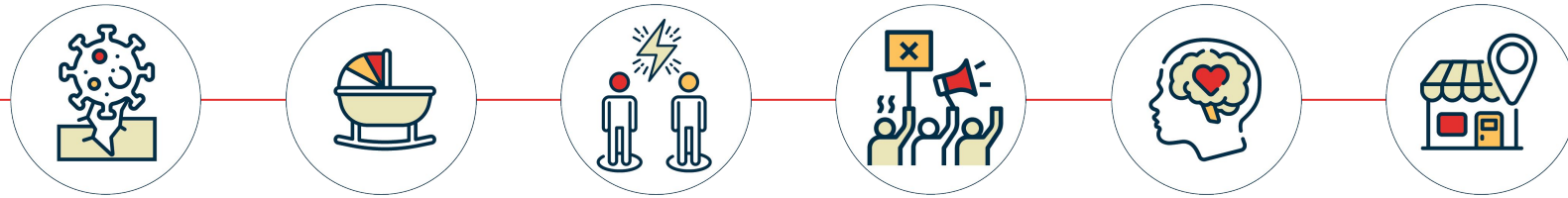


BRUNSWICK **FORESIGHT**

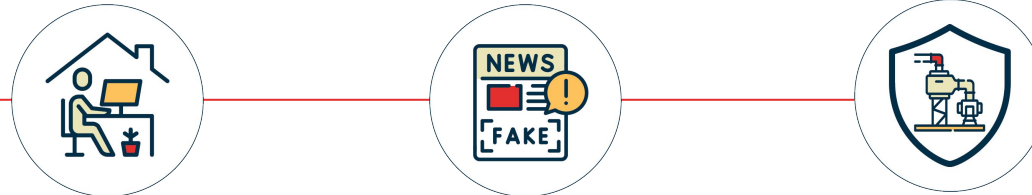
Robert Moran
Brunswick Group

S.T.E.E.P. Change Drivers in 2022

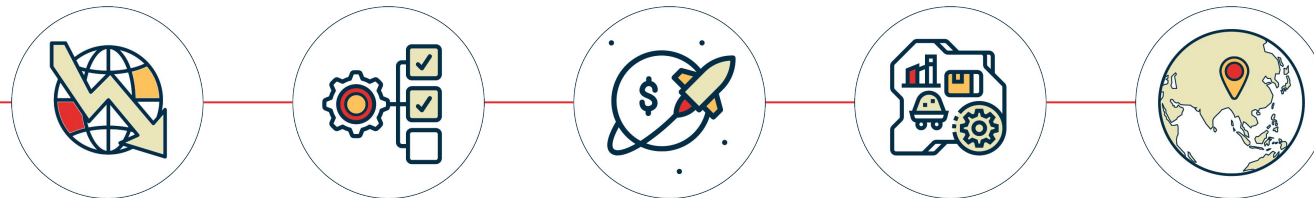
Social



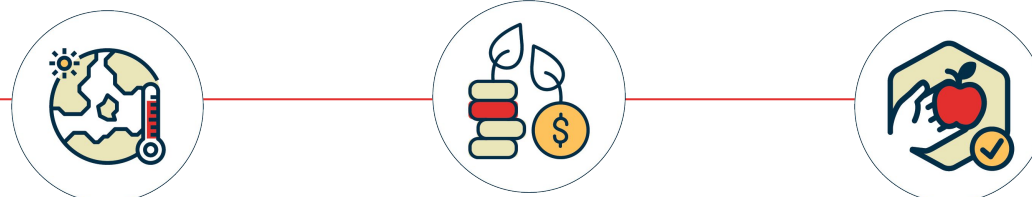
Technological



Economic



Environmental



Political





BRUNSWICK FORESIGHT



1. Global Recession

Slowing economic growth and significant COVID and war-related dislocation. How will businesses navigate a global downturn?



2. Great Power Friction

Great power brinksmanship and gray-zone conflict in a multi-polar world. How will businesses adjust to China-US and Russia-West tension?



3. Pandemic Aftershocks

Nations and societies grapple with economic, workforce, and social dislocation after the pandemic. How will businesses operate in this new normal?



4. Resilience

Nations, businesses, communities, and people learning to build more resilience into everything. After significant turbulence how are businesses building resilient, as opposed to efficient, systems?



5. GeoTech Politics

Nations and blocs seeking to promote their technology and reduce the use of an adversary's tech. How will multinational businesses navigate an increasingly complex technology landscape?



