

Oil and Gas Dynamic Briefing

Generated 24 January 2020 for Marco Antonio Gonzalez



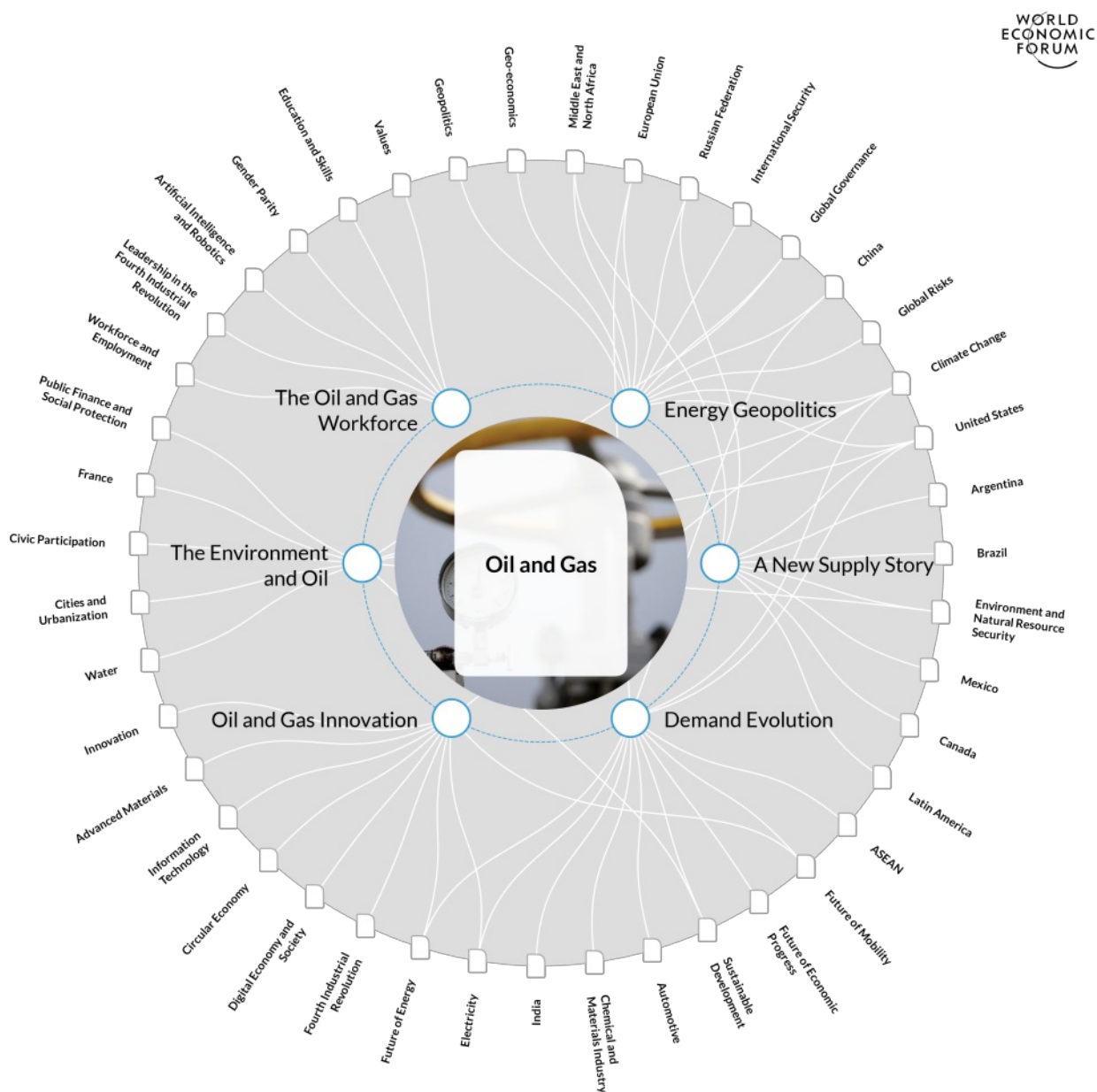
Oil and Gas

Co-curated with [James A. Baker III Institute for Public Policy, Rice University](#)

