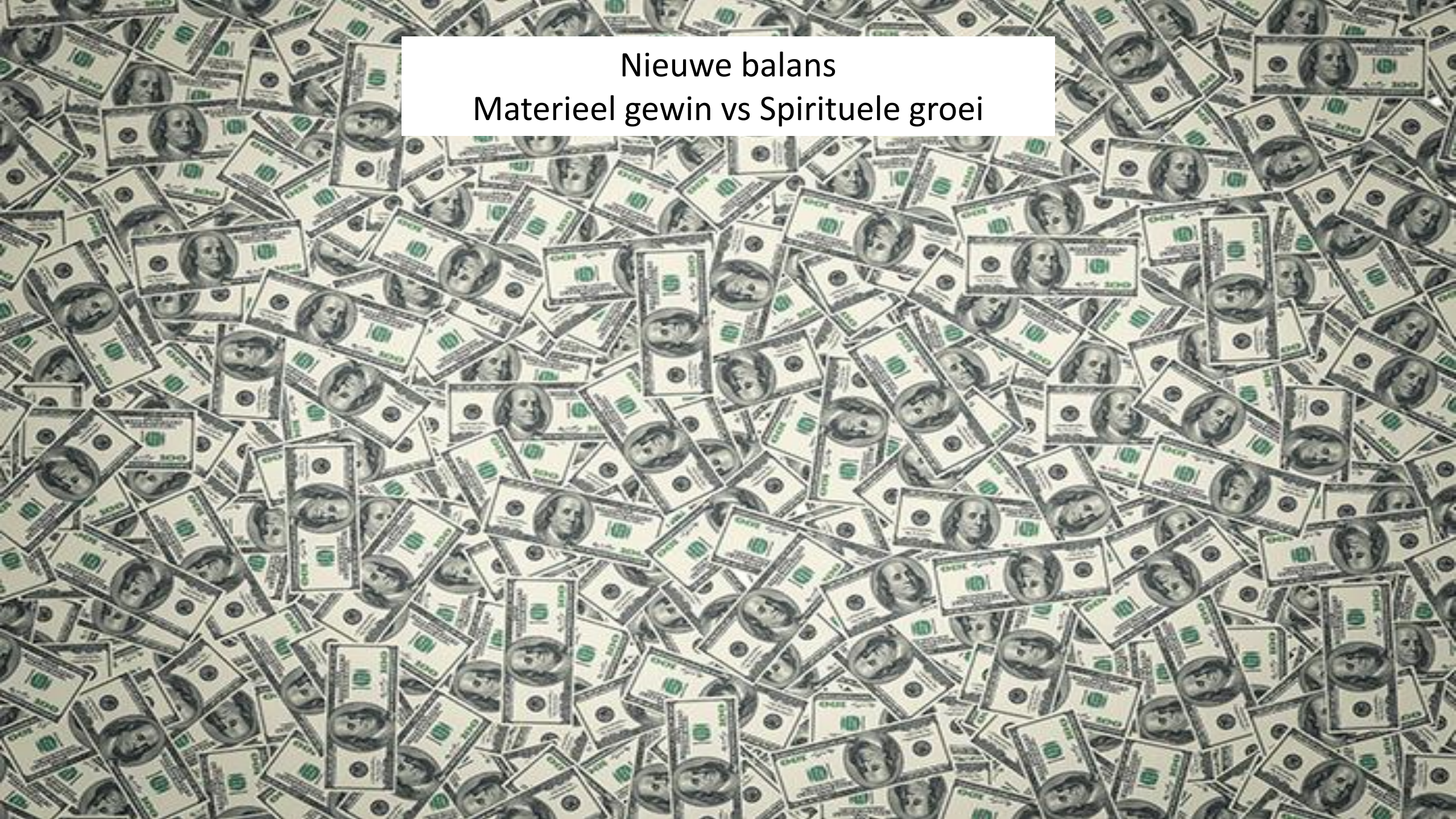
Rights

Duties



Nieuwe balans  
Community - Individu



The background of the entire image is a dense, overlapping pattern of 100 Euro banknotes. The notes are scattered in various orientations, creating a textured, repetitive visual field. The colors are primarily green and yellow, with the portrait of Benjamin Franklin visible on many of the bills.

