

HORTGRO FORESIGHT STUDY

TANJA HICHERT
HICHERT & ASSOCIATES
6 JUNE 2022



Stellenbosch

UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

UNESCO CHAIR IN COMPLEX SYSTEMS AND
TRANSFORMATIVE AFRICAN FUTURES
CENTRE FOR SUSTAINABILITY TRANSITIONS



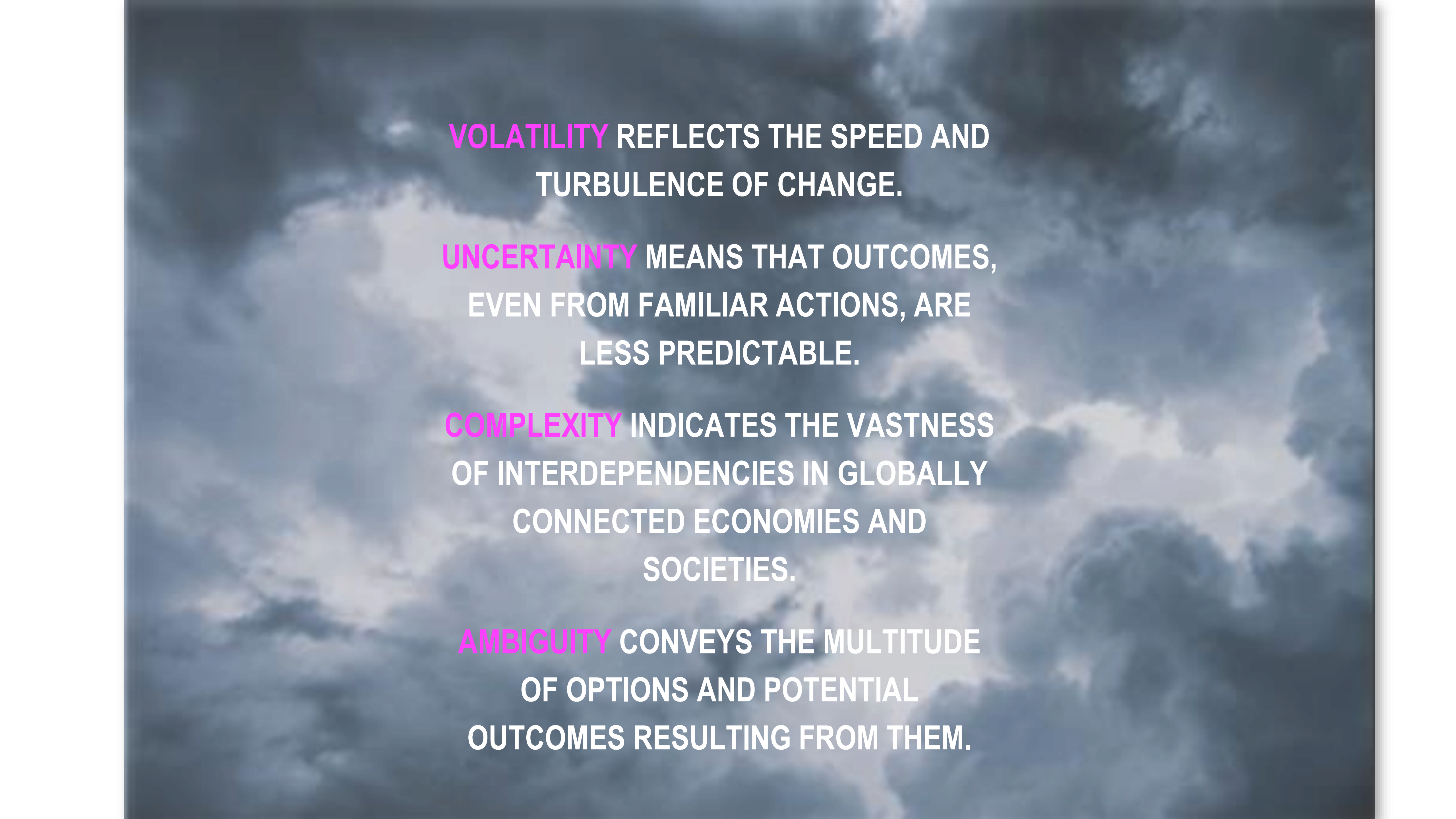
unesco

Chair

WHY?

WHAT SHAPES THE FUTURE

UNDERSTAND CHANGE

The background of the entire slide is a dramatic, high-contrast image of a stormy sky. Dark, heavy clouds are illuminated from below, creating a bright, ethereal glow that highlights the textures and shapes of the cloud formations. The overall color palette is dominated by deep blues, greys, and bright whites where the light hits the clouds.

VOLATILITY REFLECTS THE SPEED AND
TURBULENCE OF CHANGE.

UNCERTAINTY MEANS THAT OUTCOMES,
EVEN FROM FAMILIAR ACTIONS, ARE
LESS PREDICTABLE.

COMPLEXITY INDICATES THE VASTNESS
OF INTERDEPENDENCIES IN GLOBALLY
CONNECTED ECONOMIES AND
SOCIETIES.

AMBIGUITY CONVEYS THE MULTITUDE
OF OPTIONS AND POTENTIAL
OUTCOMES RESULTING FROM THEM.

FORESIGHT IS THE CAPACITY TO ANTICIPATE AND PLAN FOR POSSIBLE FUTURES

- ▶ The ultimate purpose of strategic foresight is to make better, more informed decisions in the present. It is the capability (or means) to 'use' and 'work with' the future in order to improve;
 - ▶ Products and services,
 - ▶ Decision-making
 - ▶ Risk profile, and the
 - ▶ Ability to cope in a VUCA world



“Slow & Steady”, but with Tipping Points



Cyclical



“The more things change the more they stay the same”



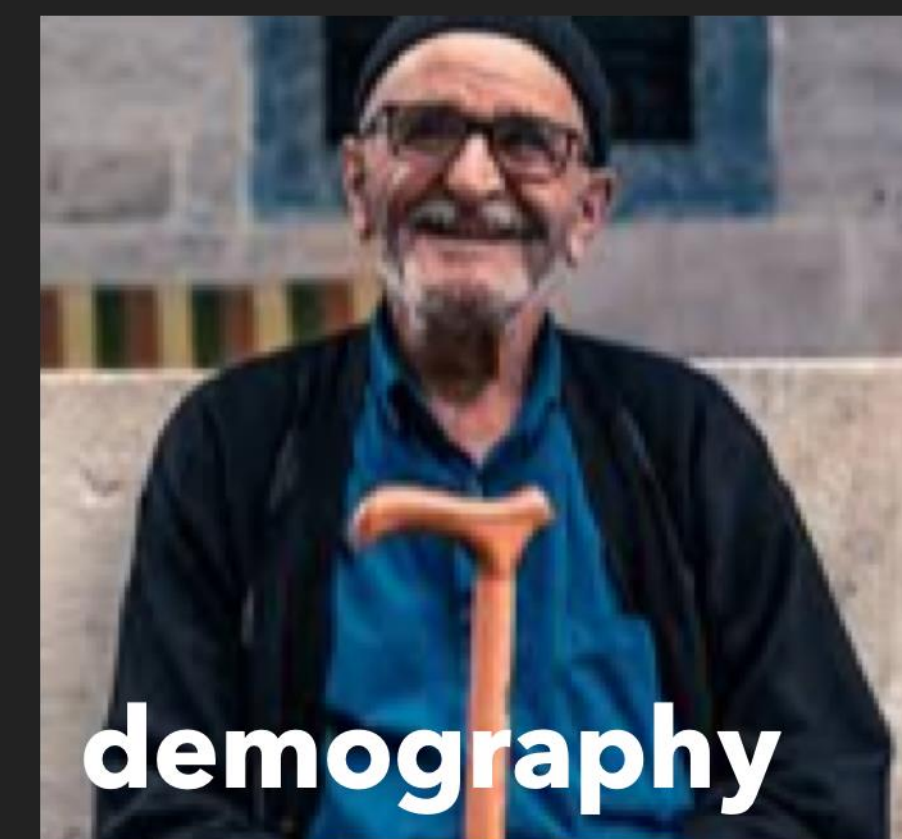
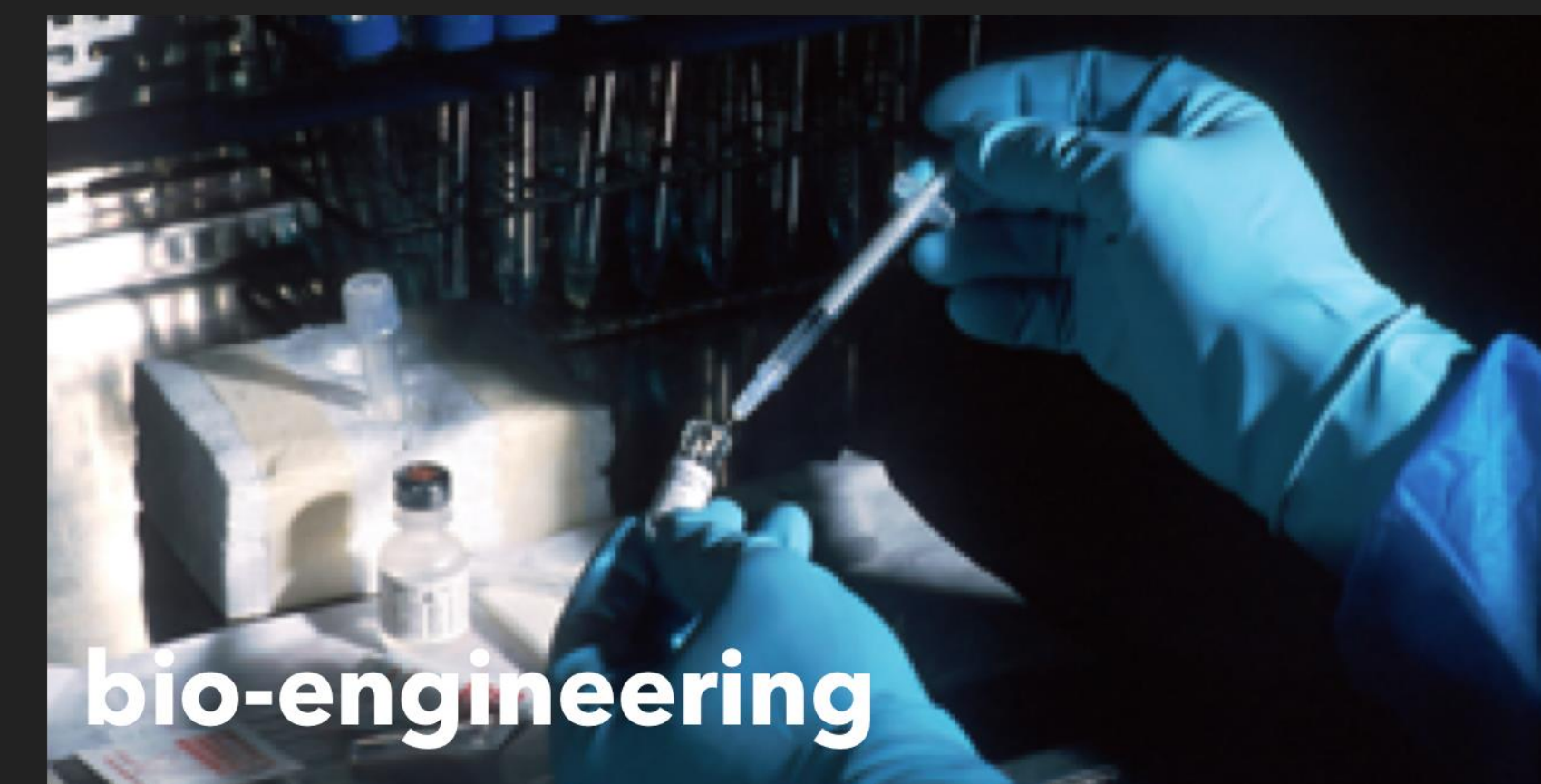


WORLD ECONOMIC FORUM

2020 GLOBAL RISKS

“INTERCONNECTION MAP”

Large-scale social, economic, political, environmental or technological changes that are slow to form but which, once they have taken root, exercise a profound and lasting influence on many if not most human activities, processes and perceptions.