Last review on Tue 15 May 2018

About

This dynamic briefing draws on the collective intelligence of the Forum network to explore the key trends, interconnections and interdependencies between industry, regional and global issues. In the briefing, you will find a visual representation of this topic (Transformation Map – interactive version available online via intelligence.weforum.org), an overview and the key trends affecting it, along with summaries and links to the latest research and analysis on each of the trends. Briefings for countries also include the relevant data from the Forum’s benchmarking indices. The content is continuously updated with the latest thinking of leaders and experts from across the Forum network, and with insights from Forum meetings, projects communities and activities.



Executive summary

Oil and gas have been critical for global economic growth and development for more than a century. They are still being used to meet more than half of the world's primary energy needs, though the industry is fraught with challenges: geopolitical stress, boom-and-bust investment cycles, market uncertainty, and the need for greater environmental sustainability. While the sense of urgency about these issues varies in different parts of the world based on regional history, levels of economic prosperity, and adoption of technology, the industry will nonetheless continue to play a critical role in the transformation of the global energy landscape.

This briefing is based on the views of a wide range of experts from the World Economic Forum's Expert Network and is curated in partnership with Kenneth B. Medlock, Senior Director, Center for Energy Studies, Anna Mikulska, Nonresident Fellow in Energy Studies, and Michael D. Maher, Senior Program Advisor, at the James A. Baker III Institute for Public Policy, Rice University.

1. Energy Geopolitics

A new geopolitical order in the energy world is emerging.

2. A New Supply Story

Unconventional oil and gas resources have lessened concern about "peak supply".

3. Demand Evolution

Asian economic growth, technology and policy are driving oil and gas demand.

4. Oil and Gas Innovation

New technologies are unlocking oil and gas supplies, driving efficiency and bolstering alternatives.

5. The Environment and Oil

Public policy has the potential to change the mix of industries serving as global energy providers.

6. The Oil and Gas Workforce

Better training and a better gender balance could significantly help the industry.

Energy Geopolitics

A new geopolitical order in the energy world is emerging

Changes in the global balance between supply and demand for oil and gas promise to impact geopolitics - and, in turn, feed back into energy markets. International efforts to adopt policies aimed at mitigating the use of fossil fuels, for example, create geopolitical challenges not only for oil- and gas-rich countries, but also for developing economies where energy demand will continue to grow alongside increasing industrialization. In addition, the ongoing global push for greener energy systems impacts the geopolitical calculations of countries aiming to become significant exporters of things like solar panels, wind turbines, and the lithium and cobalt used to make batteries that power electric cars. This may lead to trade conflicts, the application of tariffs, and more aggressive pushes to exploit raw materials. Another geopolitical fact of life related to oil and gas: as reserves and production grow in North America, so does the ability of the US to check the geopolitical power of countries in other regions that rely on oil and gas exports.

The Vienna Alliance (also known as “OPEC+”) between the Organization of the Petroleum Exporting Countries and Russia is intended to coordinate production and stabilize the price of oil at a level deemed acceptable by exporting nations; OPEC’s inability to control prices by itself can be attributed to the growing supply of oil from the US. Rapid production growth in the US has also led some to question that country’s future role in the Middle East. A reduced role could open the door for increased engagement by developing countries like China and by large oil and gas exporters such as Russia. In Latin America, meanwhile, lingering political risk has investors keeping a watchful eye on developments in Mexico and Brazil. The collapse of the Venezuelan oil industry will require years of rebuilding to regain the levels of crude production the country’s enormous resources can support. Natural gas also presents new geopolitical challenges and opportunities. Trade in liquefied natural gas is growing, and connecting previously fragmented markets. The globalization of this market has implications for the ability of traditional suppliers to control regional markets - and to benefit from their dominant positions.