Nieuwe balans  
Materieel gewin vs Spirituele groei

## Nieuwe Balans Mens - Milieu



# Left Brain

*masculine, doing*

*conscious – choice/action*

*linear – sequential*

# Right Brain

*feminine, feeling*

*subconscious ~ memory/association*

*non-linear ~ non-sequential*

**Logic**

**Will**

**Action**

**Understanding**

**Meaning**

**Technical**



***Intuition***

***Imagination***

***Emotions, Feelings***

***Perception***

***Conception***

***Creativity***



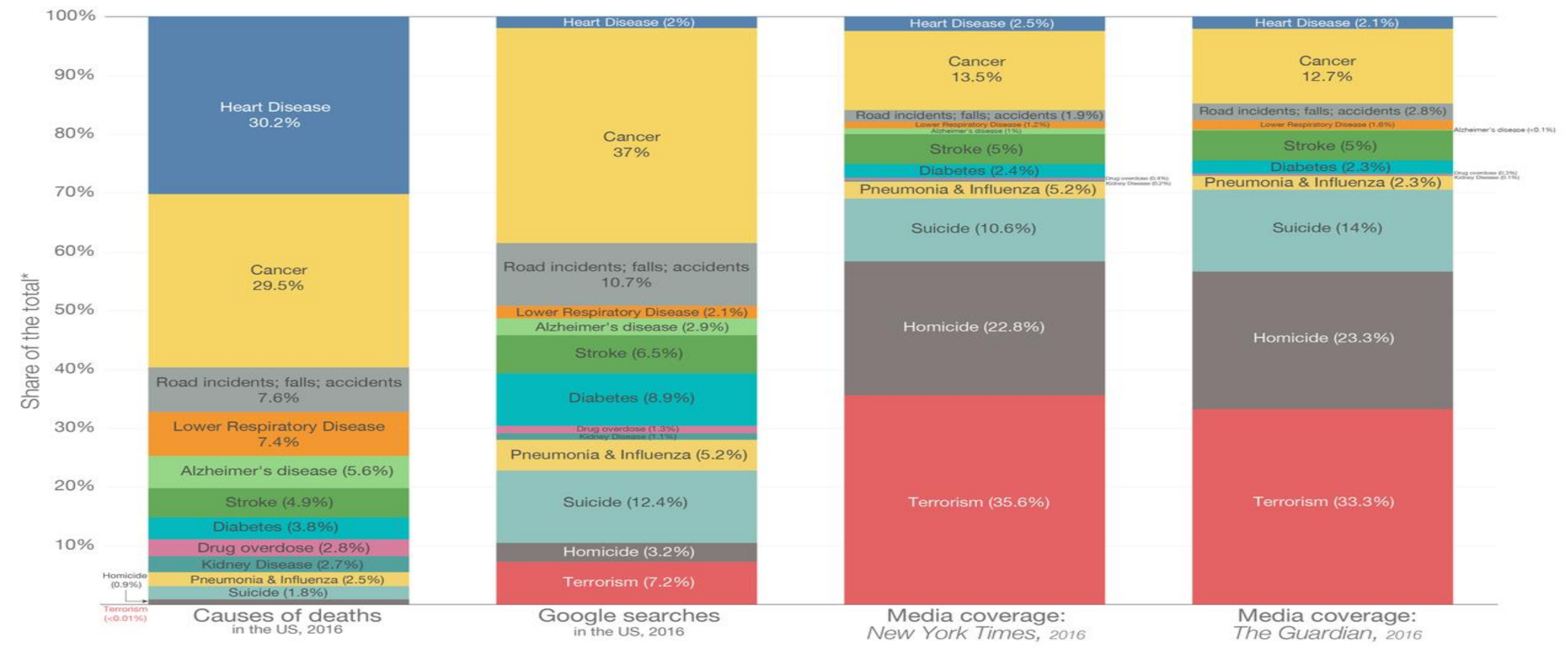


Greed, for lack of a better word, is good



# Causes of death in the US

What Americans die from, what they search on Google, and what the media reports on



\*This represents each causes's share of the top ten causes of death in the US plus homicides, drug overdoses and terrorism. Collectively these 13 causes accounted for approximately 88% of deaths in the US in 2016. Full breakdown of causes of death can be found at the CDC's WONDER public health database: <https://wonder.cdc.gov/>

Based on data from Shen et al (2018) – Death: reality vs. reported. All data available at: <https://owenshen24.github.io/charting-death>  
 All data refers to 2016.  
 Not all causes of death are shown; Shown is the data on the ten leading causes of death in the United States plus drug overdoses, homicides and terrorism.  
 All values are normalized to 100% so they represent their relative share of the top causes, rather than absolute counts (e.g. 'deaths' represents each causes' share of deaths within the 13 categories shown rather than total deaths). The causes of death shown here account for approximately 88% of total deaths in the United States in 2016.  
 This is a visualization from [OurWorldinData.org](https://www.ourworldindata.org), where you find data and research on how the world is changing. Licensed under CC-BY by the authors Hannah Ritchie and Max Roser.