A



N



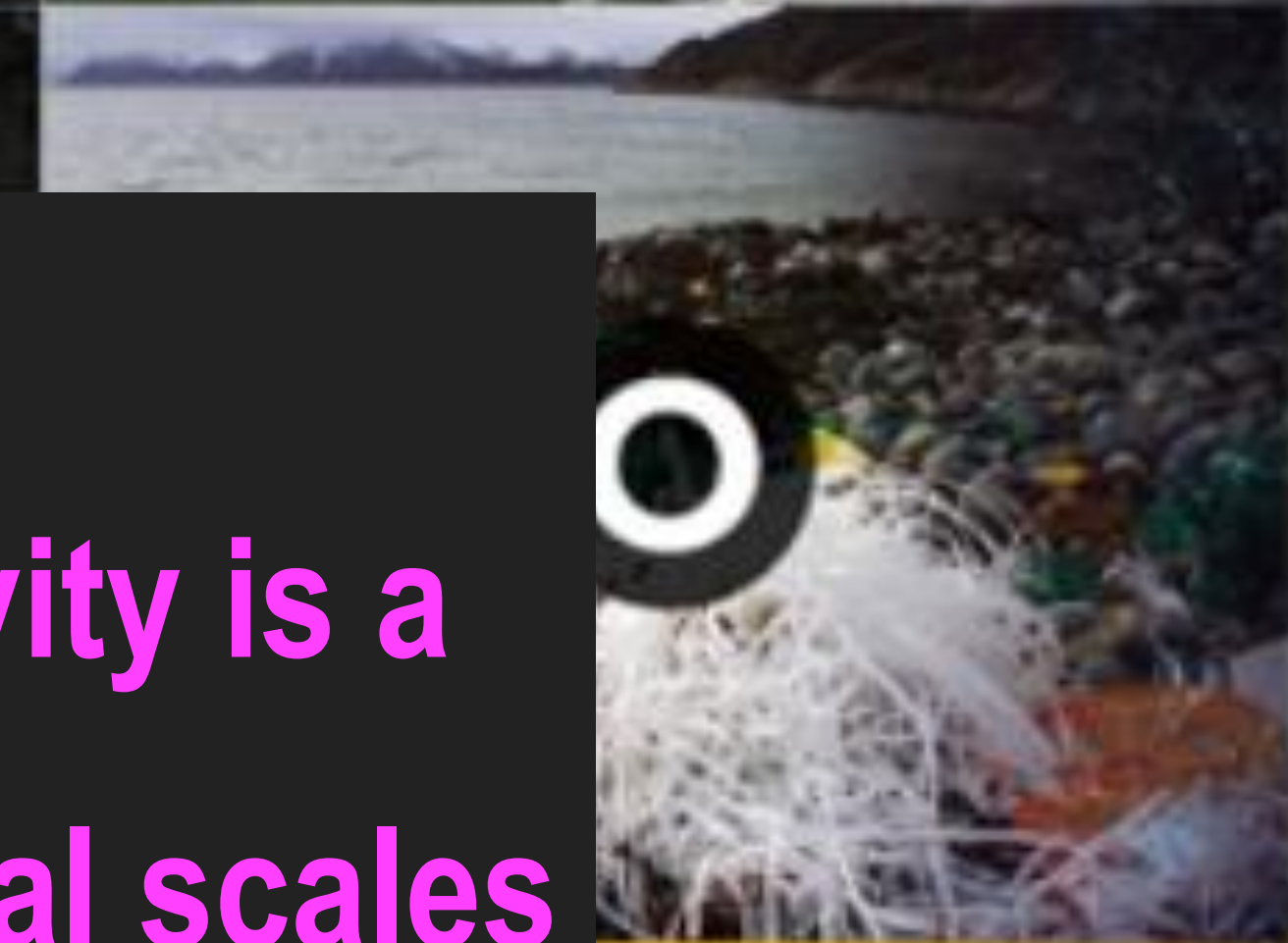
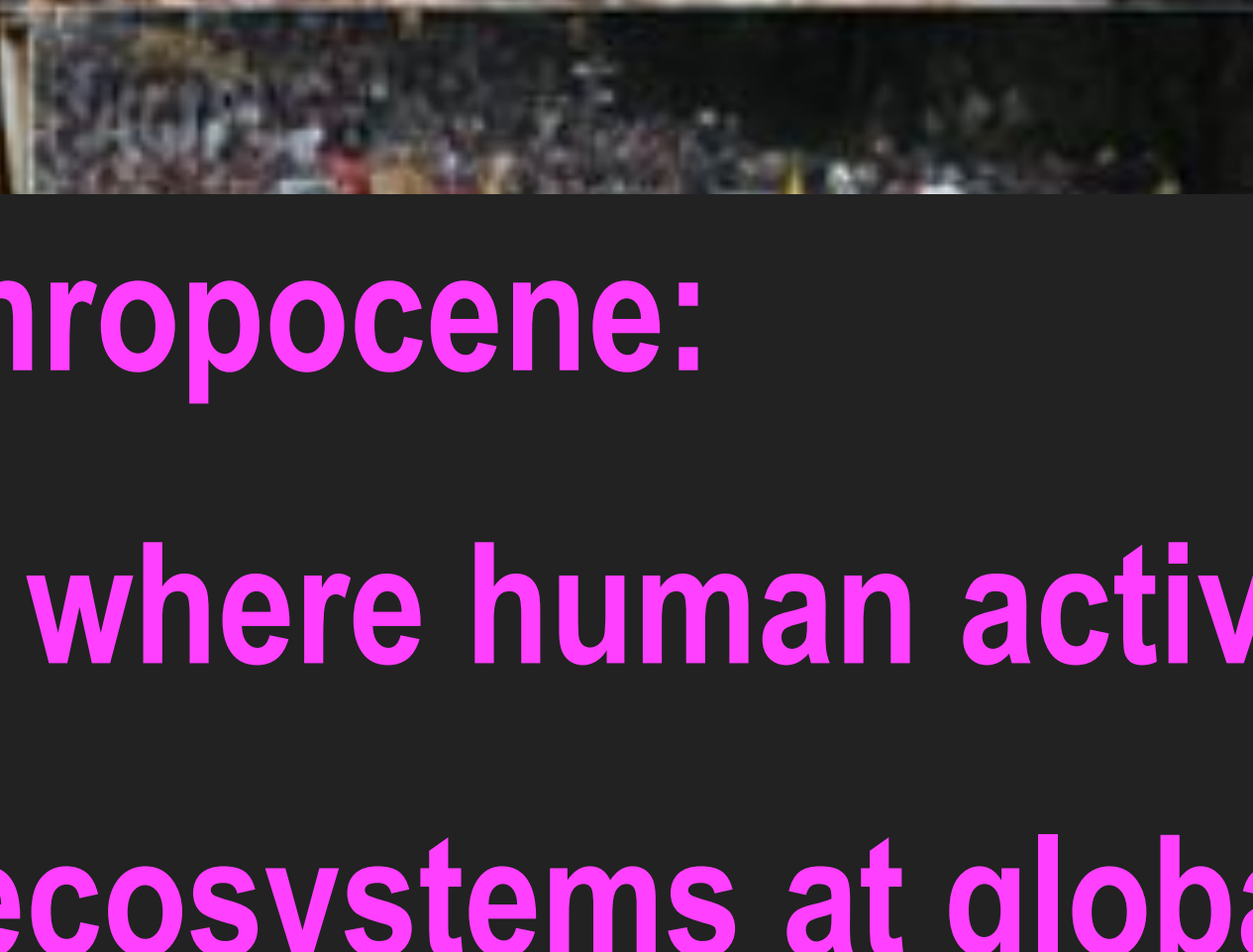
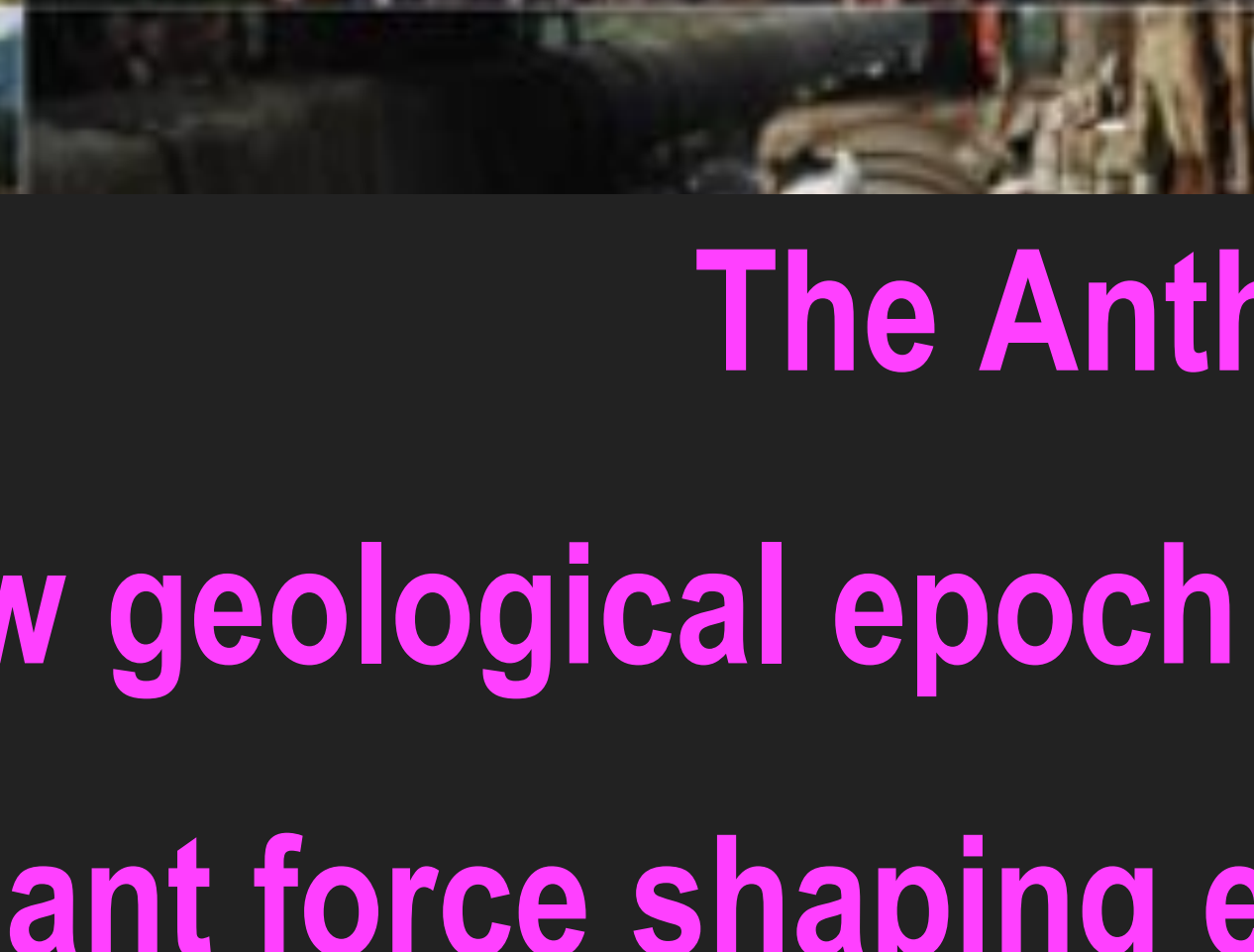
T



H



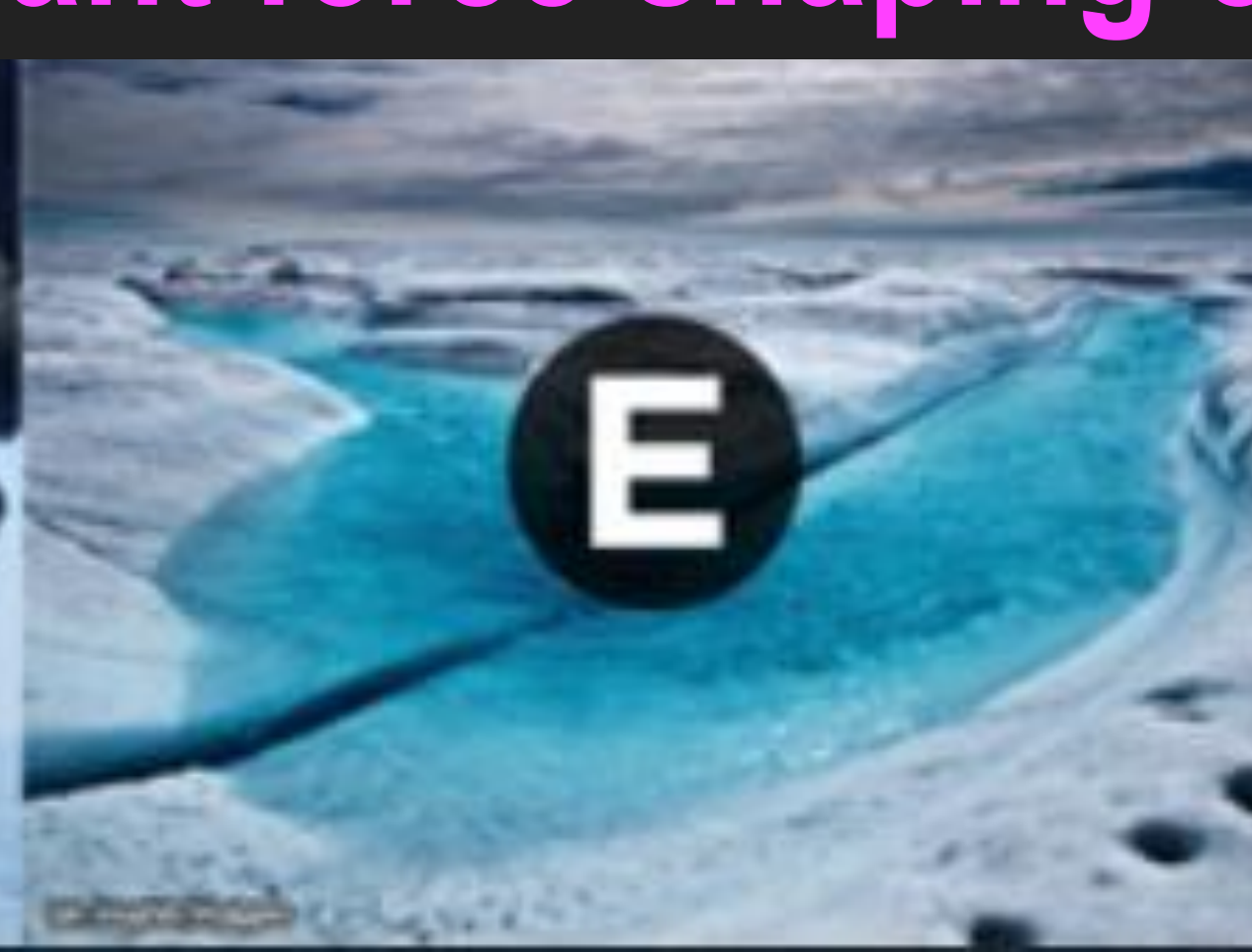
R



O



C



E



N



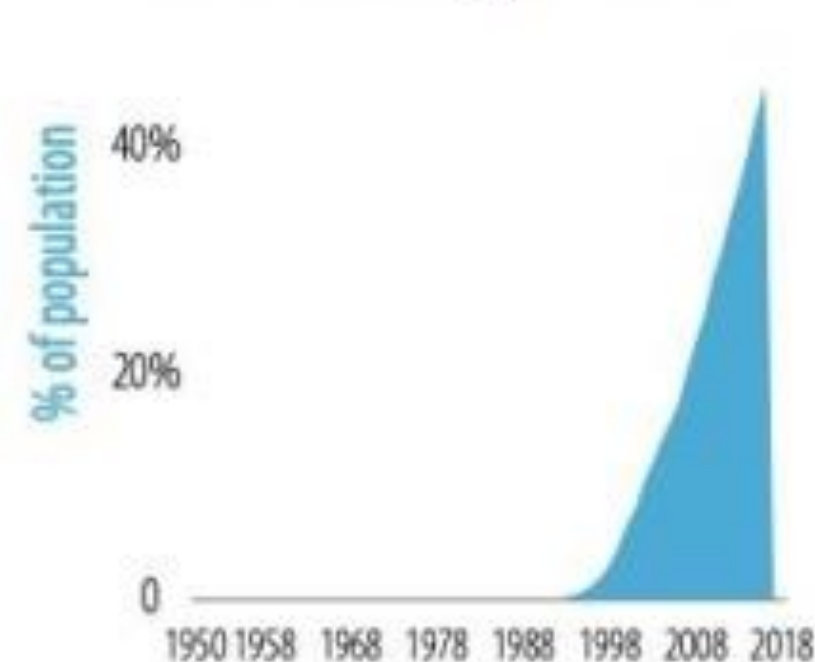
E

The Anthropocene:
A new geological epoch where human activity is a dominant force shaping ecosystems at global scales

