

# Megatrend 6

## Politics & Governance

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# The Roland Berger Trend Compendium 2050 focuses on stable long term developments ...

- > The **Roland Berger Trend Compendium 2050** is a global trend study compiled by **Roland Berger Institute (RBI)**, the think tank of Roland Berger. Our Trend Compendium 2050 describes the **most important megatrends** shaping the world between **now and 2050**
- > Our **trend views are based on expert sources and assessments**. Estimates reflect the normal case, i.e. a stable development of the global economy
- > To incorporate today's uncertainties into strategic planning, we recommend **combining the megatrends of the Roland Berger Trend Compendium 2050** with the **Roland Berger scenario planning approach**

**Is it worth dealing with megatrends when there are such drastic global events as the Corona pandemic taking place?**

**Clearly yes!** The Corona pandemic has far-reaching consequences and affects us deeply, all within a very short time – but in itself the pandemic does not set aside the megatrends here analyzed. Such is the inherent nature of megatrends: Climate change, the aging of society or the ongoing evolution of technology do not lose their overriding direction or importance. To cope with such challenges – and to master resulting opportunities – our awareness and understanding of these megatrends is paramount in order to develop sustainable answers

... and covers six megatrends that shape the future development of our world until 2050

1

**People &  
Society**



Population  
—  
Migration  
—  
Values  
—  
Education

2

**Health  
& Care**



Pandemics &  
Other Wildcards  
—  
Diseases &  
Treatments  
—  
Caregiving

3

**Environment  
& Resources**



Climate Change  
& Pollution  
—  
Resources &  
Raw Materials  
—  
Ecosystems  
at Risk

4

**Economics  
& Business**



Globalization  
Revisited  
—  
Power Shifts  
—  
Sectoral  
Transformation  
—  
Debt Challenge

5

**Technology  
& Innovation**



Value of  
Innovations  
—  
Frontier  
Technologies  
—  
Humans &  
Machines

6

**Politics &  
Governance**



Future of  
Democracy  
—  
Governance  
Challenges  
—  
Geopolitics &  
Global Risks

# The decline of democratic traits accelerates – Autocratization trends and democracy fatigue will pose challenges to global governance

Subtrends of megatrend "Politics & Governance"



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Future of Democracy



2  
Governance Challenges



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Geopolitics & Global Risks

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Democracy

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Geopolitics &  
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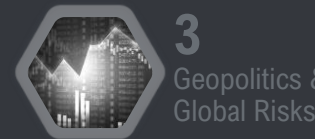




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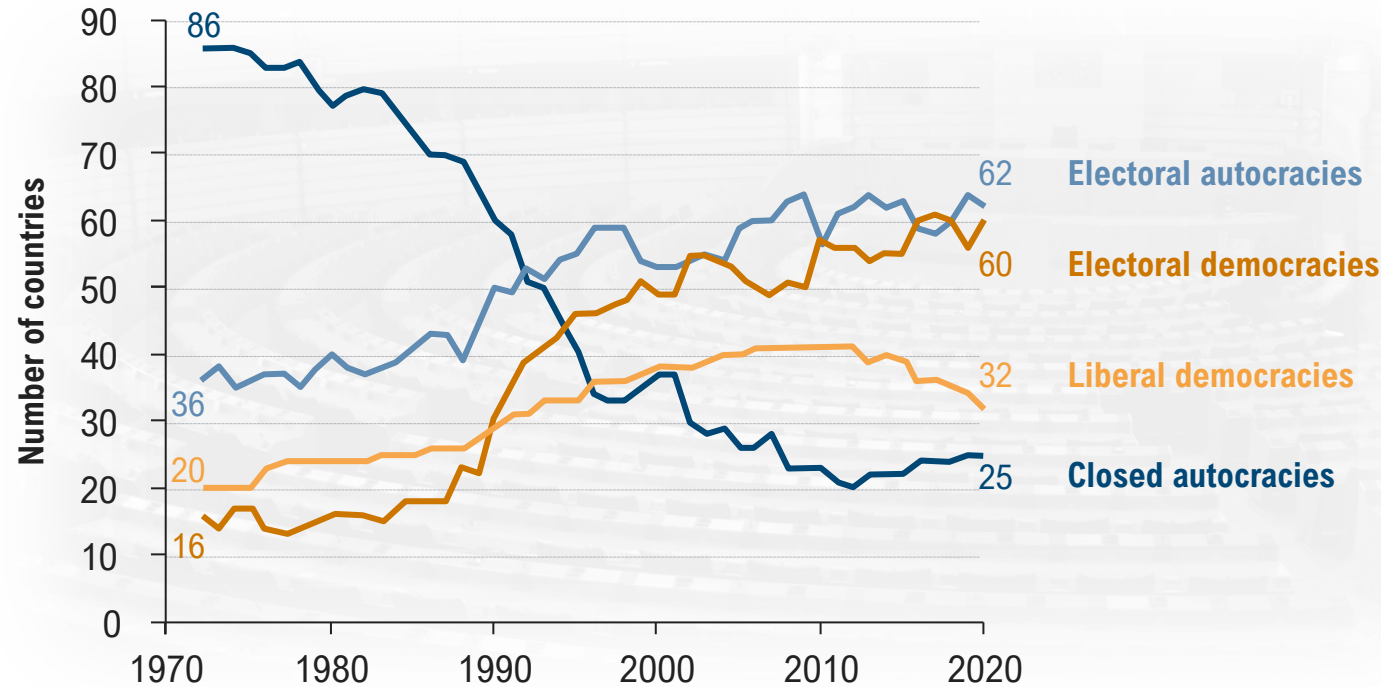
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## The future of (liberal) democracy is under threat – Autocratization trends have surged over the past decades ...

Number of countries under four regime types, 1972-2020



The University of Gothenburg varieties of democracies (V-DEM) dataset covers 470+ indicators for 200+ countries; according to V-DEM, **electoral democracies** are systems where a number of institutional features guarantee free and fair elections, such as freedom of association and freedom of expression; **liberal democracies** in addition include protection of individual liberties, and checks and balances between institutions; **autocracies (electoral or closed)** display a sliding lack of such features

1) Uncertainty remains about the classification of countries exhibiting similar degrees of authoritarian and democratic traits and thus are close to the thresholds between regime types. Taking this uncertainty into account, the number of autocracies could range from 79 to 98, with 87 being a best estimate in 2020

Sources: University of Gothenburg/V-DEM Institute; Roland Berger

- > **Electoral autocracies** are the **most common regime** type: Of 179 countries (where sets of data are available) at least<sup>1)</sup> **87 autocracies (electoral or closed)** stand vis-a-vis **92 (liberal or electoral) democracies**
- > **Nationally**, this autocratic shift is exemplified by **Hungary**, more recently classified as the EU's first ever authoritarian regime member state
- > **A gradual process**: Autocratization is affecting India, Turkey and Brazil, which are major populous G20 economies with substantial political and military influence; six of the top 10 decliners became autocracies, including Serbia, and three new nations join the top 10 major autocratizers: Benin, Bolivia, and Mauritius
- > **Closed autocracies**, whose numbers have begun to **increase again** over the past decade, now encompass 25 nations, including, for example, Thailand

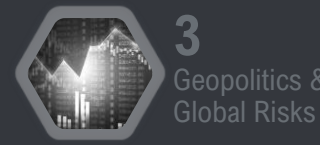




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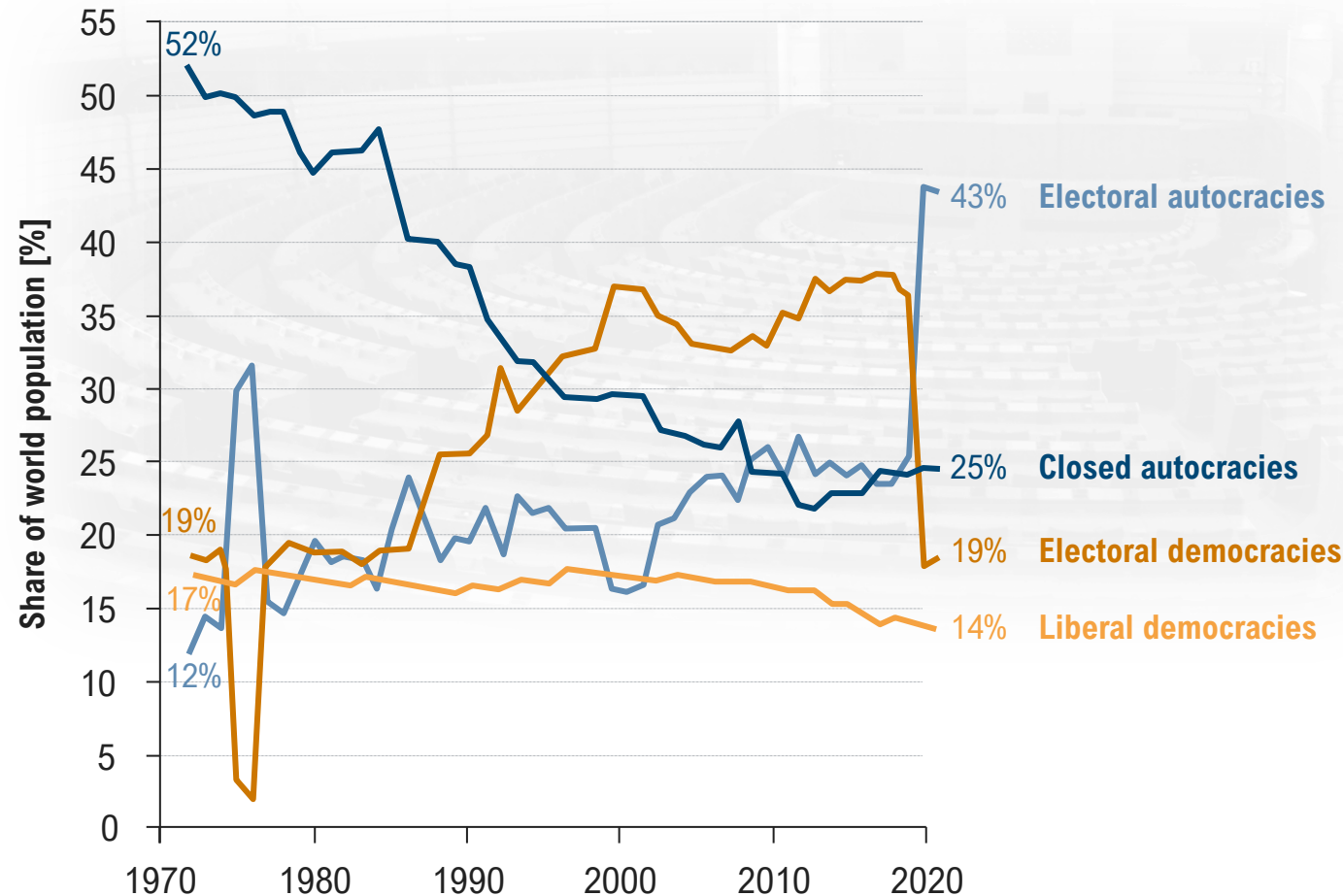


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## ... increasing the share of the global population not living under democratic regimes to 68% in 2020 – India's 1.37 billion boost this trend

Share of global populations living under four regime types, 1972-2020<sup>1)</sup> [%]



- > The magnitude of the decline in democracy is much **larger when accounting for population size**, indicating that many more people live in autocratizing than in democratizing countries: **Together, electoral and closed autocracies are now home to 68% of the world's population** – 43% and 25% respectively – and up from **48% a decade earlier**
- > **Electoral autocracies** continue not only to be the **most common regime** type but also the **most populous**. A major (though contested) case in point is that the world's largest democracy and home to 1.37 billion people recently turned into an electoral autocracy: **India**
- > By contrast, the number of **liberal democracies** (32) is slowly decreasing – their **population share** now stands at only **14%**
- > **Electoral democracies** account for the remaining **19%** of the global population – a figure much changed over the past fifty years, only to fall back now to its 1970 level
- > On V-DEM indicators overall, the **level of democracy** enjoyed by the **average global citizen in 2020 is down to the levels around 1990**

1) Based on 87 countries (best estimate) under autocratic regime; the sum in 2020 is 101% due to rounding  
Sources: University of Gothenburg/V-DEM Institute; Roland Berger

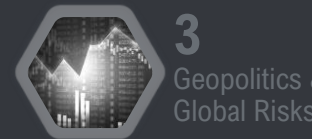




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## Within democracies, the public mood displays an unhappy trend – A rising level of dissatisfaction and democracy fatigue makes for a risky mix

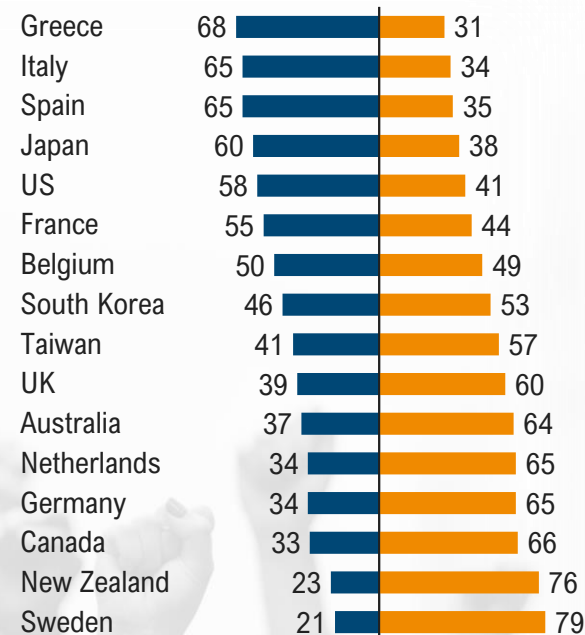
Dissatisfaction with democracy, 1996-2020 and spring 2021 [%]

2005-2020:  
18.8 pp. rise in dissatisfaction



The University of Cambridge's Centre for the Future of Democracy tracks the 'mood' in **77 democracies**; observations are based on a constant-country, population-weighted sample of these democracies for which data exists from the mid-1990s to today. This represents 2.4 billion individuals across all continents

Spring 2021:  
% of dissatisfaction/satisfaction



Pew Research surveys public attitudes in 16 advanced economies by nationally representative surveys of 16,254 adults from March 12 to May 26, 2021

■ Not satisfied ■ Satisfied

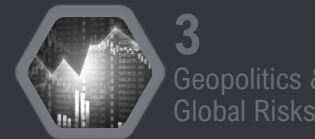
- > Across the globe, democracy appears to be in a **state of discontent**: **Dissatisfaction with democracy has risen over time** and is reaching an **all-time global high**, particularly in **developed countries**
- > 2019 represents the **highest level of democratic discontent** on record: Nearly 58% are unhappy with democracy
- > The **rise in democratic dissatisfaction** has been especially sharp **since 2005**, with just 38.7% of citizens dissatisfied in that year. Since then, the proportion of dissatisfied citizens has risen by almost one-fifth of the population
- > Looking more regionally, a notable **positive shift is seen in Southeast Asian democracies**, whereas Anglo-Saxon countries (North America, UK, Australasia) are less happy compared to the mid-1990s; Europe appears highly fragmented; at present, its 'democratic faith' contains some of the most uneven levels of dissatisfaction
- > Early **post-pandemic assessments** in spring 2021 attest to **continued levels of dissatisfaction** with democracy in some advanced (democratic) nations



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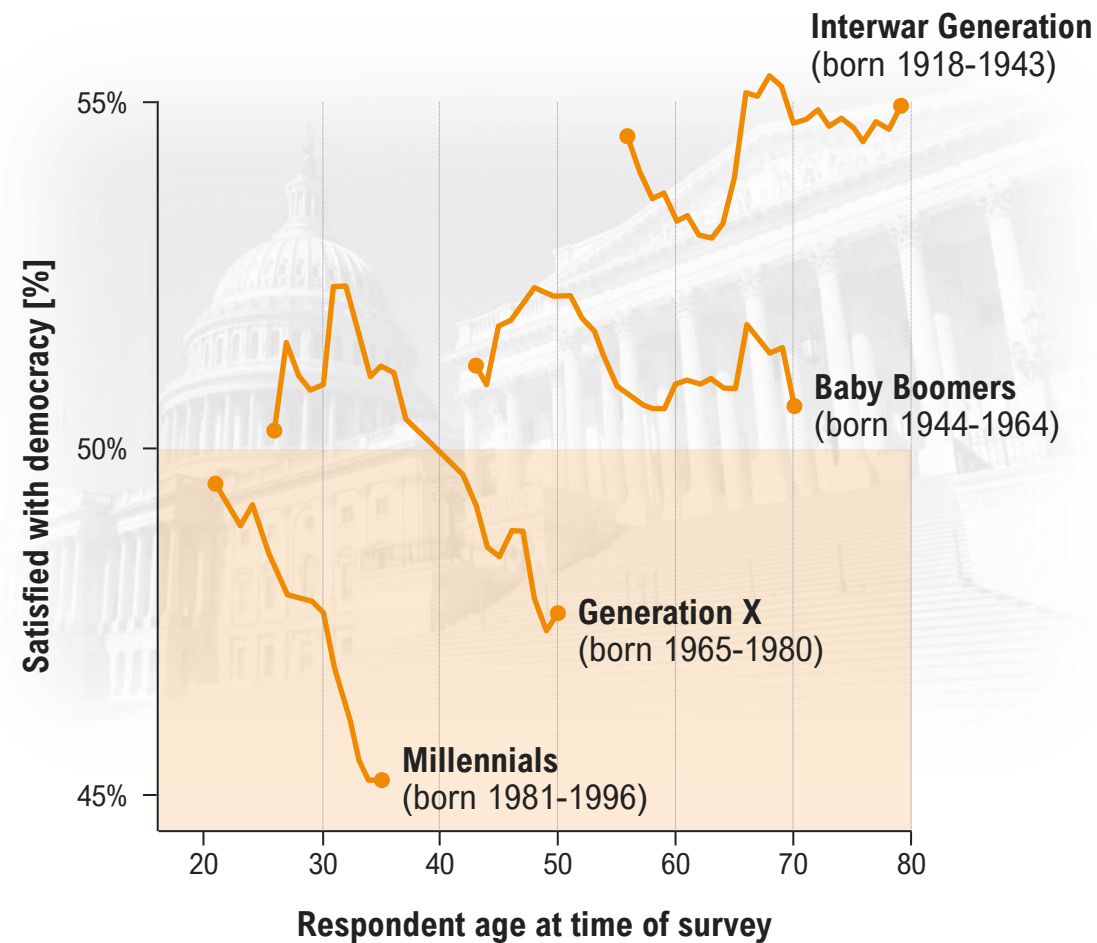


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## Younger generations are less satisfied with democracy than older ones and their satisfaction declines further with age

Global satisfaction with democracy by generational cohort and age<sup>1)</sup> [%]



1) Global aggregate of 75 countries in all regions of the world, weighted by country-population  
Sources: University of Cambridge Bennett Institute; Roland Berger

- > Around the world, **young adults living in democracies today are less satisfied** with the performance of democracy than **older generations** – each generational cohort is less satisfied with democracy than the preceding cohort at comparable ages
- > For example, while **a majority of Millennials** – having come of age in the 21st century – **express dissatisfaction with democracy** in their countries, a generation ago the majority of those at a comparable age (people from **Generation X in their twenties and thirties**) **have been satisfied** with democratic performance
- > As the **population share of Millennials and Generation X** will **increase** compared to the shares of the older generations, the **overall satisfaction** can be expected to **decline in the future**
- > In addition to the differences between the generations, the development over time within the two younger generations – Millennials and Generation X – raises **further concerns** as **younger cohorts have become more dissatisfied as they have aged**. If this development continues, the overall satisfaction with democracy will decline further
- > The **good news** is that, although differences between these generations are significant, with a range of 45%-55%, they are not insurmountable – **a chance to mitigate remains**
- > In addition, there is also **room for improvement in terms of the older generations**. If the satisfaction of the baby boomers were to increase, the overall satisfaction would strongly increase, as they account for a large share of the total population

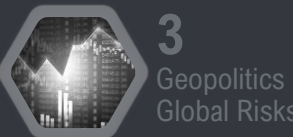




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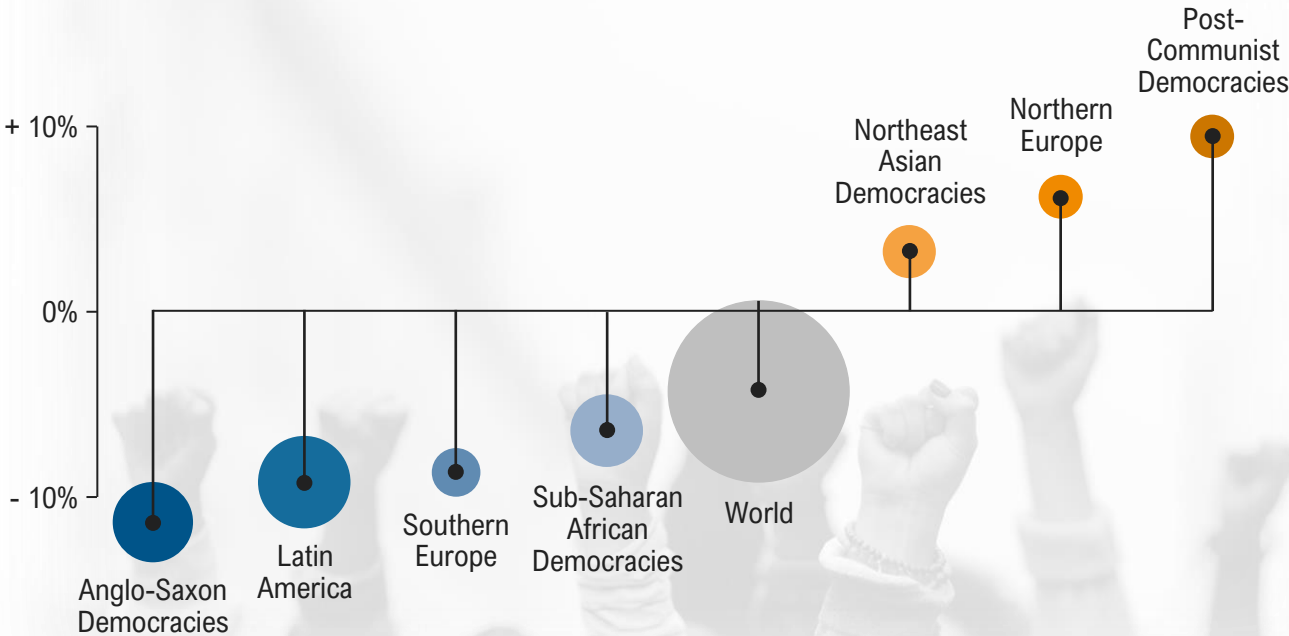
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# Concentrated in populous democracies in four regions, younger generations' lower satisfaction with democracy is unevenly distributed

Average generational satisfaction compared to the next-older generation at the same age, by region<sup>1)</sup> [%]



Bubble sizes represent population size

1) Average intergenerational satisfaction shift, by region, using comparisons at identical points in life. The intergenerational shift is the average of the gap between Millennials and Generation X compared at age 30, between Generation X and Baby Boomers compared at age 50, and between Baby Boomers and the Interwar Generation compared at age 70 – the points at which overlap data exist in all 75 countries surveyed

Sources: University of Cambridge Bennett Institute; Roland Berger

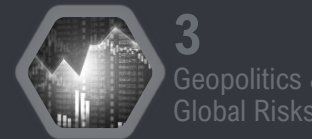
- > Out of 2.3 billion individuals represented in the global cross-country sample, **1.6 billion** are in **countries with declining democratic satisfaction** from one generation to the next, while **only 0.7 billion** live in countries with **rising intergenerational contentment**
- > In **Anglo-Saxon democracies, Latin America, Southern Europe and Sub-Saharan Africa** the **younger generations** are **less satisfied** with democracy than the next older generation at the same age
- > In **Northeast Asian democracies, Northern Europe and Post-communist democracies** the **younger generations** are **more satisfied** with democracy than the next older generation at the same age
- > The **global decline of satisfaction** with democracy might be **explained by contingent events** in recent decades, such as the aftermath of the global financial crisis, the effects of social media on news and public debate, or the legacy of failures at democracy promotion overseas
- > The **divergence between the regions** might be **explained by differences in the development of inequality and youth unemployment** and in a certain **"transition fatigue"** in countries which have shifted from an authoritarian to democratic system



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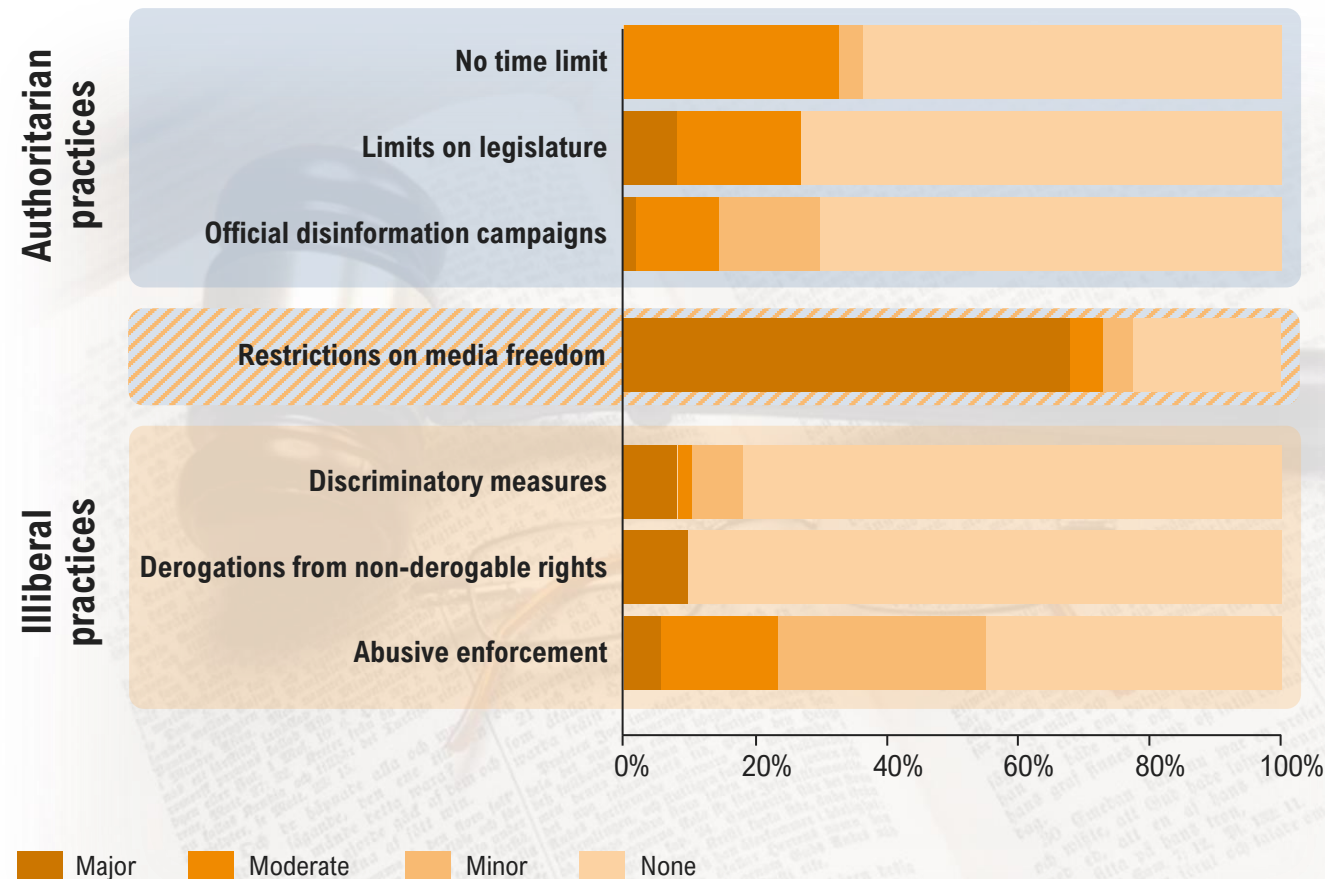


