



# MEGATRENDS (MT) AND MEGA OPPORTUNITIES (MO)

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# N°1 Megatrend



More and more complex systems (complexity) are emerging in every area, this is where the old/new megatrends originate from.

Complex systems fight against disintegration by introducing internal rules and patterns.

The megatrends create and sustain these.



# MEGATRENDS 21<sup>st</sup> century



**New protestantism**  
**New renaissance**  
**New mega networks**  
**New archipelagos**  
**Accelerating transitions**  
**New Thirty Years War (2002-2032)**  
**New/old epidemics**

**New centralism**  
**New welfare and new limits**  
**New Cold War**  
**Dawn of Eurasia**  
**New gate areas**

**New formula for success**  
**New life expectancy and quality of life**  
**Revival of historical cycles**  
**New climate change**

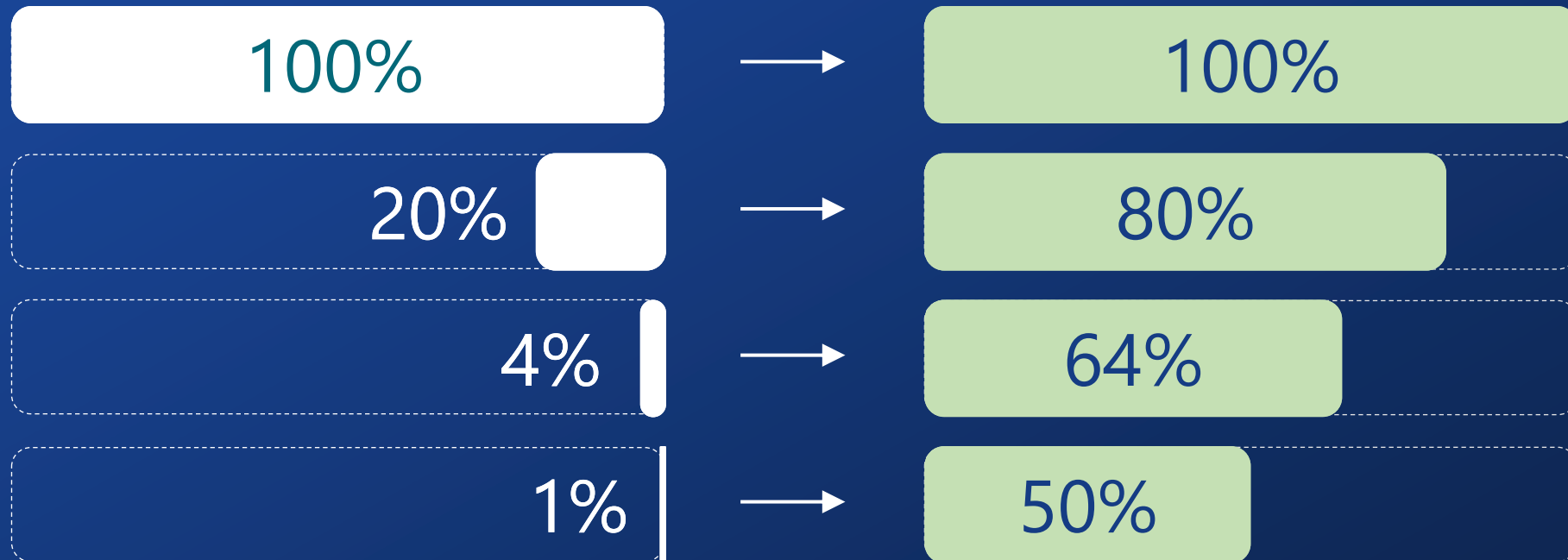
**New warfare and new types of wars**  
**New abstractionism**  
**New balance between West and East**  
**New scientific and technological revolution**



# Pareto formula 1

## Resources

## Results



Both positive and negative



# Pareto formula 2

## Resources

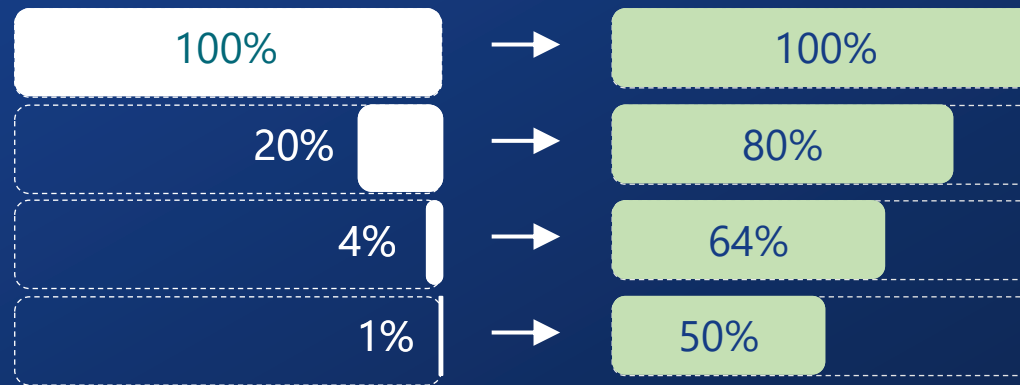
Time  
Knowledge  
Money  
Energy  
Attention  
Relationships  
Emotion  
Habits  
Confidence  
Talent –  
ability

In everything  
and everywhere

## Results

Success / Career  
Income  
Wealth  
Family  
Friends  
Quality of life  
Age  
Happiness  
Security  
Opportunity –  
independence

Pareto formula



**Eurasia**

**Digital transition**

**Artificial  
Intelligence**

Brain + Heart

**Uncovering  
ancient  
knowledge**

**Sustainable World**

**New fusions**

**Energy transition**

**PARETO LAW  
- key -**





1970s

**50 years cycle**

1940s

**80 years cycle**

**Revival of  
historical  
cycles**

~1500s

**500 years cycle**

~1600s

**400 years cycle**



New balance  
with nature



Rediscovery of total  
human knowledge



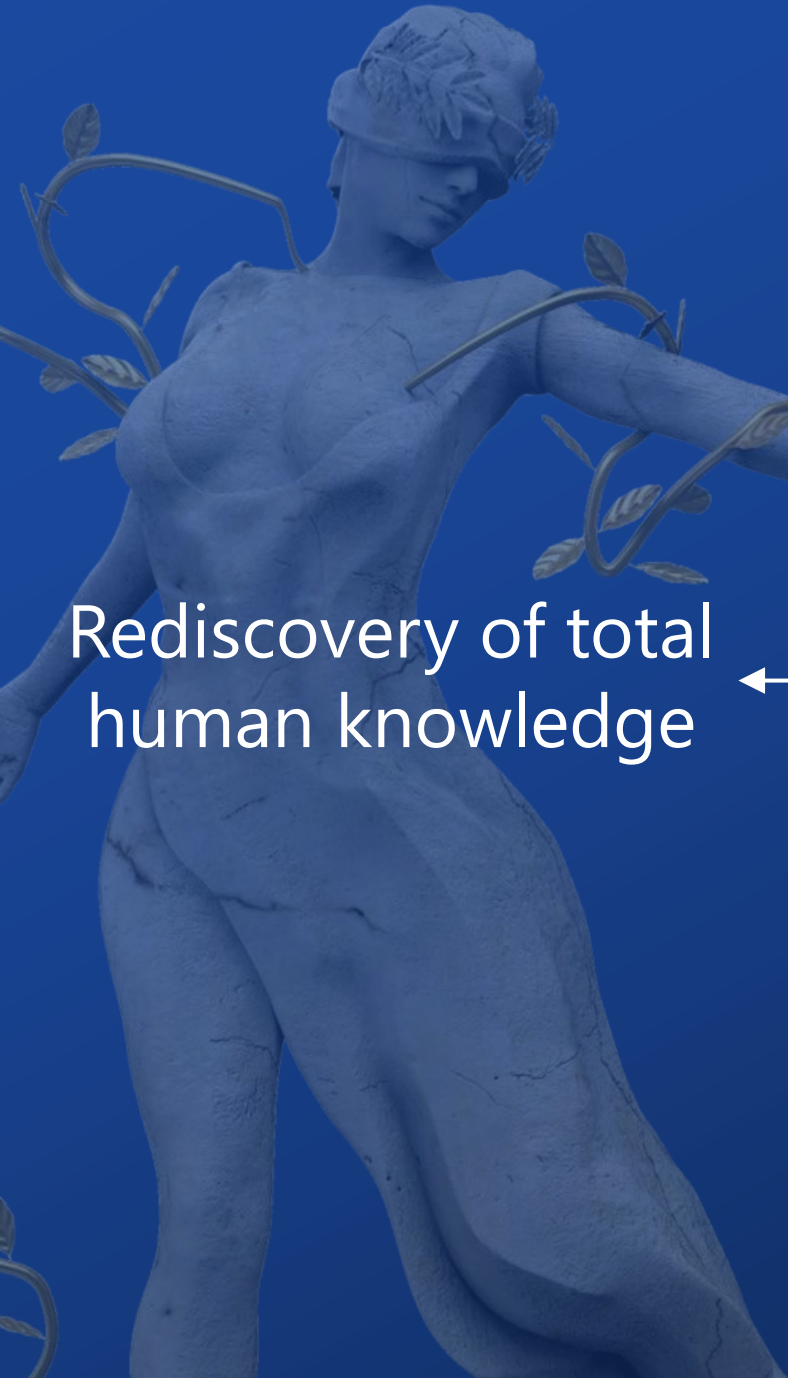
**New  
renaissance**



New humanism and  
people-centrality



New culture (internet,  
Youtube, streaming, etc.)