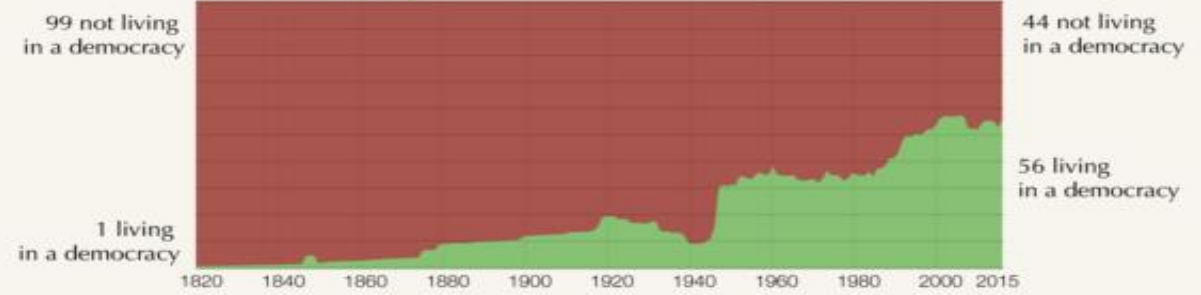


# The World as 100 People over the last two centuries

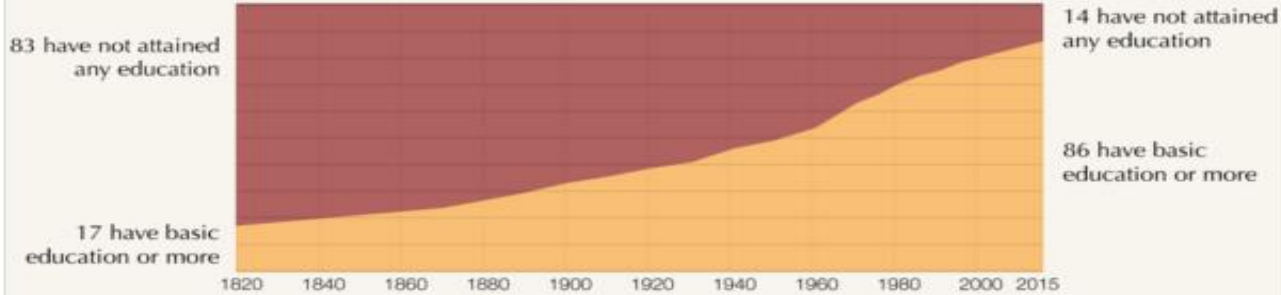
## Extreme Poverty



## Democracy



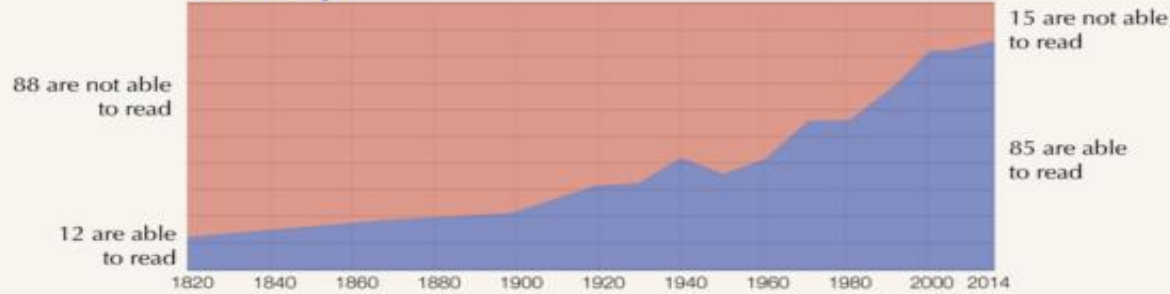
## Basic Education



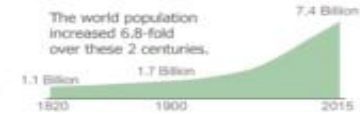
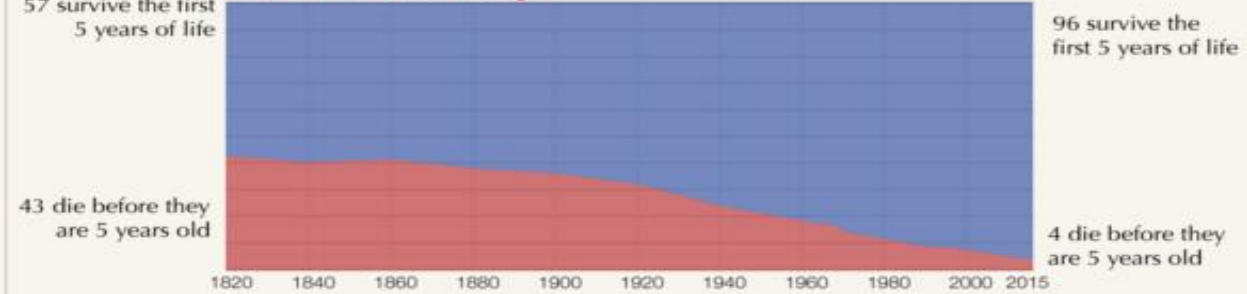
## Vaccination against diphtheria, pertussis (whooping cough), and tetanus



## Literacy



## Child Mortality



All these visualizations are from [OurWorldInData.org](http://OurWorldInData.org) an online publication that presents the empirical evidence on how the world is changing.