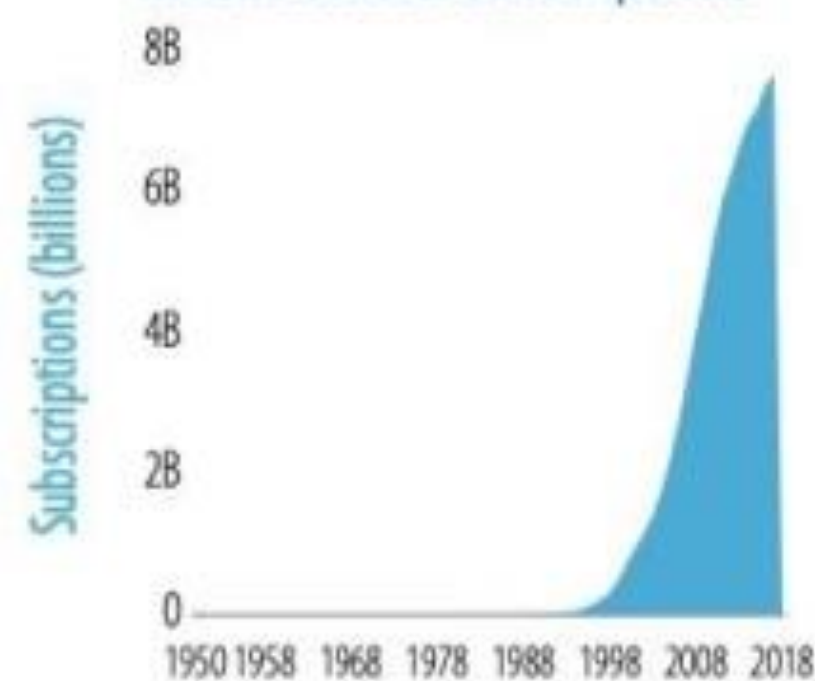


Flows of information

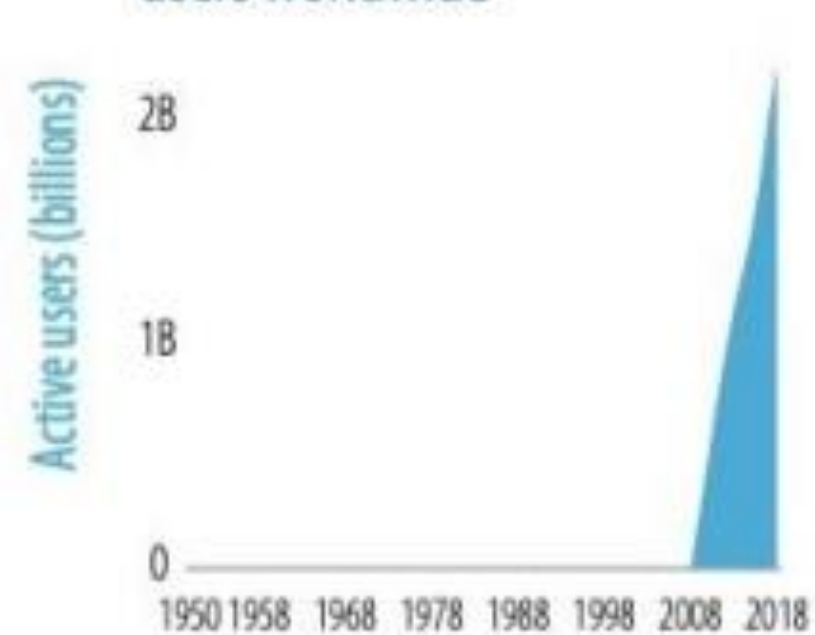
Individuals using the Internet



Mobile cellular subscriptions

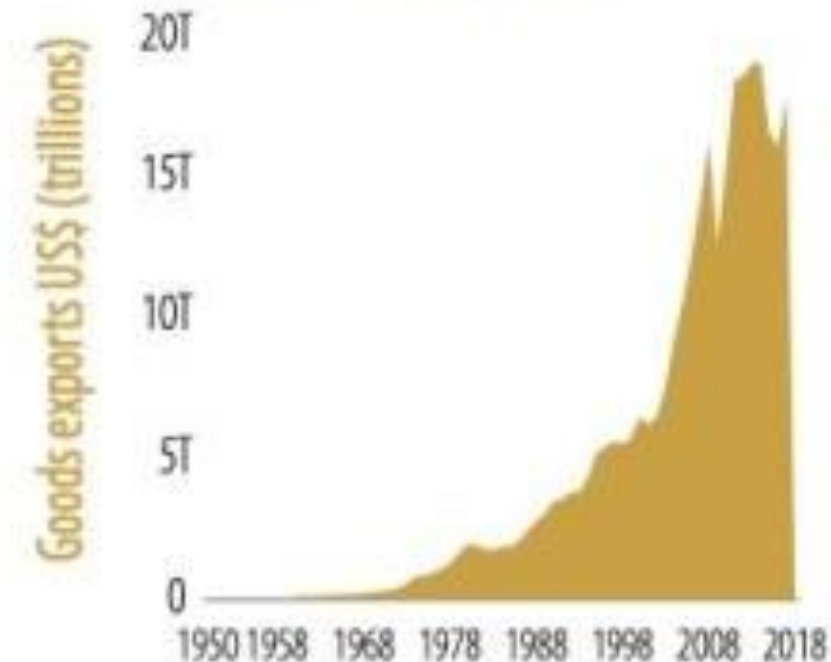


Monthly active Facebook users worldwide

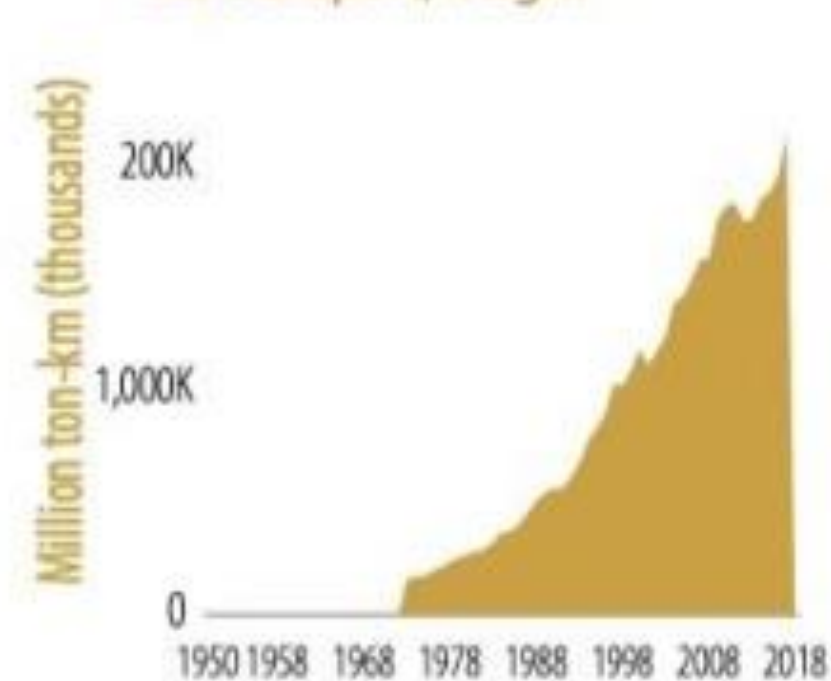


Flows of goods

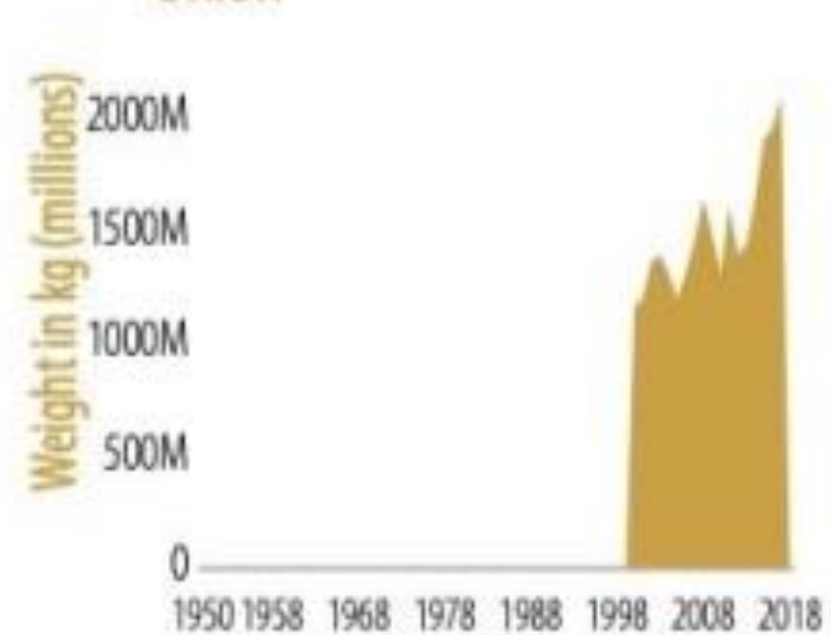
Merchandise exports



Air transport, freight

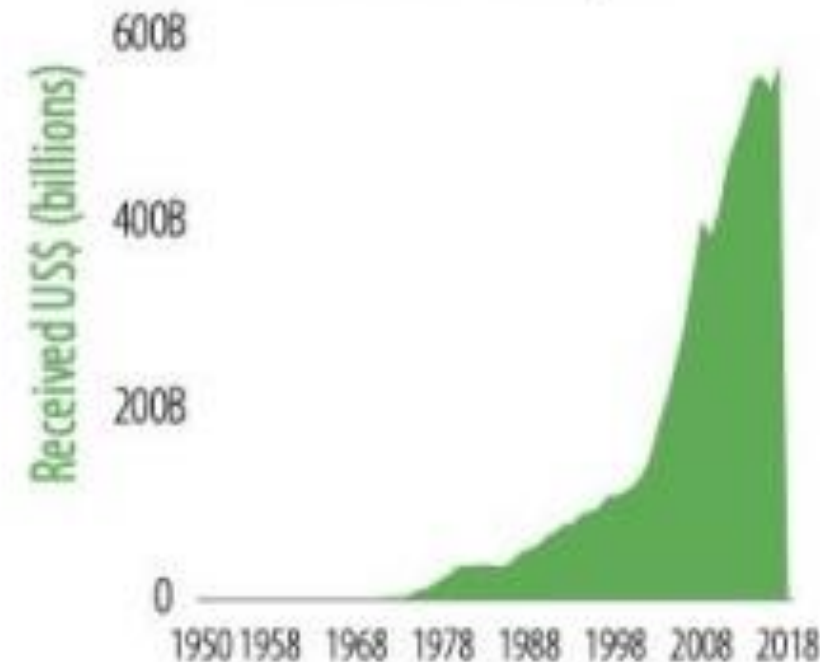


Rice imports by the European Union

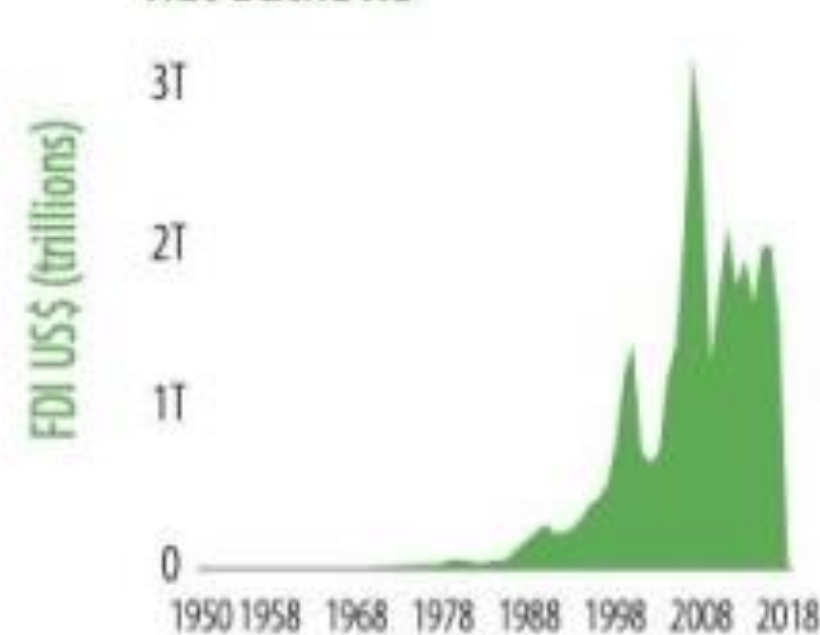


Flows of capital