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## Pandemic emergency measures have affected democratic norms around the world to varying degrees – Restrictions on media freedom top violations

Share of countries with violations of democratic standards for emergency measures, 03/2020 - 06/2021 [%]



- > During a public health emergency, a **government** must **balance public welfare, equity, individual rights, and democratic processes and norms**
- > **Emergency measures** must be "**proportionate, necessary and non-discriminatory**", have a **clear time limit**, and **not** be implemented in an **excessive** manner – in short, they may alter democratic institutions, rights, and proceedings **only within certain boundaries**. With these standards as benchmarks, the Pandemic Violations of Democratic Standards Index (PanDem) captures the **extent to which state responses in 144 countries violated democratic standards** for emergency responses<sup>1)</sup>
- > Observations include that **authoritarian practices** that sabotage accountability were more frequent than **illiberal practices** that infringe autonomy and dignity – but **restrictions on media freedom** (a practice straddling both categories) were **most common by far: 2/3 of all countries** imposed moderate to major restrictions on the media
- > Except for 13 countries that did not violate standards in the period analyzed, **most countries** have engaged in **at least some violations** of democratic standards since the beginning of the **pandemic** – but broadly, this was mostly **transitory**: At the end of June 2021, most countries **(57%) score low enough to be considered minor or non-violators**
- > At least in the short term, the **pandemic has not been used** to substantially increase autocratization in **most countries** as **violations** of democratic norms **declined** as the **pandemic progressed** – bar some **exceptions**

1) PanDem analysis, based on a novel composite conceptualization of democratic standards drawn from international treaties and norms, identifies illiberal and authoritarian practices across seven categories covering 144 countries from March 2020 to June 2021. PanDem Index and observations do not estimate the level of democracy; this is captured using the V-DEM Liberal Democracy Index (LDI)

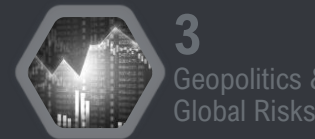
Sources: V-DEM; Roland Berger



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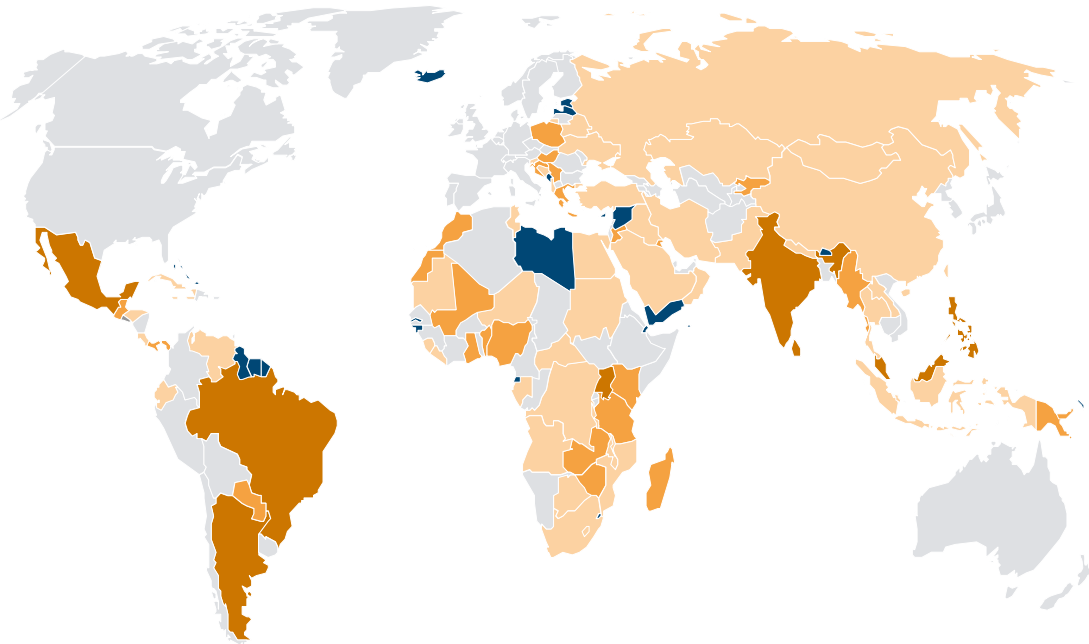
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## In some countries, a pandemic-driven continuous weakening of democratic standards signals a higher risk of democratic backsliding ...

Pandemic Backsliding Index (PanBack):  
Countries' levels of risk<sup>1)</sup>



### Pandemic backsliding index

■ < 0.1 low risk   ■ < 0.2   ■ < 0.3   ■ ≥ 0.3 high risk   ■ No data

1) The PanBack Index gives greater weight to violations occurring in the "gray zone" (countries classified as electoral autocracies or electoral democracies) known to have the highest probability of adverse regime change. PanBack does not estimate the level of democracy. PanBack assesses how pandemic responses measure up to democratic standards for emergency measures based on international normative frameworks and treaties. 'March 2020-June 2021' time period reflects the worst (maximum) violation period

Sources: V-DEM; Lewkowicz, J. et al.; Roland Berger

- > A disturbing effect of the pandemic is taking root in some countries: **Democratic backsliding** and growing autocratization
- > The **Pandemic Backsliding Index** captures a country's **average risk of the erosion of democratic standards** during the COVID-19 pandemic as assessed in the period March 2020 – June 2021. The PanBack Index gives **greater weight to violations occurring in the "gray zone" of countries** (classified as electoral autocracies or electoral democracies) known to have the **highest probability of adverse regime change** – thus it assesses **potentially enduring prospective risks** to the quality of democratic norms and standards
- > Because of ongoing problematic policies born from emergency measures, the **risk of pandemic backsliding is highest in three populous countries** of the Americas: Brazil, Mexico, Argentina; but also in the Philippines, Malaysia, India and Uganda. There, **governments seem to be using the pandemic to (further) erode democratic institutions**; the risk is also highly elevated in larger number of so-called moderate violators (e.g. Poland, Paraguay, Ghana, Nigeria)
- > It is worth bearing in mind that **most of the severe violators already were autocracies** before the pandemic – meaning that their violations therefore are already on a sliding scale from bad to worse
- > Observers cast a keen eye on the **longer-term implications of measures imposed in the gray zone of countries** and the extent to which they will be removed once the pandemic has subsided



# ... but observations where and how democratic standards are being weakened predate the pandemic – And are ongoing

## A selection of observations

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In **Venezuela**, **Nicolas Maduro's presidency** is under dispute, having **ruled by decree since 2015** after winning the 2013 election. Criticism intensified following the **2018 "sham election"**, where opposition leaders had been jailed, exiled or forbidden to run, EU electoral observers were termed "spies", and tactics included voter coercion

The **2022** general election in **Brazil** will be a test for the country's democracy due to threats by far-right **President Jair Bolsonaro** who has questioned the validity of its voting system. President since 2019, his government has **promoted policies contrary to human rights** in various areas, including indigenous peoples' rights, women's rights, the rights of those with disabilities, and freedom of expression

In the **US**, former **President Donald Trump** initiated attacks on the media ("fake news") and refused to commit to a peaceful transfer of power before the 2020 presidential election. After losing the election, **he claimed** that the **election was rigged**. In January 2022, more than 40% of Americans still did not believe in the legitimacy of the 2020 election results<sup>1)</sup>

In **Poland**, the **Constitutional Tribunal postponed a ruling on whether EU law supersedes the Polish constitution on four occasions**, worsening Warsaw-Brussels relations. Further trouble with the EU stems from a **lack of LGBTQ+ rights** in the country

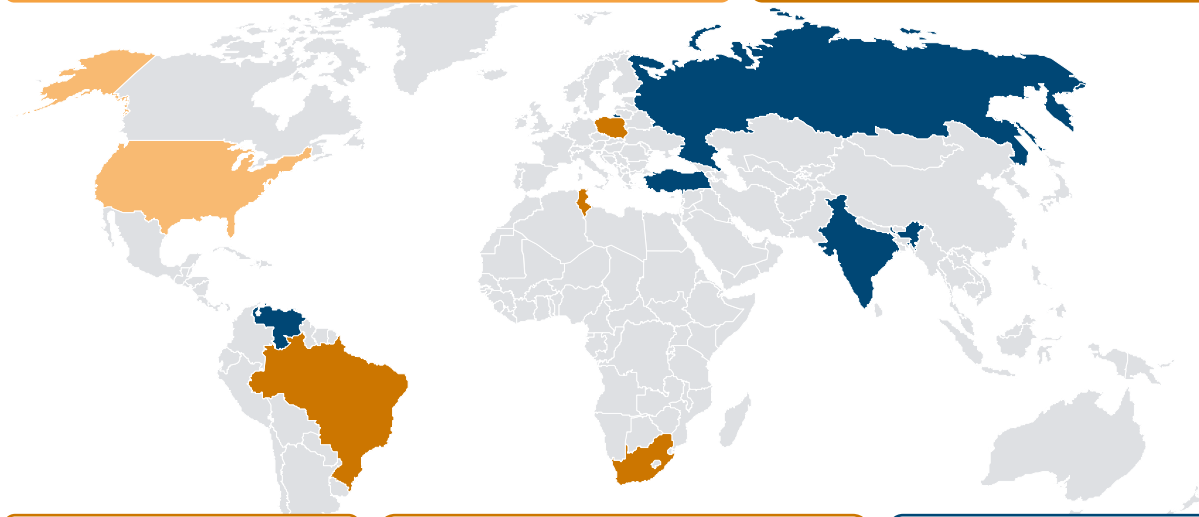
In **Russia**, **President Putin reigned in autonomous political institutions, organizations, and individuals** that could constrain presidential power, banned several rights of the LGBTQ+ community, curtailed peaceful assembly, seized control over national television networks, and arrested opponents. In 2020, **Putin secured constitutional changes** allowing him **to rule until 2036**

In July 2021, a power grab took place whereby **Tunisia's President Kais Saied suspended parliament**, dismissed the prime minister, and granted himself judicial powers

Since the transition to democracy in 1994, **South Africa** had experienced some democratic erosion, lately under **President Jacob Zuma**, elected in 2009; scandals associated with **undue influence and corruption** have led to his resignation in 2018

In the wake of the botched military coup in **Turkey** in **2016**, **President Erdogan** initiated wide-ranging government crackdowns, **arresting political opponents, journalists, academics and public servants**

In India, civil liberties have been in decline since Narendra **Modi** came to power in **2014: India's Prime Minister** and its Hindu nationalist BJP government continue to **undermine democratic norms**, while exerting pressure on human rights groups, intimidating activists, censoring journalists, **and attacking minorities, especially Muslims**. In 2020, the Swedish based V-Dem Institute downgraded India from an electoral democracy to an electoral autocracy



Legend: Liberal democracies (orange), Electoral democracies (yellow), Electoral autocracies (dark blue)

1) Poll by Axios-Momentive 2) Colors denote regime type as defined by V-DEM Institute in 2020  
Sources: V-Dem Institute; SurveyMonkey; Human Rights Watch; Democratic Erosion; Press research; Roland Berger

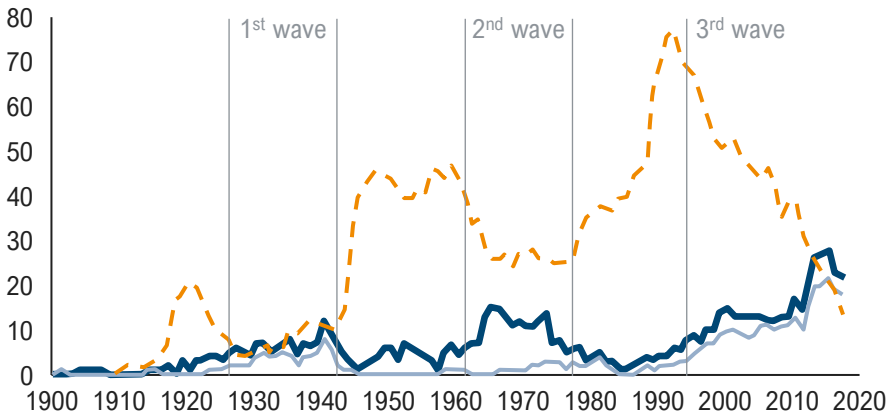
# Since the mid-1990s, the main threat to democracy arises from democratically elected leaders – Strategies are increasingly subtle

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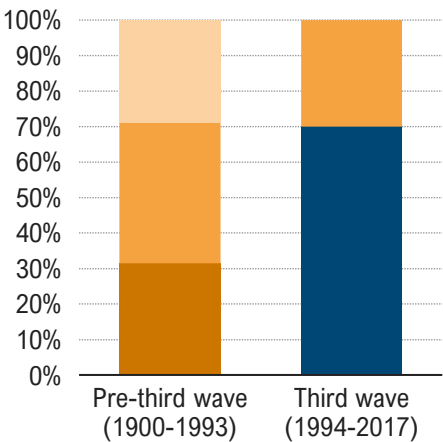
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Waves of autocratization and democratization, 1900-2017 [number of countries]



--- Democratization ongoing — Autocratization ongoing  
— Autocratization in (former) democracies

Autocratization strategies [%]



Invasion Autogolpe<sup>1)</sup> Military coup Democratic erosion

“A gradual transition into electoral authoritarianism is more difficult to pinpoint than a clear violation of democratic standards and provides fewer opportunities for domestic and international opposition. Electoral autocrats secure their **competitive advantage** through **subtler tactics such as censoring and harassing the media, restricting civil society and political parties and the undermining the autonomy of election management bodies**. Aspiring autocrats learn from each other and are seemingly borrowing tactics ...”

Anna Lührmann, Minister of State at the German Federal Foreign Office, former deputy director of the V-DEM Institute

1) Autogolpe: A self-coup is a form of coup d'état in which a nation's leader, having come to power through legal means, dissolves or renders powerless the national legislature and unlawfully assumes extraordinary powers; since 2017 there have only been 3 successful self-coups (Venezuela, Tunisia, Sudan)

Sources: Lührmann, A. et al.; V-DEM; Roland Berger

- > **Democracy's contemporary enemies are their elected leaders and parties** that, once in power, erode democratic rights and institutions: Since the 1990s, democracy has broken down in 36 countries
- > Not an event, but a gradual process: Once autocratization gets underway, democracies stand **only a 20% chance** to avoid breakdown; also, **sudden, dramatic episodes or breakdowns** (military coups, invasions, self-coups) are **very rare** compared to previous decades
- > Since the mid-1990s, **democratic erosion from within** has become the "method of choice": The **current wave of autocratization** unfolds in a **less blatant** and more **gradual** fashion than previously observed
- > This **process of erosion** affects a wide range of fundamental freedoms and civil liberties and typically **follows a pattern**: Ruling governments **attack the media and civil society**, and **polarize societies** by disrespecting opponents and **spreading false information**, to then **undermine formal institutions**

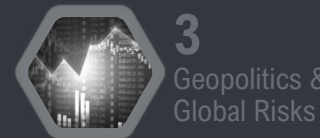




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# The future of autocratization is democratic erosion – How to spot future would-be autocrats: Checklist of early-warning signs

Early warning signs of autocratic tendencies in (would-be) leaders/parties include:



## Low commitment to the democratic process:

Unwillingness to publicly commit to legal means for gaining power

- ☐ Expresses willingness/need to violate the constitution
- ☐ Expresses sympathy for non-constitutional means of accessing power
- ☐ Attempts to undermine the legitimacy of elections



## Demonization of political opponents:

Denial of the legitimacy of democratic political parties to participate in political process

- ☐ Describes rivals as subversive/criminal or foreign agents
- ☐ Claims that rivals constitute an existential threat



## Encouragement of political violence:

No rejection of the use of force and willingness to ask for armed forces

- ☐ Encourages or sponsors mob attacks on opponents
- ☐ Endorses or praises political violence
- ☐ Has ties to militia or armed gangs



## Disrespect for fundamental minority rights:

Curtailment of the civil liberties of democratic parties' leaders and supporters

- ☐ Support laws or policies restricting civil liberties
- ☐ Threatens to take legal action against critics
- ☐ Praises repression

CHECKLIST



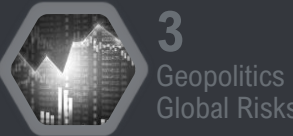




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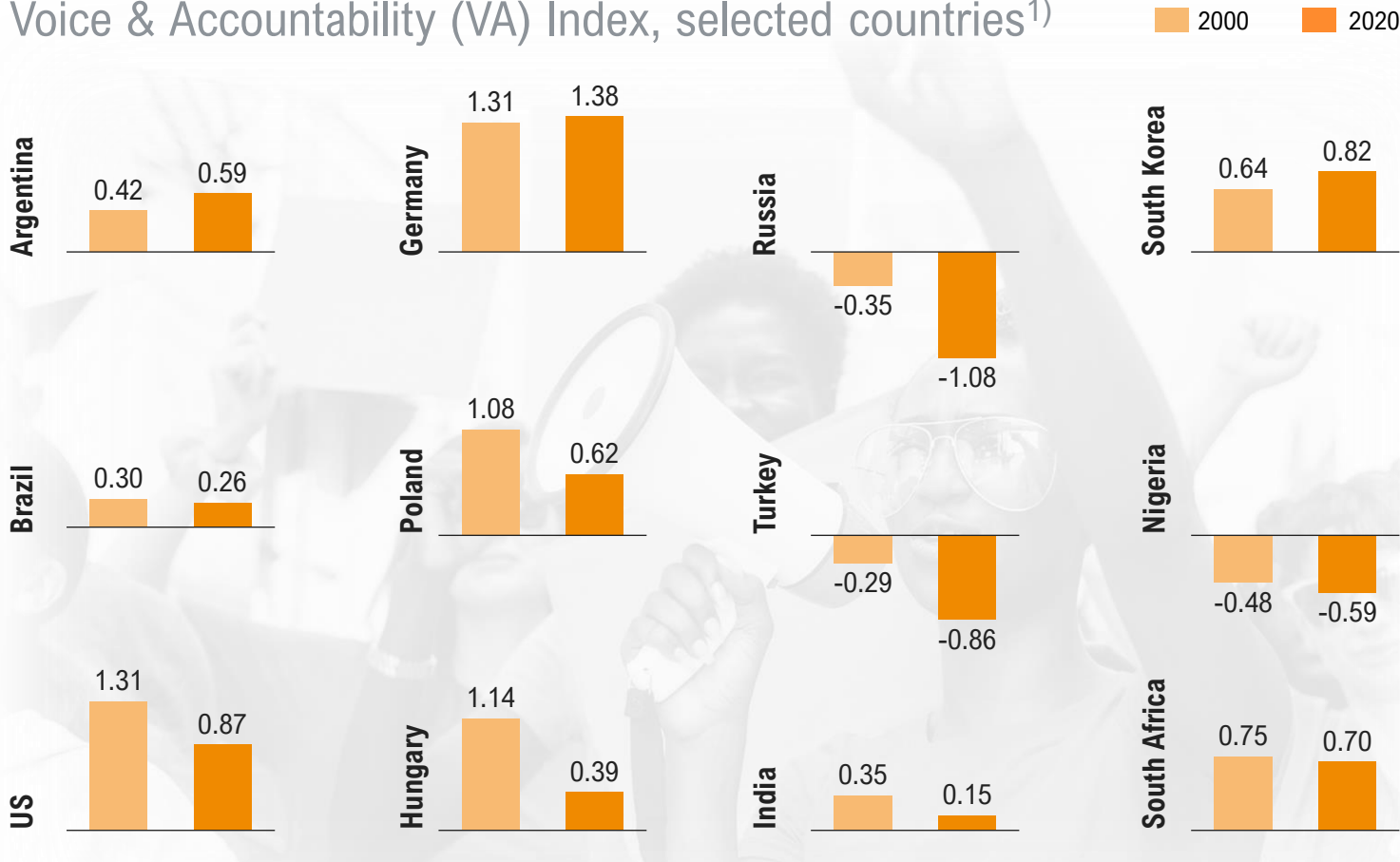


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# Voice & Accountability Index reflects citizens ability to participate in selecting their leaders, fundamental freedoms and a free media

Voice & Accountability (VA) Index, selected countries<sup>1)</sup>



Country score and distribution, Voice & Accountability Index 2020



- > The focus of the World Bank's governance subindex Voice & Accountability is on **participatory democracy** and **accountability**: It captures perceptions across an extensive list of variables to express the extent to which **citizens can participate in selecting their national government**, as well as **freedom of expression**, freedom of **association**, and a **free media**
- > The maximum **+2.5 score** indicates the situation where there is **no obstacle to expressing voice**, whereas the **-2.5 score** reflects the situation where people have **no means of expressing their voice**
- > The **average for 2020** based on 193 countries was **-0.04 points**, with Norway scoring the highest (1.73), and North Korea the lowest (-2.16)
- > Some **long-standing democratic countries** do **not** seem to **fulfill their potential**, for example the USA, which is experiencing a downward trend

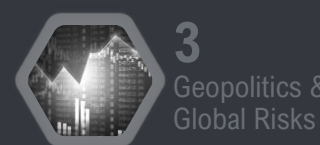
1) VA Index: An aggregate index across 30+ indicators covering sources, in units of a standard normal distribution, ranging from -2.5 (weak) to 2.5 (strong)  
Sources: World Bank; V-Dem; Roland Berger



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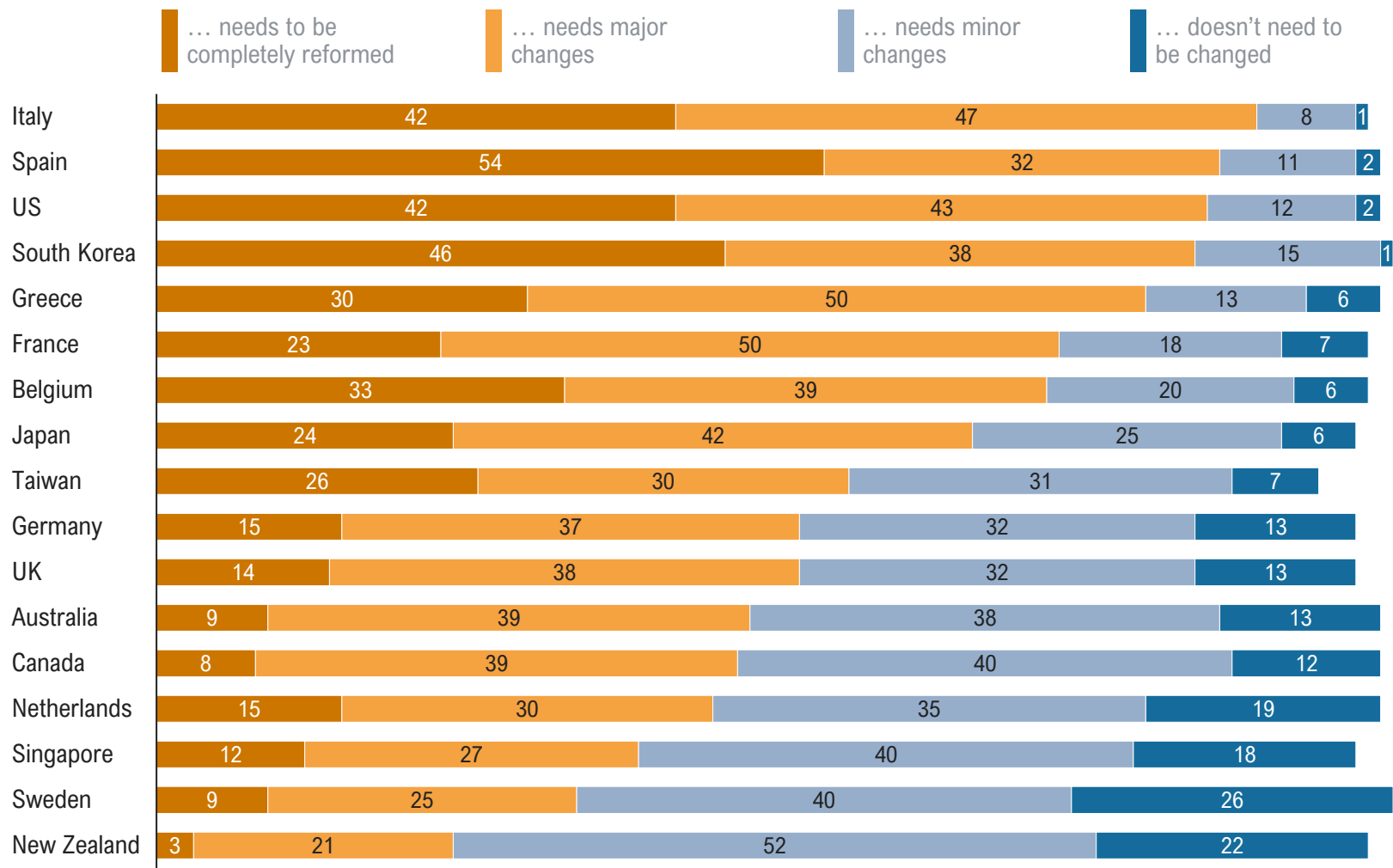


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## Good governance factors in the public mood: In advanced economies, post-pandemic expectations signal the need for major political reforms

Share of respondents saying the political system<sup>1)</sup>... [%]



> A median of **56% across 17 advanced economies** surveyed in spring 2021, shown left, say their political system needs **major changes** or needs to be **completely reformed**

> Roughly **two-thirds or more** express this opinion in **Italy, Spain, USA, South Korea, Greece, France, Belgium and Japan**

> Political reform does **not appear to be so pressing** or radical in other countries, particularly in **Sweden, Canada and New Zealand**

> **Reasons** for wanting change are varied but attitudes are shaped in part by views about the national **economy**, the impact of **COVID-19**, and **social and political divides**

1) Spring 2021 global attitudes survey; those who did not answer not shown  
Sources: Pew Research Center; Roland Berger

# To strengthen the future of democracy and counteract autocratic tendencies post-pandemic, participatory citizen engagement is key

## Key aspects of democracy



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“  
"Perhaps the most durable lesson for democracy from these **COVID-19 times** is that we should be more ambitious about harnessing the **potential of participation and deliberation** to address daunting social challenges."  
Archon Fung, Professor of Citizenship and Self-Government, Harvard Kennedy School

“  
"Citizens should be able to speak to us [local and regional authorities] **when and where they feel the need** for it, and not only when and where we tell them: during elections cycles or specific events."  
Declan Mc Donnell, Rapporteur-general (EU)

“  
"Democracy is not simply about a process or an election. It's a **culture that has to be developed [and] re-energized by the citizens** of every generation. This is the challenge of our time."  
Derek Mitchell, President of the National Democratic Institute

## Democracy

<b>Representative government:</b> <ul style="list-style-type: none"><li>&gt; Inclusive suffrage</li><li>&gt; Clean elections</li><li>&gt; Free political parties</li><li>&gt; Elected government</li></ul>	<b>Fundamental rights:</b> <ul style="list-style-type: none"><li>&gt; Access to justice</li><li>&gt; Civil liberties</li><li>&gt; Social rights &amp; equality</li></ul>	<b>Participatory engagement:</b> <ul style="list-style-type: none"><li>&gt; Civil society participation</li><li>&gt; Electoral participation</li><li>&gt; Direct democracy</li><li>&gt; Local democracy</li></ul>	<b>Impartial administration:</b> <ul style="list-style-type: none"><li>&gt; Absence of corruption</li><li>&gt; Predictable enforcement</li></ul>	<b>Checks on government:</b> <ul style="list-style-type: none"><li>&gt; Effective parliament</li><li>&gt; Judicial independence</li><li>&gt; Media integrity</li></ul>
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- > The global black swan event of 2020 is a catalyst for many lessons for the future of democracy: **Democracy doesn't work without full and effective citizen engagement** – in person, at and between elections, and increasingly online
- > Democratic innovations "born under fire" – often in multi-stakeholder partnerships at local or regional levels – include the accelerated development and use of **eDemocracy tools**, as means of communication and information sharing, monitoring, deliberating and decision making
- > Tools range from **digital townhalls**, remote voting, opinion polling, e-petitions, **e-learning platforms** for educators, online portals and apps for **virtual public services**, and many more
- > Future crises may strain governance and local communities, but the role of **participatory, inclusive and deliberative democratic practice** will be critically important in seeking collective solutions – particularly in inter-election periods