6. Green Economy Boom

Significant consumer demand for sustainability and dramatic investment in green technologies. How will businesses compete and win in a green economy?



7. Supply Chain + Reshoring

Post-COVID businesses are working to make their supply chains more resilient, shortening them, and increasingly reshoring. How will businesses reduce supply chain risk?



8. East Asian Economic Turbulence

China is struggling to increase its domestic economic growth and stabilize the real estate sector as its population ages. How will Chinese economic turbulence ripple through the global economy?



9. Political Polarization

Less common ground and more ideological polarization in the post-broadcast era. How will businesses navigate this polarization and appeal to a wide spectrum of consumers?



10. Empty Cradle

Birth rates are dropping precipitously across the world, challenging medical systems and national budgets? How will businesses adapt to an aging market with fewer young consumers and a smaller labor pool?



11. New Work

The pandemic severed the geographic link between brainpower and the office? How will businesses and society adjust to the new class of knowmads?



12. Mental Health

The pandemic drove a wave of mental health concerns and drove awareness of the issue. How will businesses address employee mental health challenges?



13. Protest

The young and marginalized will increase protest across a range of issues. How will businesses respond when pressured for comment?



14. Climate Activism

Younger generations are much more likely to view carbon and climate as an emergency. How will businesses respond?



15. Food Security

Many nation states will work to secure their food supply against shortfall and disruption. How will agribusiness adjust to the geopolitics of food?



16. Energy Security

The war in Ukraine has heightened focus on secure energy supply. How will businesses manage energy supply shocks and disruption?



17. Localism

Reaction against the disruptive aspects of globalization. How do global enterprises adjust to resurgent localism?



18. Information Wars & Deepfakes

Deepfakes are becoming alarmingly more sophisticated. How will businesses avoid becoming victims of information war?



19. Space Economy

The space economy continues to boom. Who will create the dominant companies in this next frontier?



20. Mineral Nationalism

Nations are scrambling to secure strategic minerals for defense and their industrial base. How will the mining and industrial sectors adjust?

This research process included:

- Review of 25 global forecasts and studies
- Cross section of signals across all major industries
- Identification of trends from industry, popular, and academic sources





1. Global Recession

All signs point to a painful global recession in the coming years. Continued supply issues, changing investment priorities, and monetary policies are leading us in this direction. Layoffs are already beginning in some corners of the economy.

- Central banks around the world have spiked interest rates at levels not seen in 50 years
- US tech companies, after growing massively during the pandemic, have already laid off tens of thousands of workers

FORTUNE

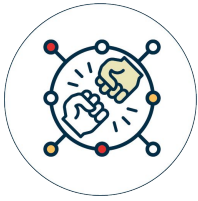
‘This debate to some extent is over.’ Major economies are already in a global recession, Morgan Stanley strategist says

Tech Companies were Thriving, Now They’re Laying Off Thousands. Here’s Why.

The job market is booming, so why is the tech industry getting hit with layoffs?



How will businesses navigate a global downturn?



2. Great Power Friction

The war in Ukraine has put it in plain terms – the post-Cold War era of relative stability is over. The West, China, and Russia are on a collision course over values, land, and economic influence.

Coming years will likely be defined by economic decoupling and straddling the line of military action.

The New York Times

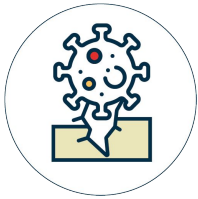
How China Lost America

The Washington Post

**U.S.-China economic ties continue to fray,
despite Biden-Xi meeting**



How will businesses adjust to China-US and Russia-West tension?



3. Pandemic Aftershocks

The pandemic continues to reverberate economically and socially. Mental health, learning loss, zero-COVID China, and continued supply constraints all show that the impacts of COVID will be with us for the coming years.

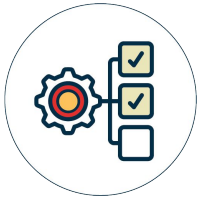


COVID-19 Scale of education loss 'nearly insurmountable'

- On average, students globally are 8 months behind in school compared to pre-COVID
- 94% of Fortune 1000 companies are seeing supply chain disruptions
- There was a 500% increase in Americans conducting mental health screenings between 2019 and 2021



How will businesses operate in this new normal?



4. Resilience

Many businesses are moving from just-in-time to a just-in-case strategy. Diversifying supply chains, keeping more inventory, and investing in data-driven decision making are contributing to a fundamental shift in business priorities.