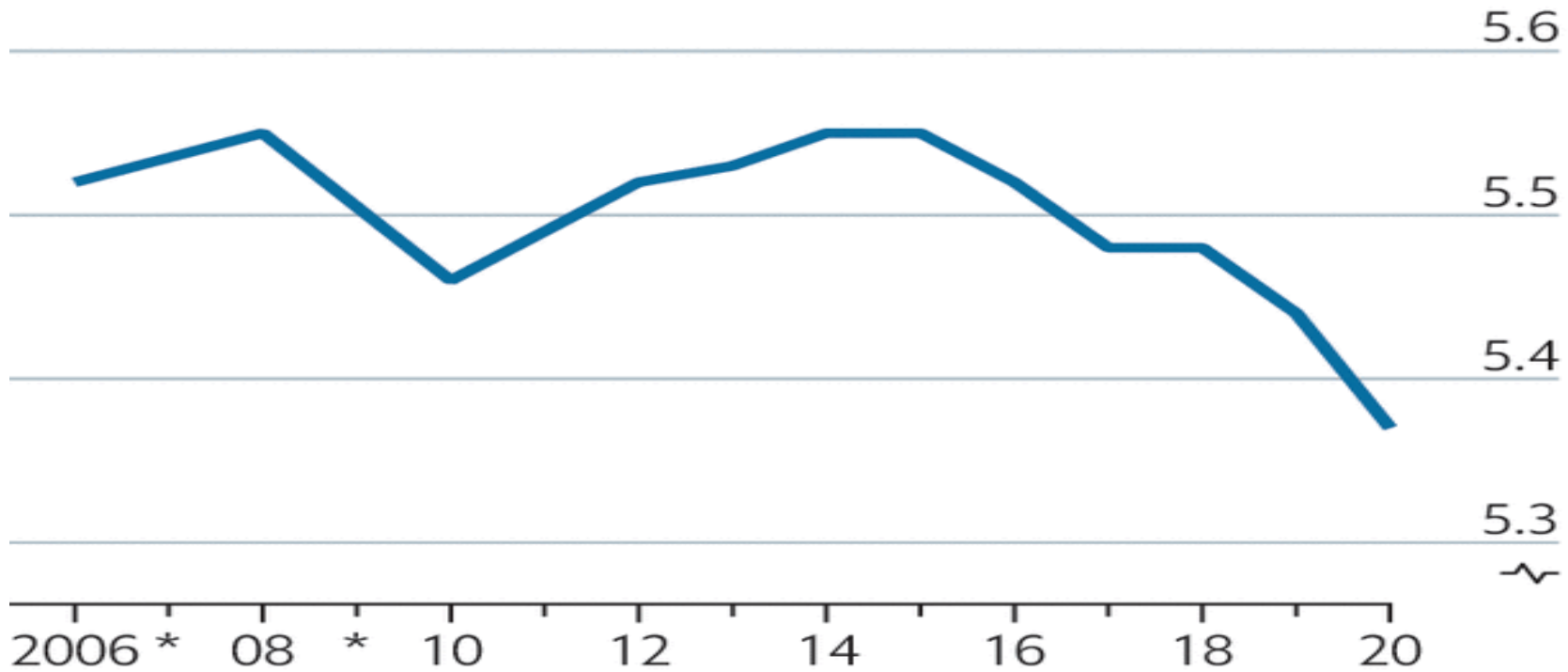
**Data sources:**  
 Extreme Poverty: Bourguignon & Morrison (2002) up to 1970 – World Bank 1981 and later (2015 is a projection).  
 Vaccination: WHO (Global data are available for 1980 to 2015 – the DPT3 vaccination was licensed in 1949)  
 Education: OECD for the period 1820 to 1960. IIASA for the time thereafter.  
 Literacy: OECD for the period 1820 to 1990. UNESCO for 2004 and later.

Democracy: Polity IV index (own calculation of global population share)  
 Colonialism: Wimmer and Min (own calculation of global population share)  
 Continent: HYDE database  
 Child mortality: up to 1960 own calculations based on Gapminder; World Bank thereafter