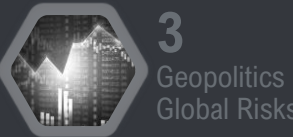




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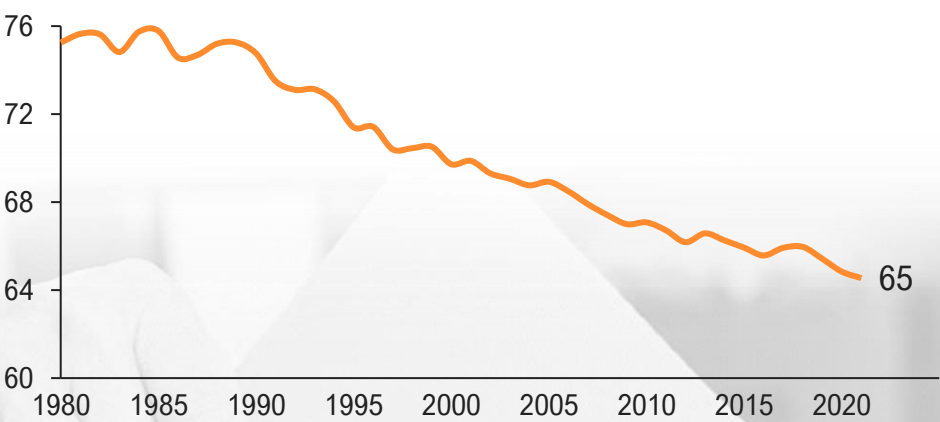


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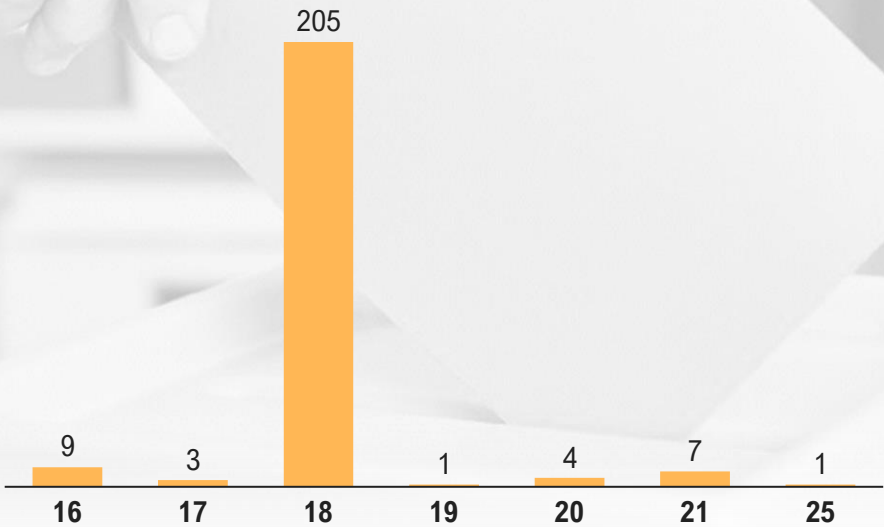


# Different aspects of electoral developments can be observed: Voter turnout is declining globally. Lowering the voting age is not widespread – yet

Voter turnout trends at parliamentary elections, 1980-2020<sup>1)</sup> [%]



Number of countries and territories where the minimum voting age is ... years old, 2020<sup>2)</sup>



National minimum voting age of 16 in: Argentina, Austria, Brazil, Cuba, Ecuador, Germany (only in some local elections), Malta, Nicaragua, Scotland

- > **Voter turnout** at national elections has been **declining globally** for several decades – but nationally this may vary greatly
- > A **core tenet of democracy is the right to vote in (free and fair) elections**: Populations aged 18 and over usually have a right to vote in almost all forms of political systems where elections are held
- > The **vast majority of countries and territories** have a **minimum voting age of 18** for national elections – bar a small number of countries with an **age threshold** of 20+ (some Middle Eastern countries, Taiwan, Singapore)
- > However, several countries, particularly in **South America**, have **lowered their voting age** for some decades in national elections, while in Europe, **Austria** and **Malta** are more recent innovators
- > Some countries **have introduced lower age thresholds for regional or local elections**, such as Estonia, in some German states and in parts of the UK – the **debate continues in many countries**
- > Lowering the voting age is often driven by the ambition **to give younger populations equity in how their countries are governed**

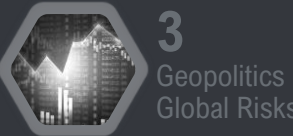
1) All countries excl. countries with compulsory voting law, 10-year average 2) Data available for 237 countries and territories  
Sources: International IDEA; ACE Electoral Knowledge Network; Roland Berger



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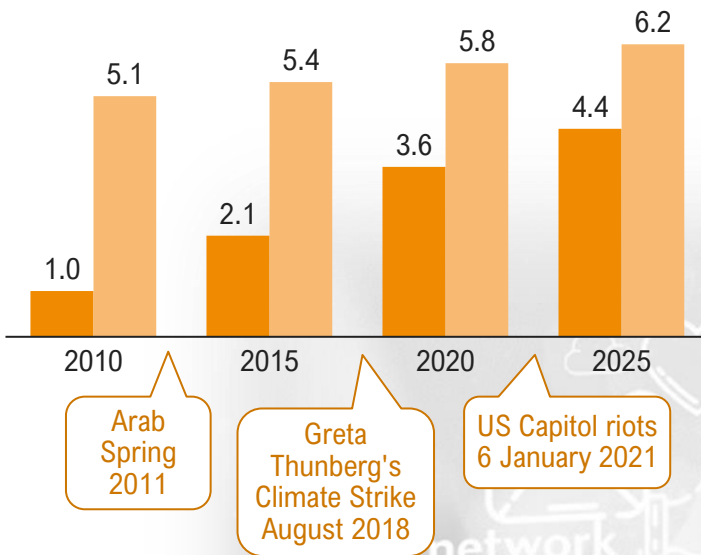
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# The voice of the people is making itself heard increasingly through the medium of technology, on social media and online platforms

Social media users and global population aged 15+, 2010-2025<sup>1)</sup> [bn]

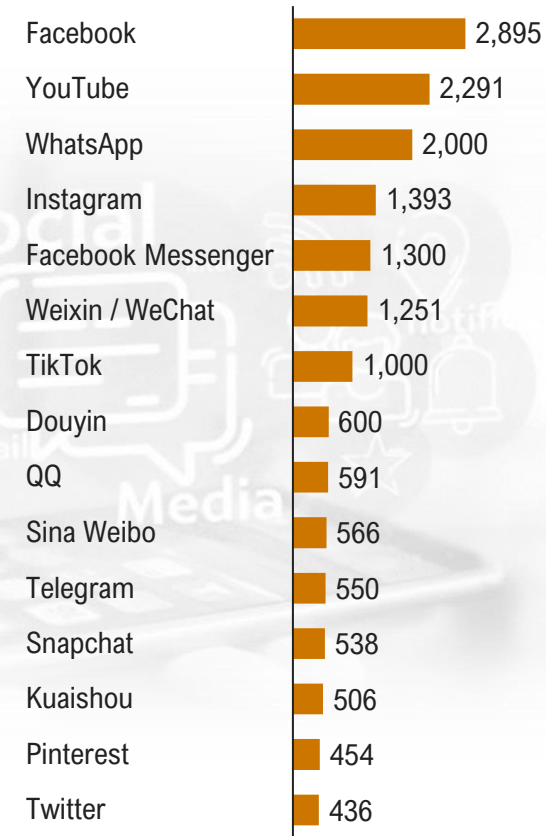


“Technology has already revolutionized our notion of what democracy means. It used to mean one person, one vote. Now it means, one device, one voice.”

Barry Chudakov, founder, Sertain Research

■ Social media users ■ Total global population aged 15+ years

Global social platforms ranked by number of active users, October 2021<sup>2)</sup> [m]



- > Globally, and compared to other generations, the use of **social media as a means of freedom of expression and interaction** is unlikely to diminish in future years: **over 70%** of the global population aged 15 and older are expected to **use social media by 2025 – up from 62% today**
- > The **mass adoption** of **social media** tools for the **purpose of pro-democracy citizen protests** – first seen during the Arab Spring a decade ago – has also given rise to **abuse** (e.g. dissemination of **fake news** or **conspiracy theories**) by national and foreign anti-democratic forces; further threats to democracies lie in the **danger of confirmation bias**, the **shaping of opinions based on misinformation** and, more generally, the **absence of regulation and oversight** in the social media sphere – a current and future hot topic
- > Equally and going forward, the rising use of social media as a global platform for **younger activists** – as in the exemplary case of the global **Fridays for Future** campaign started by the then under-age Greta Thunberg – illustrates that the **global agenda is not limited to being shaped by voting adults** in any one country alone

1) Approximation, legal use age 13 (on average across most major social media sites), 2025 forecast 2) Not necessarily unique individuals  
Sources: Statista; UN; DataReportal; Roland Berger



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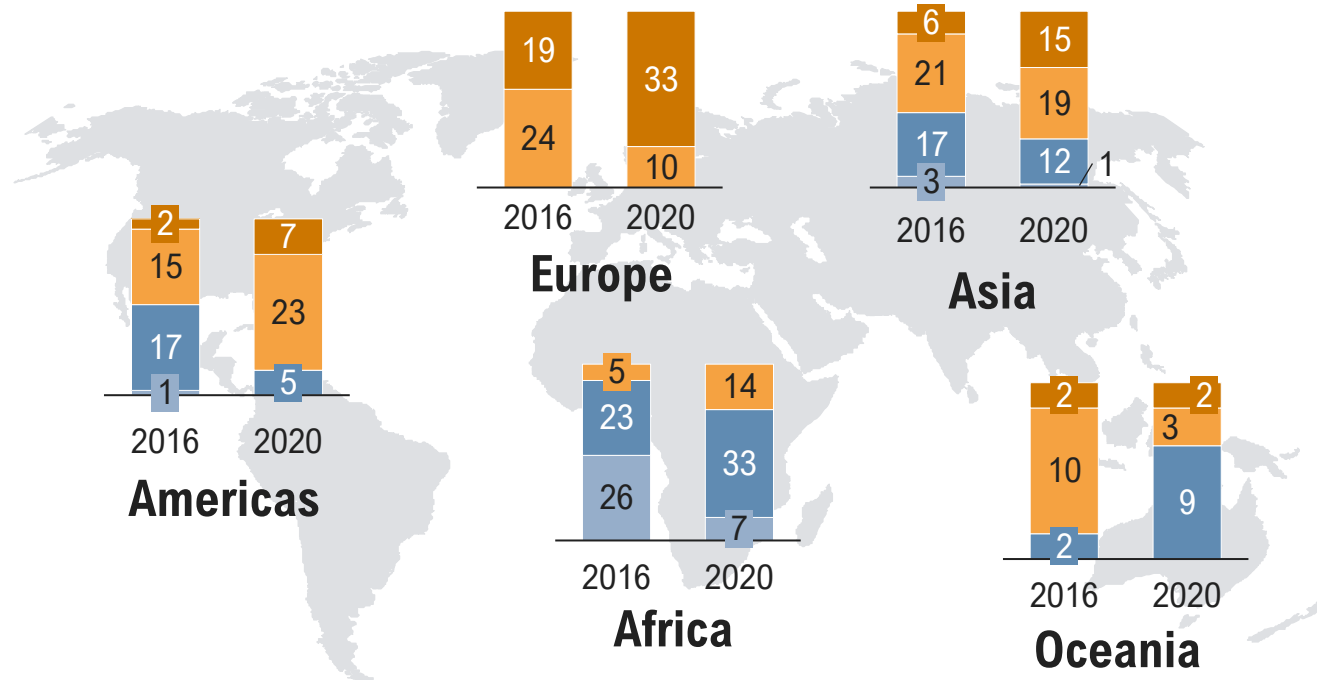
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## Technology is also transforming government: E-government development levels are rising but regional digital public services delivery varies

Number of countries by region, by EGD level, 2016 and 2020<sup>1)</sup>



Globally, a **continued increase** in the uptake of e-government development is evident, with **65% of 193 UN member states** now in the **high or very high category** in the **UN's E-Government Development Index (EGDI)**

Very high EGD High EGD Middle EGD Low EGD

1) The E-Government Development Index (EGDI) is based on a comprehensive survey of the online presence of all 193 UN member states, which assesses national websites and how e-government policies and strategies are applied in general and in specific sectors for delivery of essential services. The assessment rates the e-government performance of countries relative to one another

Sources: UN; Roland Berger

- > **E-government** (electronic/digital government) refers to the use of technological communications devices and digital solutions to provide **public services directly** to **citizens** and **businesses** in a country or region
- > Digital government development is a means to **improving public service delivery**, enhancing **transparency**, **accountability** and **inclusion**, while providing tangible **cost and time efficiencies** for governments, businesses and citizens. Depending on levels of sophistication, such development can help increase people's **engagement** and facilitate **greater citizen participation**
- > Across the globe, **e-government development** is highly **variable**, but levels are **steadily increasing**. Regionally, **Europe already displays the highest level of e-government development** across the largest number of countries according to UN EGDI observations
- > The **pandemic has accelerated** some aspects of online public services even further, keeping governments and people **connected**: Digital technologies have enabled governments to make **rapid policy decisions** based on real-time data and analytics, to enhance capacities of local authorities for **better coordination**, and to **deploy services** to those who need them most. Throughout the pandemic, governments have shared information through their **national portals** and **social media platforms**, and often have made innovative use of technologies such as **mobile apps** and **AI chatbots**, as well as access to public **e-learning systems** for schools







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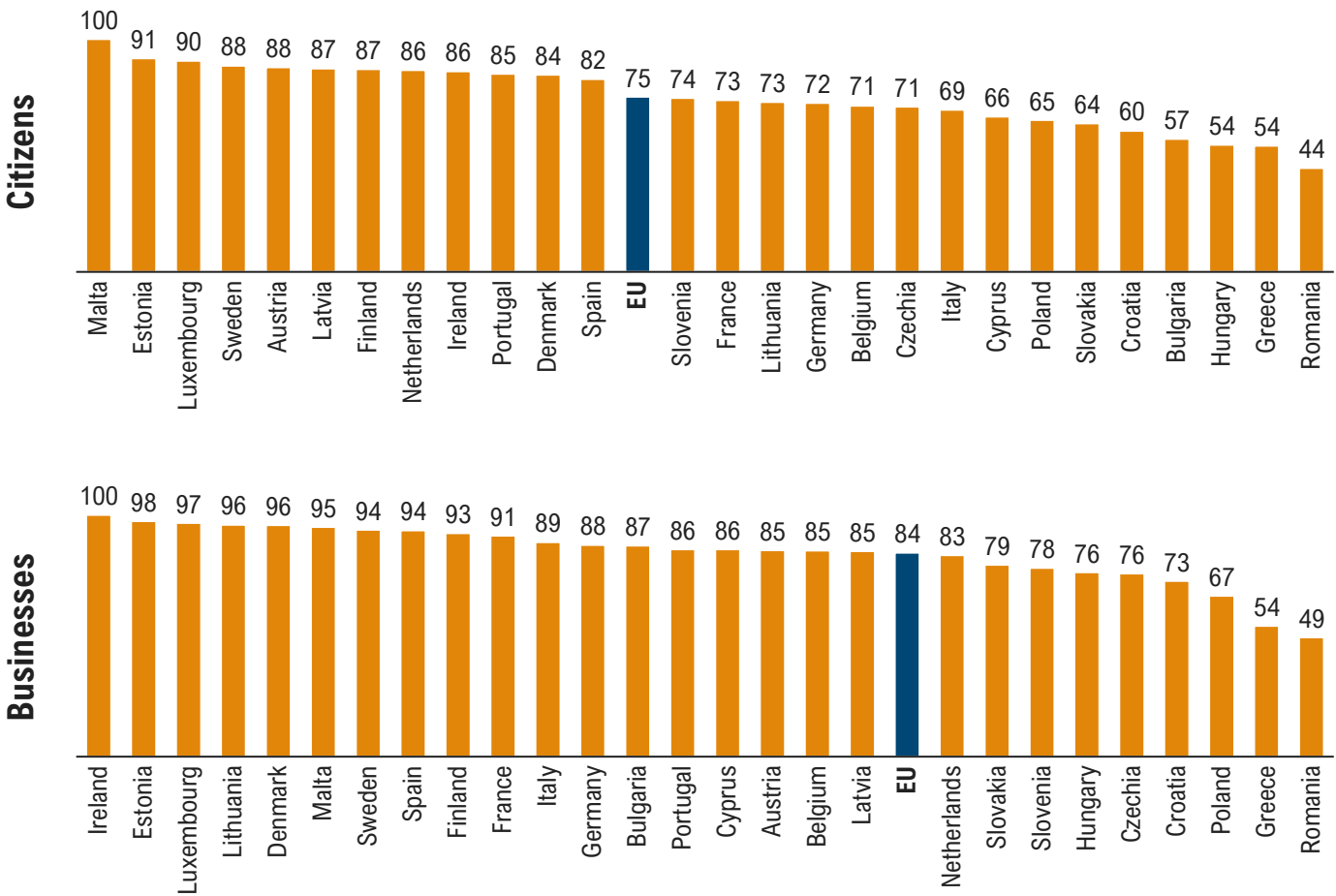


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# In Europe, digital public services are already at a high level – The provision of key services is expected to meet the 100% online target by 2030

Status of digital public services for citizens and businesses, EU27, 2021<sup>1)</sup> [%]



- > EU's **Digital Economy and Society Index (DESI)** analysis for 2021 finds that the share of **key digital services** that are provided online across the **EU27 is 75% for digital services for citizens**, and **84% for businesses**
- > **Key public services** relate to necessary, **everyday interactions between citizens and/or businesses and public service providers** at local, regional or national level, such as owning or driving a car, starting a business, regular business operations, aspect of career and employment, family and social matters, moving, studying, and small claims procedures
- > Supported by nearly EUR 30 billion of funding, the **EU's Digital Decade initiative** has set future goals for online public service delivery by **2030: All key public services for businesses and citizens are expected to be 100% online in 2030. Ambitions extend to two additional digital targets:**
  - **All citizens** will have **access to their e-medical records (e-record)**
  - **80%** of citizens will use a **digital identity (eID)** solution by 2030

1) Key public services refers to defined eGovernment benchmark measures, comprising eight life event categories that relate to relevant stages in a citizens' or businesses' everyday use of online public services

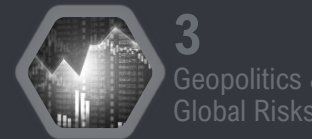
Sources: European Commission/DESI; Roland Berger



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# Democratic leaders of the world are united to defend democracy in order to combat autocratic trends and democratic backsliding

## US and EU democracy efforts and themes

### USA: International Democracy Summit

In December 2021, President Biden hosted the **first of two Summits for Democracy<sup>1)</sup>**, bringing together leaders from government, civil society, and the private sector to set forth an **affirmative agenda for democratic renewal** and to tackle the greatest threats faced by democracies today through collective action. **Three key themes:**

**Defending against authoritarianism – Addressing and fighting corruption – Advancing respect for human rights**



*"Democracy doesn't happen by accident. We have to defend it, fight for it, strengthen it, renew it."*

US-President  
Biden



*"Democracy is Europe's most powerful diplomatic tool. Our work to uphold democracy globally has never been so important."*

Ursula von der Leyen,  
President,  
EU Commission

### EU: European Democracy Action Plan

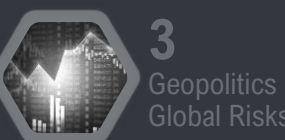
Launched in December 2020, to be **reviewed in 2023**, the purpose of the **action plan on European democracy** is to ensure that **citizens are empowered to participate in the democratic system through informed decision-making free from unlawful interference and manipulation**. The action plan will also build on the lessons learnt from the COVID-19 crisis and include measures on:

**Electoral integrity – Media freedom – Tackling Disinformation – Media pluralism**

Steps include: The EU Action Plan provides for the establishment of a **joint, operational mechanism** for the protection of elections against threats such as **cyberattacks**. **Hate crime and incitement**, including **online incitement**, should also be included in the list of "EU criminal offences". In addition, an **initiative to protect journalists** and civil society is planned. The **fight against disinformation, especially in the digital sphere**, is to be further intensified with guidelines for an **improved code of conduct**

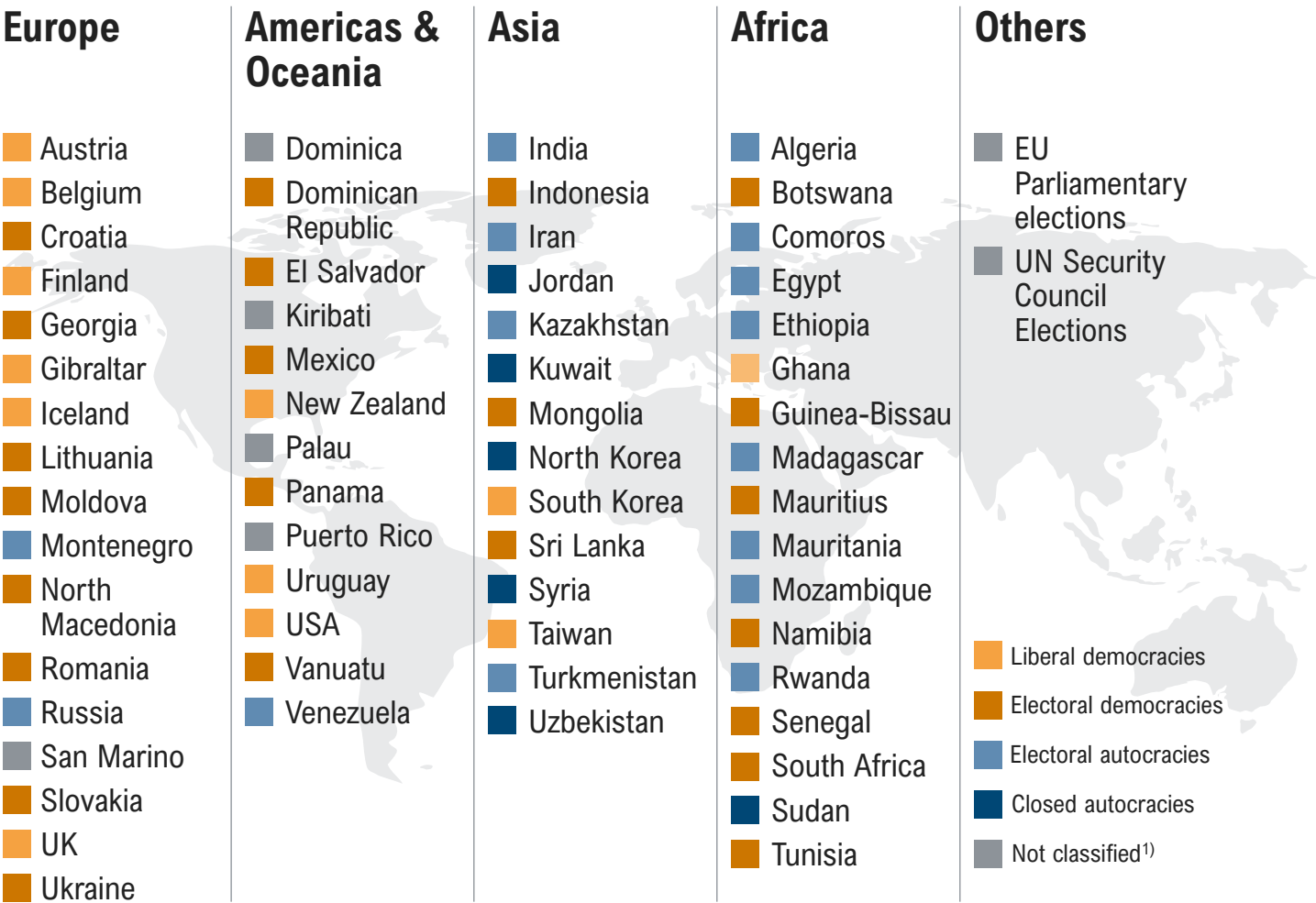
1) Second summit to take place in late 2022

Sources: US State Department; European Commission; Roland Berger



# Looking ahead, 2024 is a highly important year for democracy and governance – A post-pandemic world goes to the ballot box

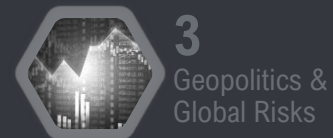
## Parliamentary and/or presidential elections 2024



- > **2024 – A worldwide bumper election year:** An unprecedented number of countries and blocs ranging across the entire spectrum of electoral systems – from liberal democracies to autocracies – head to parliamentary and/or presidential ballot boxes
- > Countries and economic blocs of **considerable global power** include **USA, Russia, India, the EU, a post-Brexit UK**, etc., while a high number of regionally important countries will decide if their respective **political pendulum** swings towards a more democratic governance style – or not
- > The world will be watching the **2024 US elections** in particular: President Biden's four-year term in office – begun in January 2021 and seen as a **possible reset** post-Trump to a path of more **multilateral engagement** and with values more aligned with **Western liberal democratic norms** – will be scrutinized for its overall achievements and performance while speculation of his adversary's return as a presidential candidate will be rife in the interim

1) Colors denote regime type as defined by V-DEM Institute in 2020  
Sources: NDI; V-DEM; Roland Berger





# Good governance is characterized as participatory, effective, equitable, transparent, accountable, strategic and promotes the rule of law

Universal characteristics of global good governance



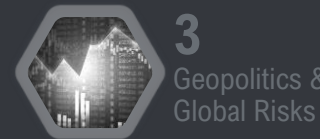
- > **Governance** is the exercise of political, economic, and administrative authority to manage a nation's affairs; the concept of governance may also be applied in different contexts – global, institutional and communal
- > Governance is not limited to the political sphere but also overlays the **social** and **economic** fields. It involves not only government, but **other actors** as well, such as civil society organizations and the private sector
- > At the **global level**, **governance** is a means to **manage issues that cut across national borders** – whether it is a pandemic, a financial crisis, climate change, or a geopolitical dispute. Its principles encompass transparency, integrity, effective collaboration under an open, strategic and consensus seeking vision
- > Governance work itself has expanded well beyond treaty-making to include **formal and informal monitoring, standard-setting, enforcement, and financing**
- > Effective governance is essential to secure **peaceful, healthy, and prosperous societies**, particularly now amid the COVID-19 pandemic, worsening **ecological crises**, mounting **geopolitical** tension, **democratic erosion**, and a growing **backlash against globalization**



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# Good public governance is also critical for achieving the United Nations' Sustainable Development Goals 2030

Six SDGs requiring good public governance (selective)



End hunger, achieve food security and improved nutrition



Achieve gender equality and empower all women and girls



Available and sustainable water management and sanitation



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



Make cities inclusive, safe, resilient and sustainable



Access to justice for all and build effective, accountable and inclusive institutions at all levels