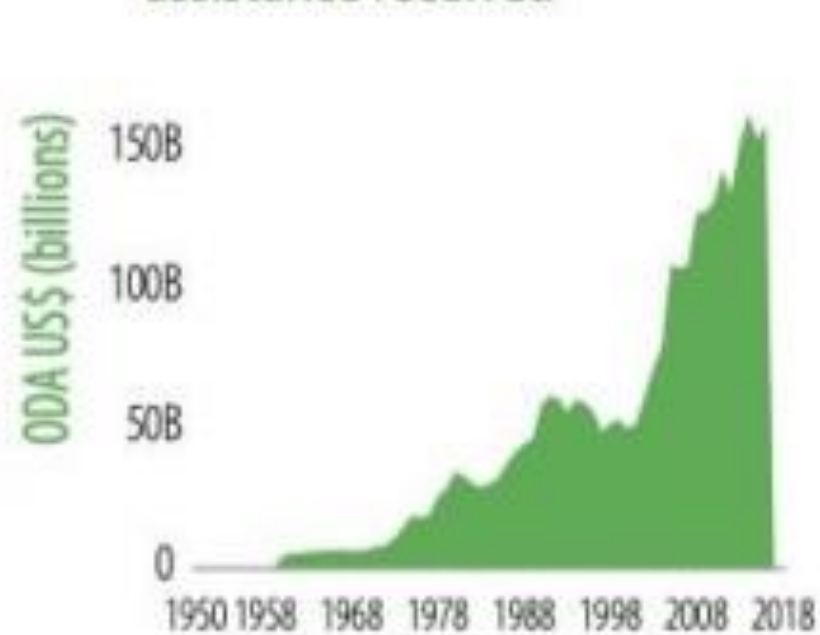
Personal remittances, received



Foreign direct investment, net outflows

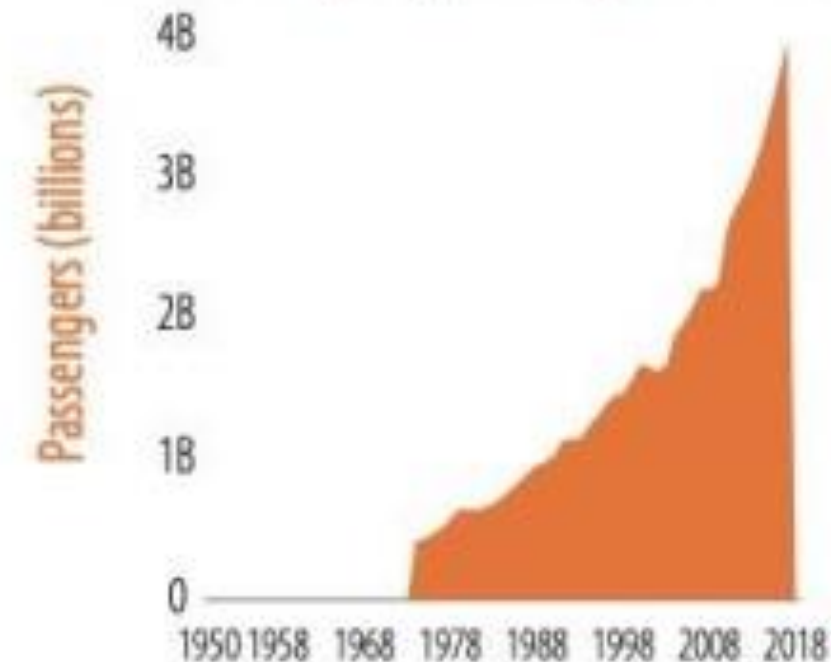


Net official development assistance received

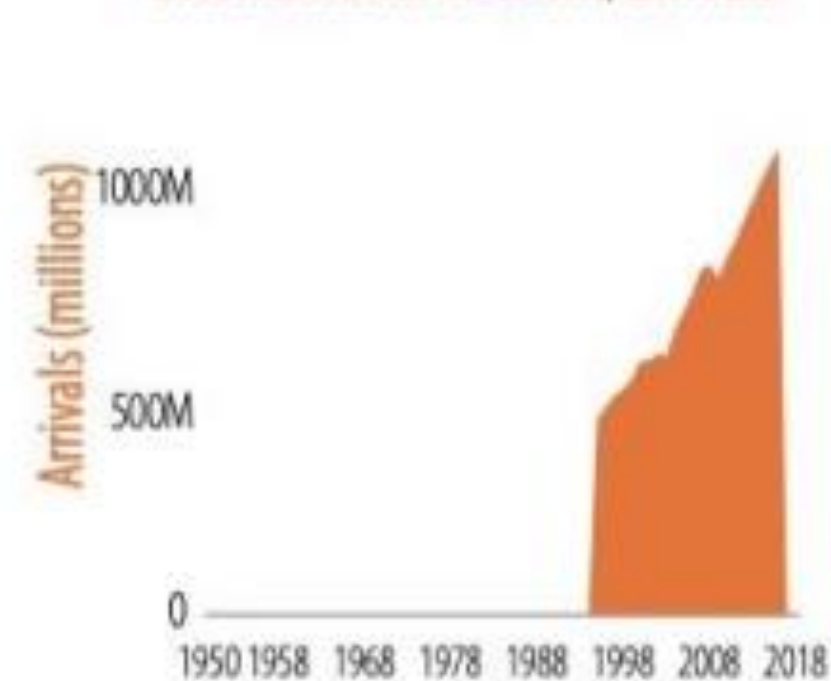


Flows of people

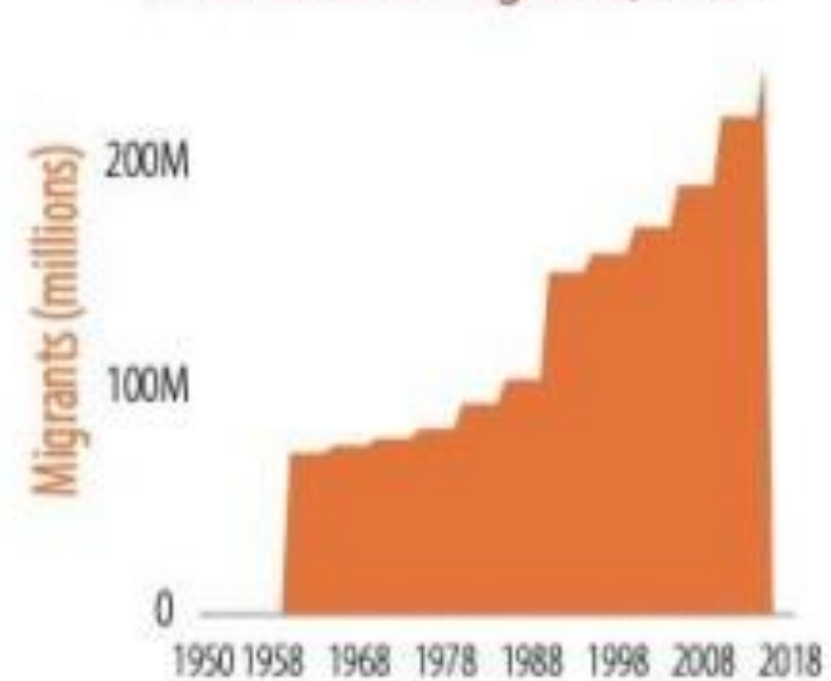
Air transport, passengers carried

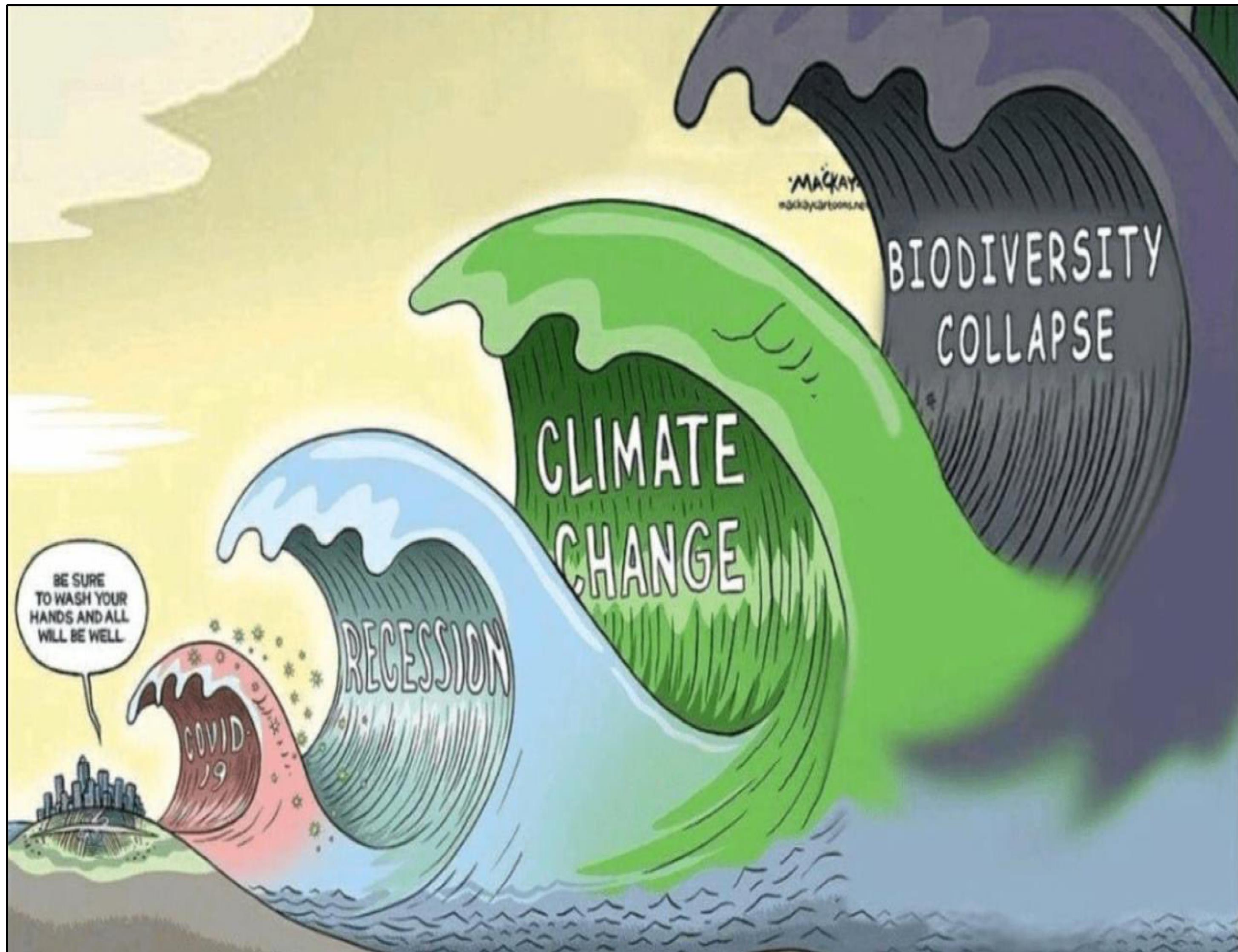


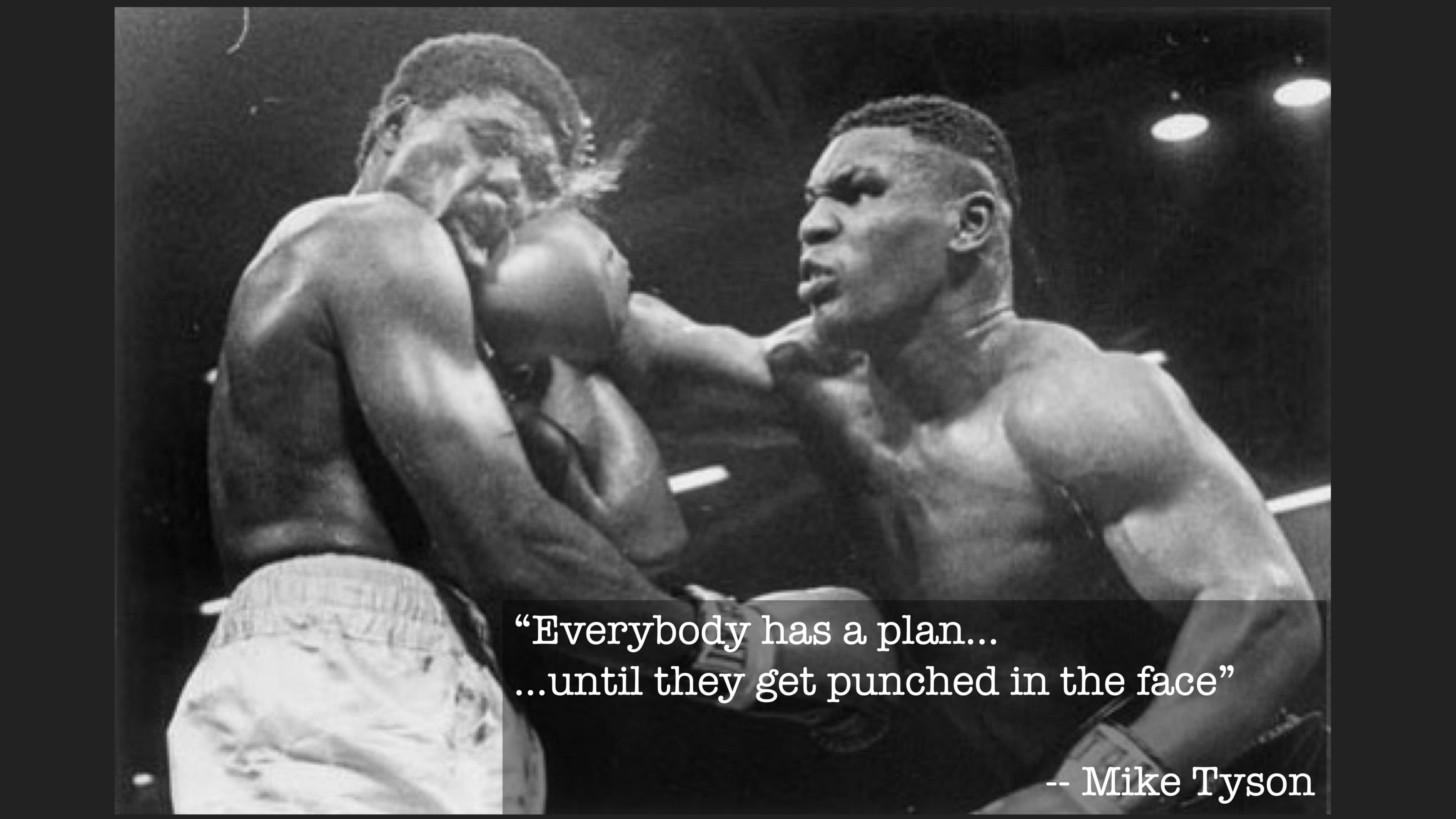
International tourism, arrivals



International migrants, total



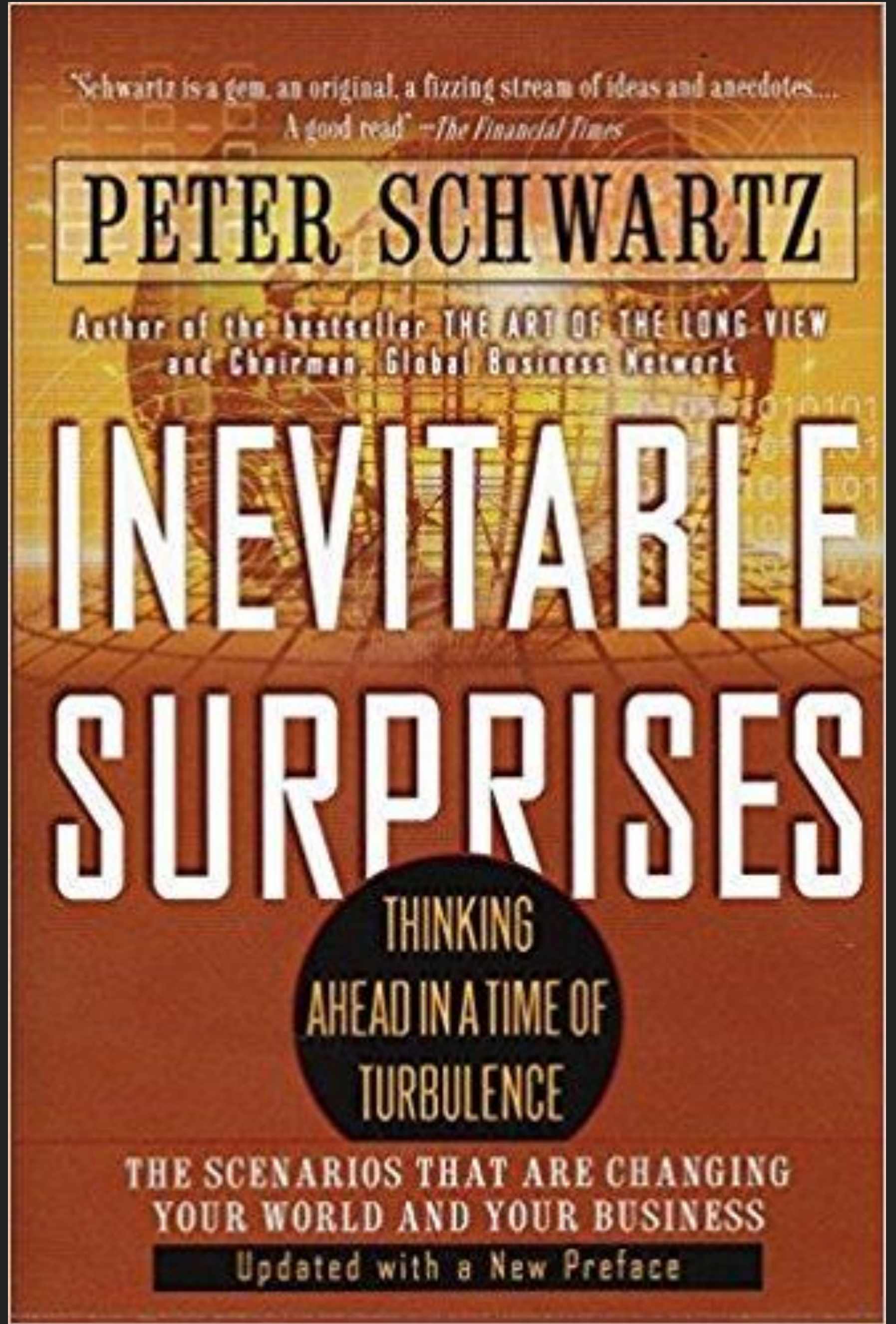
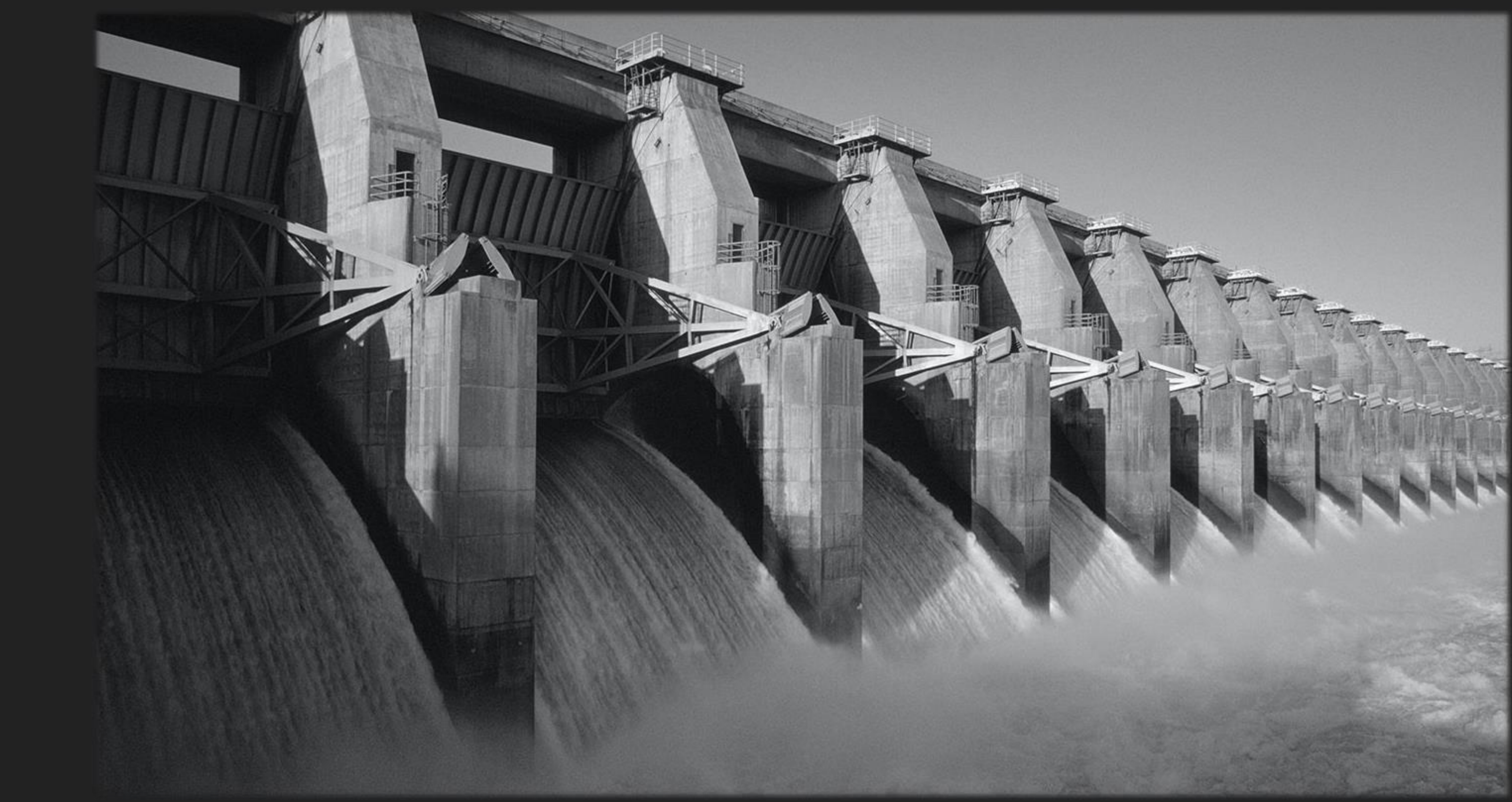