Space



**New  
Geographical  
discoveries**

Climate  
control



Cyberspace



Depth of oceans



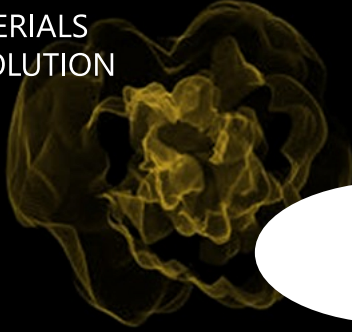


# New

Scientific and  
technological  
revolution

MEGATREND 1

MATERIALS  
REVOLUTION



MEGATREND 2

DEVALUATION OF  
RAW DATA



MEGATREND 3

TECHNOLOGICAL  
VULNERABILITIES



MEGATREND 7

DIGITAL  
REALITIES –  
IMMERSIVE  
VIRTUAL AND  
DIGITAL SPACES



MEGATREND 4

ENERGY  
BOUNDARIES



MEGATREND 5

SAVING  
ECOSYSTEMS



MEGATREND 6

BORDERLESS  
WORLD – FLUID  
ECONOMIES



# 10 MEGATRENDS

MEGATREND 8

LIFE WITH  
AUTONOMOUS  
ROBOTS



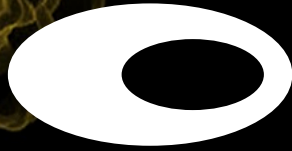
MEGATREND 9

FUTURE  
HUMANITY



MEGATREND 10

ADVANCED  
HEALTH AND  
NUTRITION



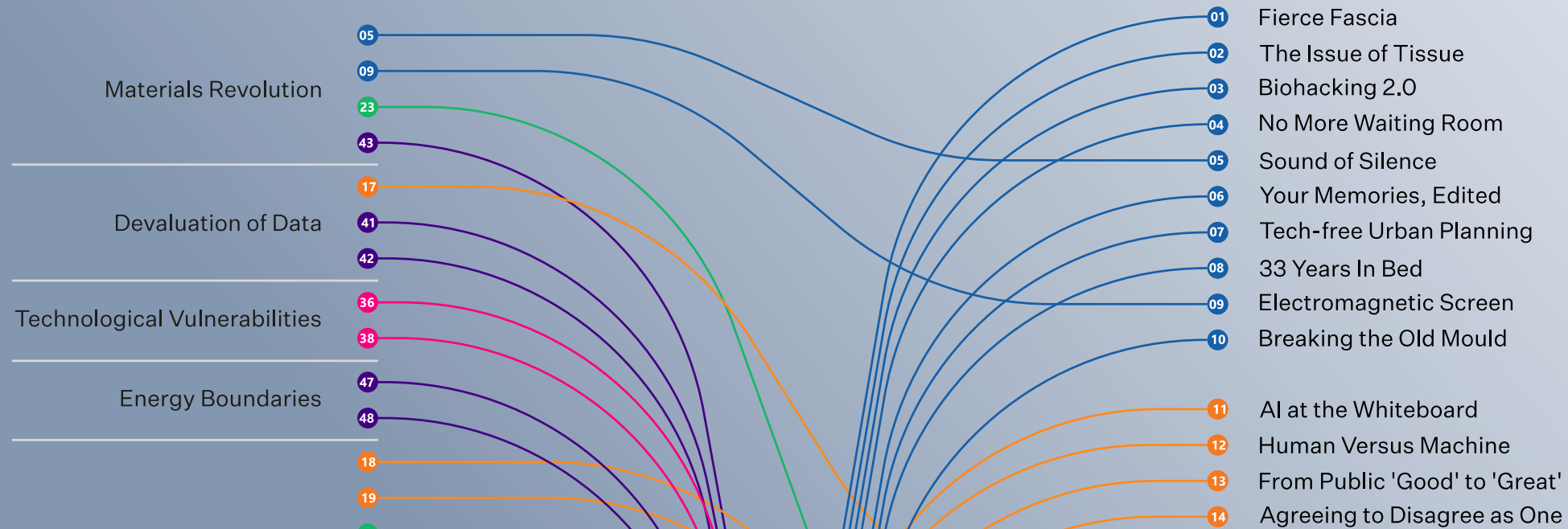
مؤسسة دبي للمستقبل  
DUBAI FUTURE FOUNDATION



# OPPORTUNITIES MAP

## MOST SIGNIFICANT MEGATREND

## OPPORTUNITY



Digital Realities

- 35
- 37
- 40
- 44

Life with Autonomonous Robots

- 12
- 11
- 13
- 14
- 15
- 20

Future Humanity

- 31
- 32
- 33
- 34
- 39

Advanced Health and Nutrition

- 45
- 49
- 50
- 01
- 02
- 03
- 04
- 06
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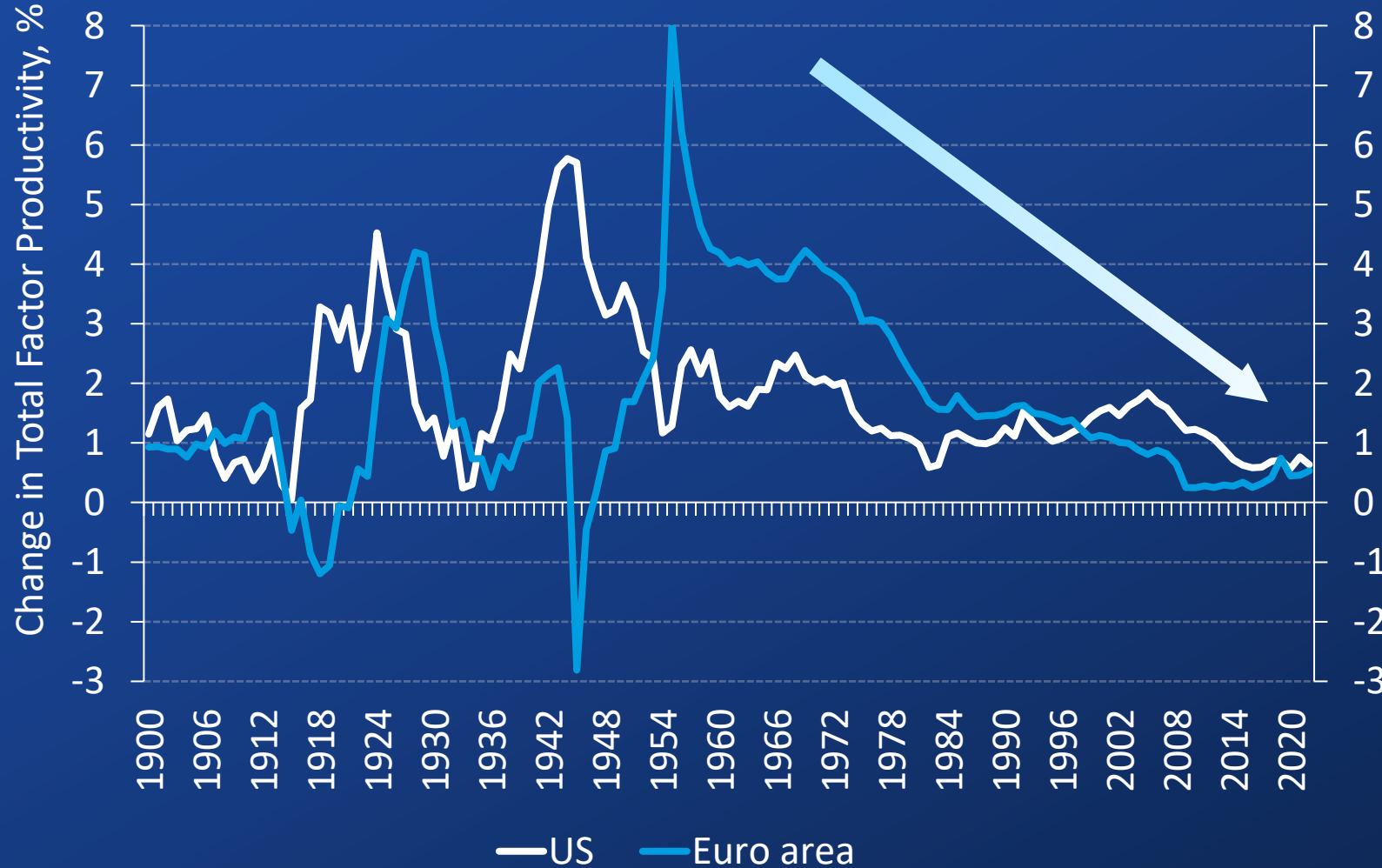
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- 50