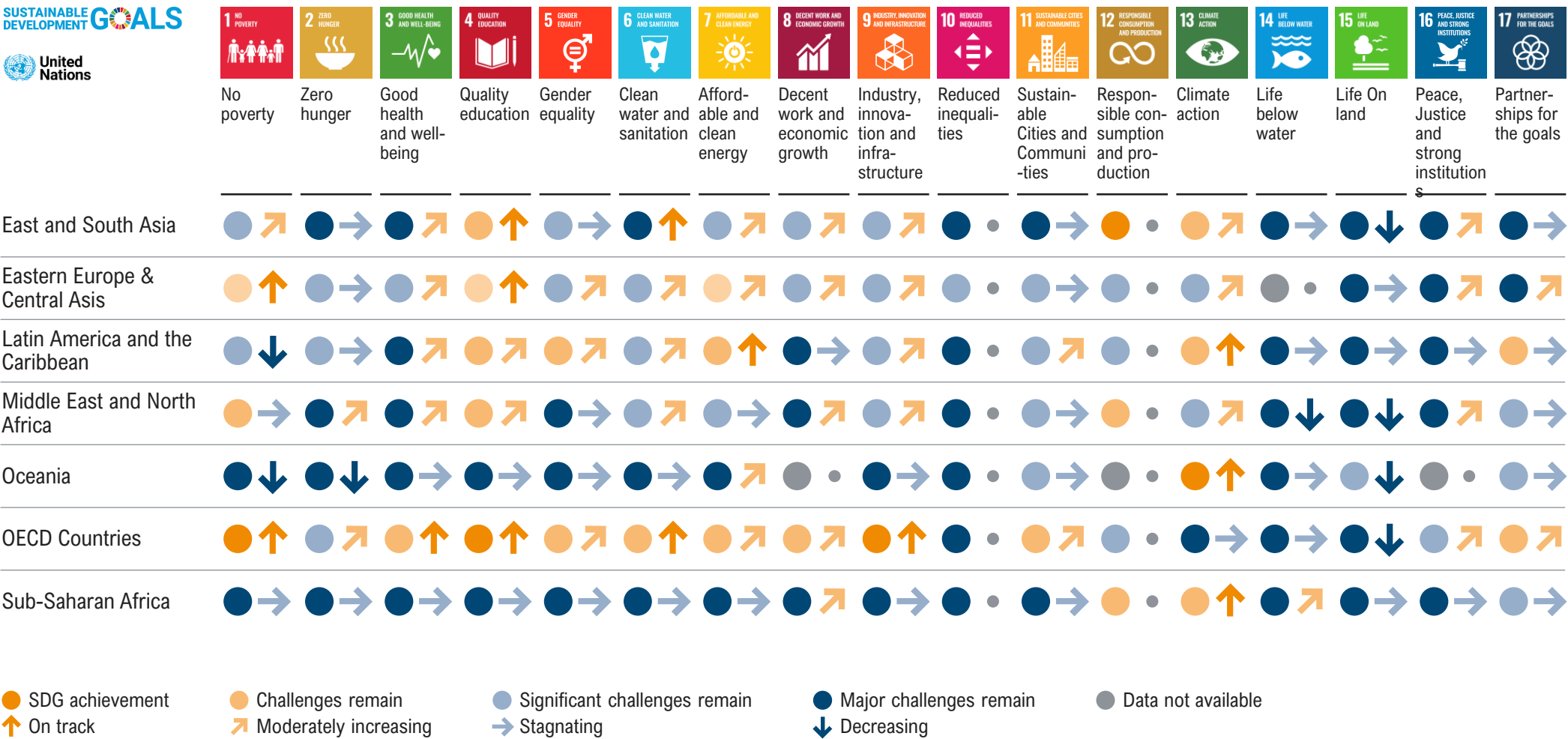
- > **Good governance** has always been recognized as a **critical tool** for **advancing sustainable development** – it is a crucial element incorporated in sustainable development strategies
- > In September 2015, world leaders adopted a 15-year blueprint for a better world: The **Sustainable Development Goals 2030**
- > The **17 goals** are broad, universal and potentially transformative. To a large extent, achieving the goals **depends on coordinated implementation efforts under good public governance**
- > Good governance and sustainable development are **two concepts closely tied together** – the former does not guarantee sustainable development; however, its absence severely limits the latter and can, at worst, hinder it
- > A big issue for governments will be how to **align policies** for delivery of inclusive growth given the **breadth and complexity** of the goals and the need for the inclusion of an unprecedented **range of public and private actors** in policy creation and implementation. Such cross-cutting actions focus on **improving governance processes** – while keeping **government expenditure in line**





# So far, performance concerning SDG achievement vary widely and highlight the broad spectrum of governance challenges for the decade ahead

SDG dashboard, levels and trends by region, 2021<sup>1)</sup>



1) Data availability for 156 countries, population-weighted averages  
Sources: Sachs et al.; Roland Berger





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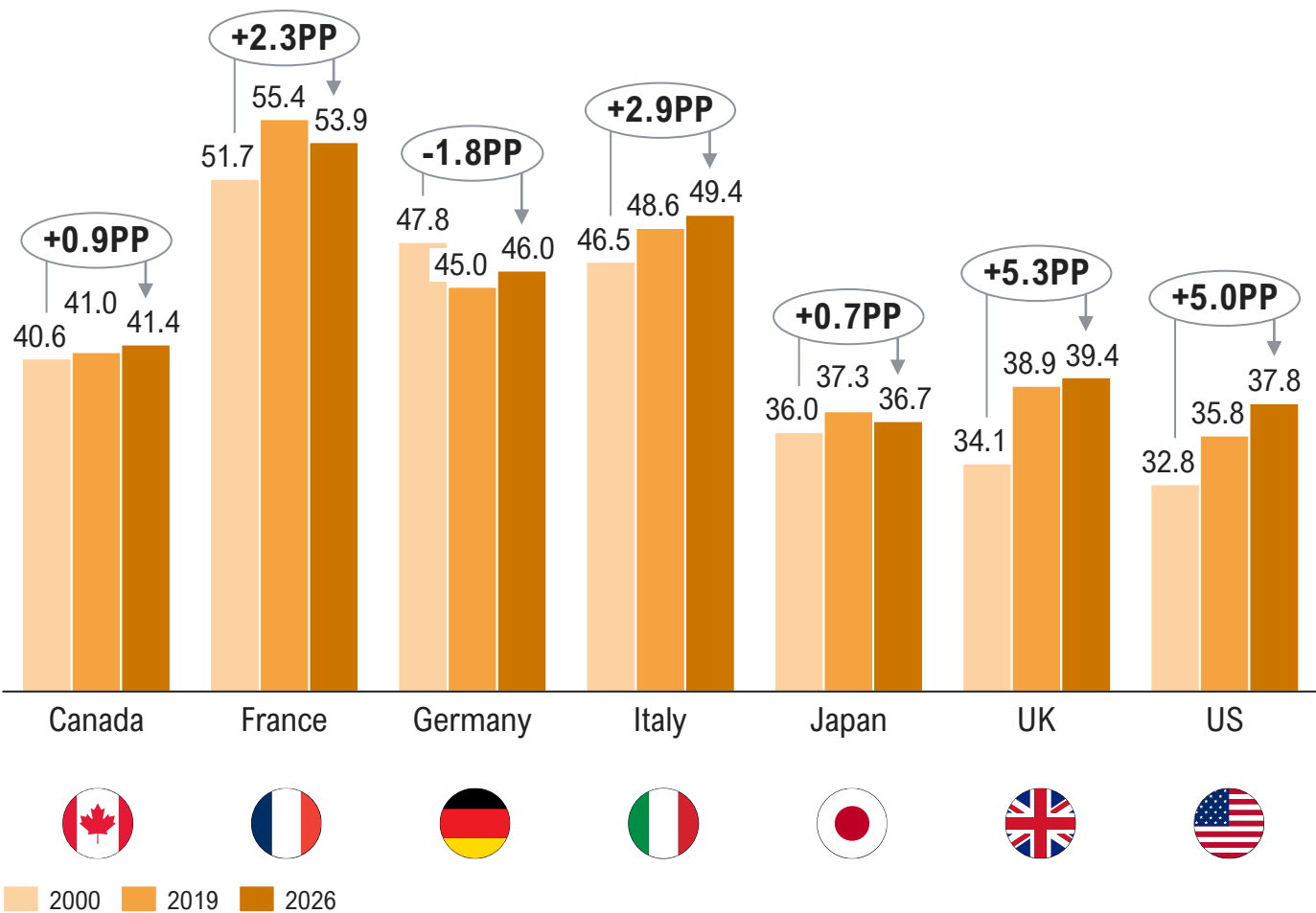


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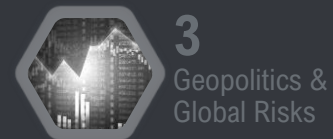
# Government expenditure trends attest to public spending increases in most major economies over the past decade – A trend set to continue

Government spending in major advanced economies (G7), share of GDP, 2000, 2019 and 2026<sup>1)</sup> [%]



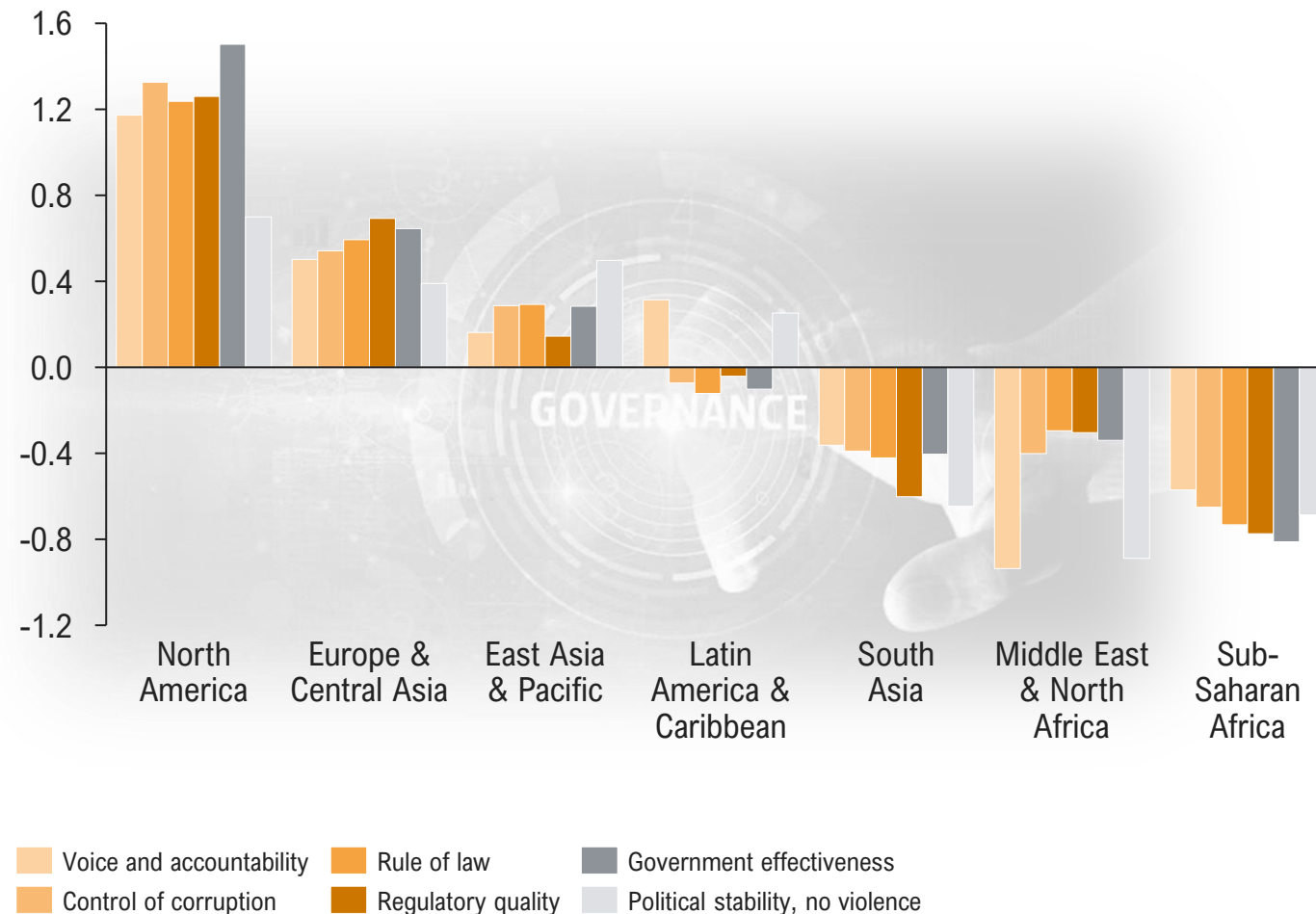
1) Data for 2020 and 2021 omitted due to exceptional pandemic expenditure effects  
Sources: IMF; Roland Berger

- > Broadly, an overall trend of **rising public spending as a share of GDP** over the past two decades is evident, yet **considerable country level differences** are also apparent
- > On current **forecasts**, **government spending as a share of GDP will be greater in 2026 than it was in 2000 in every major advanced economy** – bar Germany, where exceptional public expenditure due to German unification has lately undergone a period of readjustment
- > **Prices** relating to services that **welfare states** provide, such as **health and social care** as well as **education**, grow faster than the economy because of their high labor intensity and generally low rates of productivity increases compared to other sectors
- > **Future spending** – mostly related to a rising aging populations in these countries as well as climate change mitigation and environmental protection costs – **is expected to be disproportionately higher than receipts to the public purse**, leading to continued government expenditure rises



## Governance can be measured and compared at the national level across six broad dimensions – Leading regions also have room to improve

Worldwide Governance Indicators (WGI) scores, averages by components and regions, 2020<sup>1)</sup>



1) Unweighted country average; scale from -2.5 to 2.5, the value 0 is the average value of the respective indicator

Sources: World Bank; Brookings; Roland Berger

- > Official measurements of governance undertaken by the World Bank examine **six composite indicators along the following broad dimensions of governance**:
  - Voice and accountability (see subtrend 1)
  - Control of corruption
  - Rule of law
  - Regulatory quality
  - Government effectiveness
  - Political stability & absence of violence/terrorism
- > In its respective context, the maximum **+2.5** score indicates a situation where there is **best possible performance**, while a score of **-2.5** denotes the worst
- > Data reflect the **views** on governance of survey respondents and **public, private, and NGO sector experts worldwide**, covering 200 countries since 1996
- > Levels attest to the **perceptions of the quality of governance** which – although being generally **higher in high income countries and regions** – is **not uniformly leading or stellar**: There is clearly **room to improve** for all countries and regions



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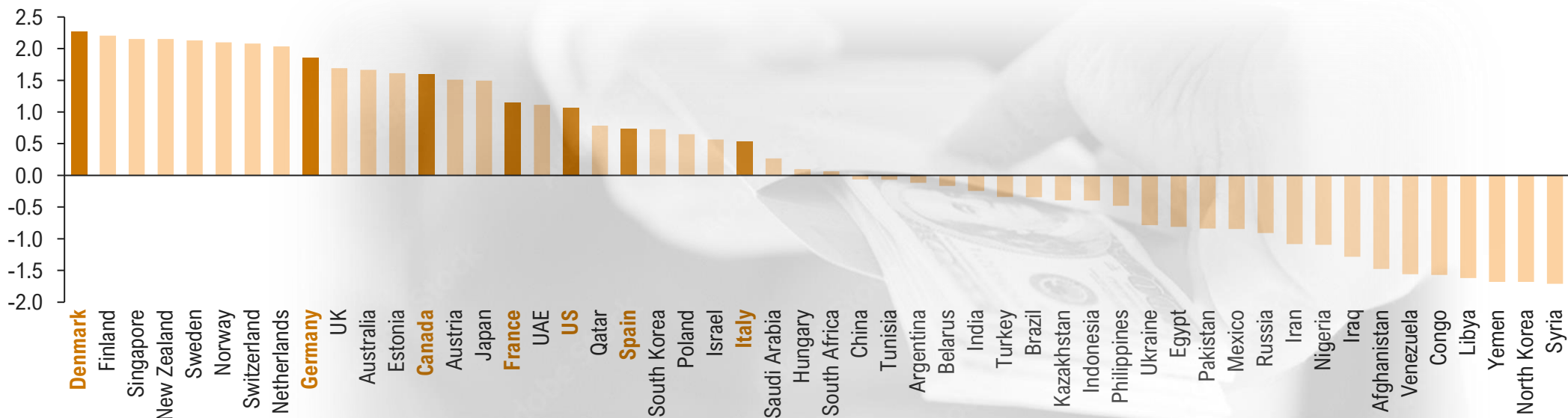


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# World Bank's Control of Corruption indicator attests to governance deficits in some high-income/democratic countries – Some could do better

Worldwide governance indicator: Control of corruption, selected countries by score, 2020



- > The World Bank's **control of corruption indicator** offers a snapshot of a country's perceived quality of governance in terms of its **ability to control of corruption**. The **average score for 2020 based on 192 countries was -0.03 points** within the WGI score range of +2.5 to -2.5. Underlying variables include corruption among public officials, public trust of politicians, diversion of public funds, irregular payments, etc.
- > The data show **significant variations across countries within an income group and/or a region**: While **rich countries generally exhibit higher standards of governance on average**, the variance across countries is considerable, as is, for example, reflected in the score of the **US (1.1)** when compared to other high-income/mature western democracies, such as its northern neighbor Canada (1.6), or Germany (1.9) and, overall top scorer, **Denmark (2.3)**
- > **Can do better**: Such high variation attest to **a governance deficit in some high-income countries**, even if they tend to surpass the average of other (groups of) countries





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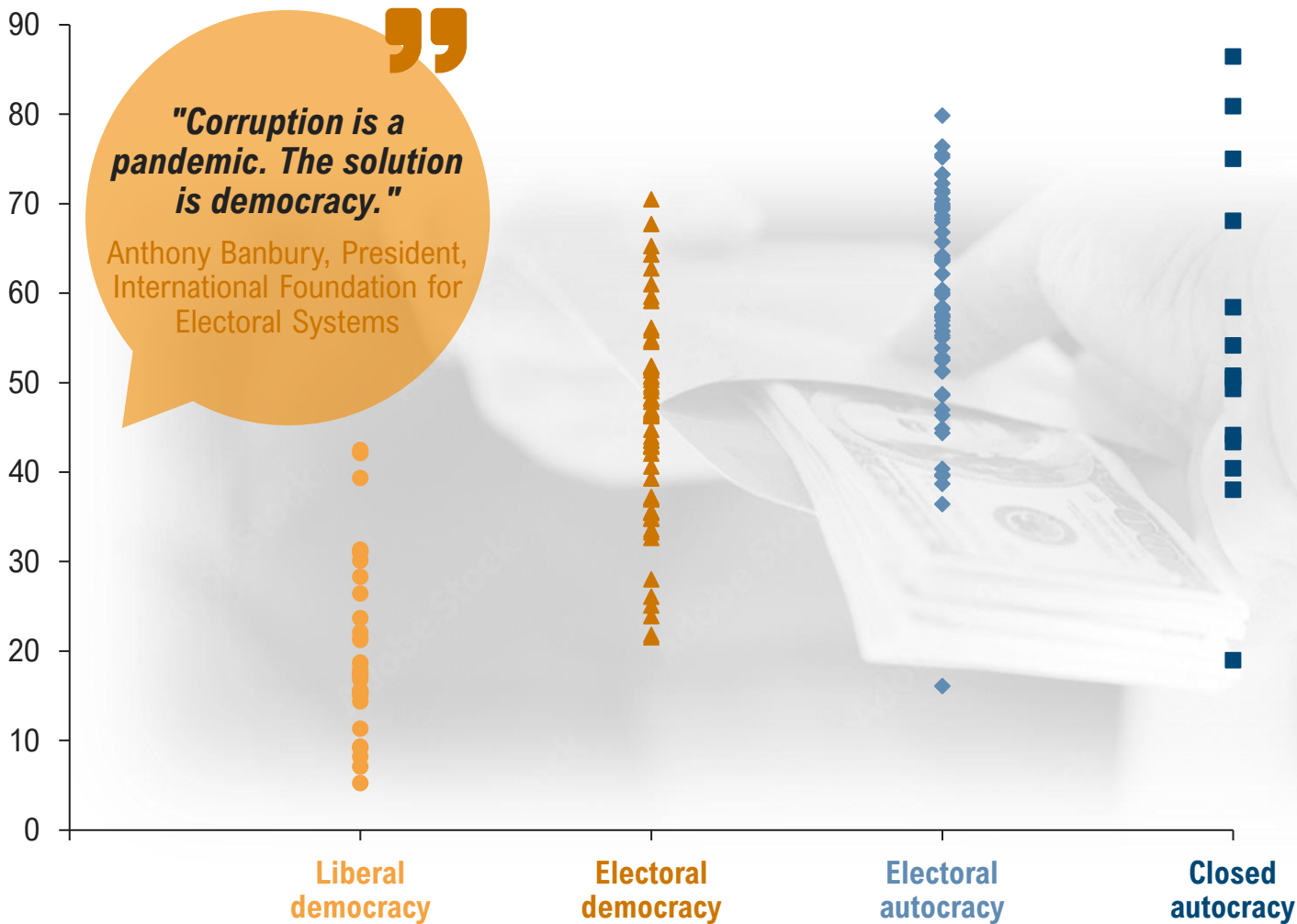


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# The stronger the democratic governance system, the lower the level of corruption

Corruption index and regime type, 2021<sup>1)</sup>



- > The broad picture of the relationship between good governance in terms of levels of corruption (in a country) and the ruling governance system displays a clear message: **The higher the level of democratic governance the lower the level of corruption**
- > But with the **weakening of democracy, corruption is also on the rise**, taking many new forms across private and public sectors
- > Two of the three main themes of US President Biden's 2021 Summit for Democracy centered on the fact that **authoritarianism and corruption are intertwined** and represent an urgent and pervasive threat to democracy, prosperity, and security
- > Corruption is undermining **fair and free elections**: Issues of transparency regarding the **funding of candidates** running for public office **by national and/or foreign donors** are increasingly an area of concern for political parties, national governments and cross-border governance

1) GRP Global Corruption Index score: 0 corresponds to the lowest risk and 100 to the highest; regime type according to V-DEM Index 2020  
Sources: V-Dem; GRP; Roland Berger



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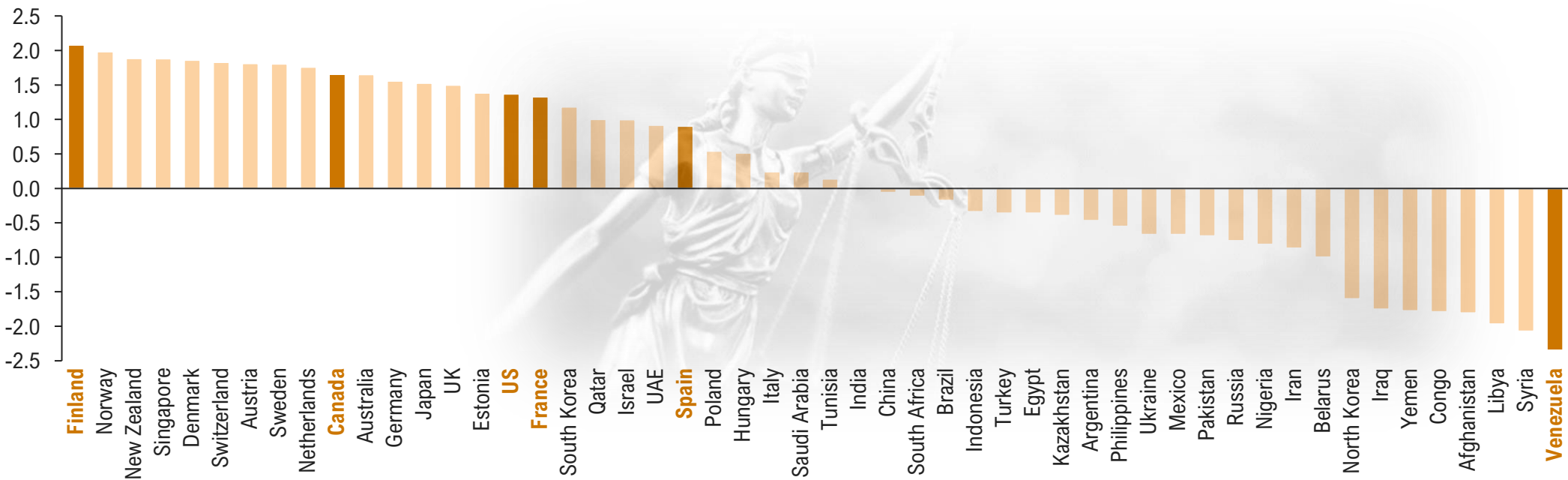


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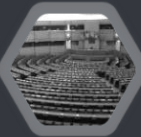


# Success in the fight against corruption is also determined by the strength of the rule of law

Worldwide governance indicator: Rule of law, selected countries by score, 2020



- > The World Bank's **rule of law indicator** captures perceptions of the extent to which agents have confidence in and **abide by the rules of society**, and in particular the **quality of contract enforcement, property rights, the police, and the courts**, as well as the **likelihood of crime and violence**. Other variables include speediness of judicial process, intellectual property rights protection, people trafficking, and many more
- > Again, another Nordic country – **Finland** with a score of 2.1 – **is leading**, while **Venezuela's score is the lowest (-2.3)**. Some high-income countries, such as the US, France, Spain and Italy could also clearly do better in this category
- > With only one country above the 2.0 threshold, it appears that even for comparatively high scoring countries there is **some room at the top to improve** the perceptions and effectiveness of judicial governance



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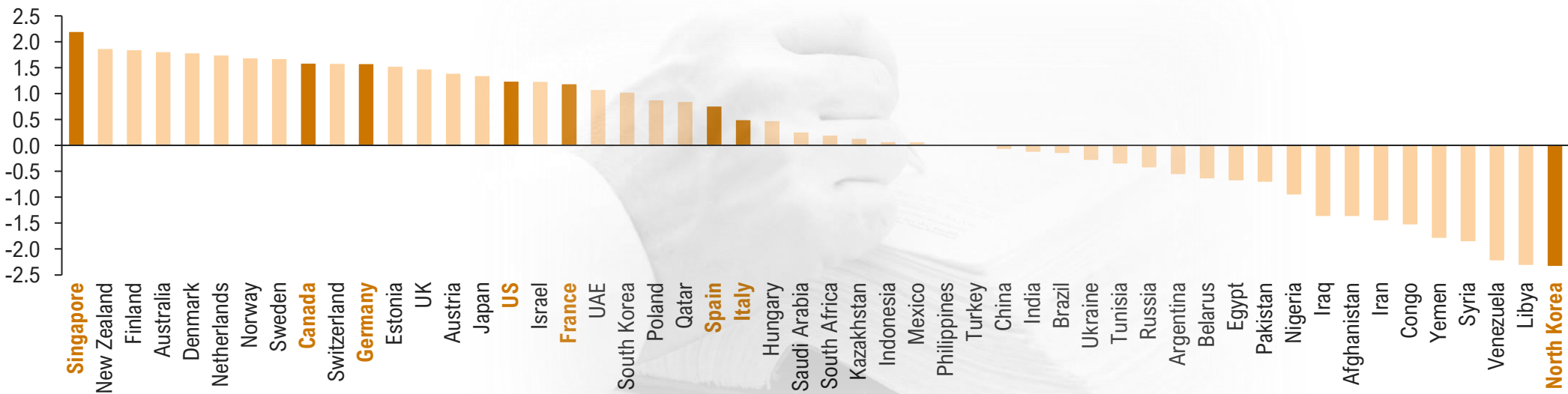


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# Regulatory quality indicator reflects the level of sound governance policies helping to support private sector development and investments

Worldwide governance indicator: Regulatory quality, selected countries by score, 2020



- > The World Bank's **regulatory quality indicator** captures perceptions of the **ability of the government to formulate and implement sound policies and regulations** that permit and promote private sector development
- > Underlying **variables** include **levels of price controls, discriminatory tariffs, excessive protections, unfair competitive practices, burden of government regulations, discriminatory taxes, prevalence of non-tariff barriers, subsidies, investment freedom, financial freedom, efficiency of competition regulation, regulatory burden, tax inconsistencies, and many more**
- > Quality of regulation indicator score is **highest in Singapore (+2.3)**