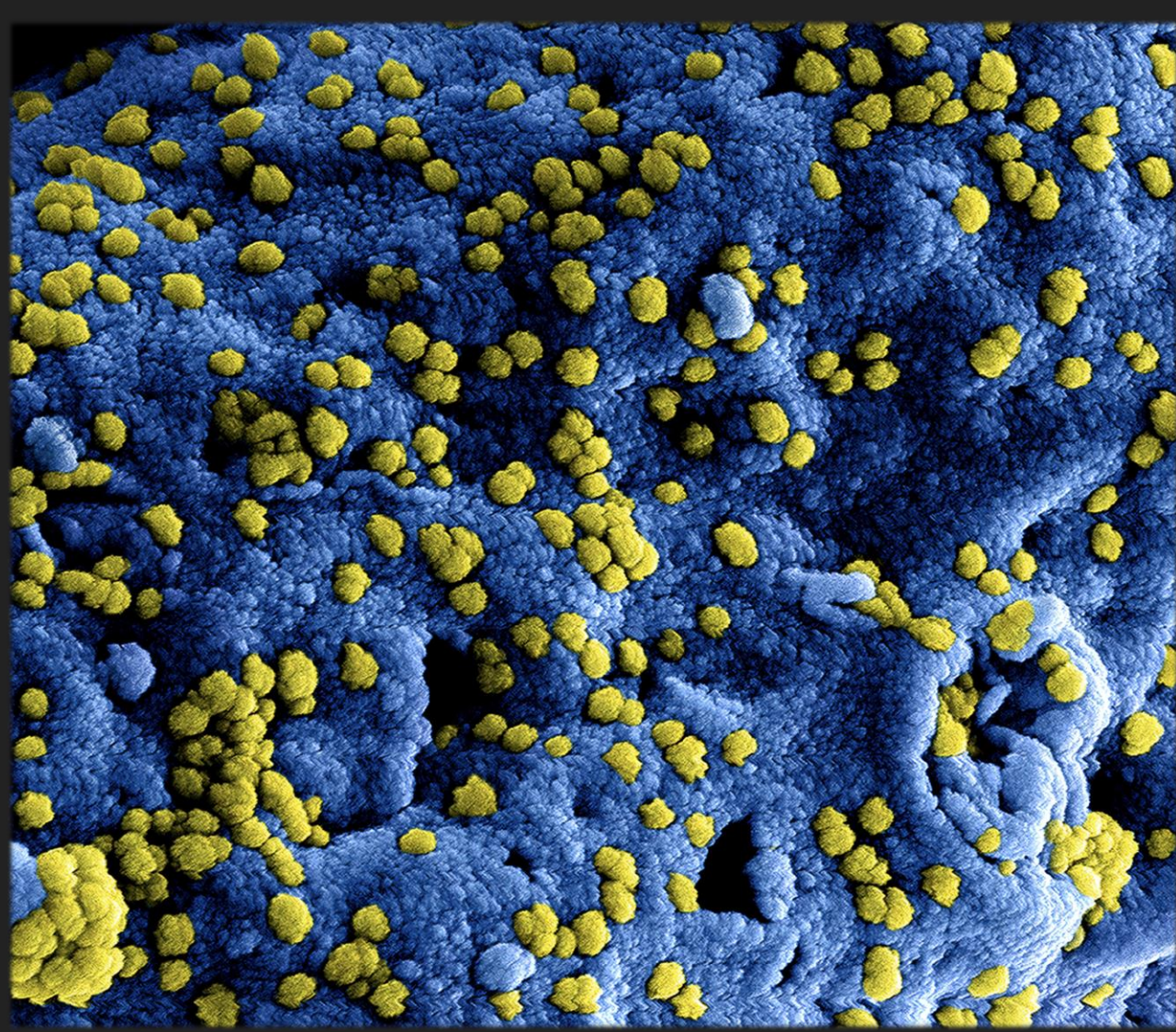


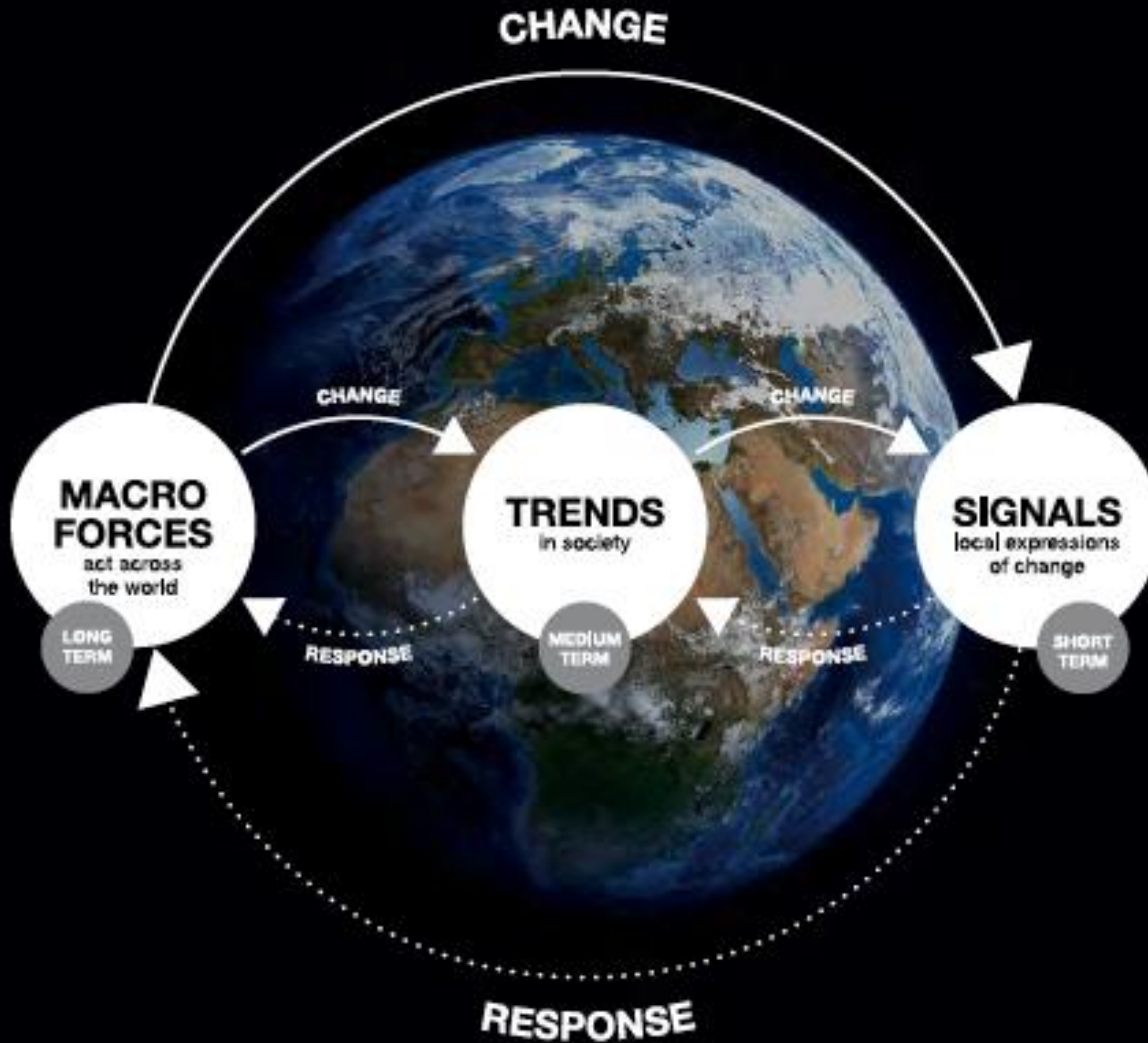
A black and white photograph capturing a moment of intense physical confrontation. On the right, Mike Tyson, shirtless and wearing boxing gloves, is shown in profile, throwing a powerful punch towards the face of another man on the left. The man being punched is also shirtless and appears to be in a defensive or recoiling position. The background is dark, with some out-of-focus lights visible, suggesting an indoor arena or gym setting. The overall tone is gritty and dramatic.