- Let that (Carbon) Sink In
- Ice Uncapped
- Mission Accomplished
- 'Mobile' Super Scrubbers
- Waterless Farms
- DAOs for Social Good
- Whole-Planet Voting
- Service as a Standard
- A Policy's True Measure
- Calling out the Herd Mentality
- A Digital Realities Convention of Rights
- Quantum Avatar
- Online Kerb Appeal
- Not a Token Gesture
- Secondary No More
- Infinite 'Solar' Energy
- Law & Order for Web 3.0
- Accounting for Innovation
- Hatches, Tubes and Robot Dispatches
- Fresh Threads
- Going All-Digital
- Gross Domestic Future (GDF)
- Earth X-ploration
- Space As Storage
- ESG-F: Into the Future
- Telepossible



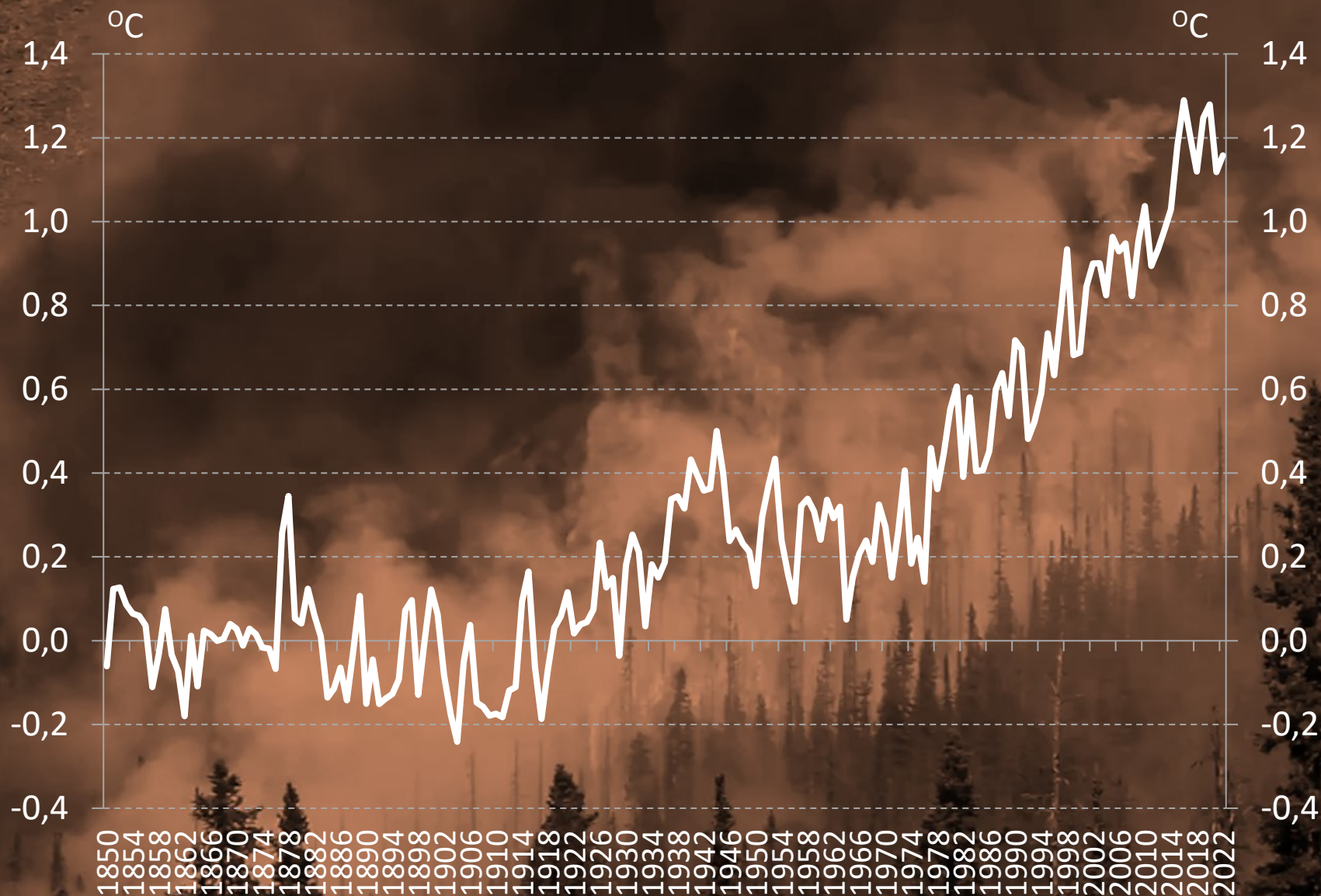
# LOSS OF PRODUCTIVITY GROWTH



Productivity growth has been slowing down continuously in the West

Source | Total factor productivity calculated using 2010 prices.

# CLIMATE CHANGE: WE ARE IN THE 24TH HOUR

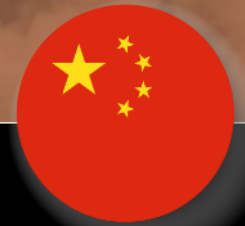
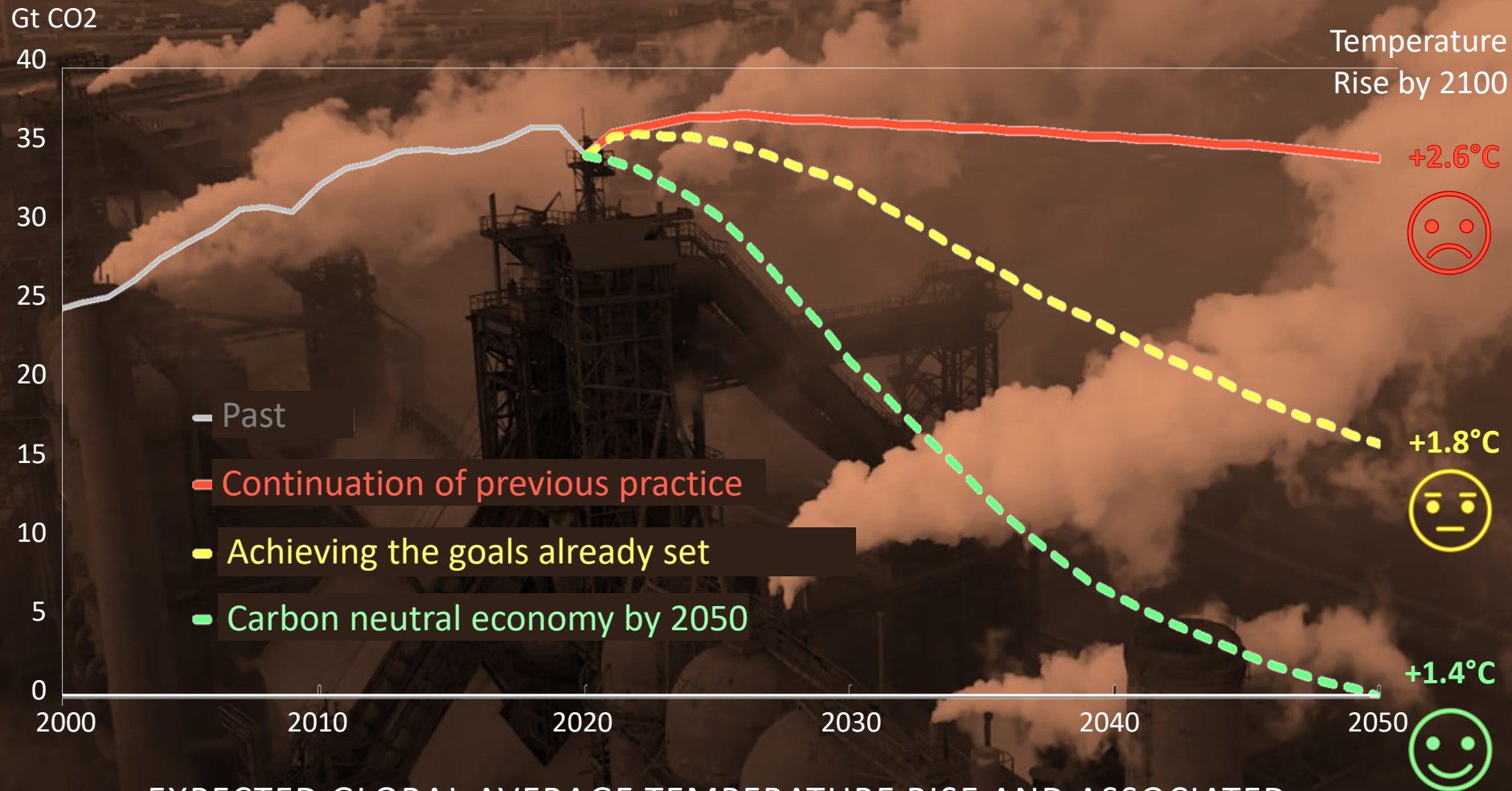