Governments face several **key regulatory challenges** requiring concerted, **supranational action** –

*A selective analysis follows regarding:*

- > **Climate change & biodiversity**
- > **Space**
- > **Taxation**
- > **Data & AI**





# Climate change and biodiversity challenges are being addressed through national as well as international regulatory measures

Regulatory complexity regarding relevant environmental policies for selected countries

	0-100 laws	101-250 laws	251-500 laws	501+ laws
Unusually complicated laws				
Long laws				
Typical length for the country				
Shorter laws				

- > Historically, national **environmental laws and regulations** exist across most countries. Equally, there are a variety of bodies in which **cross-border environmental challenges and policies** are discussed at the international level. One example is the **UNFCCC**, founded by the United Nations in 1992, regularly hosting member nations' representatives to discuss global climate and biodiversity protection. Around this **Conference of Parties (COP)**, leaders, scientists and regulatory experts meet to find common ground for future regulatory measures and resolutions
- > In terms of **climate change mitigation**, the last major COPs took place in **Paris** in 2016 – when nations proclaimed a goal to step up efforts to limit global temperature rise to 1.5 °C by **reducing CO<sub>2</sub> emissions** – and in **Glasgow** in 2021, which focused on reducing methane emissions, fuel subsidies, and coal-fired power
- > Regarding **biodiversity protection**, supranational efforts are in the middle of a two-part COP, to conclude in May 2022; here, the **target is to protect 30% of the world's land and sea areas by 2030** – up from 17%. However, global biodiversity action has broadly stalled since the Rio Summit in 1992. The key issue is funding: Unlike climate change, **funding for biodiversity comes mostly from the public sector** – signaling future pressures on expenditures
- > Once passed, signed and ratified, international resolutions must be incorporated into national law. Regarding the **complexity of environmental policies**, in some major countries/blocs such as the USA, France or the EU, it is apparent that not only do many laws exist, but that they are also unusually complicated

# Due to climate change, governments are facing new territory – Literally: The Arctic is becoming a zone of strategic competition

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Arctic territorial claims concern the US, Russia, Canada, Denmark, Norway<sup>1)</sup>

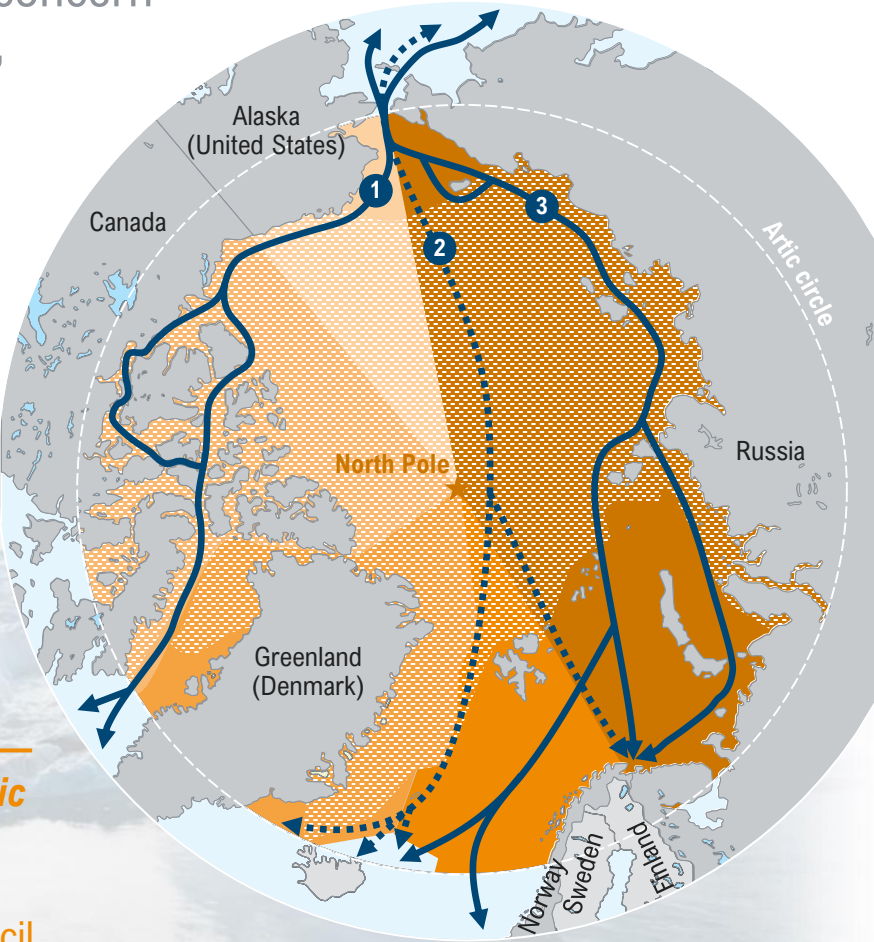
- 1 North West Passage (NWP)
- 2 Transpolar Route (TSR)
- 3 Northern Sea Route (NSR)
- Sea ice extent (Dec 15, 2020)

Arctic Ocean territorial claims

- United States
- Russia
- Norway
- Denmark
- Canada

**"The future of the Arctic is cooperation not confrontation."**

Arctic Council



- > Due to global warming effects, it is expected that most of the Arctic will be accessible year-round to icebreakers by 2050, with existing seasonal passages to vessels accessible without icebreaker support from 2030 onwards
- > New economic, scientific, maritime, and political opportunities in the Arctic will continue to engage competitive dynamics between the United States, Russia, and China – as well as other Arctic Council states
- > With fossil fuels playing a part in the global energy mix well until 2050, the Arctic's oil and gas reserves are a key resource, containing an estimated 13% of the world's undiscovered oil reserves and 30% of its natural gas reserves
- > An increasingly ice-less Arctic also opens new or more permanent shipping routes that can significantly shorten travel times between Europe and Asia, affecting and changing the role of the Middle East in international trade
- > The Arctic's growing geostrategic significance is driving an increase in US and observer countries' attention to the region's security and stability: China's Arctic White Paper (2018) sees its role as a "near-Arctic" state with plans to create a Polar Silk Road by constructing infrastructure throughout the Arctic – potentially gaining access to the Arctic's natural resources, and as a basis for a future military presence

1) 5 countries exert direct Arctic territorial claims: Russia, Canada, Denmark/Greenland, Norway and the US, with a further 3 (Finland, Iceland, Sweden) also being member states of the Arctic Council, the governing body coordinating and implementing policy in the region. A further 38 nations including China (since 2013) hold observer status

Sources: Marine Policy; CSIS; Brookings; KAS; Roland Berger

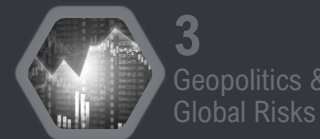




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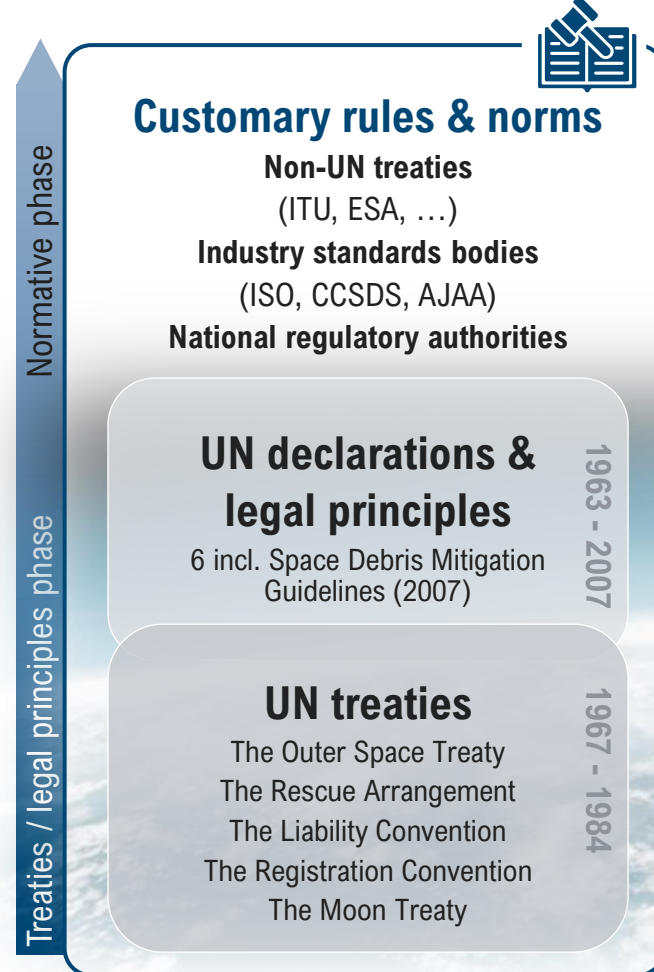


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# Space governance requires new global rules of engagement – Historic treaties and norms no longer reflect the rise of new, ambitious space actors

## Evolution of past and present space governance framework



## Future challenges

- 5 new government-developed space stations by 2030
- 28 nations with domestic space policies
- 50+ countries operate spacecraft in orbit
- 75+ government space agencies – 16 with launch capability
- 20+ new space agencies proposed by countries or blocs
- 1,500+ mostly for-profit space actors
- 30,000+ pieces of space debris regularly being tracked

- > Space is a much evolving area of governance: Cornerstone **UN treaties** date back to the cold war period and were followed by **norms and principles**, mainly through **voluntary, non-legal measures** with the goal of achieving mutual understanding and reducing suspicion and rivalry between states. Today, COPUOS and UNOOSA<sup>1)</sup> act as two of the organizations managing **peaceful space operations** within the existing framework – amongst a much wider number of institutions
- > **The US, Russia, China, Europe, India, Japan, and Israel** represent the **most established space powers**, each with indigenous orbital launch capability and a long track record of operating satellites. Today, a rising number of entities – **nations, blocs and non-state/for profit actors** such as SpaceX, Blue Origin and Virgin Galactic – elsewhere are planning or undertaking space initiatives, shaping the **space industry's increasingly global value chain**
- > Although the **privatization of space** has so far proven to be primarily a Western phenomenon, nations around the world are adopting observed **public-private partnership models** – **competition is rising**, changing the utilization of space
- > **Current international space governance was not built for this changing nature of space development**, often termed NewSpace. In the long-run, bilateral agreements, national policies, and passive support of non-binding agreements will not be sufficient – **new governance is needed**
- > Of the **many challenges** arising – overpopulated orbits, growing space debris, radio frequency interferences, issues of spectrum allocation, and the development of counter-space capabilities – none can be addressed without reinstating intergovernmental bodies and **new binding rules of engagement** to develop an **effective space regime**

1) COPUS: Committee on the Peaceful Uses of Outer Space; UNOOSA: United Nations Office for Outer Space Affairs

Sources: Wilson Center; UN; ESA; Ghent Institute; Roland Berger





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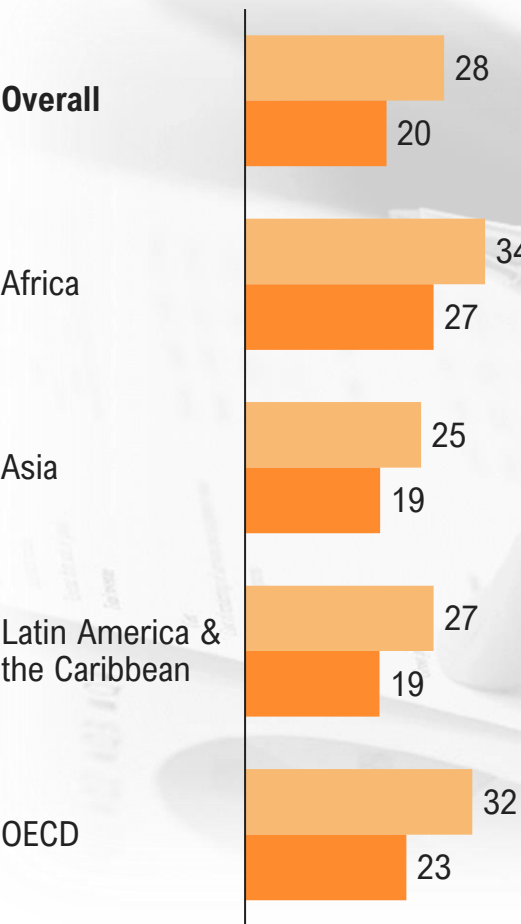
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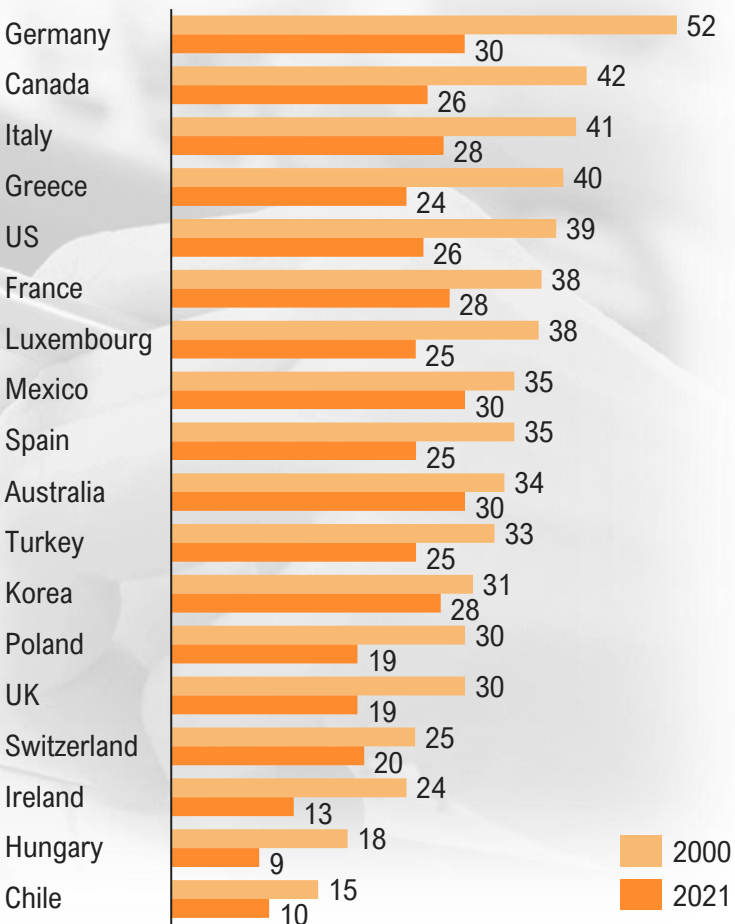
# Concerted governance efforts are underway limiting the global race to the bottom in terms of corporate taxes – Tax governance also concerns ...

Corporate statutory corporate income tax rates, 2000 and 2021<sup>1)</sup> [%]

## Selected regions<sup>2)</sup>



## Selected OECD countries



- > In late 2021, G20 leaders endorsed the implementation of a **15% global minimum tax for multinational enterprises (MNEs)**, coming into law in 2023
- > To be implemented by **141 countries and jurisdictions**, the aim is to reign in the long observed global "race to the bottom" in terms of **corporate income tax** rates, where mismatches between countries' tax systems are instrumentalized for the purpose of aggressive tax planning
- > In terms of global tax governance, this agreement equips governments with **domestic and international instruments** needed to tackle **tax avoidance**, which is **costing governments an estimated USD 100-240 billion in lost corporate income tax revenues per year**
- > The new minimum corporate tax rate is part of a wider, two pillar **BEPS framework<sup>3)</sup>** tackling **international taxation issues**. Its mandate also addresses emergent taxation challenges – scale without mass, reliance on intangible assets, centrality of data – arising from digitalization, globalization and new business models

1) Combined tax rate of state and sub-central tax rates 2) Unweighted country average 3) BEPS: Base Erosion and Profit Shifting  
Sources: OECD; ITR; Roland Berger



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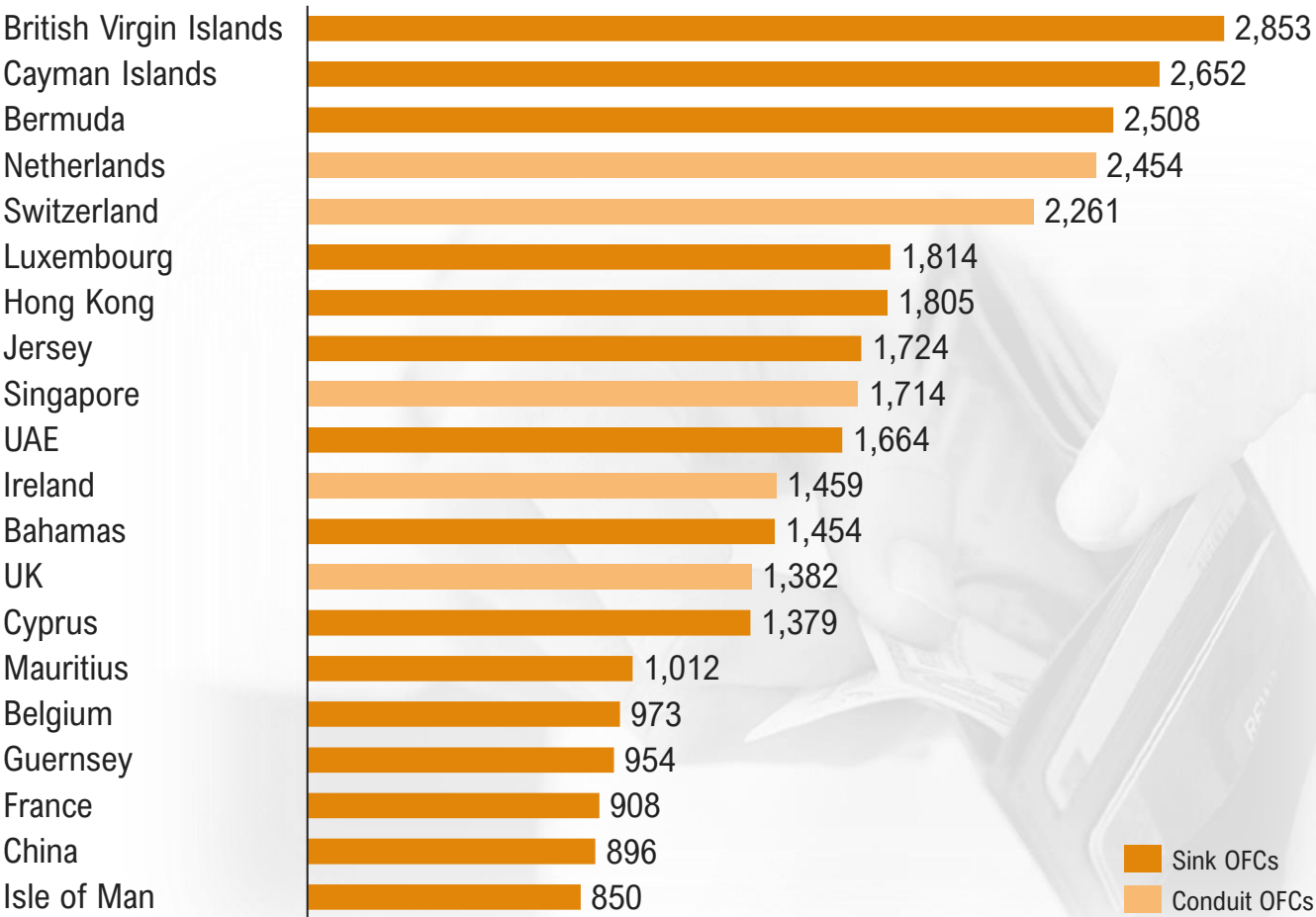


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# ... offshore financial centers – Corporate tax havens come in a wide variety of locations and display different characteristics

Corporate tax haven index: Top 20 jurisdictions, ranked by score, 2021<sup>1)</sup>



- > Corporate – and private – tax avoidance involves the use of **tax havens**, more correctly termed **offshore financial centers (OFCs)**. The term "offshore" relates to the user's location. American corporations are generally considered the largest user group
- > OFCs are instrumental in **aggressive tax planning**, (legally) reducing an MNC's tax bill by **moving capital across borders** taking advantage of **loopholes in tax legislation**, and/or by **seeking most advantageous tax rates** to allocate dividends, royalties, interest, etc.
- > OFCs can be categorized in many ways, for example into **sink OFCs** (traditional tax havens including some Caribbean islands, Jersey, Hong Kong, Luxembourg, etc.) and **conduit OFCs** (modern corporate tax havens acting as a financial intermediary) – the latter include the Netherlands, Switzerland, UK, Ireland and Singapore
- > Additionally, an estimated **USD 21-32 trillion** of **private financial wealth** is located, untaxed or lightly taxed, in tax havens and other **secrecy jurisdictions** around the world




1) Jurisdictions are ranked by their CTHI value (Corporate Tax Haven Index value), calculated by combining a jurisdiction's Haven Score and Global Scale Weight. A jurisdiction's Haven Score is a measure of how much scope for corporate tax abuse the jurisdiction's tax and financial systems allow and is assessed against 20 indicators. A jurisdiction's Global Scale Weight is a measure of how much financial activity from multinational corporations the jurisdiction hosts

Sources: Tax Justice Network; CORPNET/UvA; Roland Berger



# US, EU and Chinese data governance approaches reflect mixed views and lack of consensus – Global digital players shape data ecosystems

Main features of data-related policies in the US, China and the EU

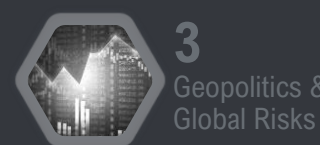
	 <b>United States</b>	 <b>China</b>	 <b>European Union</b>
<b>Economic growth and development in the data-based digital economy</b>	> Mainly market-based	> Strong government intervention	> Regulation > Part of recovery plan after COVID-19 to support development of the digital economy
<b>Data protection and privacy</b>	> Issue not historically prioritized > No singular principal US data protection/privacy legislation > State laws (by 2023) in California, Colorado, Virginia	> Rules focusing on business > Personal Information Protection Law (PIPL) 2021	> EU General Data Protection Regulation (GDPR) 2018, based on fundamental rights and values
<b>National security</b>	> Data for national security are a clear priority	> Wide government access and control	> Each member responsible; EU can overrule in certain circumstances
<b>Competition policy</b>	> Data not typically seen as a competition issue, but changes more likely due to important antitrust investigations and court cases	> Unclear if data are considered a competition issue > May support domestic and state-owned companies > Antitrust fine for Alibaba (2021)	> Data can be considered a competition issue
<b>Cross-border data flows</b>	> Promote free data flow	> Extensive restrictions to data flows	> Free data flow within the EU and adequate states > Trade policy promoting free data flows > Some recent initiatives pointing to restrictions
<b>Expansion strategy to increase control of data</b>	> Through private digital corporations	> Digital Silk Road	> Regulatory leadership and partnerships



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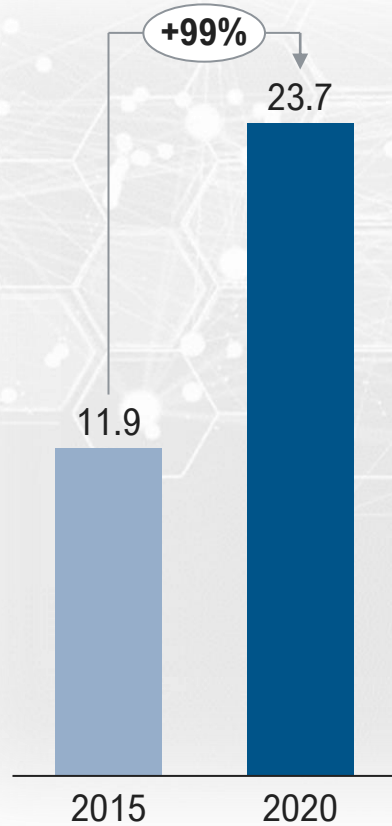


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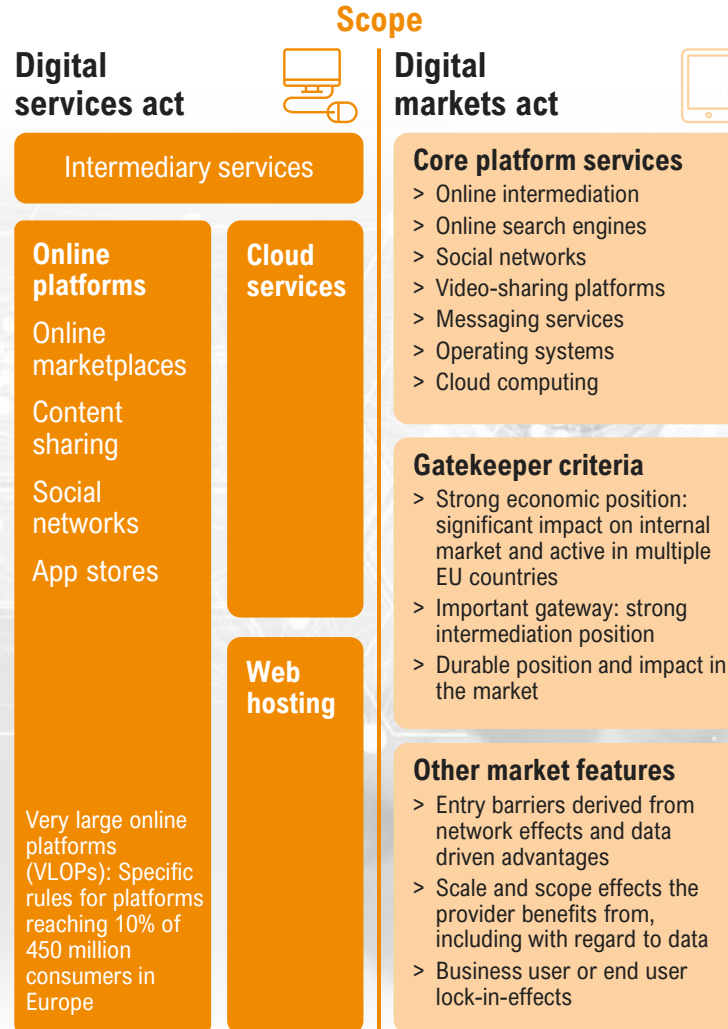


## Digital platforms are increasingly faced with regulatory issues – Lobbying spending has doubled. EU is setting new rules of digital engagement

Global digital platforms lobbying spending in the EU, 2015 and 2020<sup>1)</sup> [Euro m]



EU digital services package



- > With the advent of large digital platforms, companies like Uber, Airbnb, Facebook, Google, Amazon, Alibaba etc. have tended to bring **their governance across borders**, de facto **regulating through contract transaction** – up to a point
- > Globally, this tendency towards the **rise of transnational private regulation in the digital economy** is being met with **resistance**, as some legal systems place increased pressure on large technology companies to comply with (existing and new) national legislation
- > Keen to establish a regulatory foothold, businesses active in the digital economy have increasingly turned to lobbying: **612 companies**, groups, and business associations **lobby on behalf of the digital industry in the EU**. **Lobbying** spend of the largest digital players has **doubled** within five years
- > Tensions have been emerging between so-called **GAFAM** (Google, Amazon, Facebook, Apple, Microsoft) and the **European Commission** – but also in other jurisdictions such as the **UK** (draft Online Safety Bill) and **Australia** (Online Safety Act 2021), and with calls for the **US** to either lead or align in global digital governance in areas of consumer and competition rules, data protection and disinformation measures
- > The incoming EU Digital Services Package, and particularly its **Digital Markets Act** – designating "gatekeeper" status to prominent digital players – **sets the tone for new rules of engagement**, compliance and enforcement in the digital economy
- > Another areas of caution and much under debate extends to the private ownership of digital economy firms when **active in sensitive sectors**, as well as the **financial power of non-state actors**, such as charitable foundations and **wealthy philanthropists**, increasingly stemming from the digital realm

1) Digital platform companies include Google, Amazon, Facebook, Apple, Microsoft, Alibaba (2020 only)

Sources: Corporate Europe Observatory; Roland Berger; FleishmanHillard





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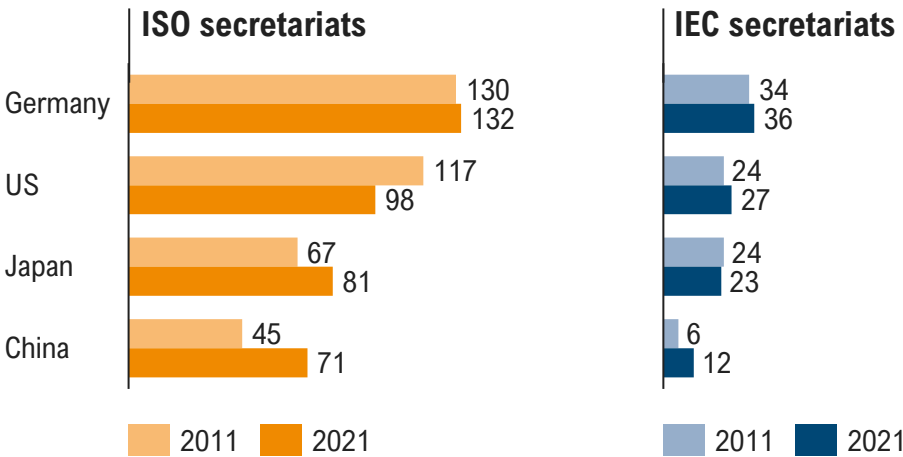


# Development of AI standards are an emerging, complex testbed for supra-national governance – AI superpowers take widely different approaches ...