“Everybody has a plan...
...until they get punched in the face”

-- Mike Tyson

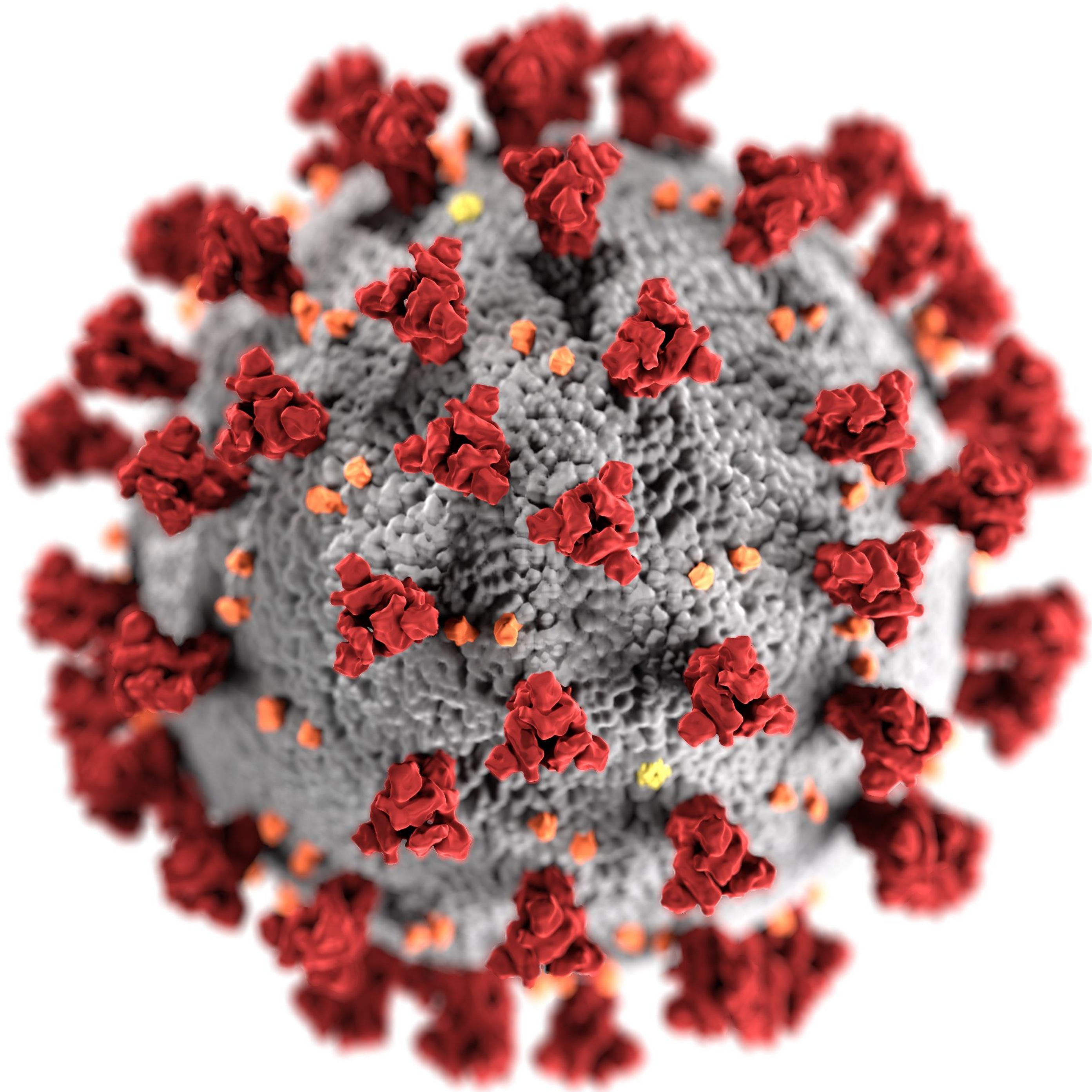
“Predictable Surprises”





Macro forces are the longterm shifts which act across all markets and societies.

At the other end of the scale, signals are localised and short-term expressions of change



“THIS THE FIRST CRISIS OF
THE ANTHROPOCENE –
THE EPOCH OF
SIGNIFICANT HUMAN
IMPACT ON THE PLANET”

- ADAM TOOZE



COVID IS NOT HAPPENING IN A SILO

“STRUCTURAL FORCES SETTING THE PARAMETERS”

DEMOGRAPHICS

ENVIRONMENT

ECONOMICS

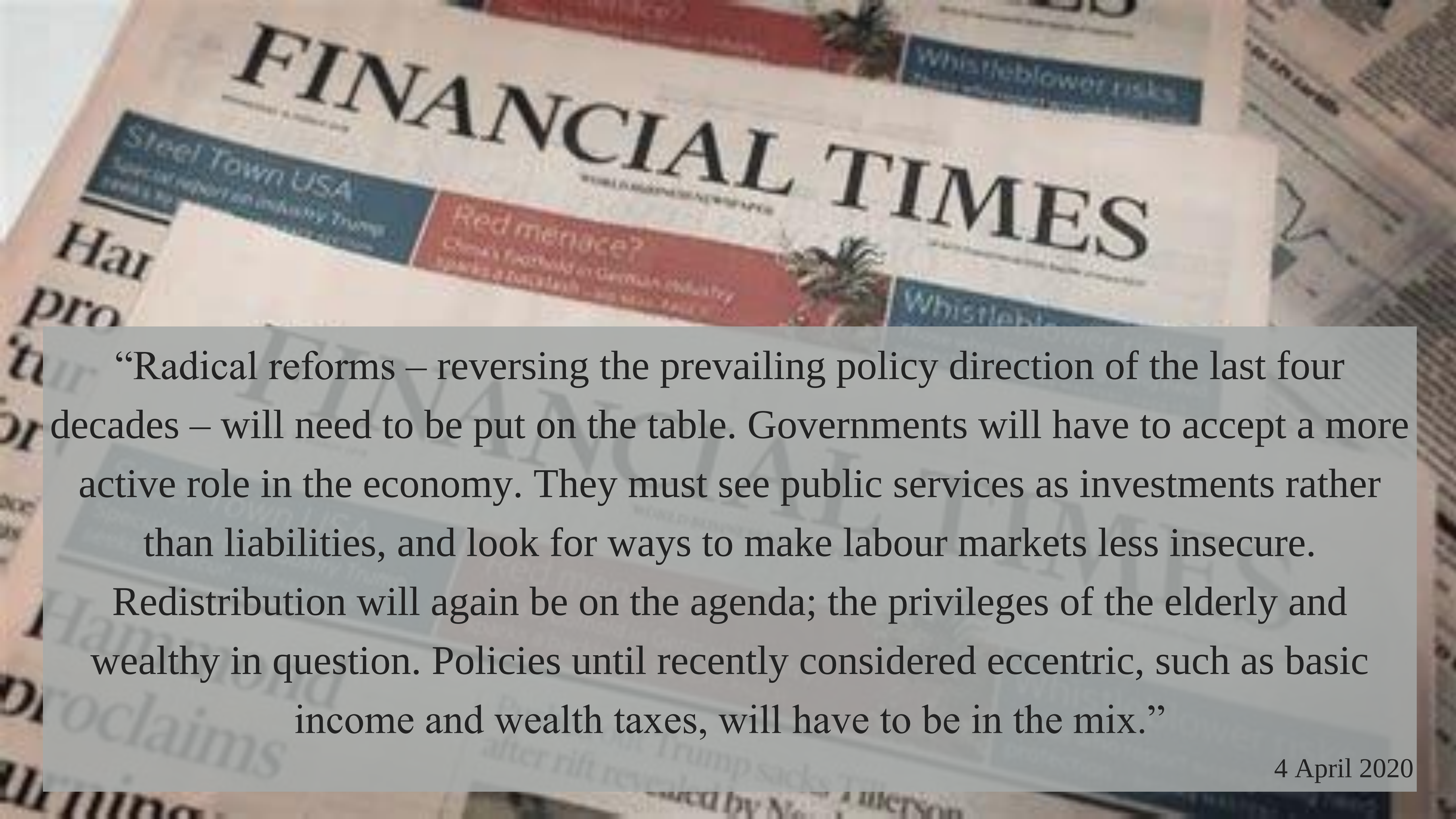
TECHNOLOGY

**“LIMITING WARMING TO 1.5°C IS
POSSIBLE WITHIN THE LAWS OF
CHEMISTRY AND PHYSICS BUT
WOULD REQUIRE UNPRECEDENTED
TRANSITIONS IN ALL ASPECTS OF
SOCIETY”**

FOREWORD, IPCC SPECIAL REPORT ON GLOBAL WARMING OF 1.5°



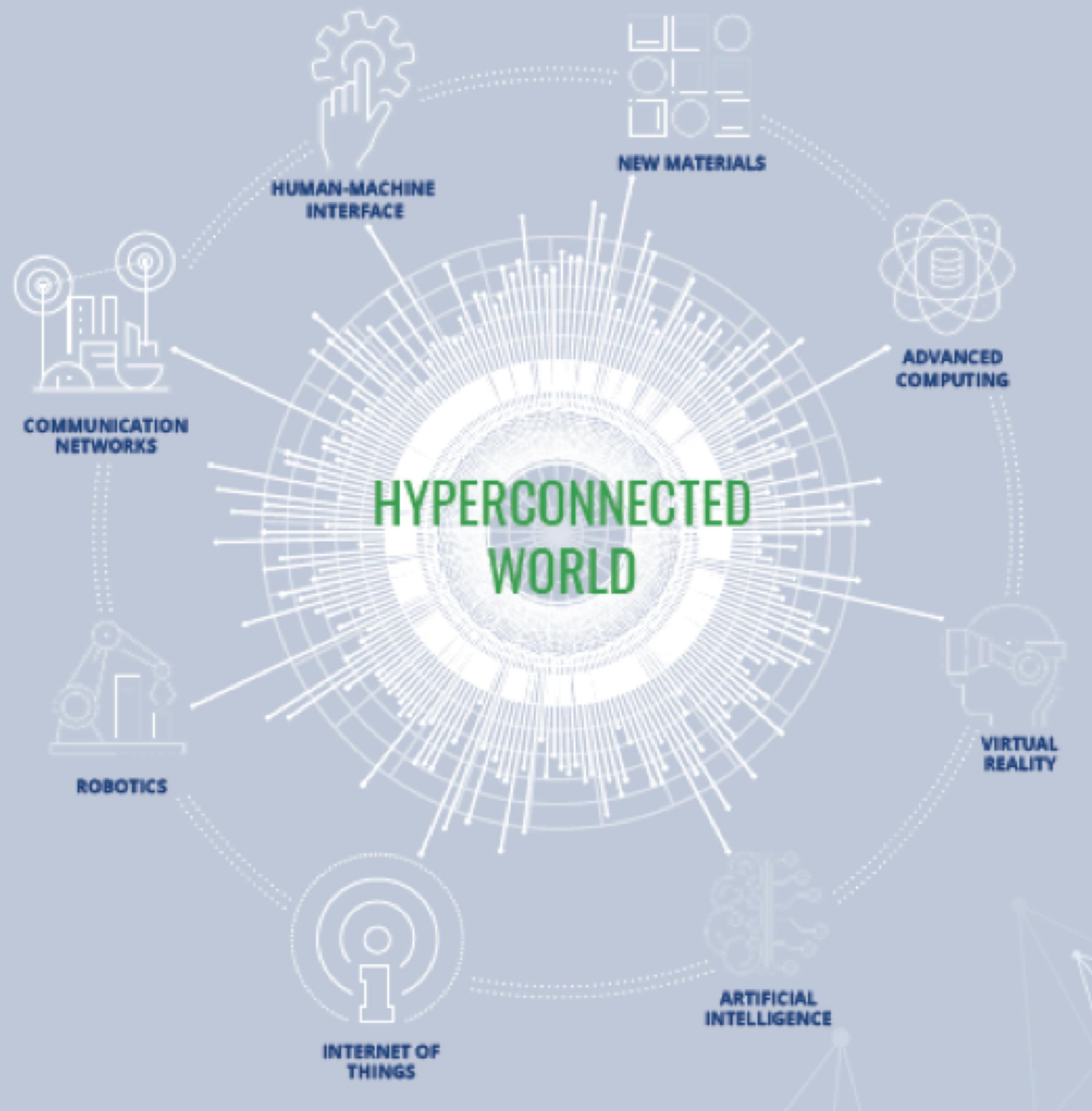




“Radical reforms – reversing the prevailing policy direction of the last four decades – will need to be put on the table. Governments will have to accept a more active role in the economy. They must see public services as investments rather than liabilities, and look for ways to make labour markets less insecure.

Redistribution will again be on the agenda; the privileges of the elderly and wealthy in question. Policies until recently considered eccentric, such as basic income and wealth taxes, will have to be in the mix.”