DEVIATION FROM GLOBAL MEAN SURFACE TEMPERATURE 1850 TO 1900

Deviation from global mean surface temperature has already exceeded the **+1.2°C** in last decade

Source | Met Office Hadley Centre, HadCRUT 5.0 modell

# A RADICAL REDUCTION OF CARBON DIOXIDE EMISSIONS WOULD BE NECESSARY



Aims to achieve carbon neutrality by 2060 ...

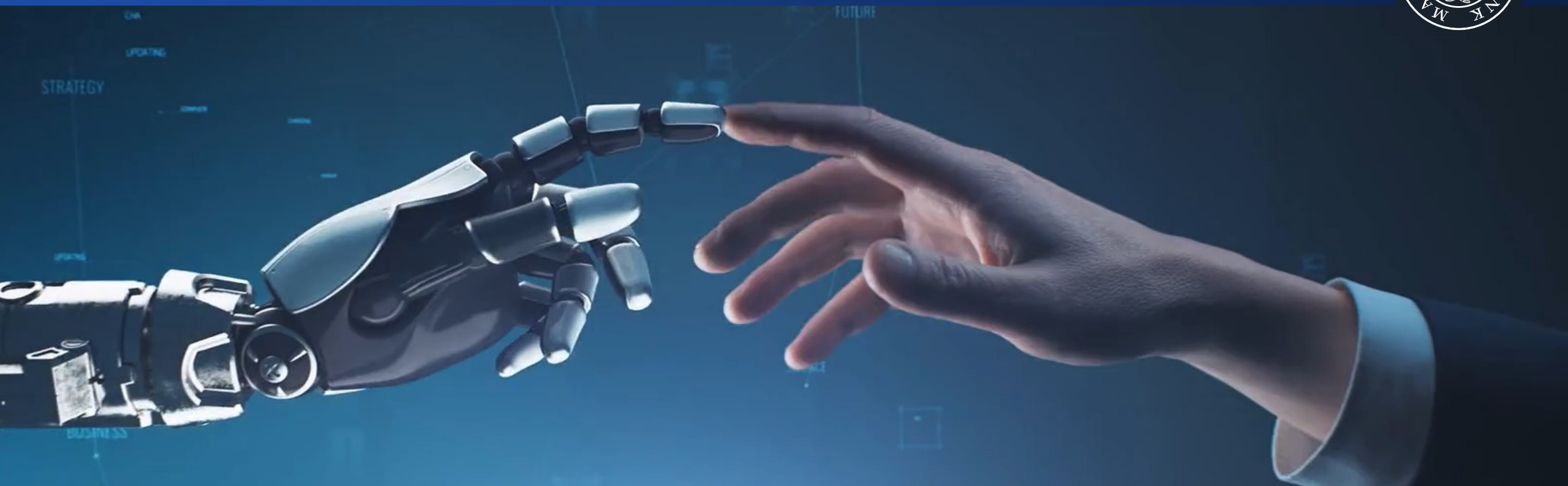
... introduced an emission trading system in the energy sector in 2021

EXPECTED GLOBAL AVERAGE TEMPERATURE RISE AND ASSOCIATED CARBON DIOXIDE EMISSIONS UNDER DIFFERENT SCENARIOS

Source | International Energy Agency, Pisu et al. (2022): A framework to decarbonise the economy, CEPR, Met Office



# ROBOTS AND AI REPLACE JOBS: ROBOTS SUBSTITUTE PHYSICAL ACTIVITIES, WHILE AI MAY SUBSTITUTE INTELLECTUAL TASKS AS WELL



40%

In the next 3 years, more than 40 percent of companies expect a **decrease in the number of employees due to AI**

55%

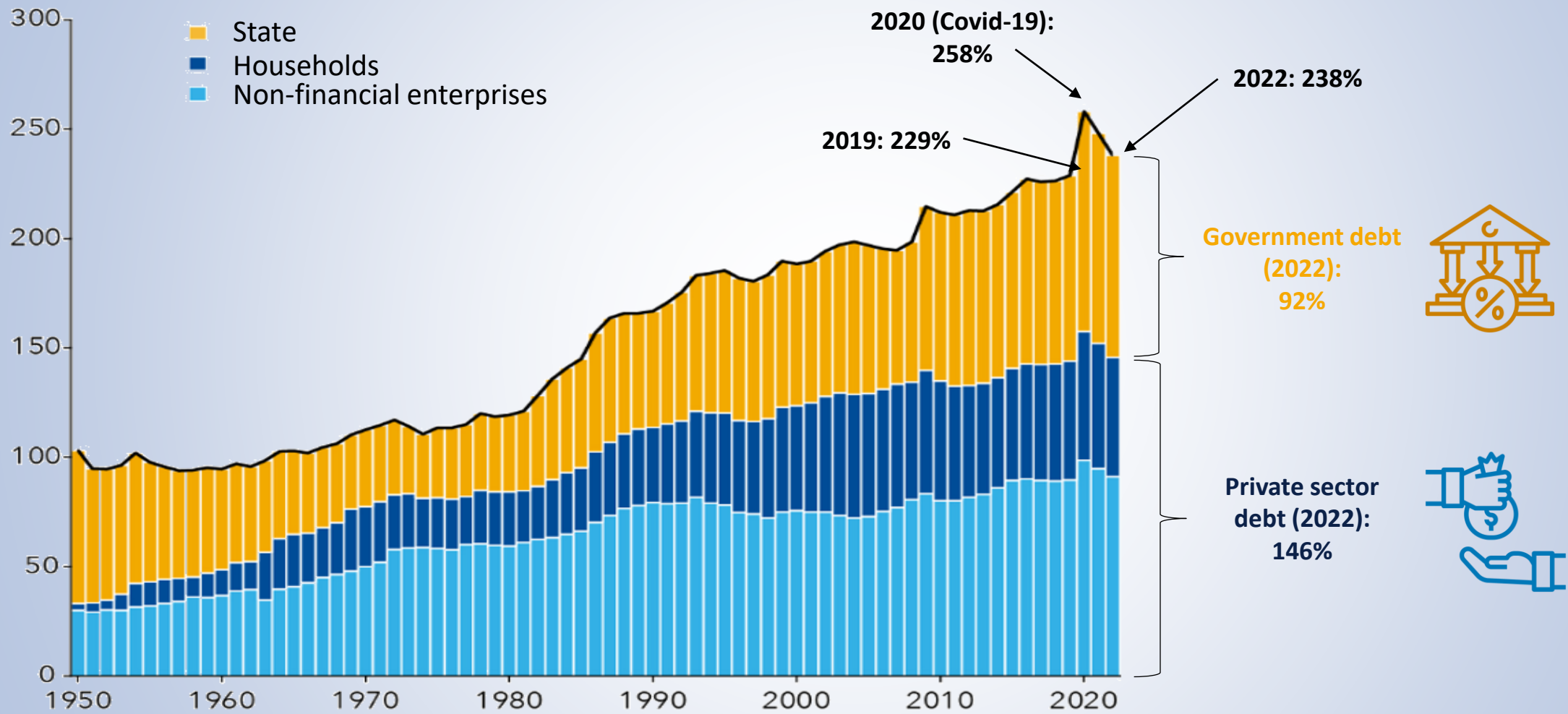
The **greatest impact** is expected **in the services sector**, which may approach 55 percent