## On the slide

### Democracy Index

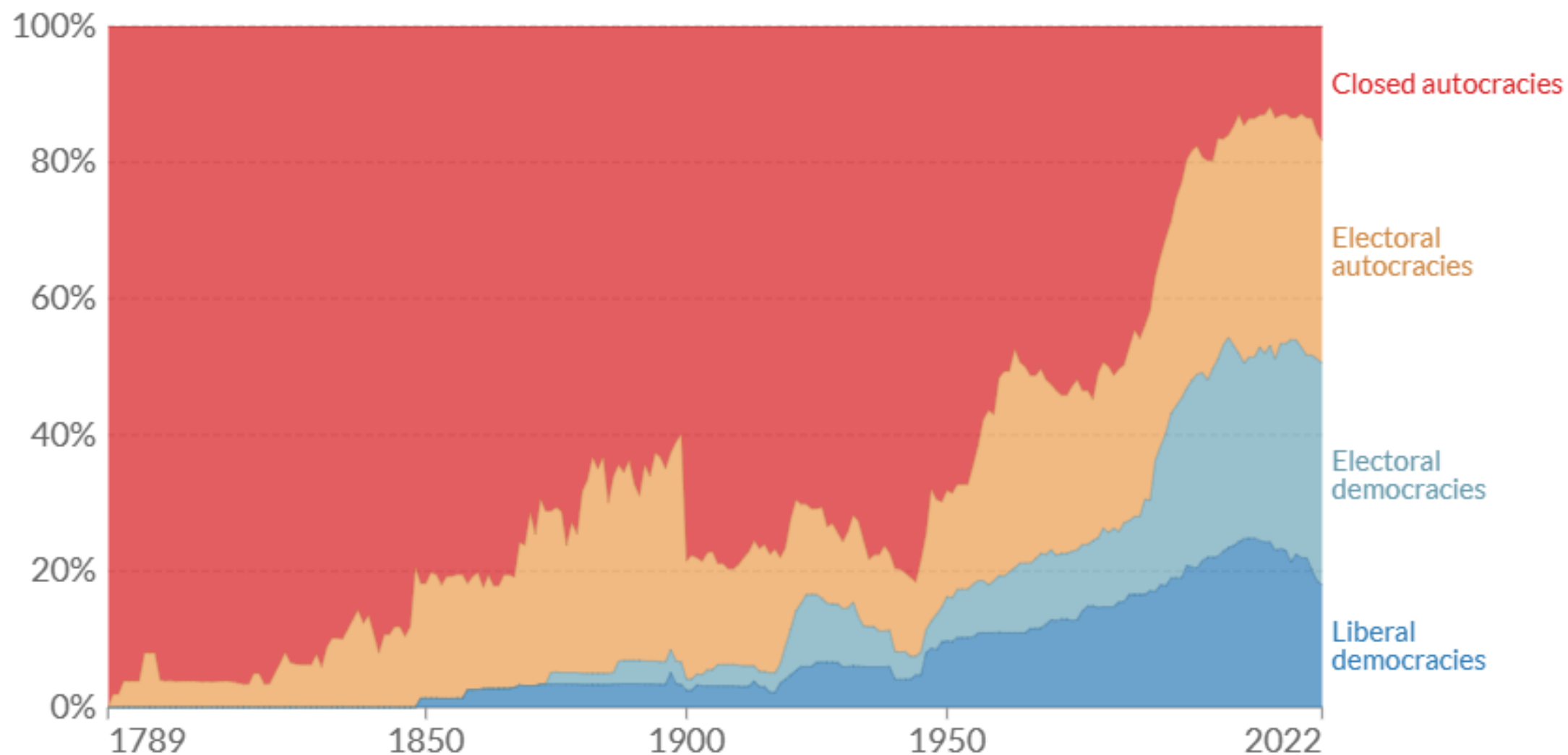
Global average of 167 countries, 10=most democratic