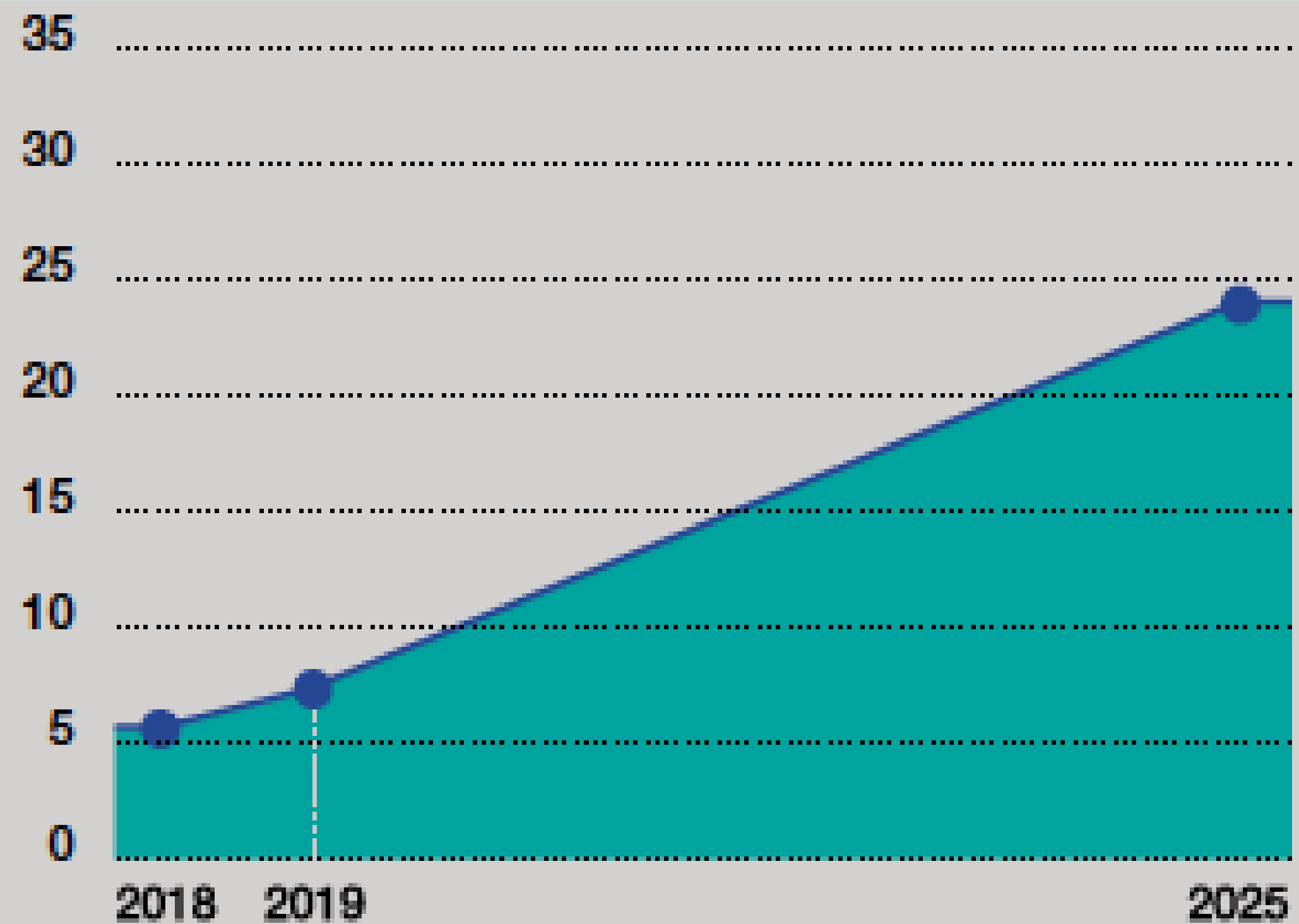
4 April 2020





The amount of data passing through our phones has increased by more than 30% in the last year alone