Among the negative effects of AI, companies consider **cyber security challenges** to be the risk that should be mitigated the most



# GLOBAL INDEBTEDNESS: THE WORLD IS CARRYING AN EVER-INCREASING DEBT BURDEN

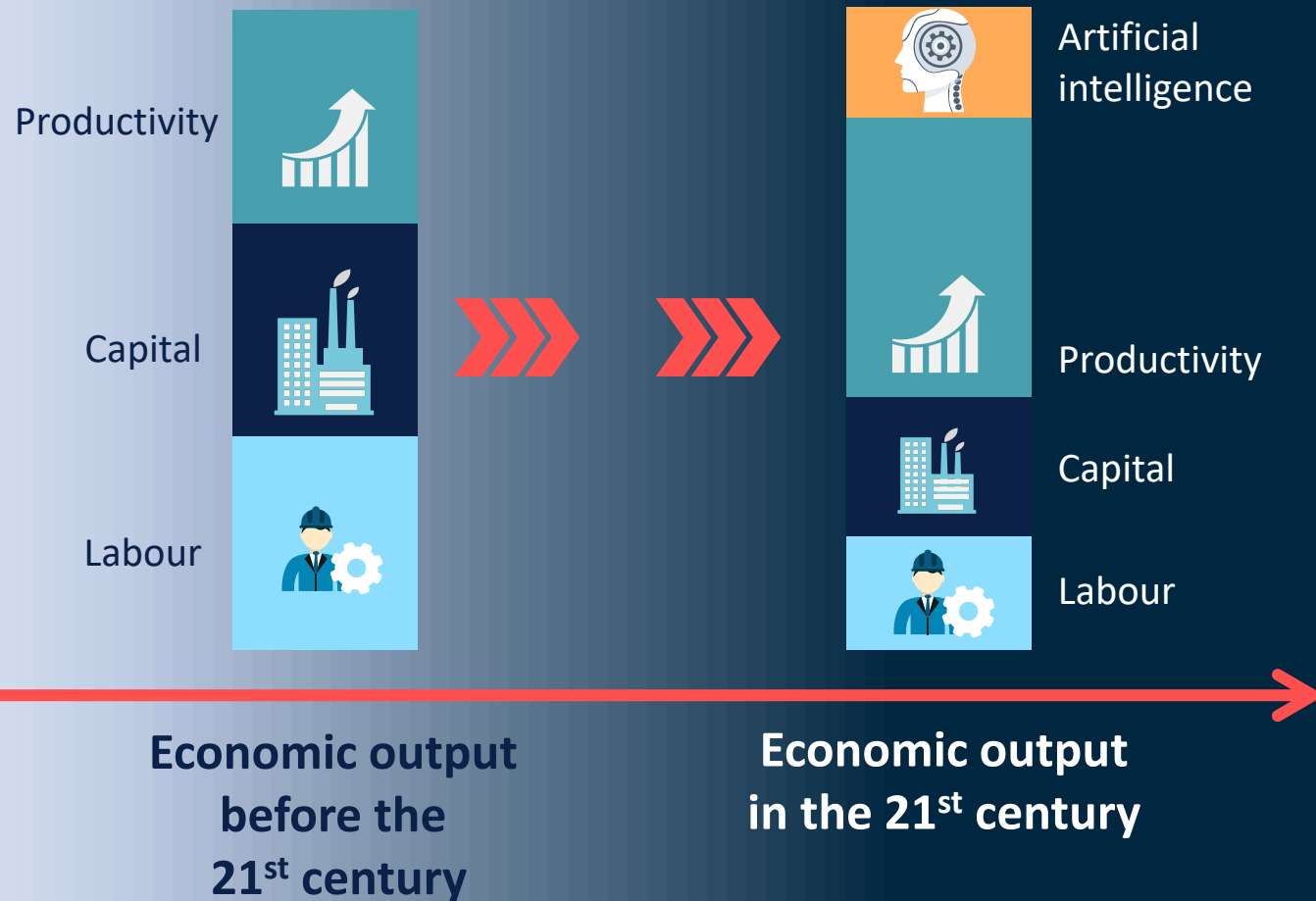




**MEGA**

OPPORTUNITIES

# PRODUCTIVITY NEEDS TO BE INCREASED



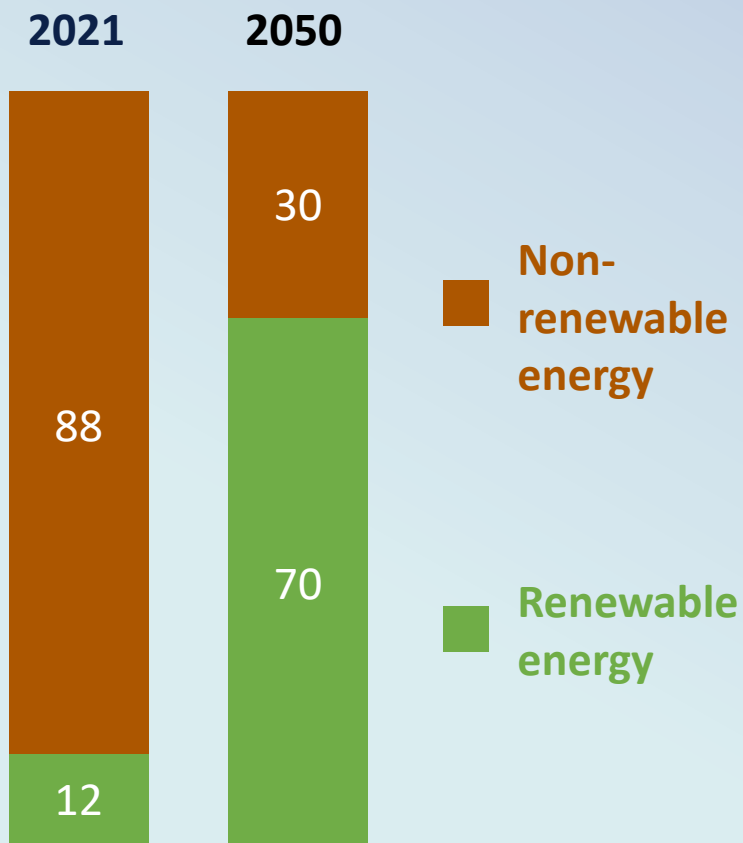
# AI AND ROBOT TECHNOLOGY: THE ANSWER TO DECREASING WORKFORCE



*Artificial intelligence combined with robotics – also with cyber security in mind – is an answer to decreasing workforce.*