McKinsey
& Company

Resilient businesses
'bounce forward, not back'

- Goldman Sachs analysis found that companies are targeting inventory-to-sales ratios 5% higher than before COVID
- 52% of business leaders think they need major supply chain improvements
- Executives expect to recoup the extra cost of resilience by freezing hiring, cutting jobs, and increasing prices



After significant turbulence how are businesses building resilient, as opposed to efficient, systems?



5. GeoTech Politics

As strategic materials change and relationships strain, international trade policy is increasingly set to guard technology, secure key minerals, and to outmaneuver strategic opponents.

- 38% of the world's lithium supply comes from Chile and 65% of global lithium is consumed by China
- US subsidies in the IRA is causing tensions with Europe and others



U.S. Secretary Raimondo doubles down on Biden plan to restrict American companies, and citizens, from helping China make semiconductor chips

POLITICO

Germany and France join forces against Biden in subsidy battle

EU's top economies leave behind their recent tensions to push for EU action amid trade war fears.



How will multinational businesses navigate an increasingly complex technology landscape?



6. Green Boom

Global investment in green energy was \$1.3T in 2022 and is expected to rise to \$2T annually by 2030.

Today's energy policies have global CO2 emissions peaking by 2025.

81% of new electricity capacity built in 2021 were renewables.

Global renewable power capacity is set to grow by 2,400 GW, roughly the total power capacity of China, in the next five years.

The New York Times

***War in Ukraine Likely to Speed, Not
Slow, Shift to Clean Energy, I.E.A. Says***

*"I think the world's first
trillionaire will be a
green-tech entrepreneur."*
-Kara Swisher



How will businesses compete and win in a green economy?



7. Supply Chain + Reshoring

The past few years have exposed the vulnerabilities of the global supply chain and more companies are moving towards a stronger, closer model with built-in redundancies.

Distribution and logistics projects will continue to be top priorities for business in the coming year.

Bloomberg

US Manufacturers ‘Pumped Up’ About Supply-Chain Reshoring Trend

- 3/4 of British manufacturers have increased the number of British suppliers between 2020 and 2022
- The cost to ship a 40-foot container from Europe to China has grown from \$1,500 in 2021 to \$15,000 in January 2022
- 83% of North American manufacturers said they were likely to add more North American suppliers in the next year



How will businesses reduce supply chain risk?



8. China Economic Turbulence

Zero COVID, a housing debt crisis, supply chain diversification, and the Sino-Western split are all contributing to disorder in China's economy.

The Made in China 2025 goal is causing instability in global investment and changing internal priorities away from growth.

The New York Times

European Interest in China Investments Wanes



Barclays cuts China GDP outlook after forecasting U.S., Europe recession

- European investments fell from \$4.8 billion in H1 2021 to \$2 billion in H1 2022
- China housing prices have dropped for each of the past 12 months
- 30% of China's population will be over 60 by 2030
- China-US shipping is down 21% between Aug and Nov 2021 and manufacturing orders from China are down 40%



How will Chinese economic turbulence ripple through the global economy?



9. Political Polarization

Political polarization has added instability to democracies globally and caused social and political uprisings across the world.



Understanding and Responding to
Global Democratic Backsliding

- 1 in 5 French voters describe their own views as “extreme”
- 72% of US Republicans and 63% of Democrats view the other side as immoral
- Half of global respondents in the Edelman Trust Barometer see Government and Media as dividing forces in society



How will businesses navigate this polarization and appeal to a wide spectrum of consumers?