Areas concerning AI governance<sup>1)</sup>



Number of secretariat positions by country, 2011 and 2021



1) Standards organizations involved in AI include ISO/IEC JTC, ITU, IEEE, CEN-CENELEC, ETSI, IETF  
Sources: OECD; OxCAIGG; EU; Nikkei Asia; Carnegie Endowment; China Briefing; HBR; Roland Berger

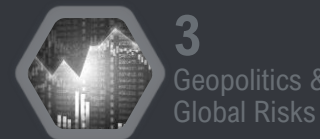
- > For best possible future development, the **emerging field of AI** needs to be supported by **an agreed supranational policy framework** in areas of security, privacy, engineering, big data, accountability, quality and ethics. The nature of AI calls for international efforts at a political level, to **mitigate risks to multilateralism** and global trade, including through the **EU-US Trade and Technology Council**, and through **cooperation** with the "**standardization superpower China**"
- > The **world's first concrete proposal** for regulating artificial intelligence, the **draft EU AI Act** (April 2021) is a landmark attempt to provide a regulatory foundation for the **safe, fair, and innovative development of AI in the EU**, and is of consequence **across the globe**. EU regulation will employ a **tiered risk-based approach** concerning the controls it will place on the use of AI systems including the **use of algorithms** and depending on the intended **purpose** of the AI system; companies that violate regulations could **face fines** of up to 6% of their worldwide annual turnover. If finalized in 2022, a subsequent two year "grace period" appears likely
- > In the **US** by contrast, regulatory guidelines have been proposed on an **agency-by-agency basis**; there is currently **no federal regulation** of AI in the US – but it is on the horizon. Meanwhile, much of the governing legal framework is through the **cross-application of a mix of rules and regulations governing traditional disciplines**, such as product liability, intellectual property, discrimination and workplace rights, and data privacy
- > Strikingly different, China's **Standards Strategy 2025**, published in October 2021, strives to play an **increasing role** in the **formulation of international standards – including AI** – to **shape the future direction of tech development overall**. **Specifications** affect products, services and processes of **all producers** and consumers/users around the world and are usually **formed based on the best technical solutions** – indicating the advanced development of a country, also in terms of innovation. Taking the **lead in the formulation of industry standards**, **allows for stronger control over system design and rulemaking**, leading to a dominating position in the global market. Not limited to **AI and data**, China's strategy affects other areas of innovative technologies yet to be standardized (drones, lithium batteries, etc.)



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## ... leading to surprising positions in the global AI index. By government strategy criteria, US falters while China holds a steady second place

Global AI Index country ranking, by Government Strategy criteria, 2021<sup>1)</sup>

Country		Government strategy	Total ranking	Commercial	Talent	Research	Development
Canada		1	4	6	7	10	10
China		2	2	2	24	2	2
Saudi Arabia		3	26	19	55	3	25
Spain		4	21	8	21	26	29
France		5	10	10	9	16	15
Russia		6	32	39	34	30	19
South Korea		7	7	15	28	12	3
Finland		8	13	21	16	17	20
Colombia		9	49	50	53	62	51
Germany		10	9	8	11	6	12
UK		11	3	4	3	5	11
Australia		12	11	13	15	8	4
UAE		13	34	27	58	42	23
Slovenia		14	29	49	33	24	48
Singapore		15	6	5	4	4	14
Poland		16	28	34	30	36	31
US		17	1	1	1	1	1

- > A new **Global AI Index (GAI)** draws on a wide range of primary data to **measure the capacity for artificial intelligence along innovation, investment and implementation processes** in OECD nations across 7 criteria and 143 variables
- > Its **AI Government Strategy** pillar (16 underlying variables) focusses on the **depth of commitment from national government to artificial intelligence**, factoring in **spending commitments** and **national strategies**. Herein, Canada, with a national AI strategy since 2017, is in the lead, although AI systems in Canada – not dissimilar to US data governance – are **regulated by a jumble of legislation** regarding general privacy, technology and human rights
- > However, **ranked by total GAI score**, the **US** – although **only ranked 17th by government strategy** largely due to the absence of a comprehensive national approach to AI regulation and the **new national AI task force** to report back to President Biden only by the **end of 2022** – **is in the lead overall**, thanks to its superior talent base as well as strong R&D and commercial investments
- > **China** is in a steady second place. In third place and now outside the EU, the **UK** has most recently launched a **new ten-year national AI plan** while nurturing its talent base, increasing research and commercial investment
- > Mirroring national approaches to data, **widely different tactics and strategic foci** permeate the current state of AI technology governance, ranging from initiatives by national regulators to more market-driven, private actors

1) Table shows five out of seven criteria; infrastructure and operating environment not shown  
Sources: Tortoise Media; Gibson Dunn; UK Government; Roland Berger



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# Digital entrepreneurs are also involved in a wide range of charitable endeavors – Donations have an ambitious reach

## Largest private donations

Donor	Recipient	Donation [USD m]
Jeff Bezos	Bezos Earth Fund	10,000
Phil & Penny Knight	Knight Foundation	901
Phil & Penny Knight	University of Oregon	300
June & Fred Kummer	Kummer Institute, University of Missouri	300
Mark Zuckerberg & Priscilla Chan	Center for Tech and Civic Life	250

## Top 5 wealthiest foundations

Organization	Focus	Giving in 2019 [USD m]
Bill & Melinda Gates Foundation		4,057
Wellcome Trust		327
MasterCard Foundation		298
Children's Investment Fund Foundation		272
Ford Foundation		196

## Selected global NGOs

Organization	Focus	Income in 2020 [USD m]
Médecins Sans Frontières		2,178 <sup>1)</sup>
Oxfam		473 <sup>2)</sup>
Amnesty International		383 <sup>2)</sup>
WWF		365
Greenpeace		91

xx Digital entrepreneurs

■ In March 2020, the top three major foundations jointly launched the COVID-19 Therapeutics Accelerator initiative to support the pandemic effort with USD 125 million in seed money, ultimately working with the WHO, governments and private sector funders and organizations, as well as global regulatory and policy setting institutions

1) EUR/USD exchange rate January 13, 2022: 1.15; 2) GBP/USD exchange rate January 13, 2022: 1.37; business year from April 1, 2020 to March 31, 2021

Sources: NGO financial statements, OECD; foundation websites; Roland Berger



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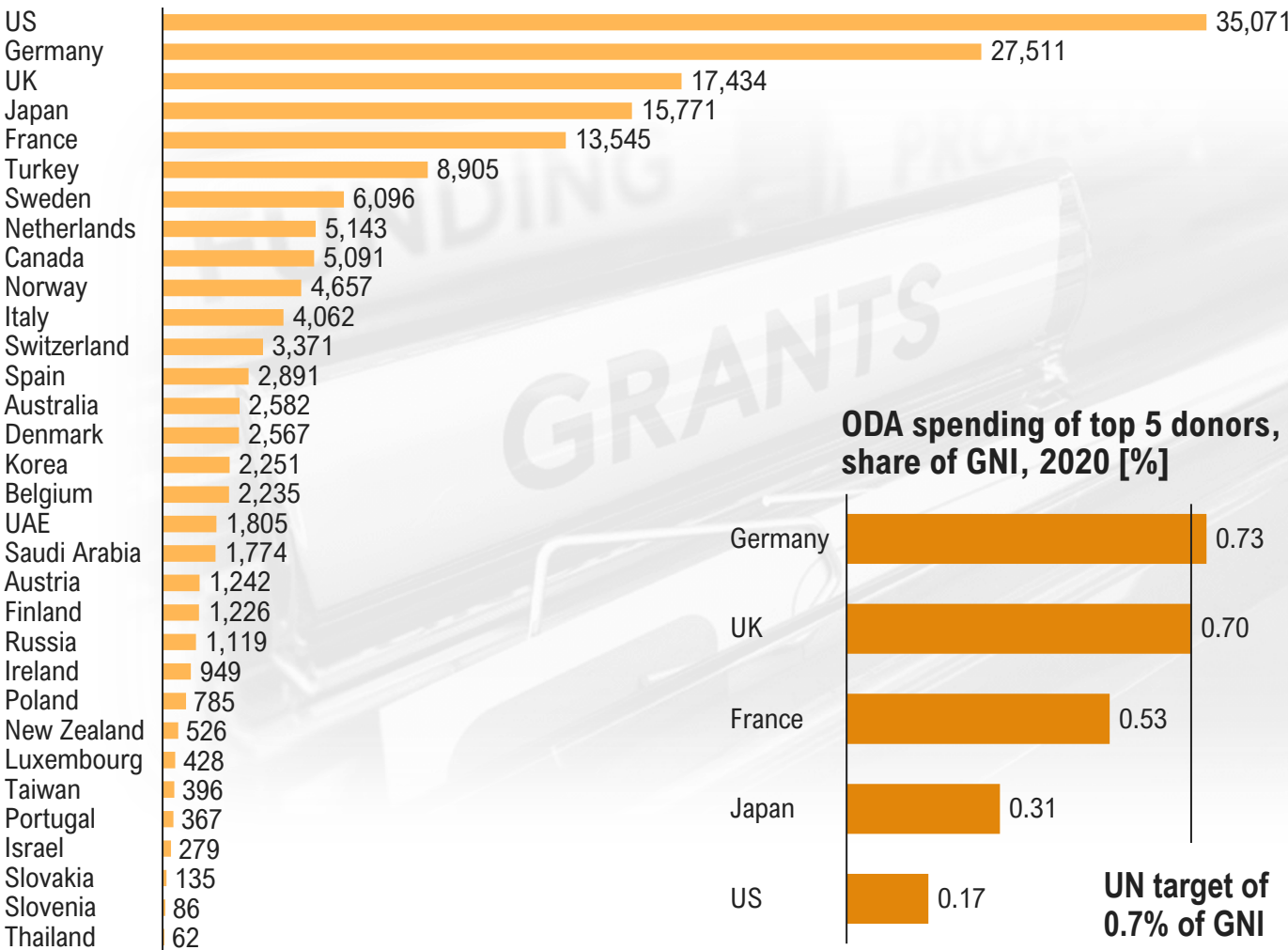


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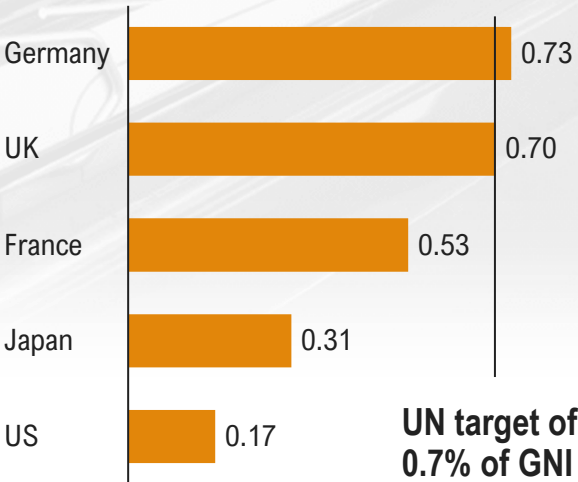


# Governmental official development assistance is concentrated among five countries – Foreign aid contributes to economic and political stability

Net official development assistance grant equivalent, 2020 [USD m]



ODA spending of top 5 donors, share of GNI, 2020 [%]



UN target of 0.7% of GNI

- > Official development assistance (ODA) has been increasing for decades. ODA is defined by the OECD Development Assistance Committee (DAC) as **government aid** that **promotes** and specifically targets the **economic development and welfare of developing countries**; it remains the **main source of financing for development aid**
- > The **top five donor nations** account for around **64%** of total government aid
- > However, some of the top donor countries spend relatively little on ODA as a percentage of GNI – indeed, the **number one ODA donor, the United States**, spent **less than 0.5%** on ODA in 2020
- > The **UN target of 0.7% ODA of donors' national income** is reached by less than half a dozen of donor countries – these include Sweden, Norway, Luxembourg, Germany and Denmark
- > **Wider concepts of foreign aid**, other than ODA, can take on very different forms: **China** – not being part of the OECD DAC – is estimated to spend USD 5 billion on foreign aid, however this is considered mostly **transactional** in nature
- > **Total ODA** (USD 161 billion) is **dwarfed by the total amount of remittances** (USD 540 billion to low- and middle-income countries in 2020), thus supporting home nations **through transfers of private funds** from abroad





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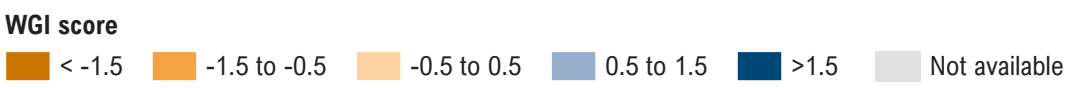
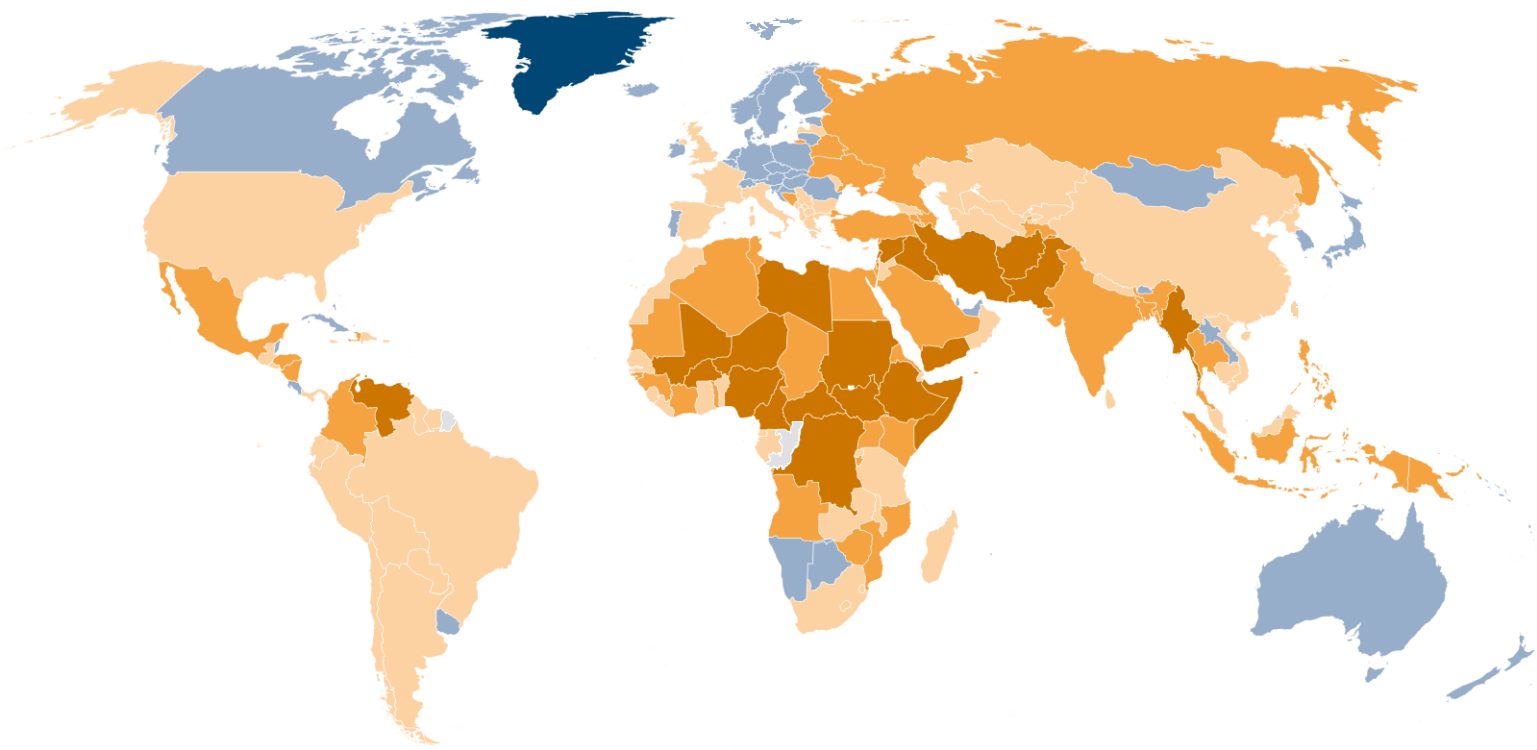


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# World Bank political stability indicator reflects the state of (in)stability of a country's political regime – Variables include levels of conflicts and unrest

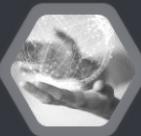
Worldwide governance indicator: Political stability, no violence, 2020



- > The World Bank's **Political stability, no violence** indicator captures the **perceived** likelihood that **the government will be destabilized or overthrown** by unconstitutional or violent means, including politically-motivated **violence** and **terrorism**
- > The score reflects on the many **processes** by which **governments are selected, monitored, and replaced**
- > A comprehensive set of **variables include** violent demonstrations, **social unrest**, armed **conflict**, international tensions, **terrorist threat**, **political terror**, security risk rating, intensity of **internal conflicts** (ethnic, religious or regional), government stability, orderly transfers, **external conflict**, **ethnic tensions**, **protests and riots**, interstate and civil war, and many more
- > There is clearly **much room to improve political stability** in many countries – surprisingly so in the US, in some parts of Europe as well as in large parts of South America



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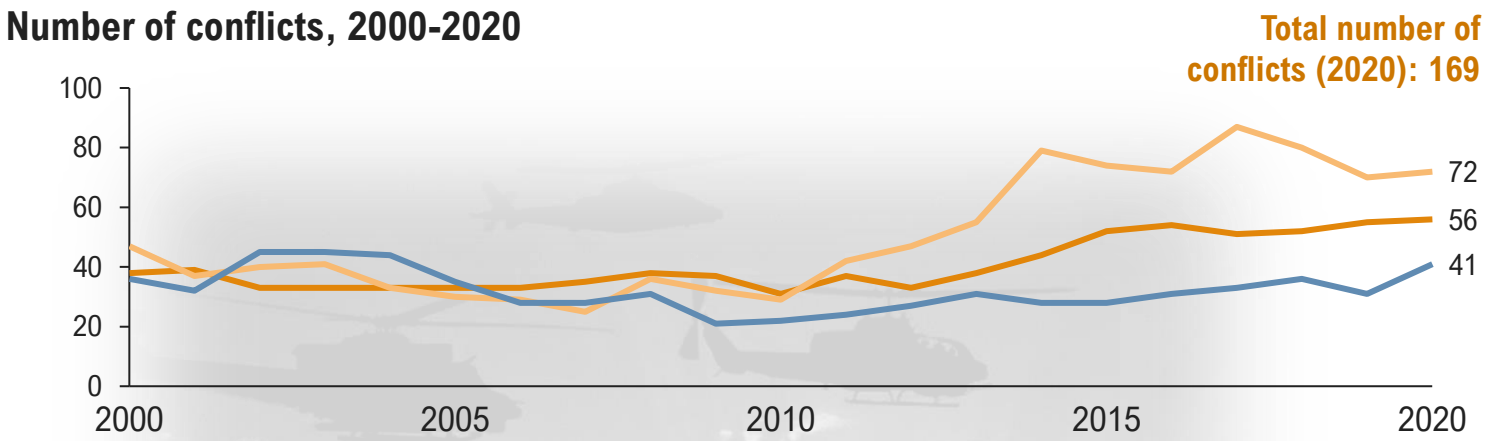
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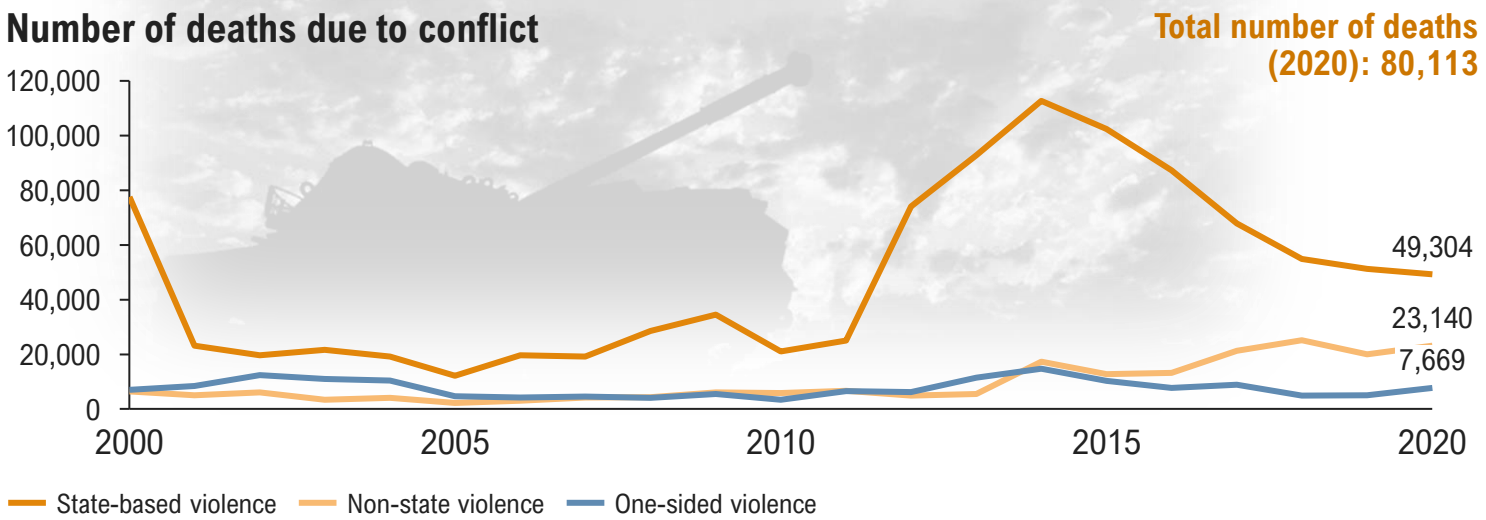
# Although the number of conflicts has steadily increased in recent years, the number of deaths from conflicts has notably eased

Non-state conflicts proliferate

Number of conflicts, 2000-2020



Number of deaths due to conflict



— State-based violence — Non-state violence — One-sided violence

- > According to figures from Uppsala University's Conflict Data Program, the **number of conflicts** (due to state-based and non-state violence) is **rising** but **battle deaths are down** from seven years ago, mostly because Syria's civil war atrocities having largely subsided. Although battle deaths may be down, the **sufferings now shifts** to the most vulnerable in the general population
- > Although **states rarely go to war with one another**, more local conflicts rage than ever, but they tend to be of lower intensity
- > **Over the past two decades, such non-state conflicts have increased**; by definition, this refers to the use of armed force between two organized armed groups, neither of which is the government of a state, and which result in at least 25 battle-related deaths in a year



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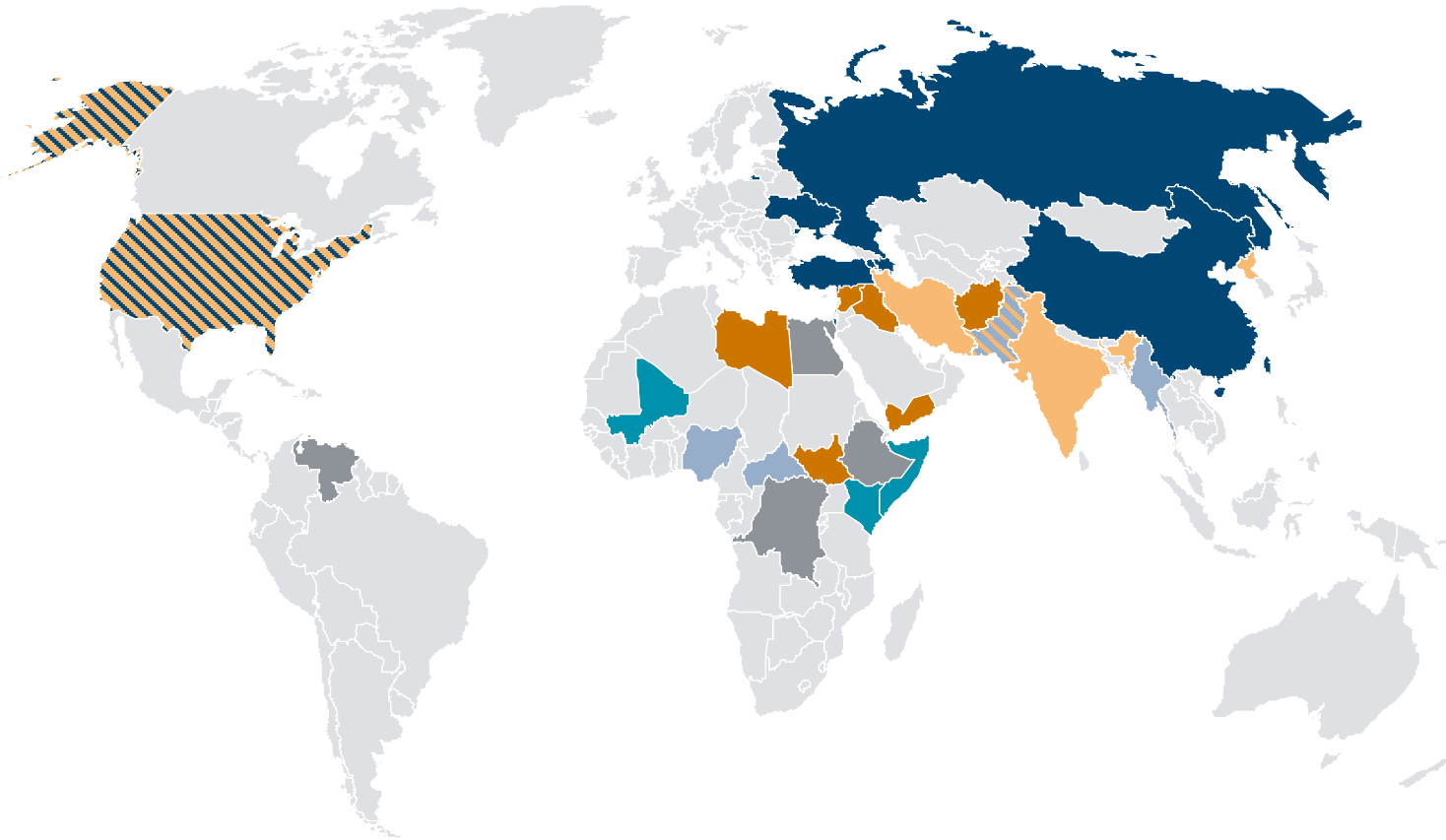
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## The global conflicts map displays several worsening flashpoints and a much longer list of persisting and unwavering conflict areas

Where are the worlds ongoing conflicts?