# RENEWABLE ENERGY IS THE ENERGY OF FUTURE

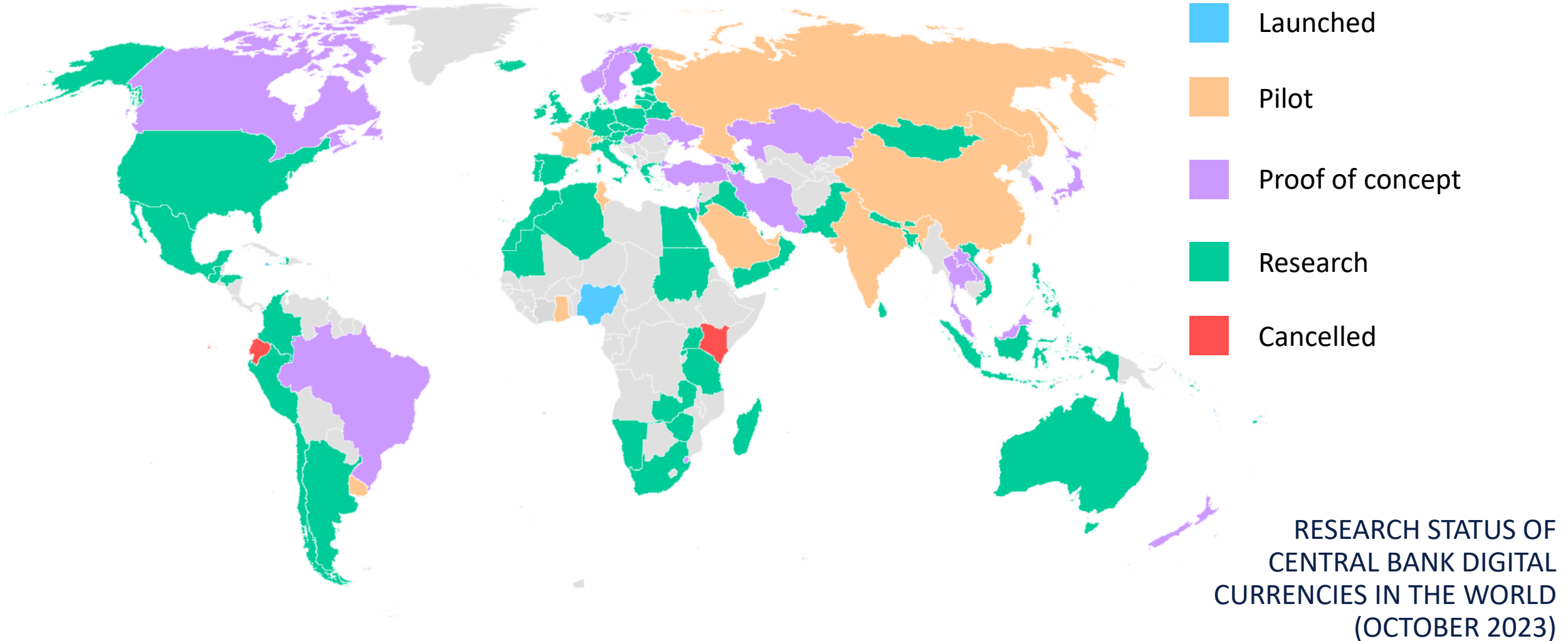


EXPECTED CHANGES IN THE ENERGY MIX OF THE WORLD ACCORDING TO THE SHARE OF EACH ENERGY SOURCE IN THE MIX (2021-2050, PERCENT)

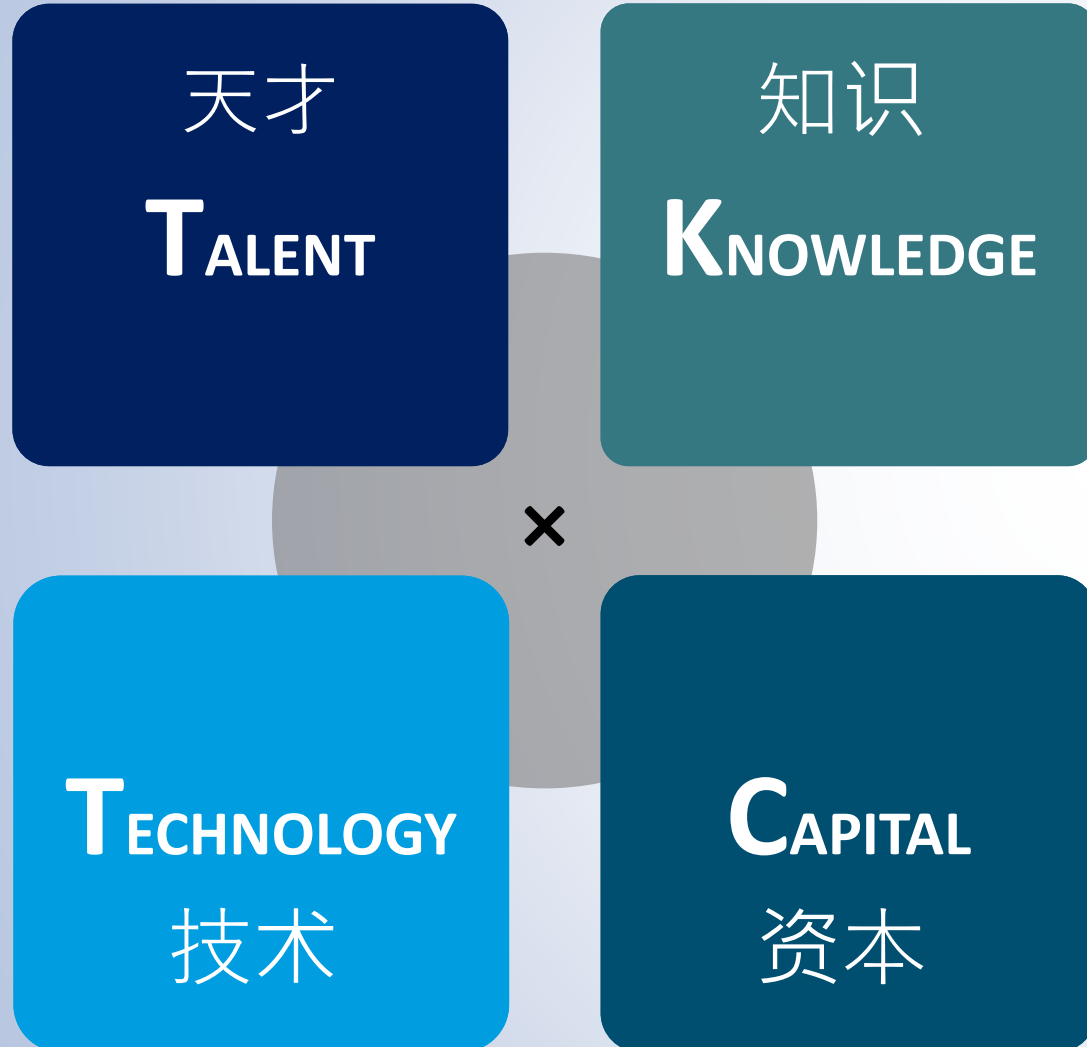
Source | International Energy Agency World Energy Outlook (2022)