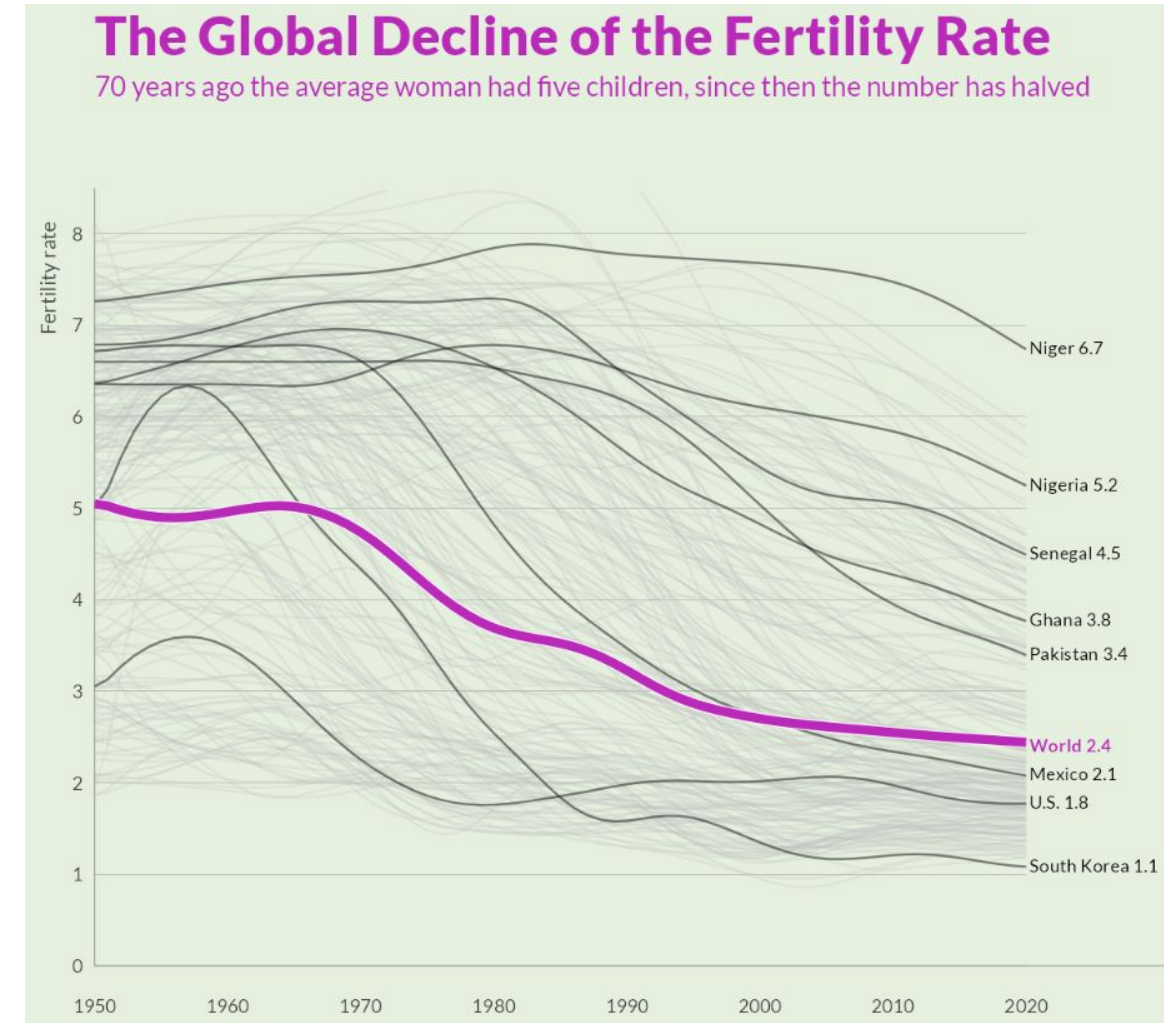


10. Empty Cradle

The global birth rate collapse will have vast economic and social consequences.

82 countries have a fertility rate under replacement including 28 of 38 OECD member states.

Bloomberg
The Fertility Crisis
Started in Japan, But
It Won't Stay There



How will businesses adapt to an aging market with fewer young consumers and a smaller labor pool?



11. New Work

Despite the emergency phase of the pandemic ending, COVID continues to shape expectations and reality for work. New ways of working are having global implications for commercial real estate, city planning, workforce makeup, and social relationships.

- Many top US employers are recruiting for all-remote jobs
- 75% of European office workers support legislation to make it illegal for employers to force in-office work

BROOKINGS

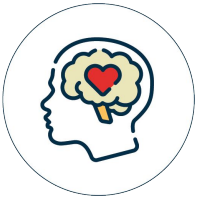
Africa's youths can help solve the global tech talent shortage

■ South China Morning Post

Chinese workers ditch cramped cubicles for remote locales, freedom – and just look at that view



How will businesses and society adjust to the new class of knowmads?



12. Mental Health

Mental health continues to rise in the conversation as stigma is deconstructed. US employees who rate their mental health as inadequate miss 4x more work days.

Globally, suicide is the 4th leading cause of death among ages 15–29 and 20% of the world's children and adolescents have a mental health condition.

Depression and anxiety cost the global economy \$1 trillion annually.

GALLUP®

The Economic Cost of Poor
Employee Mental Health



How will businesses address employee mental health challenges?