### Territorial dispute

- > Russo-Ukrainian war
- > Nagorno-Karabakh conflict
- > Kurdish-Turkish conflict
- > Israeli-Palestinian conflict
- > East China Sea disputes
- > South China Sea disputes

### Civil war

- > Conflict in Afghanistan
- > Yemeni civil war
- > Syrian civil war
- > Libyan civil war
- > Instability in Iraq
- > South Sudanese civil war

### Interstates

- > US-Iran conflict
- > India-Pakistan conflict
- > North-Korea crisis

### Political instability

- > Instability in Lebanon, Egypt, DRC and Venezuela
- > Tigray War in Ethiopia

### Transnational Terrorism

- > Mali war
- > Islamist Militancy in Pakistan
- > Al-Shabaab in Somalia & Kenya

### Sectarian

- > Boko Haram Militancy in Nigeria
- > Violence on the Central African Republic
- > Rohingya Crisis



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# Geopolitical flashpoints abound: Conflicts, tensions and regime changes cause humanitarian crises – Violations shift to include new methods ...

## Important conflicts to watch in 2022

- 1 Ukraine
- 2 Ethiopia
- 3 Afghanistan
- 4 US-China
- 5 Iran vs US and Israel
- 6 Yemen
- 7 Israel-Palestine
- 8 Haiti
- 9 Myanmar
- 10 Islamist militancy in Africa

## Signs to watch out for

According to the UN, the **most common causes** of conflict today include:

- > Regional tensions
- > Breakdowns in the rule of law
- > Co-opted or absent state institutions
- > Illicit economic gain
- > Scarcity of resources exacerbated by climate change

## Other methods of modern warfare

- > Cyberattacks
- > Disinformation
- > Electoral interference
- > Instrumentalization of migrants

- > **Battle fatalities** may be **down**, but **suffering is not**. Millions of **Ethiopians** suffer acute food insecurity because of the country's civil war. Fighting involving **Islamists elsewhere in Africa** drives millions of people from their homes and causes **humanitarian devastation**. **Yemen's** conflict **kills** more people – mostly women and children – **due to starvation** or preventable **disease** than violence
- > Violence levels have dropped since the Taliban seized power of Afghanistan in August, but **starvation could leave more Afghans dead**, including millions of children, than past decades of fighting
- > Worldwide, the number of **displaced people**, most due to war, is at a **record high**
- > **Great power standoffs continue or intensify**, involving Russia over Ukraine, and Taiwan
- > Moreover, **states compete fiercely** even when they're not fighting directly: The **21st century aggression and violation toolbox** contains a broad set of methods: **Cyberattacks**, disinformation campaigns, election interference, economic coercion, and the instrumentalization of migrants





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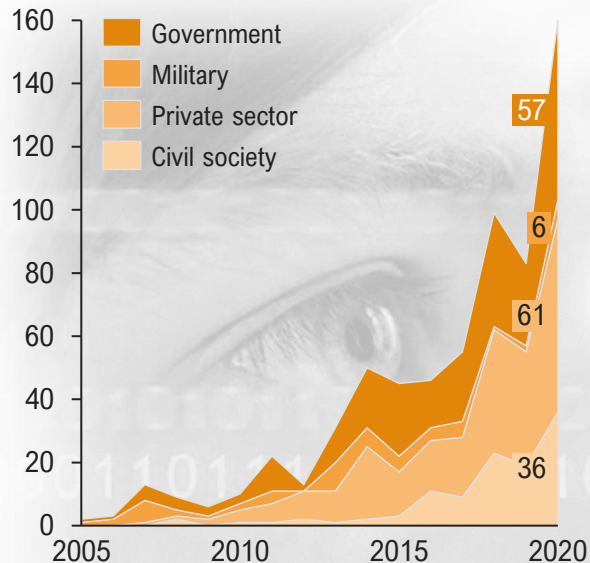
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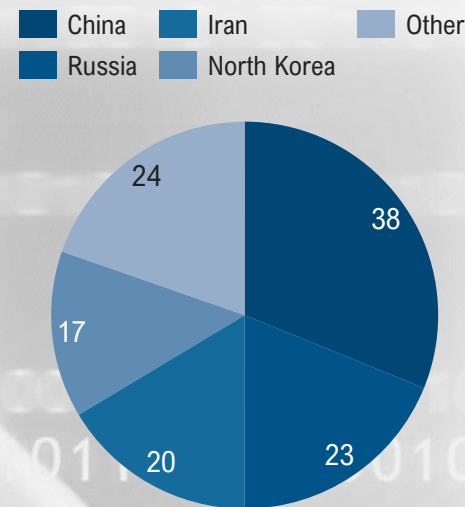
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## ... such as cyberattacks: Governments are the second highest target of state-sponsored cyberattacks – Retaliation could lead to cyberwarfare

Cyberattacks by target, 2005-2020<sup>1)</sup>



Number of state cyberattacks by sponsor, 2020



“Particularly in an era of rising tensions between superpowers, **cyberattacks are another battlefield** in which escalation is a key risk. **If cyberthreats continue, governments will continue to retaliate** against perpetrators, leading to open **cyberwarfare**, further disruption for societies and **loss of trust in governments’ ability to act as digital stewards.**”

World Economic Forum

- > **Cyberwarfare** utilizes techniques of defending and attacking information and computer networks that inhabit cyberspace. It denies an opponent's ability to do the same, while employing technological instruments of war
- > Since 2005, **34 countries are suspected of sponsoring cyber operations**. China, Russia, Iran, and North Korea sponsored 3/4 of all suspected operations, mostly related to espionage
- > The CFR's cyber operations tracker focuses on instances of **publicly known state-sponsored cyber activity**, therefore only containing **data** involving suspected **perpetrators (threat actors)** affiliated with a **nation-state**. The purpose is to accurately and comprehensively identify when states and their proxies conduct cyberoperations in pursuit of their **foreign policy interests**. Reporting on nonstate actors, such as hacktivist groups, tends to be opaquer, giving less reliable data
- > **Cyberterrorism**, on the other hand, is the use of computer network tools to **shut down critical national infrastructures** (such as energy, transportation, government operations) or to coerce or intimidate a government or civilian population

1) CFR's Digital and Cyberspace Policy program's cyber operations tracker is a database of publicly known state-sponsored incidents that have occurred since 2005

Sources: CFR; WEF; CSIS; Roland Berger



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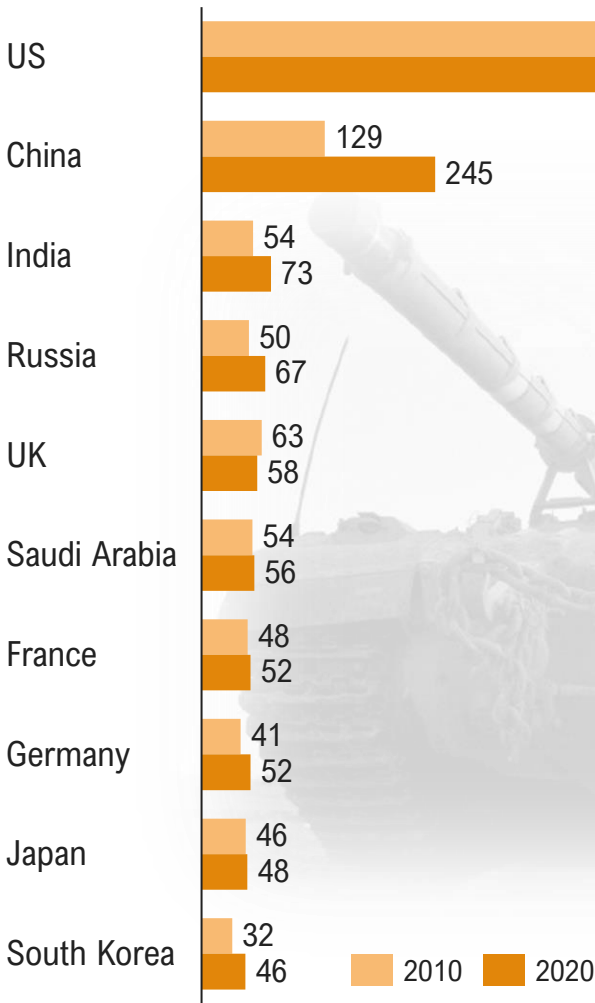


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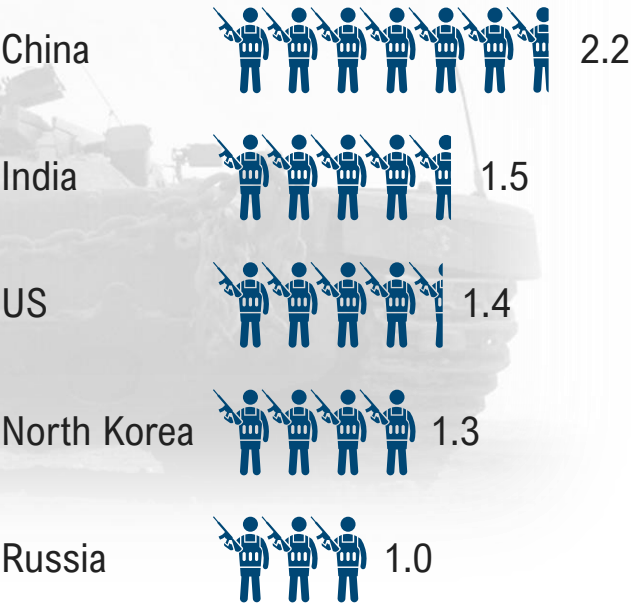
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# Military expenditure is dominated by the US. China has been increasing its spending over the past decade – Its army is the world's largest

Top 10 countries by military expenditure, 2010 and 2020 [USD bn]



Top 5 armies by active military personnel, 2021 [m]



- > The **USA** still has, by far, the highest military expenditure. However, there the trend is downward. **China**, on the other hand, has **significantly increased** its military spending, as have other **Asian countries**, although on a smaller scale
- > **European countries** are **expanding** their military budgets and must continue to do so in the future in order to **comply with NATO agreements**
- > **China and India** have the **largest armies** by military personnel globally
- > There are many, often long-standing, regional, multi- or bilateral military as well as security alliances. Most recently, new groupings are being formed or existing ones being revived, particularly concerning one region: As an example of the former, **AUKUS**, a trilateral security pact between Australia, the UK and the US for the **Indo-Pacific region** was announced in late 2021
- > At the same time, the alliance known as the **Quad** – the Quadrilateral Security Dialogue – involving the US, Australia, India and Japan – was **revived** and is also pledging to work towards peace and prosperity in the **Indo-Pacific region**. Furthermore, in early 2022, Japan and Australia signed a new defense treaty, the Reciprocal Access Agreement. Their joint statement explicitly mentioned the **growing collaboration among the Quad nations** to "drive forward coordinated responses to the most pressing challenges" in this region. Efforts are also underway for **Quad Plus** or **Quad 2.0**, involving – but by no means limited to – South Korea, Vietnam, New Zealand, Brazil and Israel for future strategic alignment



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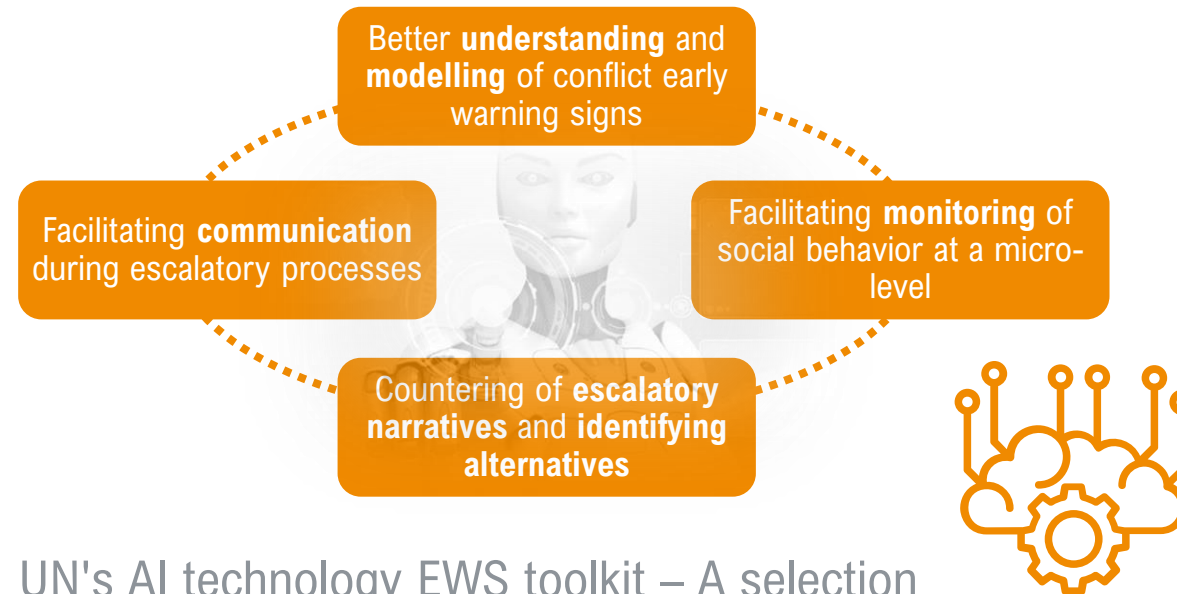


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# In the future, conflict prevention efforts will increasingly benefit from using AI in early warning systems – Data philanthropy an emerging cornerstone

## Conflict prevention uses of AI technology



## UN's AI technology EWS toolkit – A selection



**PulseSatellite** Web-based tool that combines latest AI with human expertise to extract relevant information from satellite imagery for use in humanitarian contexts. Use cases include monitoring population displacement, settlement mapping, flood and damage assessment, and identifying the direct impact of earthquakes, volcanoes, cyclones and landslides

**Qatalog** A multi-faceted tool for accessing and analyzing radio broadcasts, PDF documents, and social media data related to specific topics, themes, discussions

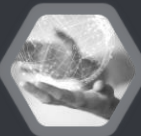
1) UN Global Pulse is the UN Secretary-General's initiative on big data and artificial intelligence for development, humanitarian action, and peace

Sources: EUISS; AI for Peace; CIC; IMF; UN; WHO; Roland Berger

- > Advances in artificial intelligence (AI), machine learning (ML) and other cutting-edge approaches to data help inform conflict prevention and peacebuilding in applications of **early warning systems (EWS)**
- > Broadly speaking, decision makers in peace, security, humanitarian and development fields can more easily pursue **early preventive action** – countering disinformation, stepping up diplomatic efforts or humanitarian support – before situations escalate into crises
- > While many institutions are expert in **traditional EWS analysis**, **accuracy can range from 50-75%**, often due to several data limitations. Deploying AI technology in EWS can yield an **accuracy of over 80%**. It can also help analyze consequences of (non-)intervention more **comprehensively and faster**
- > Advanced data analysis for peace can include **AI sentiment analysis** and **AI social listening** more commonly used in consumer marketing
- > The **UN's Global Pulse<sup>1)</sup>** program and the **WHO's Early AI-supported Response with Social Listening Platform (EARS)** are two examples of such approaches, integrating real-time and historic information sources, e.g. social media feeds, online conversations, radio broadcasts etc.
- > Because of AI technology's thirst for data, such innovative EWS efforts have sparked a new trend – **data philanthropy**, whereby **data-rich companies**, such as social media platforms, mobile operators or financial institutions **agree to fairly and ethically share (anonymized) data** with supranational or humanitarian organizations **for the greater good**
- > However, the global regulatory playbook for data sharing (except for the EU's GDPR) is slim – leading to wider **concerns about private for-profit actors** as well as potential risks and harms of **data use** for other, **less peaceful and more intrusive purposes**



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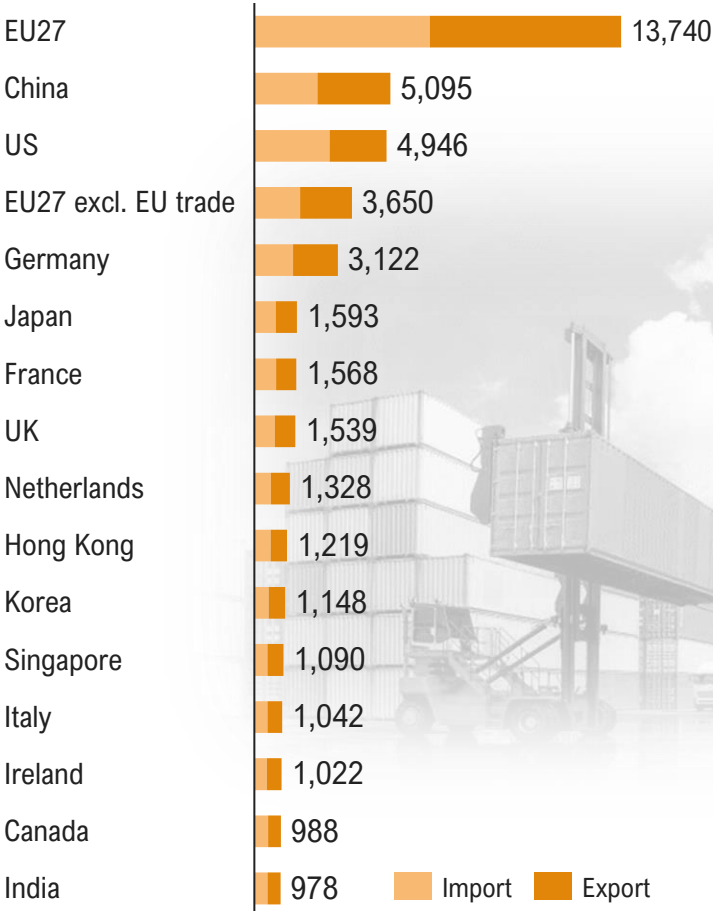


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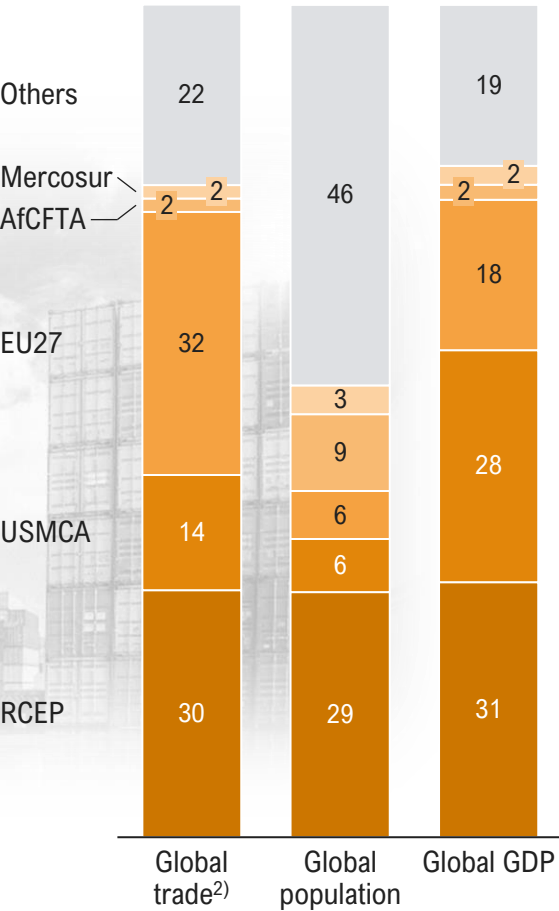


# Soft power is primarily exerted through powerful trade relations – EU, US and China dominate global trade

Top countries/regions regarding trade, 2020<sup>1)</sup> [USD bn]



Selected trade areas and their global share, 2020 [%]



- > Soft power – as opposed to military power – is the ability to **co-opt rather than coerce**. Although also including areas of governance, international relations, culture and heritage, media and communication, education and science, as well as people and values, **business and trade** is the **key cornerstone of soft power**
- > **Trade** can be used as a **soft power** in two ways, as **negative** or **positive sanctions**: **Trade restrictions** (on imports and/or exports) are utilized to put pressure on countries and regions. Such actions are often combined with **constraints on investments**. These measures aim to get in front of military interventions.
- > By contrast, **trade facilitations** are used to **forge closer ties with countries** and regions
- > Three countries/blocs **dominate global trade**: **EU, China and the US**. As a sizeable part of EU's trade is intra-EU, its trade-based soft power can best be gauged by the EU's external trade
- > Apart from the EU there are **further sizeable trade areas**, such as **RCEP** or **USMCA**, able to use their respective soft power. But unlike the EU, they do not constitute **political and economic unions** with common external tariffs, meaning that this dimension of soft power is **more limited**

1) Exports/imports of goods and services comprise all transactions between residents of a country and the rest of the world involving a change of ownership from residents to nonresidents of general merchandise, net exports of goods under merchanting, nonmonetary gold, and services. Data in current USD (World Bank); EU27 excl. EU trade (Eurostat) 2) Global trade refers to merchandise exports  
Sources: World Bank; Eurostat; Roland Berger





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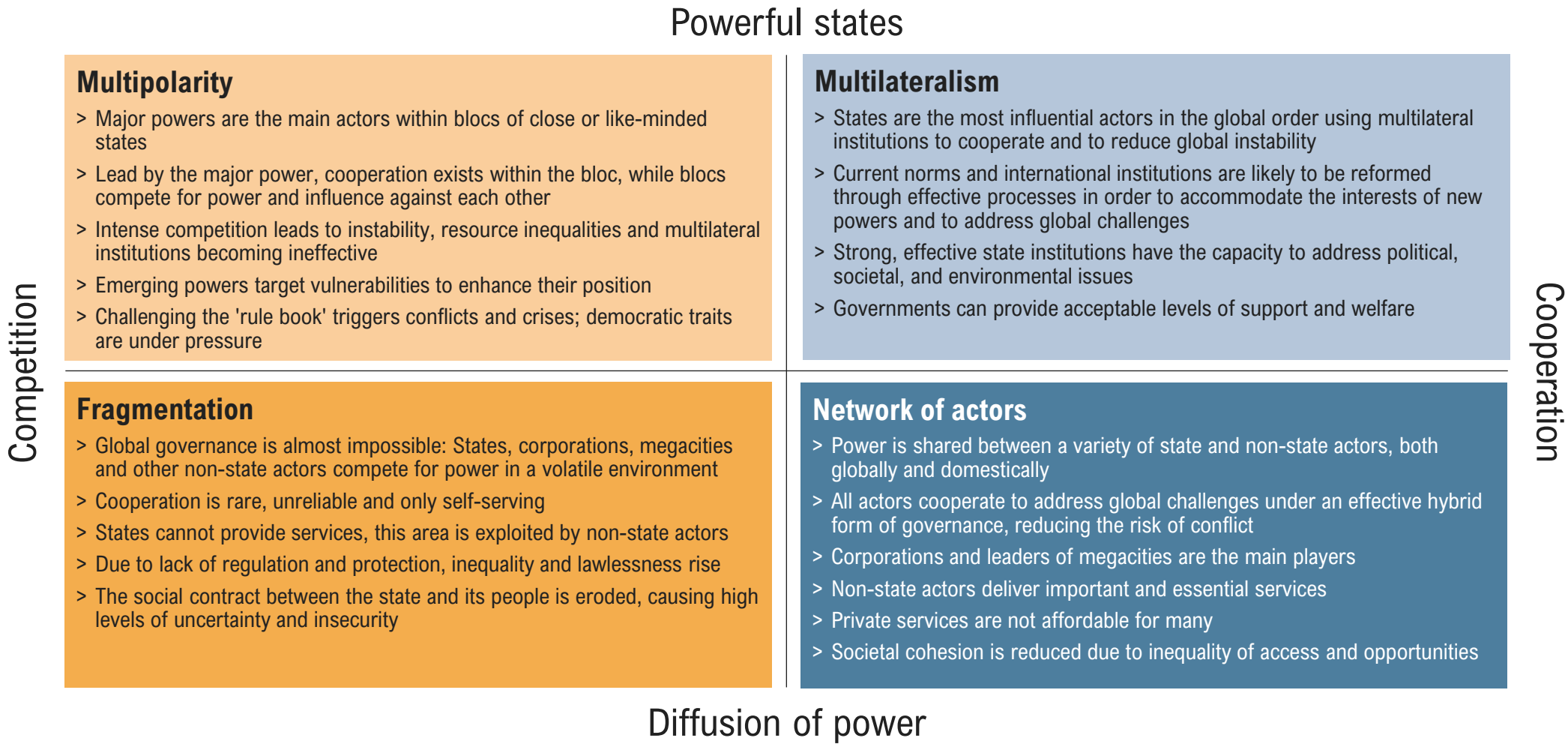


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# The future of the global balance of power appears to be in a state of flux – International powerplay is shaped by geopolitical alliances and rivalries

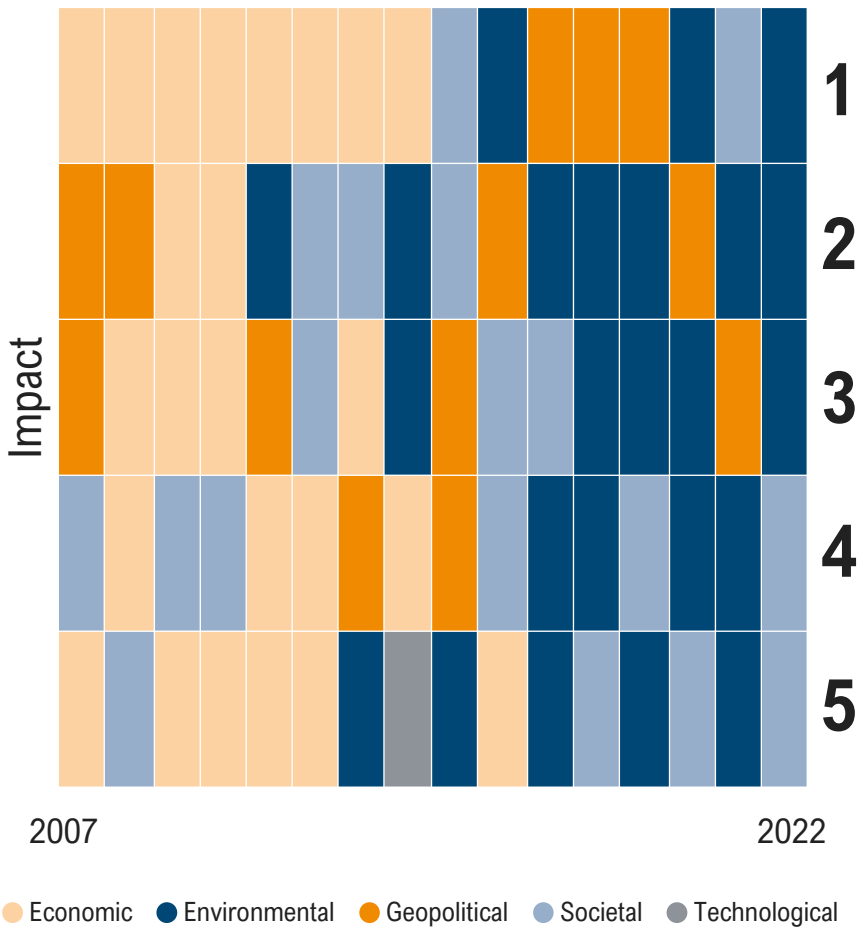
Four possible futures for global governance





# Historically, global risk awareness has shifted from the economy to the environment – Global pandemic heightens sense of societal risks

Top 5 global risks by category, by impact, 2007-2022<sup>1)</sup>



Global risks by category, 2022

- Economic**
  - > Asset bubble bursts in large economies
  - > Collapse of a systemically important industry
  - > Debt crises in large economies
  - > Failure to stabilize price trajectories
  - > Proliferation of illicit economic activity
  - > Prolonged economic stagnation
  - > Severe commodity risks
- Geopolitical**
  - > Collapse of multilateral institutions
  - > Fracture of interstate relations
  - > Geoeconomic confrontations
  - > Geopolitical contestation of strategic resources
  - > Interstate conflict
  - > State collapse
  - > Terrorist attack
  - > Weapons of mass destruction (WMD)
- Societal**
  - > Collapse or lack of social security systems
  - > Employment and livelihood crises
  - > Erosion of social cohesion
  - > Failure of public infrastructure
  - > Infectious diseases
  - > Large-scale involuntary migration
  - > Pervasive backlash against science
  - > Pollution-driven harms to human health
  - > Severe mental health deterioration
  - > Widespread youth disillusionment
- Technological**
  - > Adverse outcomes of technological advances
  - > Breakdown of critical information infrastructure
  - > Digital inequality
  - > Digital power concentration
  - > Failure of cybersecurity measures
  - > Failure of technological governance
- Environmental**
  - > Biodiversity loss and ecosystem collapse
  - > Climate action failure
  - > Extreme weather events
  - > Human-made environmental damage
  - > Major geophysical disasters
  - > Natural resource crises

1) A global risk is the possibility of the occurrence of an event or condition that, if it occurs, could cause significant negative impact for several countries or industries. Risk scope: over the next 10 years. Risk dimension 2022 is severity instead of impact  
Sources: WEF; Roland Berger



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# For the decade ahead, risks related to climate change dominate while geoeconomics confrontation poses the most severe geopolitical risk

The 10 most severe risks over the next 10 years<sup>1)</sup>



- > The **World Economic Forum's Global Risks Report** is based on its annual Global Risks Perception Survey, completed by over **900 business, government, civil society, academic and thought leaders** across all regions
- > Results of this latest survey show the **perceived importance of environmental risks** taking the top 3 places and totaling **five out of ten of the most severe risks**. **Three societal risks** were felt acutely by respondents, thus rising to represent the **second most important risk category**
- > **Economic and geopolitical risks** rank **below** the most important environmental and societal risks. There is **no technological risk** among the ten most severe risks

> In the following, our focus stems from a wider **governance risk perspective** concerning the **environment** and **geopolitical** risks – and their nexus. Present and future societal challenges and risks, such as infectious diseases, as well as economic challenges, such as the debt crisis, have been investigated in their context in Megatrends 1 and 2, and Megatrend 4 respectively

1) According to the WEF Global Risk 2022; input for the 2022 report was sought in the autumn of 2021  
Sources: WEF; Roland Berger



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# Top three risks analysis: Climate action failure would come at a high cost, potentially resulting in double digit economic losses ...