Source: The Economist Intelligence Unit

\*No data

The Economist

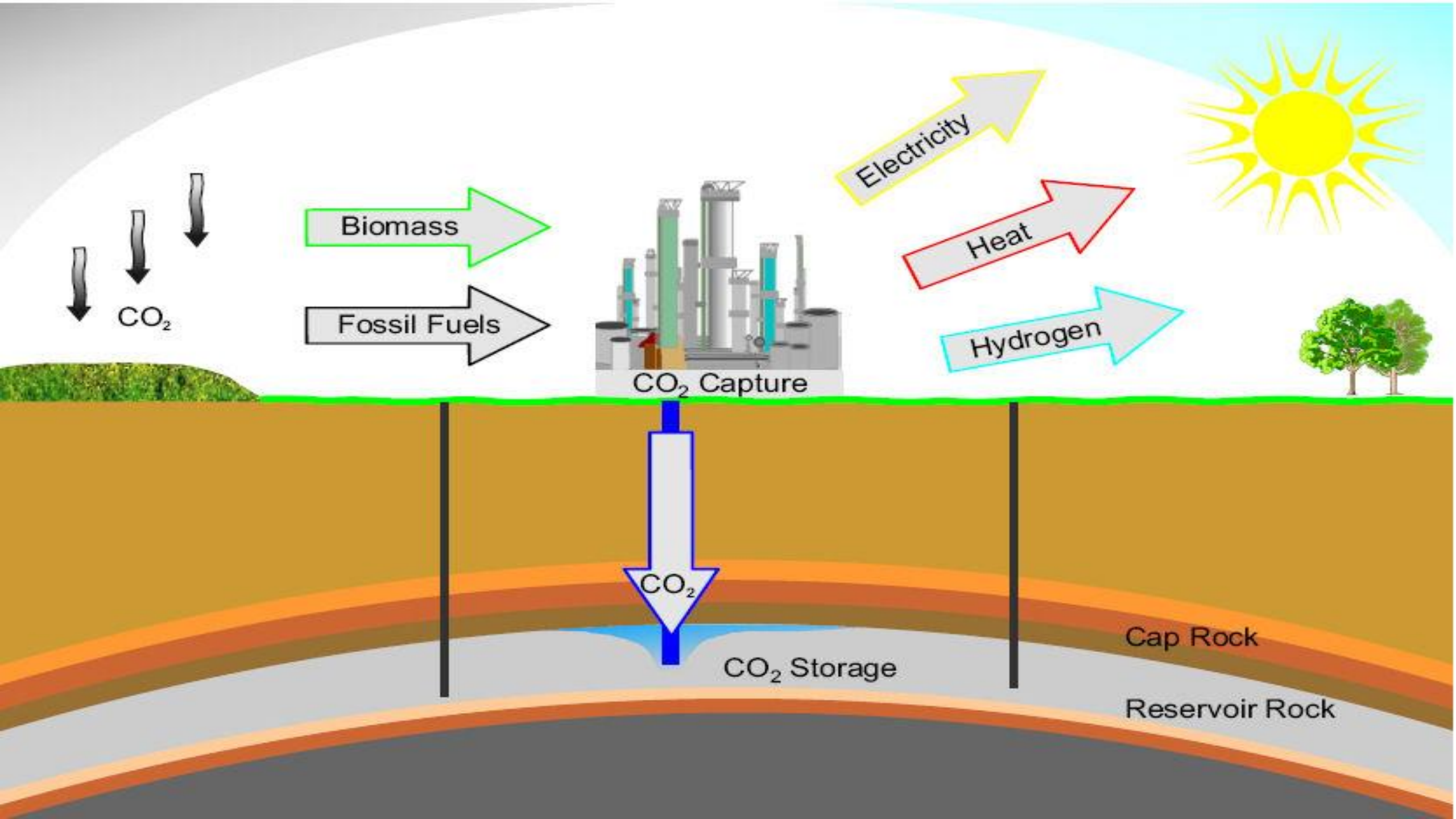


Source: OWID based on Lührmann et al. (2018); V-Dem (v13)

OurWorldInData.org/democracy • CC BY

Note: The share of closed autocracies increases a lot in 1900 because V-Dem covers many more countries since then, often colonies.