Data traffic per smartphone in gigabytes (GB) per month

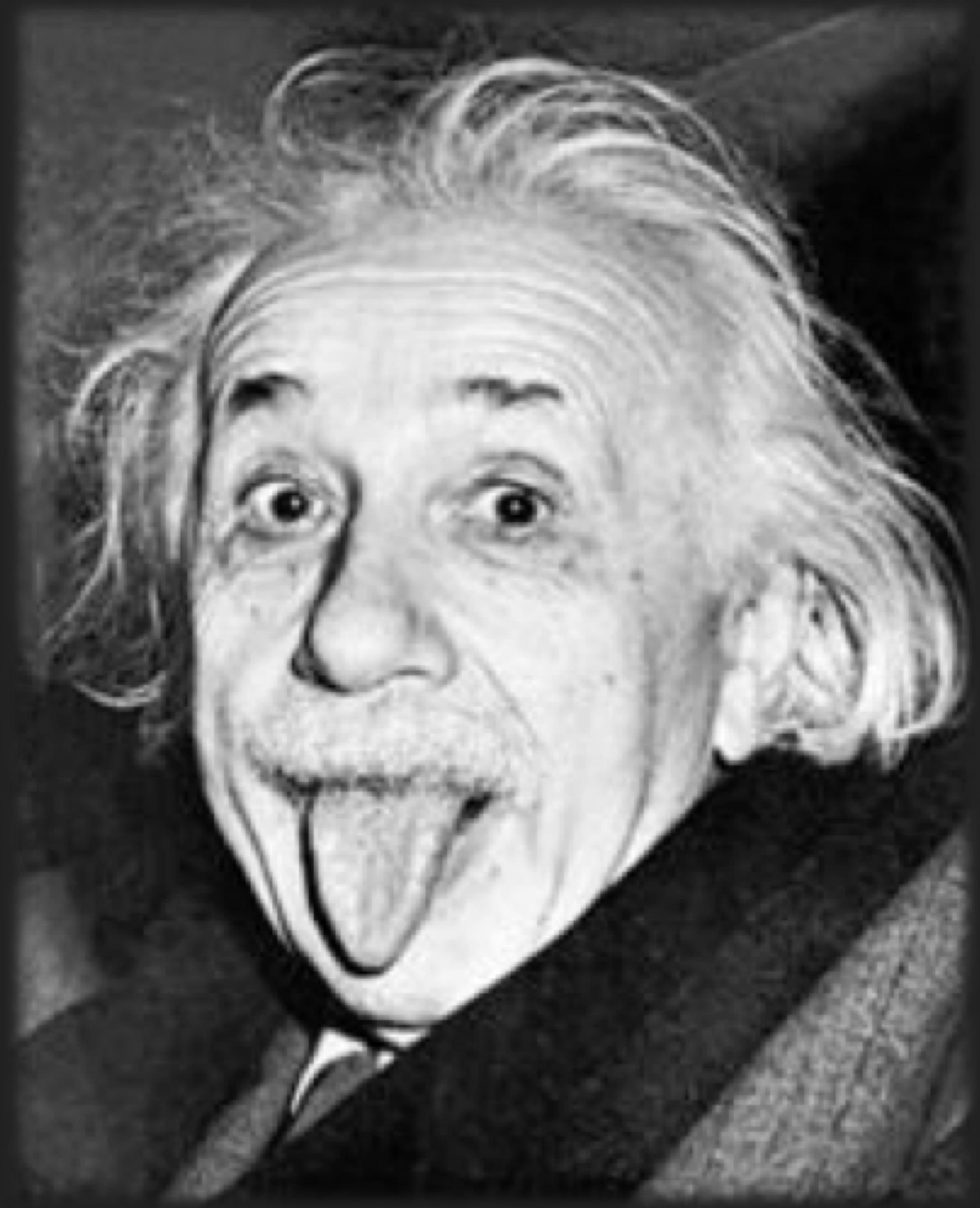


Source: Ericsson Mobility Visualizer

IN A COMPLEX WORLD SMALL CHANGES CAN HAVE MASSIVE EFFECTS

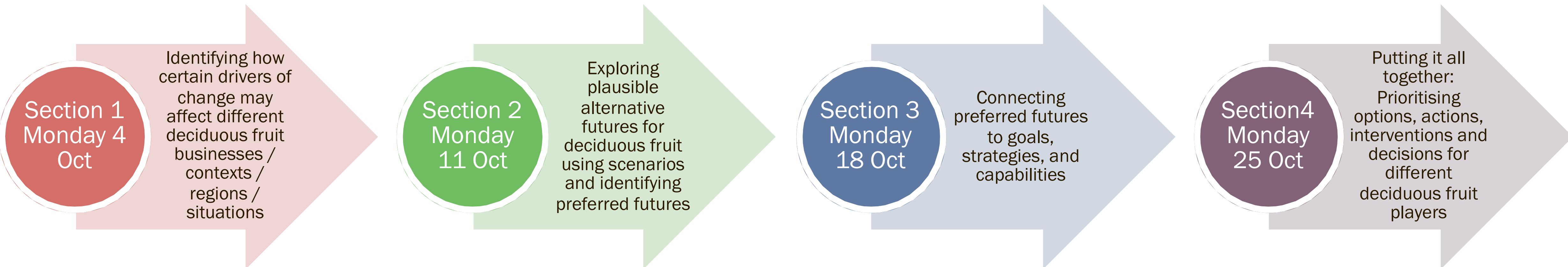


**“WE CANNOT
SOLVE OUR
PROBLEMS WITH
THE SAME
THINKING WE
USED WHEN WE
CREATED THEM.”**

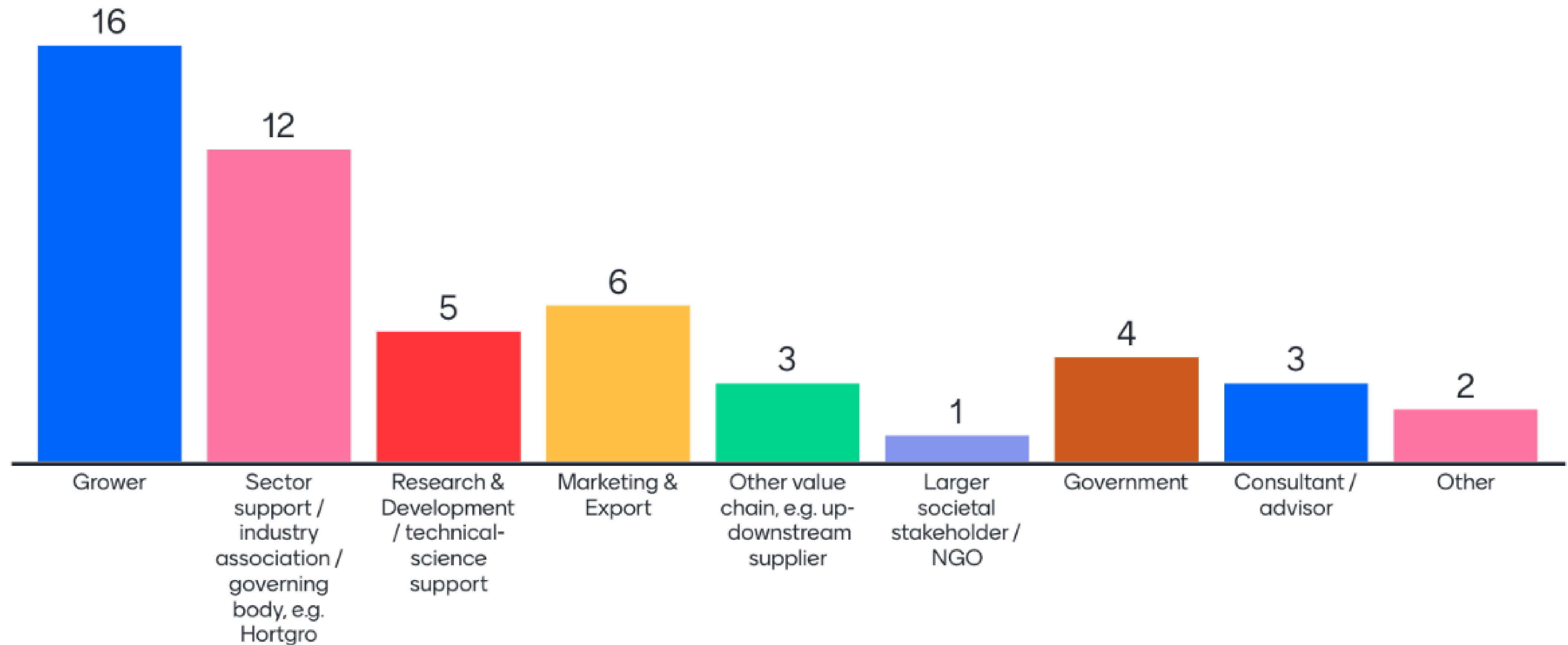


Purpose and objectives of the Hortgro foresight study

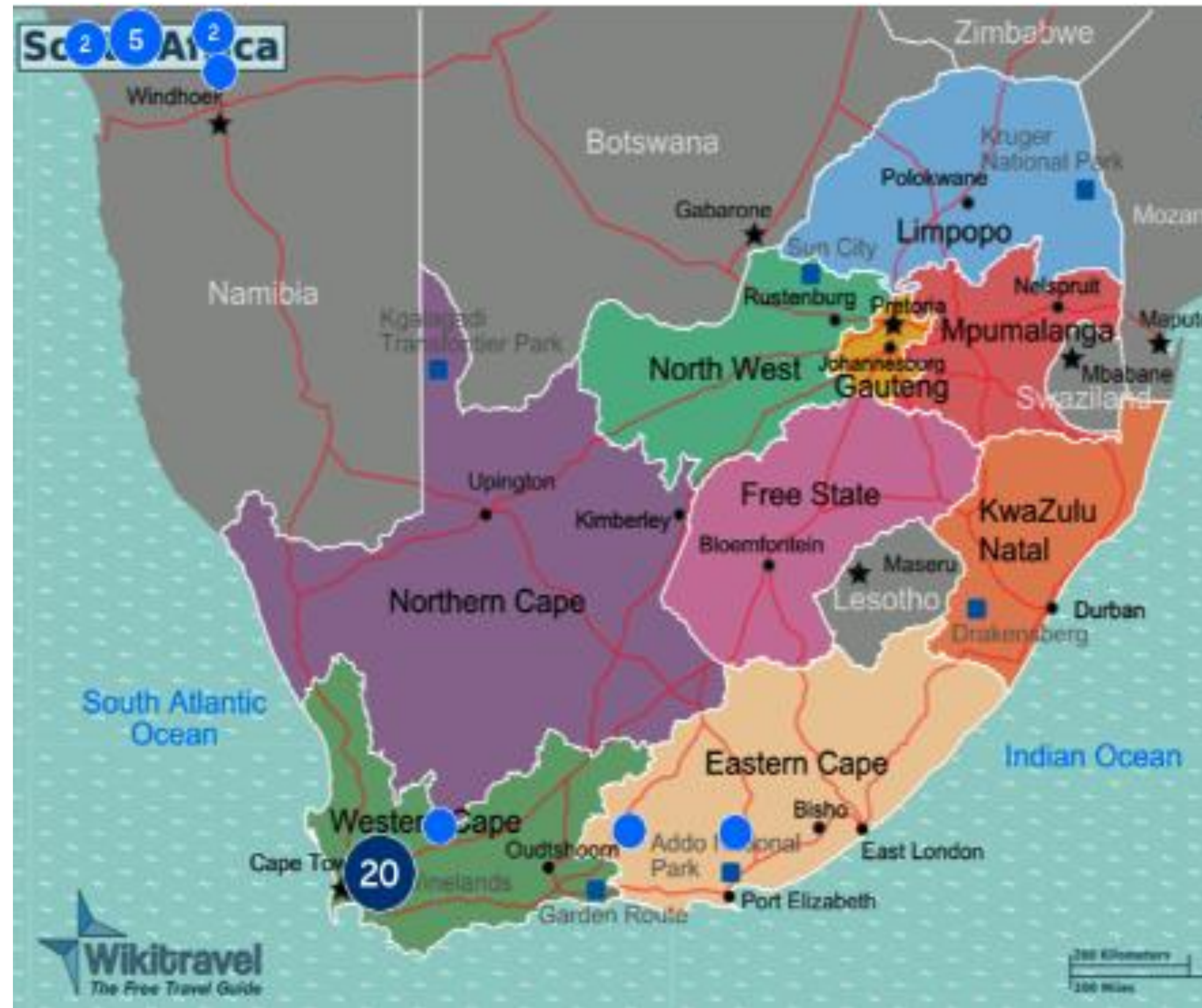
1. Communicate and disseminate the findings of the WC Future of Agriculture report to Hortgro members and stakeholders, engage in discussions with members – how does it affect THEM
2. Structured strategic conversation around the impacts and implications
3. Provide a process, framework, and mechanism so that Hortgro members can participate in long-term strategic foresight work that will inform and complement their more immediate business planning and operational priorities
4. Identify strategic options and actions that will be advantageous to their businesses and the sector
5. Empower members to recognise the value of futures thinking and strategic foresight approaches
6. Provide an ‘enabling environment’ to help align the thinking and strategic direction of the South African deciduous fruit sector so that it can become more resilient, sustainable, adaptable, competitive and ‘future-fit’.



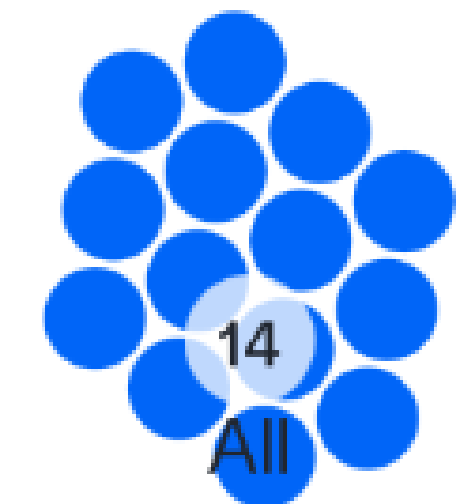
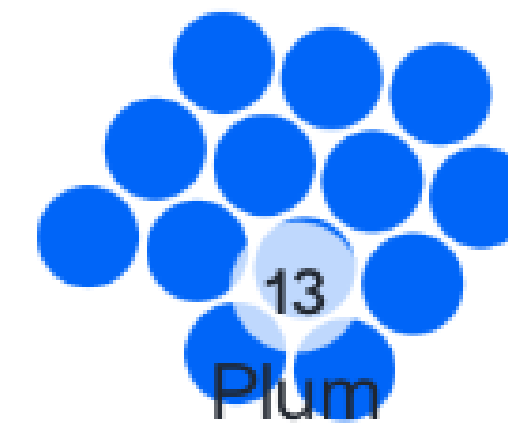
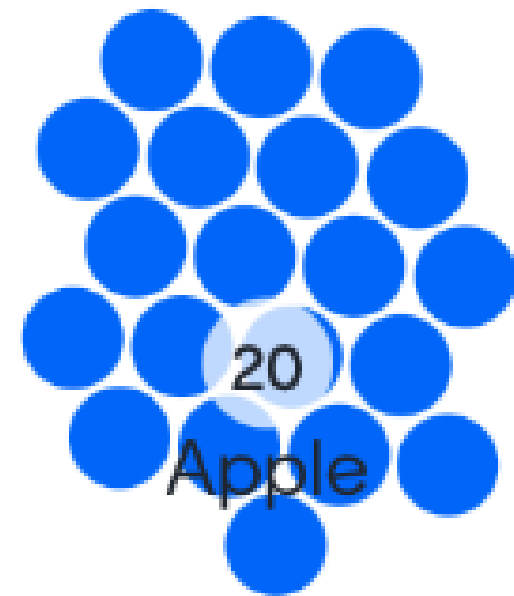
This is how industry was represented in the 1st workshop (n = 42)



If not national, operations / main interests were mostly situated in the Western Cape



This is what fruit type was represented (n = 39)



HIGH IMPACT / HIGH UNCERTAINTY drivers of change, these were clustered, synthesised and ranked by participants as per the table below. The ranked uncertainties were then used to construct 2x2 scenario gameboards with alternative futures for session 2

		1st		2nd		3rd		4th		5th		Total ranked score
		Response	Rank	Response	Rank	Response	Rank	Response	Rank	Response	Rank	
1	Market access	6	30	5	20	3	9	1	2	3	3	64
2	Infrastructure	4	20	5	20	3	9	4	8	3	3	60
3	Water availability	4	20	6	24	3	9	1	2		0	55
4	Extreme weather /Climate	1	5	4	16	8	24	2	4	2	2	51
5	Political instability	4	20	2	8	1	3	2	4	1	1	36
	Regulatory + implementatio	4	20	1	4		0	4	8	3	3	35
	Technology uptake	2	10	1	4	1	3	2	4	2	2	23
	Supply chain		0	2	8	1	3	4	8	2	2	21
	Pesticides & fungicides		0	1	4	3	9		0	5	5	18
	Skills availability	1	5	1	4	1	3	1	2		0	14
	Cost of doing business	1	5		0	2	6	1	2	1	1	14
	Recssession / crash	2	10		0		0	1	2		0	12
	Land tenure		0		0	1	3	3	6	1	1	10
	Social breakdown		0	1	4		0		0	5	5	9
	Invasive species		0		0	1	3		0		0	3
	Consumer demand		0		0		0	1	2		0	2

Top 15 (out of 30) potential shocks / disruptors

1. Drought: Water scarcity, major decline in rainfall, inadequate infrastructure and fierce competition for water from urban areas
2. Cannot export (due to variety of reasons, e.g. protectionism, prohibition on any fossil fuel transport, non-tariff barriers, pests & diseases)
3. Constant destructive extreme weather due to climate change, e.g. drought, storm damage, late frosts, floods, fires, etc. "Constant El Niño"
4. The shadow economy and crimes associated with it grows out of control, e.g. corruption, gangsterism, smuggling, violence
5. Unprecedented hunger – SA badly food insecure / food unaffordable for the masses
6. Soil fertility collapse (due to build up & unrestrained use of salt- and petroleum based fertilisers and weed killers)
7. Collapse of markets / Financial crisis; a prolonged world-wide economic slump
8. Few large corporations capture the sector – smaller farms/businesses cannot survive
9. 4th IR technology creates massive inequalities and divides
10. Exponential growth of alternative proteins
11. More pandemics / zoonosis, e.g. bird flu that crosses over to humans (like 1918 Spanish flu)
12. Loss of biodiversity, e.g. insect pollinators
13. Shortage of skilled labour and lack of technical skills
14. Electricity scarce, unstable and unaffordable
15. Antibiotic use for livestock farming leads to anti-biotic resistance in humans

A preferred future for SA Deciduous fruit

1. Coping with climate change effects, which are foreseeable
2. Well-managed sufficient water supply
3. Production and route to market infrastructure is upgraded and maintained
4. Diverse range of markets easily and affordably accessed by all players
5. Robust supply chain that operates smoothly
6. 4th IR technology uptake benefits all players
7. Good governance, supportive regulatory environment and policy certainty

Participants also generated a long list of options on what to do to get to a preferred future.

Options are literally that; some of the things that the sector and its players could do (either immediately, or over the longer term) to move towards its preferred future, and mitigate against less-preferred futures. Options converted into measurable actions and objectives can become the strategy going forward.

Options → actions

- The few hundred brainstormed strategic activities generated in session 3 were synthesised into a list of 73 actions clustered into 7 categories, namely:
 - CLIMATE CHANGE
 - WATER
 - INFRASTRUCTURE
 - MARKET ACCESS
 - 4TH IR TECHNOLOGY
 - GOVERNANCE /REGULATION / POLICY, and
 - OTHER VARIOUS ISSUES
- Some example prioritised actions:
 - Develop maps showing the future suitability of major production regions for different crops.
 - Create a strategic water-resource plan for each region in conjunction with the government to manage all water resources – including groundwater – holistically.
 - Assist and support the government in developing the regulatory space, for example by seconding capable people to the government to address key issues.
 - Encourage a focus on agricultural technology and engineering at local universities.
 - Position the fruit industry as an essential sector that the government needs to take seriously. Demonstrate that the industry and lead the way in for example, job creation. Build on the good experience of transformation in industry.
 - Embed strategic foresight – including visioning and anticipatory planning – in the industry.

FUTURES WORK IS RARELY ABOUT ACCURATE PREDICTION. IT IS ALMOST ALWAYS ABOUT STAGING A USEFUL INTERVENTION WHICH ENCOURAGES DISCUSSION OF THE MOST CHALLENGING ASPECTS OF THE PRESENT... THE BEST FUTURES PROJECTS TAKE ON DIFFICULT SUBJECTS OF TODAY, CAST THEM FORWARD, THEN REFLECT THEM BACK UPON THE PRESENT IN ORDER TO MAKE THEM DISCUSSABLE, NOW.

Noah Raford

Zoom Meeting

ording...

 Odirilwe Selomane	 Tanja Hichert	 James Reid	 Mari-Lise du Preez	 Ndeapo Wolf
 Wiehann Steyn	 Jacques du Preez - Hortgro	 Sizzie Dinwa	 Marius vd Westhuizen	 Handri.Conradie
 Waheed Mahomed	 Niël Joubert	 Nic Dicey - Hortgro	 Scienceboardroom Science...	 Lucien Jansen
 Andre Smit	 Justin Mudge	 Hammies Hamman	 Anton Rabe	 Dirk Troskie
 Gulu Bekker	 Charl Herbst	 Albert Strever	 Ilse van Schalkwyk	 Mariette Kotze

A low-angle, upward-looking photograph of several modern skyscrapers with glass facades. The buildings are arranged in a circular pattern, creating a sense of height and architectural grandeur. The sky is a pale, clear blue. The text "Q & A" is centered in the middle of the image in a blue, sans-serif font.

Q & A

Adriaan Theron: Ceres Fruit Growers	James Reid: Red Ant Agri Engineering
Albert Strever: Agri Innovation & Informatics, Stellenbosch University	Justin Mudge: Chiltern Farm
André Smit: Fruitec-SA, Hortgro Director	Lucien Jansen: PPECB
Angelique Pretorius: KROMCO	Mariette Kotze: Hortgro
Angelo Petersen: Petropulos Consulting, Hortgro Director	Marius vd Westhuizen: Southern Fruit Growers, Pome Producer Council
Anton Rabe: Hortgro Executive Director	Marno vd Westhuizen: Hortgro
Charl Herbst: Stanislaus Agri, Pome Producer Council	Matthew Addison: Hortgro
Charl Stander: Freshness First, Stone Producer Council	Mono Mashaba: Africa Excel Advisory Services, Hortgro Director
Danell du Toit: De Keur Agri, Pome Producer Council	Nic Dicey: La Plaisante Estate, Hortgro Chairperson
Danie Viljoen: Graaff Fruit	Niël Joubert: Warmwater Farm
David Hendricks: Nulandis Agriculture	Ockie Geldenhuys: Normat Farms, Pome Producer Council
Dirk Troskie: Western Cape Department of Agriculture	Paul Clüver: De Rust Estate, Pome Producer Council
Fhumulani Ratshitanga: Fruit South Africa	Petru du Plessis: Bonne Esperance, Stone Producer Council
Francois Bekker: Dept of Conservation Ecology and Entomology, US	Rey Rademeyer: JCD Rademeyer Boerdery
Gerrit van der Merwe: Fonteintjie	Ross Heyns: Glen Fruin Farming
Goodwell Dingaan: Western Cape government	Shelly Fuller: WWF - SA
Hammies Hamman: Ceres Fruit Growers	Siziphiwe Dinwa: Dutoit Fruit
Handri Conradie: At Source Handmade Foods, Stone Producer Council	Stefan Beukes: Dennegeur Boerdery
Hannes Halgryn: Fruitways Group	Stephan Strauss: Sandrivier Estate
Hein Keulder: Fruitways Group	Tara Southey: Dept of Geography and Environmental Studies, US
Henk Griessel: Tru-Cape	Ullrich Arendse: Hortgro
Hubert Leclercq: RuBisCO	Waheed Mohamed: SAPO
Hugh Campbell: Hortgro	Wiehann Steyn: Hortgro
Ilse van Schalkwyk: Western Cape Government	Willem Coetzee: Dutoit Agri
Jacques du Preez: Hortgro	Xolela Dlikilili: Hortgro