**Green, domestically produced energy comes to the fore**

# THE REVOLUTION OF MONEY: CHINA IS ALREADY BROADLY TESTING CENTRAL BANK DIGITAL CURRENCY



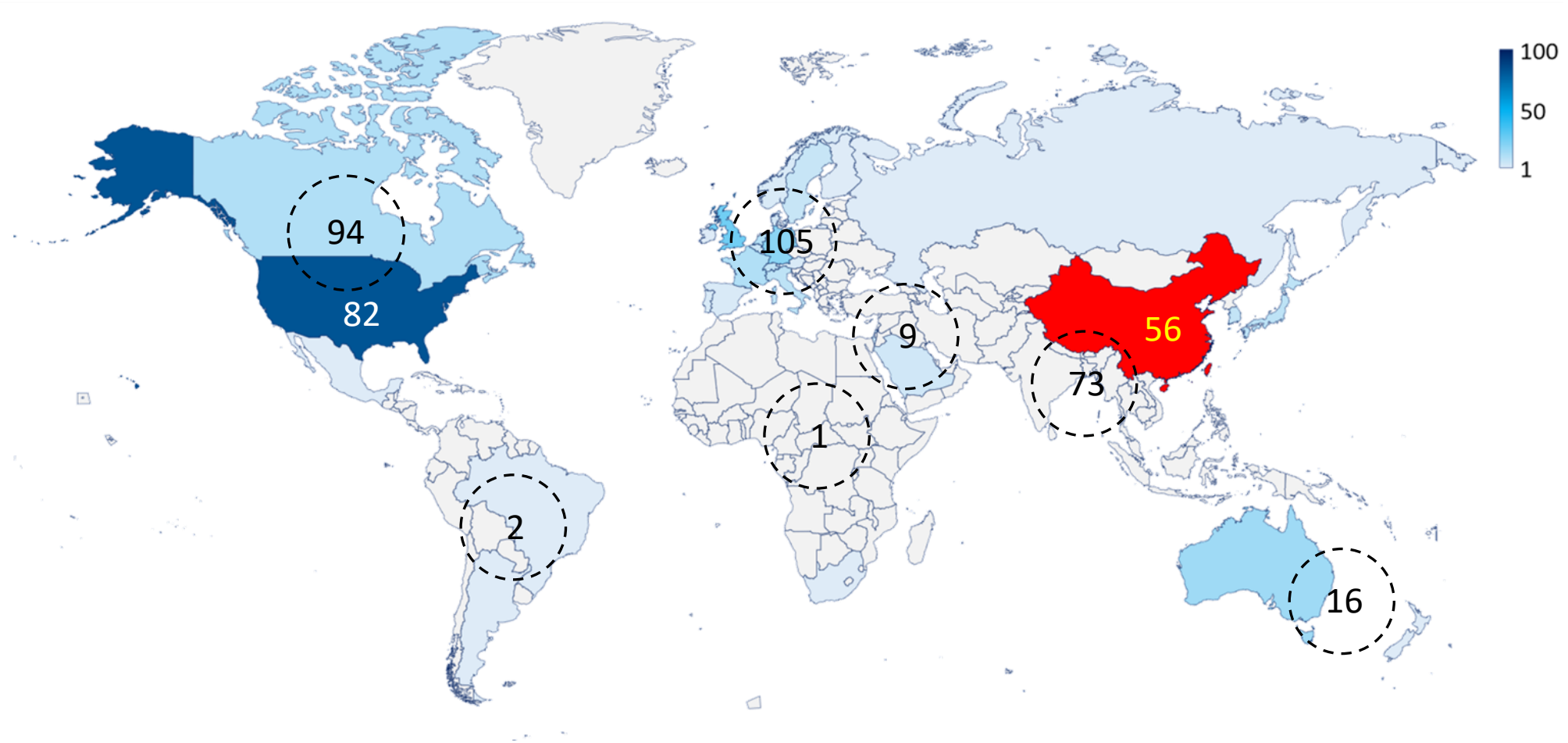
# NEW FUSION IN ECONOMY



Source | On the Edge of Times by György H. Matolcsy



# TALENT: 19 PERCENT OF THE WORLD TOP UNIVERSITIES ARE CHINESE

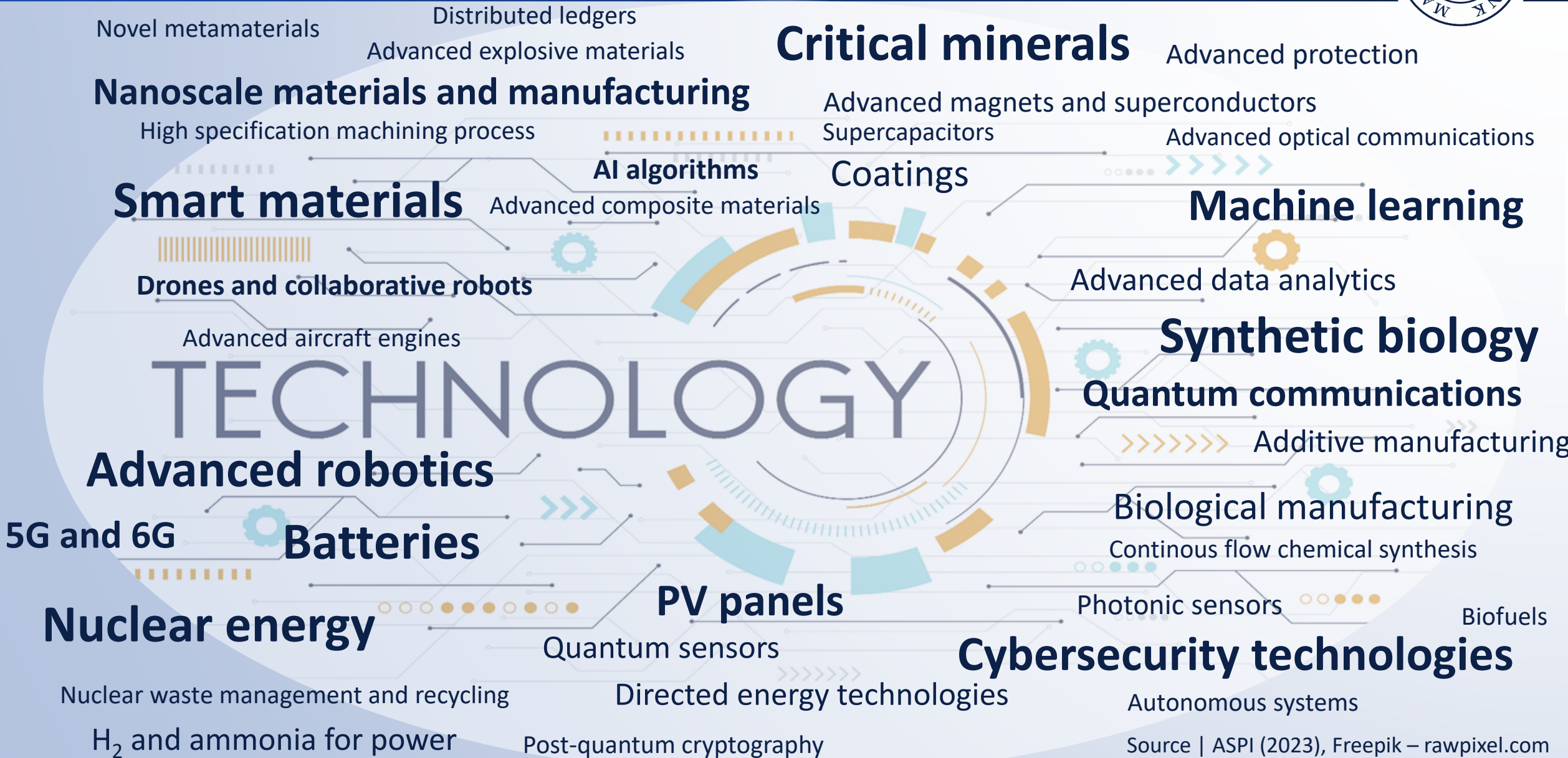


Note | Numbers in dotted circles refer to the number of TOP 300 universities in the following regions: North America, South America, Europe, Middle East, Asia including China, Australia and Oceania, Africa.

WORLD TOP 300 UNIVERSITIES BY MACROREGIONS (2023)

Source | Shanghai Ranking's Academic Ranking of World Universities

# TECHNOLOGY: CHINA IS A GLOBAL LEADER IN 37 TECHNOLOGIES OUT OF 44



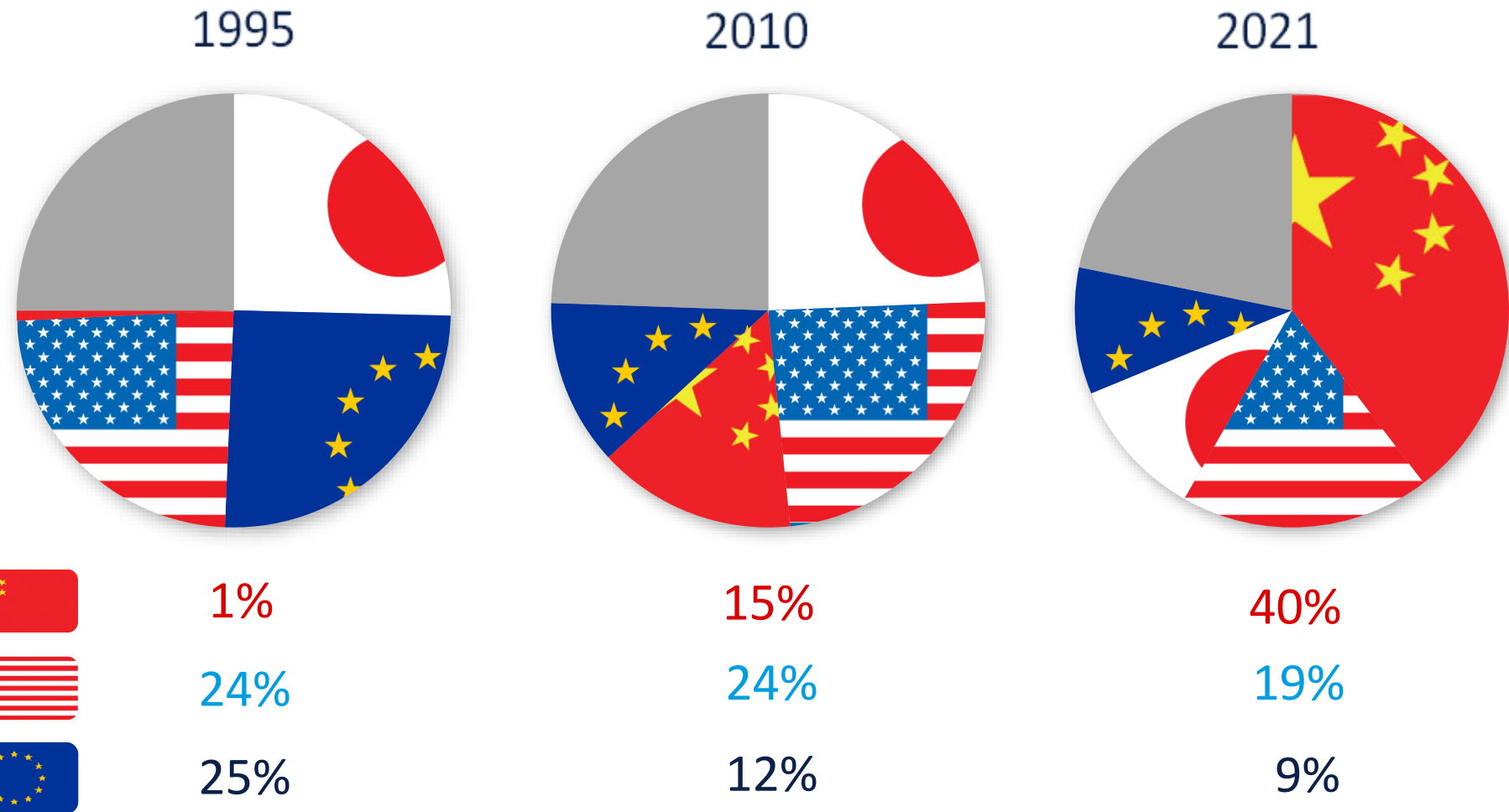
# KNOWLEDGE: CHINA HAS BECOME THE WORLD LEADER IN INNOVATION