**Bright Future  
Ahead**

OLD

NEW

STABILITY

VOLATILITY

CERTAINTY

UNCERTAINTY

SIMPLICITY

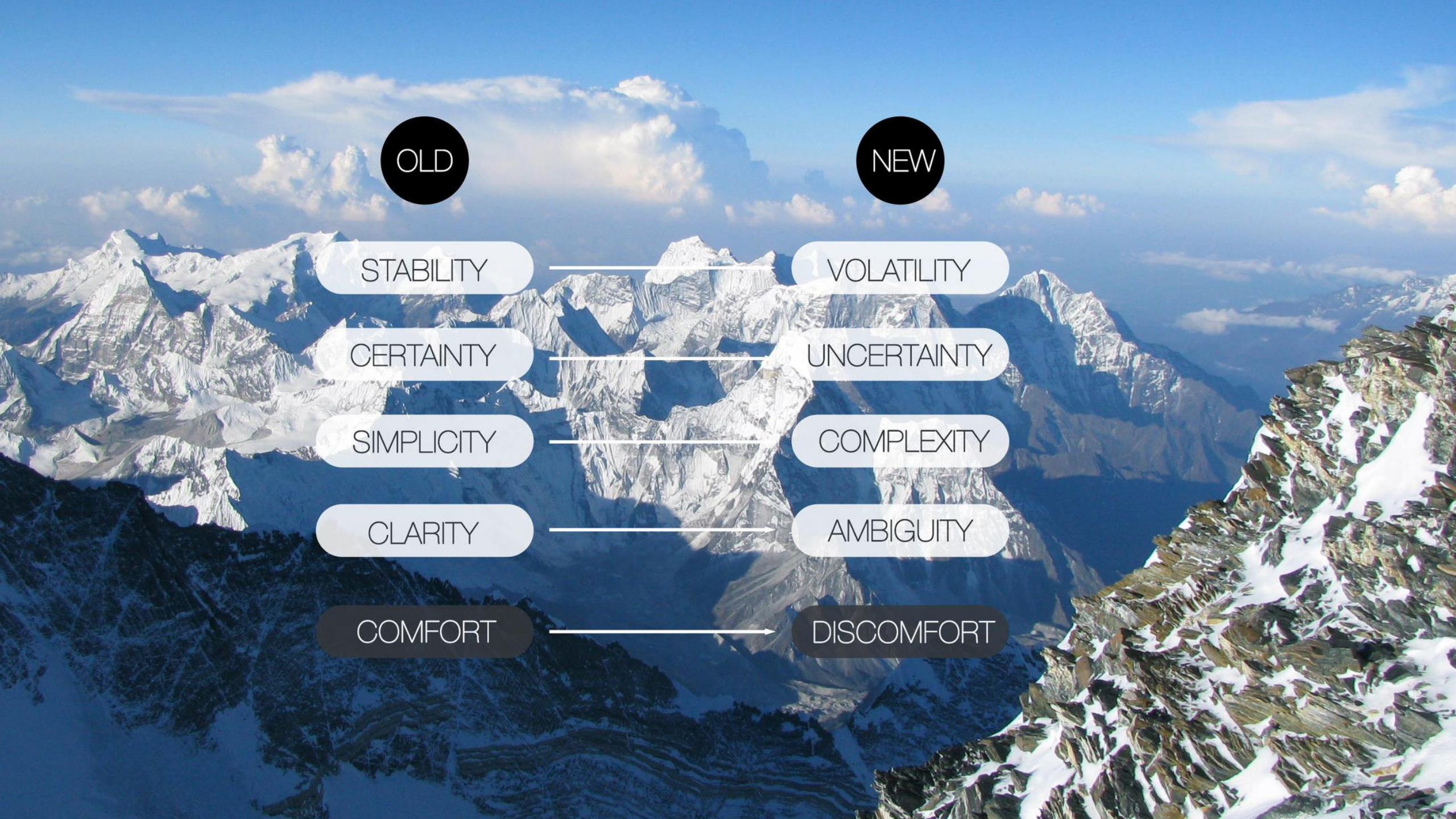
COMPLEXITY

CLARITY

AMBIGUITY

COMFORT

DISCOMFORT



## VUCA ENVIRONMENT

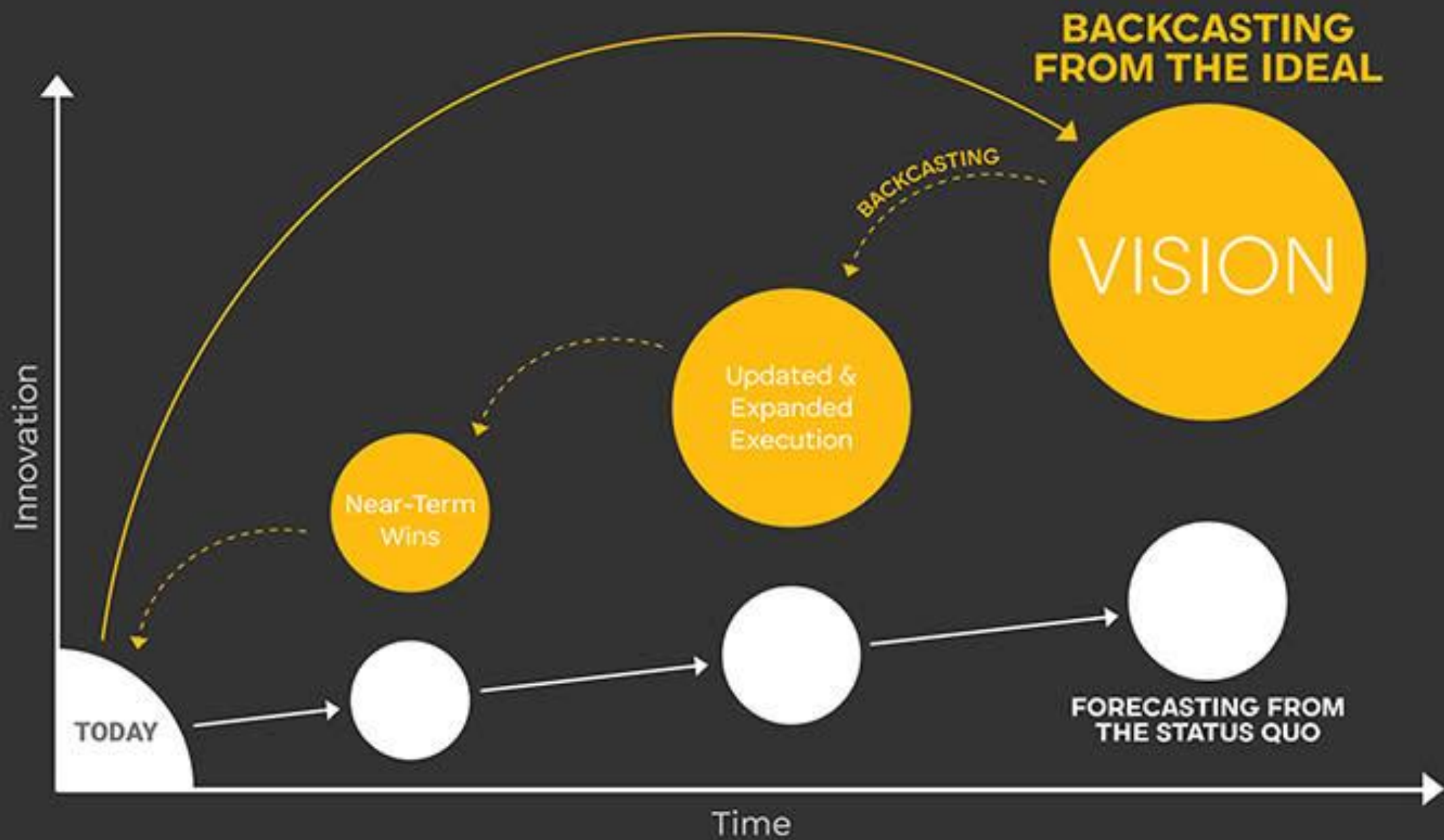
needs

## VUCA LEADERSHIP

- VOLATILE
- UNCERTAIN
- COMPLEX
- AMBIGUOUS

- VISIONARY
- UNDERSTANDING
- COMPASSIONATE
- AGILE





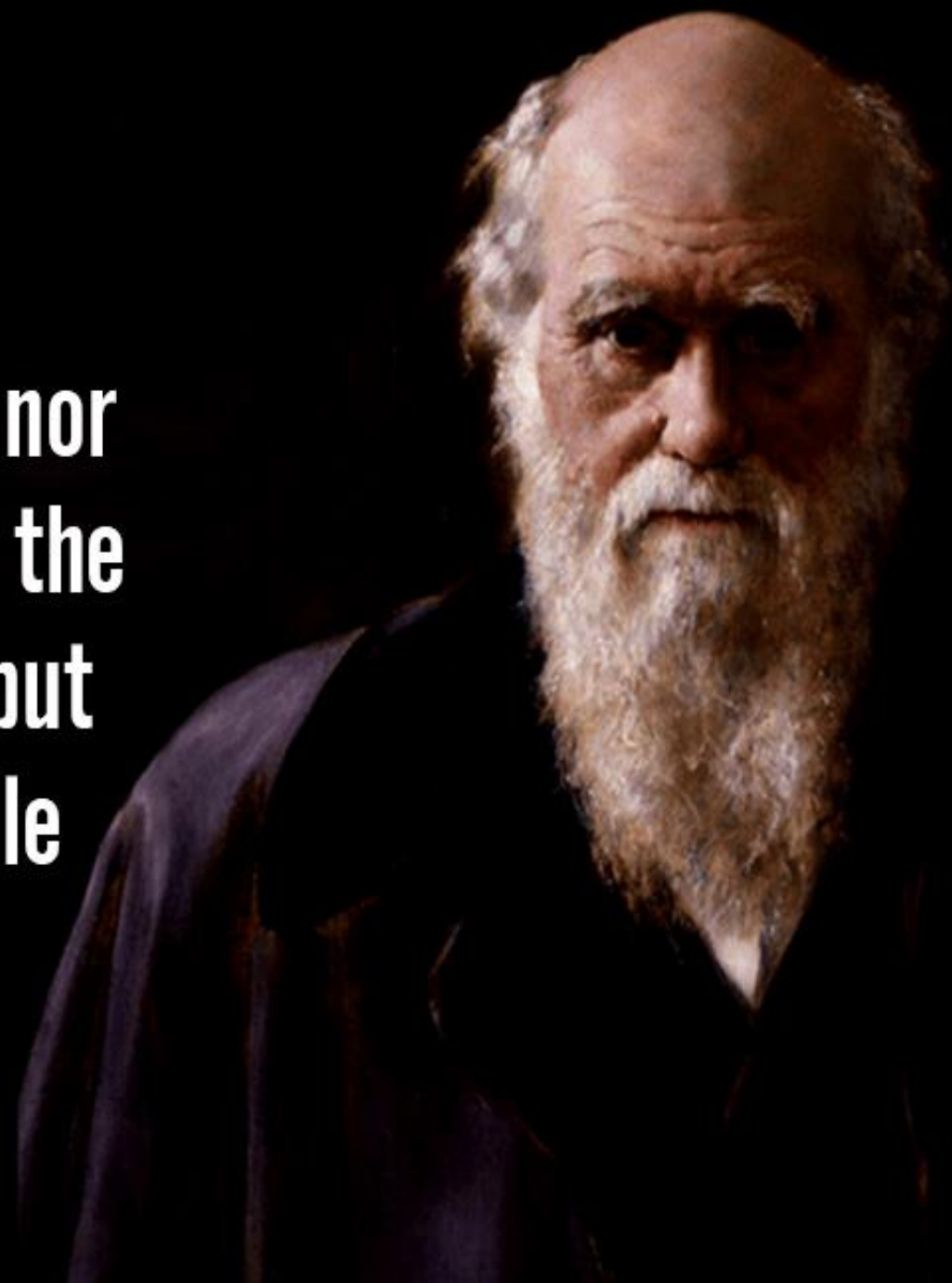


# ETHICS



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**It is not the strongest nor  
the most intelligent of the  
species that survives but  
the one most adaptable  
to change.**



A close-up photograph of a hand placing a wooden block with the letter 'G' on top of a block with the letter 'C'. The blocks are arranged to spell out the word 'CHANGE'. The blocks are light-colored wood with black letters. The background is a plain, light-colored surface.

**C H A N G E**



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