Mid-century GDP changes with different temperature rises and economic impact severity, relative to a no-climate change world<sup>1)</sup> [%]

	Well below 2°C increase	2.0°C increase	2.6°C increase	3.2°C increase
	Paris target	The likely range of global temperature gains		Severe case
World	-4.2%	-11.0%	-13.9%	-18.1%
North America	-3.1%	-6.9%	-7.4%	-9.5%
South America	-4.1%	-10.8%	-13.0%	-17.0%
Europe	-2.8%	-7.7%	-8.0%	-10.5%
Middle East & Africa	-4.7%	-14.0%	-21.5%	-27.6%
Asia	-5.5%	-14.9%	-20.4%	-26.5%
Oceania	-4.3%	-11.2%	-12.3%	-16.3%

1) Temperature increases from pre-industrial time to mid-century (2048). Data show values for the upper border of the simulation range, i.e. for severe outcomes of tail risk parameters ((un)known unknowns)

Sources: Swiss Re, Roland Berger





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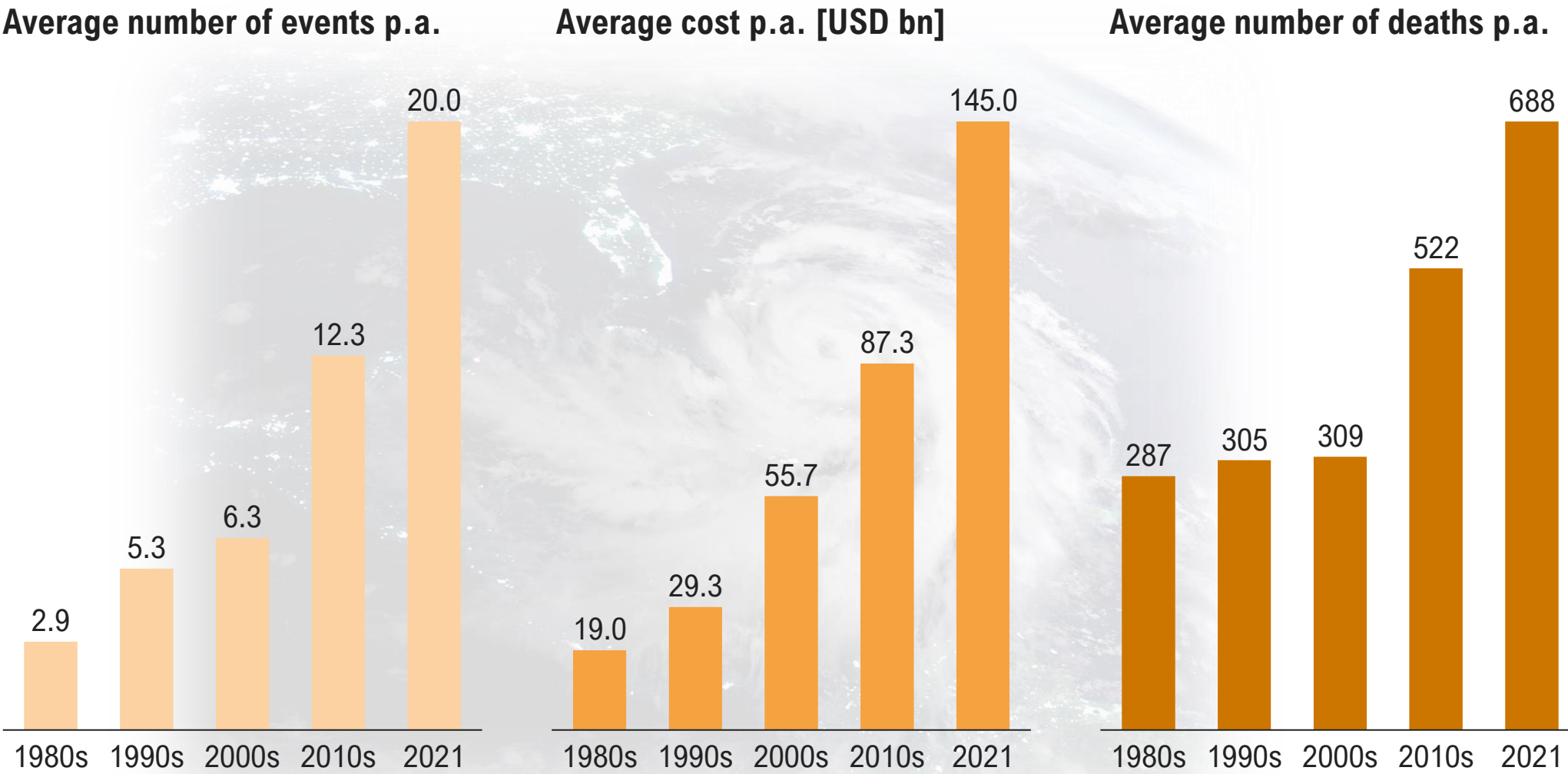
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... while the development of extreme weather events – the subsequent top risk and closely related to climate change – shows one very clear direction

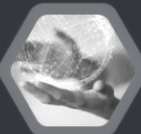
Weather and climate disasters in the US where overall damages/costs reached or exceeded USD 1 bn



Sources: National Centers for Environmental Information; Roland Berger



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# Much is at stake if biodiversity continues to diminish – Intact ecosystems deliver values worth billions or trillions of dollars per annum

Monetary values p.a. for biodiversity and ecosystem services, by biome [int. USD/ha, 2007 prices]

	Provisioning services	Habitat services	Regulating services	Cultural services	Total economic value
Marine	102	5	65	319	491
Coral reefs	55,724	16,210	171,478	108,837	352,249
Coastal systems	2,396	375	25,847	300	28,917
Coastal wetlands	2,998	17,138	171,515	2,193	193,845
Inland wetlands	1,659	2,455	17,364	4,203	25,682
Fresh water	1,914	0	187	2,166	4,267
Tropical forest	1,828	39	2,529	867	5,264
Temperate forest	671	862	491	990	3,013
Woodlands	253	1,277	51	7	1,588
Grasslands	1,305	1,214	159	193	2,871

- > High levels of **biodiversity and intact ecosystems** provide **indispensable beneficial services** at local, regional and global level, thus providing food and habitats, help mitigate climate change and pollution, and provide cultural and recreational services
- > The **global economic value of biodiversity and ecosystem services** is estimated to be more than **1.5 times the global GDP**
- > Such **estimates** are uncertain (as are those for single biomes or services), but they **highlight the sheer scale of the economic value** derived from biodiversity and ecosystem services
- > There are two **main reasons why biodiversity and ecosystem services are undervalued** in political and business decisions, economic accounts and market prices **at present**. First, **decision makers lack knowledge** about the interactions between economies and ecosystems. Second, most of the **ecosystem services** are not priced into the market because they are **public goods**
- > In order to help provide a **full picture of biodiversity's connection to the economy** to better support incoming COP global biodiversity policies and targets currently under debate, a universal, **comprehensive** (and AI-supported) **natural capital accounting framework (UN/SEEA<sup>1)</sup>** has been created. By 2020, 90 countries have compiled SEEA accounts with further progress to be reported in spring 2022

1) United Nation/SEEA: System of environmental and economic accounting  
Sources: OECD; Markandya; de Groot; Costanza; SEEA; Roland Berger



## For politics and governance, the last of the top 10 most severe global risks is by no means of least importance – Geoeconomic confrontations abound

### Examples of ongoing geo-economic confrontations

Conflict parties	Cause(s)	Measures
US – China	The Trump administration accused China for "unfair trade practices" and theft of intellectual property	Raising tariffs for Chinese exports to the US, other trade barriers
Western countries – Russia	Russian annexation of Crimea and the destabilisation of Ukraine	Economic sanctions
Western countries – Iran	Iran nuclear program	Economic sanctions
(Most) UN countries – North Korea	North Korean nuclear program	Economic sanctions
China – Australia	Australia's foreign interference laws to address perceived concerns about China's Huawei; Australia's call for an independent investigation into the origins of the COVID-19 pandemic	China suspended import licenses of major Australian beef producers, instructed some power plants and steel mills to stop buying Australian coal, and imposed punitive tariffs on barley and wine
China – Lithuania	Opening of a representative office by Taiwan in Vilnius	China has compelled multinationals to sever ties with Lithuania or face exclusion from its market

A globalized economy has led to a **globalization of economic confrontations**, but there are also **considerable economic confrontations and tensions between neighboring countries** due to **resource conflicts concerning disputed territories or shared resources**. A major example for the latter is the **multi-dimensional conflict** regarding **water** as this resource and its supply is an essential staple for humans, animals and plantlife, for agriculture as well as for energy generation



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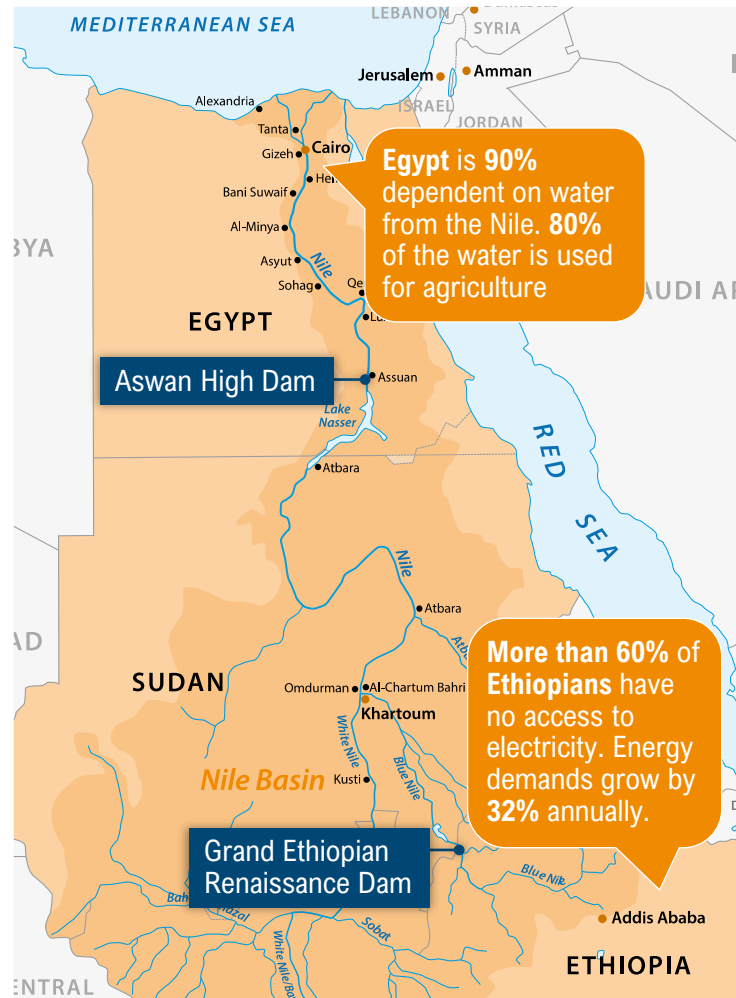
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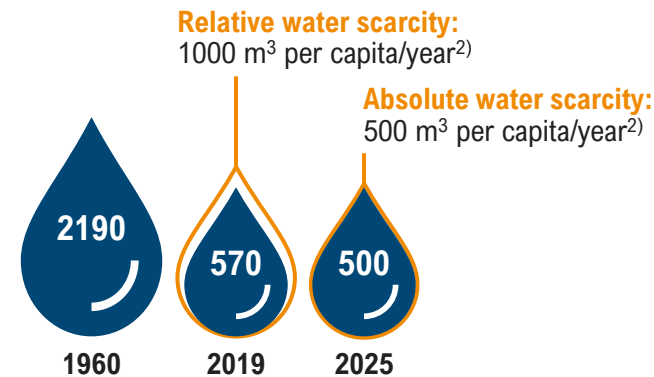
# Transboundary resource conflicts create geoeconomic and geopolitical challenges for governments – Confrontations affect many nations

## Nile dam conflict: Status of dispute and issues



### Egypt's water emergency

Available water amount per capita/year



### Possible impact of the Grand Ethiopian Renaissance Dam

**25%**

reduction of the Nile water flow to Egypt within a 5-7 years filling period of the reservoir

**30%**

reduction of the energy production of the Aswan High Dam (same period)

- > Two closely linked risks for the decade ahead have been identified as **geo-economic confrontation** closely followed by **geo-political resource contestation**
- > With the advent of **global warming**, **water is an increasingly precious far-reaching resource**, for humanity as well as for sectors of the economy including renewable energy generation; it is a contentious governance issue – and it has the potential to be weaponized
- > In the case of **transboundary water disputes**, such as in the example of the long-standing Nile dam conflict, all dimensions are intertwined: Tensions among **Egypt, Sudan, and Ethiopia** over the Grand Ethiopian Renaissance Dam (GERD) on the Blue Nile have escalated; Ethiopia started to fill the GERD's reservoir, ignoring Egypt's mandate that the dam not be filled without a **legally binding agreement over the equitable allocation of the Nile's waters**. Egypt has escalated its call to the **international community** to get involved, and the **US** has threatened to withhold **development aid** to Ethiopia if the conflict is not resolved
- > In total, **11 riparian states<sup>1)</sup>**, home to **250 million people**, are affected by the dispute and the lack of framework for water allocation – jeopardizing the stability, health and future growth of the region
- > The GERD dispute is a prime example for the **close nexus** of **transboundary conflict management and resource sustainability**

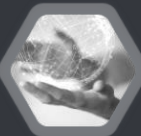
1) Eleven countries are affected by the Nile dispute: The Nile River riparian states are Burundi, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, South Sudan, Sudan (Republic of), Tanzania, and Uganda; 2) According to UN

Sources: Security Conference; Brookings; Roland Berger





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# Leaders in the biggest economies see different risks as most important for 2022 and 2023

Five most important risks for 2022 and 2023 by countries<sup>1)</sup>

	1	2	3	4	5
US	Asset bubble bursts in large economies	Climate action failure	Extreme weather events	Debt crises in large economies	Employment and livelihood crises
China	Extreme weather events	Asset bubble bursts in large economies	Infectious diseases	Collapse or lack of social security systems	Geopolitization of strategic resources
Japan	Prolonged economic stagnation	Extreme weather events	Interstate conflict	Failure of cybersecurity measures	Asset bubble bursts in large economies Infectious diseases
Germany	Climate action failure	Erosion of social cohesion	Digital power concentration	Debt crises in large economies	Fracture of interstate relations/ Geopolitization of strategic resources
UK	Failure of cybersecurity measures	Debt crises in large economies	Prolonged economic stagnation	Infectious diseases	Extreme weather events
India	Fracture of interstate relations	Debt crises in large economies	Widespread youth disillusionment	Failure of technology governance	Digital inequality
France	Erosion of social cohesion	Debt crises in large economies	...	Climate action failure	Failure of cybersecurity measures
Italy	Climate action failure Debt crises in large economies	Geopolitization of strategic resources	Extreme weather events	Geopolitization of strategic resources	Digital inequality
Canada	Debt crises in large economies	Climate action failure	Extreme weather events	Employment and livelihood crises	Infectious diseases
South Korea	Asset bubble bursts in large economies	Employment and livelihood crises/Infectious diseases	...	Debt crises in large economies	Human-made environmental damage
Russia	Interstate conflict	Failure to stabilize price trajectories	Infectious diseases	Employment and livelihood crises	Severe commodity shocks
Brazil	Prolonged economic stagnation	Employment and livelihood crises	Digital inequality	Human-made environmental damage	Geopolitization of strategic resources

● Economic ● Environmental ● Geopolitical ● Societal ● Technological

1) Twelve countries with the biggest GDP in 2021; 2) Survey undertaken May - September 2021

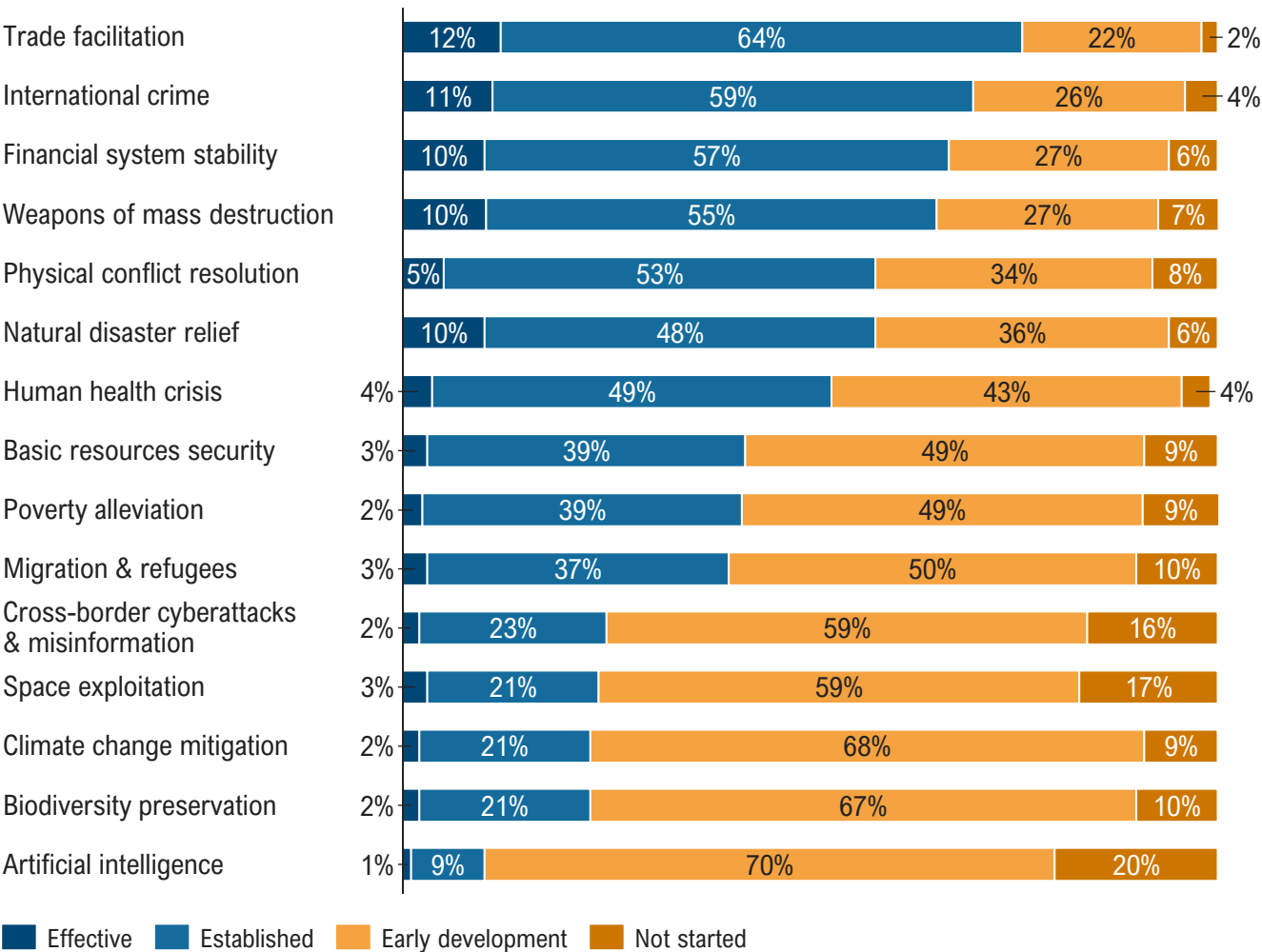
Sources: WEF; Roland Berger

- > For the World Economic Forum's Executive Opinion Survey<sup>2)</sup> over 12,000 respondents from 124 economies were asked to assess the **most pressing issues for the next two years in their country**
- > Within this time frame, **national perceptions of critical risks vary substantially** from country to country, giving informative insights into what constitutes a top local concern – and what doesn't
- > The **mixed picture** shows a **divergent sense of urgency**: "Climate Action Failure" – otherwise the number 1 long term risk overall – **ranks 2nd** as a near-term risk in the **US** – but is **absent in the top 5 in China** (like in some other major countries, e.g. India, Russia, Brazil, Japan and South Korea). China and the US **are the world's largest CO<sub>2</sub> emitters**; however, both are near equally worried about potential fallouts stemming from asset bubbles



# International risk mitigation efforts show a mixed picture – Progress is felt in areas of trade, crime, financial stability, and military issues

State of international risk mitigation efforts, selected areas, 2022<sup>1)</sup>



1) Based on Global Risks Perception survey; 800+ respondents from business and non-business sectors assessed international efforts in 15 global governance areas 2) WMD: weapons of mass destruction  
Sources: WEF; Roland Berger

- > Governance achievements versus areas of continued risk mitigation challenges cover a wide spectrum: According to the WEF panelists – assessing 15 global governance areas – **five** areas of **achievements in governance are identified as comparatively effective and established**: Trade facilitation, international crime, financial system stability, natural disaster relief, and governance of WMD<sup>2)</sup>
- > **However, opportunities** to increase efforts are emerging more notably in areas of **artificial intelligence, space exploration, and cross-border cyberattacks and misinformation management** as well as prominent **environmental issues** – in these areas, governance efforts are felt to fall notably short
- > The very nature of these issues – not least in terms of scale, ubiquity and outcomes – requires **stronger global governance** and more effective international risk **mitigation and cooperation efforts** since global and emergent **challenges cannot be solved by national governments alone**
- > The **international community of policy experts and standard setters** – including the **relevant business sectors and other stakeholders** – is tasked to support and strengthen such areas though joint good governance efforts



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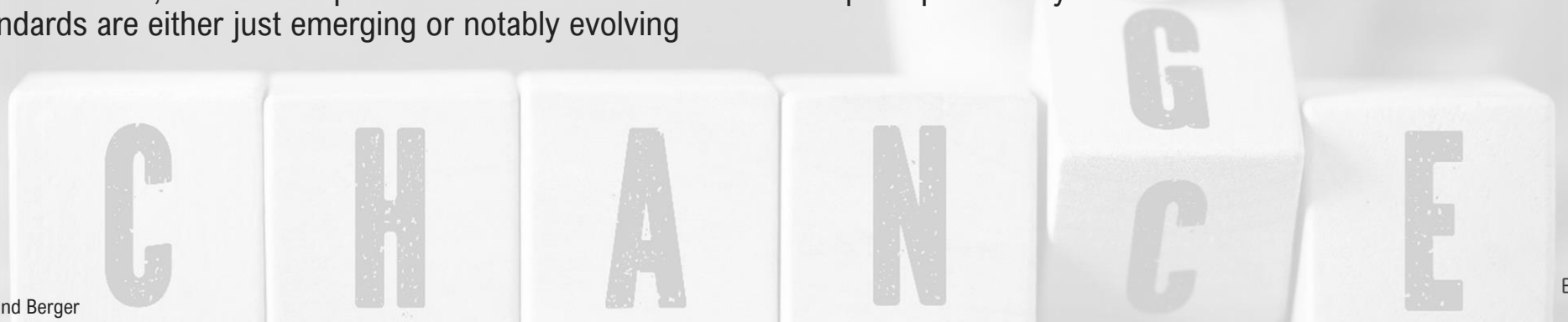


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# Set up your governance structures to ensure compliance and become involved in standard-setting institutions and bodies early on

Actions recommended for companies across all sectors to proactively steer their future

- Local and national parameters concerning the quality of governance impact the ease of doing business in a specific market. Therefore, a clear understanding of local and national governance has always been part of prudent investment decisions. Recent developments on both national (rise of populism and autocracies) and geopolitical (trade conflict between the US and China) levels indicate that careful, continued due diligence of the local and national governance of a company's (future) locations are key to safeguard business interests
- Companies are facing increased public scrutiny over working conditions, what countries they are active in, and whether their suppliers keep up set standards. To avoid reputational damage and to minimize any risk of losing customers, companies must understand how to define structures, rules and processes to balance expected levels of oversight in one market with regulatory compliance in another. They should avoid virtual signaling and "political greenwashing" and be consistent in what they are saying and what they are doing
- Companies do not only have to comply with legal regulation but also with so-called "soft law", i.e. industry standards, codes of conduct, and self-regulatory guidelines. Many of these originate from companies' formal involvement in industry associations and business forums. Therefore, it is important for companies to contribute to such bodies, to ensure representation and "business voice" – a point particularly valid in areas where standards are either just emerging or notably evolving





**1**  
Future of  
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**3**  
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# Embrace global risks by understanding their business nexus, increase corporate robustness and resilience for best opportunities

Actions recommended for companies across all sectors to proactively steer their future

- No company can ignore global risks such as climate change, infectious diseases or geoeconomic confrontations, nor their impact on business operations. To be aware is to prepare: Awareness must be augmented by strategic anticipation. Understanding your business-risk nexus in earnest starts with a continuous monitoring of current and emergent risks combined with a clear strategy how to act and counteract developing risks

- Enhanced risk handling capabilities bring robustness and pave the way to future resilience. They comprise every aspect of your business: Purpose, culture and strategy, processes and organizational dynamics, leadership and talents, finance and investments, ecosystems and networks, technology and data. Robust companies can react to the here and now by aiming to maximize their options while minimizing weaknesses. Such companies are less obsessed about structures, instead focus on underlying principles of adaptability that allow for organizational change. They create a balance between stability and boldness across business functions, building in flexibility to reflect changes in the business environment and competition

For entrepreneurs risks are opportunities. The risk of climate change failure is a chance to make efforts mitigating climate change a success. There are huge business opportunities, not only in sectors directly linked to sustainability like renewable energies, but in every sector – as all businesses will need to adapt and transform to contribute to climate neutrality







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