... has the largest share of new granted patents in the World

... gave 30 percent of all scientific articles in the World in 2022

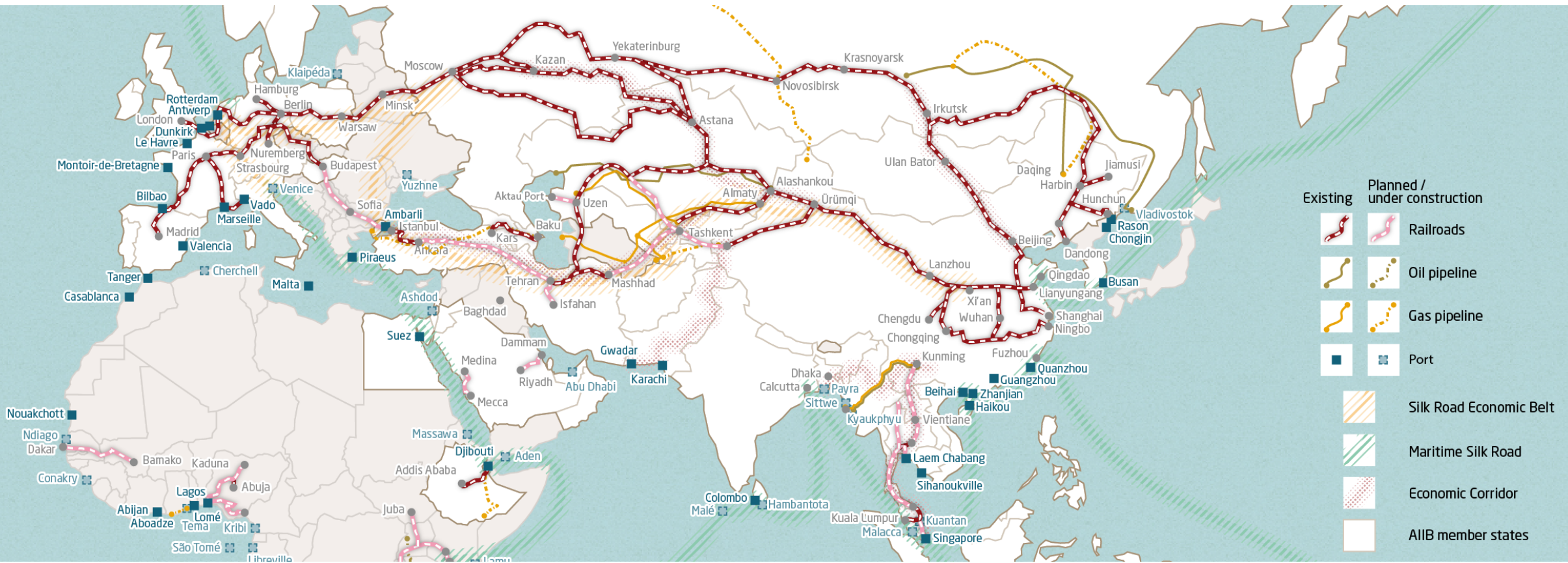
... has become the 1st in citation of scientific articles in 2022



GRANTED PATENTS AS A SHARE OF ALL ANNUAL GRANTED PATENTS IN THE WORLD

Note | The grey area on the pie chart refers to Rest of the World. Source | World Intellectual Property Office, MNB

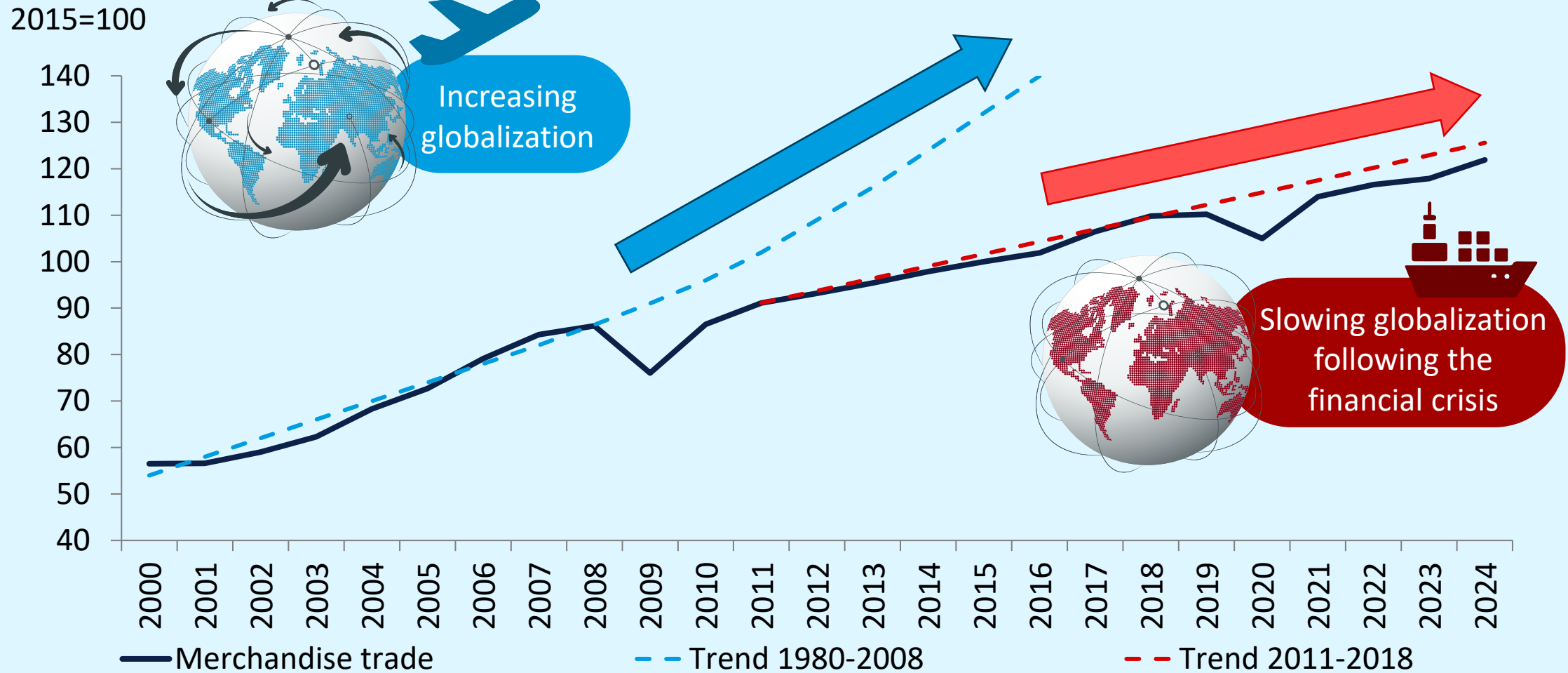
# CAPITAL: BELT AND ROAD INITIATIVE CREATES MOMENTUM TO THE EUROPEAN-ASIAN INVESTMENT AND FINANCIAL COOPERATION



EXISTING AND PLANNED INFRASTRUCTURE OF THE BELT AND ROAD INITIATIVE

Source | Mercator Institute for China Studies

# GLOBALIZATION OF THE MERCHANDISE TRADE BECAME SLOWER COMPARED TO THE 2000S, BUT THE GLOBALIZATION OF SERVICES IS ALREADY ON THE DOORSTEP



## EVOLUTION OF GLOBAL MERCHANDISE TRADE

Note | 2023 and 2024 are forecast values on the chart. Source | WTO



THANK YOU FOR YOUR ATTENTION!

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