13. Protest

Protests have been defining parts of recent years and this year's protest movements in China, Iran, and other restrictive countries show that nowhere is insulated.

78% of authoritarian countries have faced significant protests since 2017 and the number of global protest movements have tripled in the past 15 years.

People have found creative ways to get word out about their protests including through sport at the World Cup, blank pieces of pwpr to symbolize censorship and more.

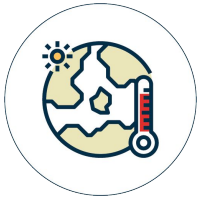
The Washington Post

**One man's bold protest against China's leaders
inspires global copycats**

- Protests in China and Iran in recent weeks have morphed from one issue into more widespread anti-government protest
- Companies are implicated on both sides of these protests – Apple limited iPhone sharing features in China as protests broke out while social media services are often blocked by governments



How will businesses respond when pressured for comment or targeted themselves?



14. Climate Activism

In addition to other protests, climate activists are increasingly aggressive around the world.

A UN survey of 50 countries showed that 69% of people ages 14–18 say there is a climate emergency, compared to 58% of those over 60.



'Fridays for Future' protesters take to the streets again

Protesters staged demonstrations in Europe and Israel, among other places on Friday. There was extra significance given this week's UN report warning we are almost at the point of no return.

The New York Times

These Groups Want Disruptive Climate Protests. Oil Heirs Are Funding Them.



How will businesses respond?



15. Food Security

Food inflation is 15% or higher in 36 countries.

Russia and Ukraine provided 30% of global wheat and barley before the war broke out.

Some staple crops – like corn – are expected to see a 24% decline in yield by 2030 due to climate change.

AXIOS

Egypt faces food insecurity
as it hosts climate summit



How will agribusiness adjust to the geopolitics of food?



16. Energy Security

The war in Ukraine, superstorms, and inflation have all brought the importance of energy security into harsh light.

Russia provided 40% of European methane gas before the war.

Weather-related power outages in the US increased 78% in the past 10 years.



Energy security, not climate change, is driving clean energy investment, IEA chief says



How will businesses manage energy supply shocks and disruption?



17. Localism

Countries and consumers are increasingly looking to keep their investments, data, and values local.

There are 144 laws and policies around the world that mandate digital information be stored in a specific country.

The WTO is increasingly being asked to settle disputes between countries prioritizing local production and investment.

- “Deglobalization” is becoming a priority for national security and economic protection
- China, the greatest beneficiary of globalization, has the most to lose

The New York Times

The Era of Borderless Data Is Ending

Nations are accelerating efforts to control data produced within their perimeters, disrupting the flow of what has become a kind of digital currency.



Lawrence has serious concerns about Biden's Inflation Reduction Act



How do global enterprises adjust to resurgent localism?



18. Information Wars & Deepfakes

Disinformation pushed by states and other actors is leveling up as AI becomes less distinguishable from reality.

Dall·E, an AI program, is able to generate realistic images from text input alone.

Generative Adversarial Networks are used to improve artificially generated information to better convince people it is generated by a human.

The New York Times

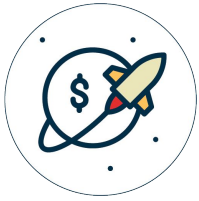
***Facebook Discovers Fakes That
Show Evolution of Disinformation***

The Washington Post

**AI can now create any image in seconds,
bringing wonder and danger**



How will businesses avoid becoming victims of information war?



19. Space Economy

The space economy grew 70% between 2010 and 2021 – to \$469 billion – and is set to grow to \$1 trillion by 2040.

Launch costs have dropped 73% per kg of payload since 2011.

Several companies are raising money to begin mining asteroids.

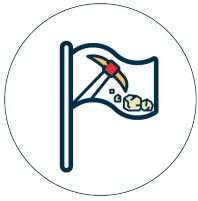
McKinsey
& Company

The future of the space economy

Space tourism is just the start. Future forays could expand from a “space for Earth” economy to a “space for space” economy.



Who will create the dominant companies in this next frontier?



20. Mineral Nationalism

Minerals for batteries, green energy, and more are increasingly being guarded by countries protecting future interests.

Chile, Nevada, Madagascar, and more have all proposed or passed tax increases on metals.

President Biden has invoked the Defense Production Act to increase domestic lithium production.

WSJ Battery Metals Mining Has a Resource Nationalism Problem

Inflation, competition with China for resources will hand further leverage to metal-rich low-income countries



How will the mining and industrial sectors adjust?

Thank you