Related insight areas: [Geo-economics](#), [Geopolitics](#), [Climate Change](#), [United States](#), [International Security](#), [European Union](#), [Global Governance](#), [Middle East and North Africa](#), [Russian Federation](#), [China](#), [Global Risks](#)



[World Resources Institute](#)
6 Lessons on Energy Decarbonization from Countries Leading the Way

22 January 2020

While very few countries are on track for achieving a zero-carbon energy system by 2050, China, Costa Rica, Denmark, Ethiopia and the United Kingdom are further along than many.



[Project Syndicate](#)
Finding Europe's Way in the World

21 January 2020

For historical reasons, Europe has long resided in the strategic shadow of the United States, which itself has underwritten decades of globalization and rapidly expanding prosperity. But the global balance of power is rapidly shifting, leaving Europe increasingly exposed.



[Peterson Institute for International Economics](#)
Unappreciated hazards of the US-China phase one deal

21 January 2020

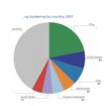
The centerpiece of President Donald Trump's much anticipated "phase one" trade agreement with China, signed January 15, is a commitment by Beijing to import an additional \$200 billion worth of American goods and services over the next two years. Trump is certain to cite that pledge time and again...



[World Economic Forum](#)
How to unlock the promise of electric transportation

20 January 2020

There are still some challenges involved in making sustainable mobility the global norm. The tech and the industry are ready - now it's up to governments to get EVs over the finish line.



[World Economic Forum](#)
A pragmatist's guide to zero-emission logistics

17 January 2020

Achieving climate neutrality in the logistics sector is a daunting prospect - but it is achievable with the right approach. Here's a roadmap.



[World Resources Institute](#)
8 Environment and Development Stories to Watch in the New Make-or-Break Decade

15 January 2020

2020 will inevitably be a turning point for the environment. Key decisions on climate change, the ocean and biodiversity will determine if it is a turning point for the better or for the worse.



[World Economic Forum](#)
Why India is the new hotspot for renewable energy investors

14 January 2020

India is now home to one of the world's largest clean energy expansion programmes - a fact that has not gone unnoticed by domestic and foreign investors.

A New Supply Story

Unconventional oil and gas resources have lessened concern about “peak supply”

New, unconventional resources like shale gas and light tight oil in the US, oil sands in Canada, extra heavy oil in Venezuela, and deep water resources in Brazil - not to mention the opening up of energy markets in Mexico and elsewhere to foreign investment - have blunted concerns about an impending peak in oil supply. The application of new technology has played a key role in driving all of these developments, and one result is that the West is now home to the bulk of new resource opportunities. These new sources of supply will increasingly help the countries exploiting them to compete for global market share with incumbent suppliers like Russia and the Organization of the Petroleum Exporting Countries (OPEC). This trend, coupled with growing demand in Asia, promises to transform the global oil and gas trade, and energy-related geopolitics.

Despite the expansion of the potential supply portfolio, however, the future of global oil and gas remains riddled with uncertainty. Concerns have been raised about the adequacy of capital investment in new production needed to offset depletion in existing fields and meet new demand, for example; short-term price spikes are always a risk if production is insufficient to meet demand. In the longer term, if competition from alternative energy sources (such as renewables) threatens future oil demand, it may lead producers to rush to monetize existing reserves by accelerating production - and as a result hinder the availability of capital needed to fund new projects. That in turn could also drive down oil prices, encourage more oil use, and undermine environmentally-friendly policy efforts (this scenario even has a proper name: the “Green Paradox”). Taken together, all of these issues paint a picture of future oil supply and demand dynamics likely to generate periods of heightened market volatility.

Related insight areas: [Mexico](#), [Argentina](#), [Brazil](#), [Canada](#), [Middle East and North Africa](#), [Russian Federation](#), [Environment and Natural Resource Security](#), [United States](#), [Latin America](#)



World Economic Forum
Forging a Sustainable Path Towards a Common Future | DAVOS 2020
 21 January 2020

Carbon emissions from fossil fuels hit a record high in 2019 – yet another sign that we are betraying future generations who will increasingly need to adapt.



World Economic Forum
Greta Thunberg: Our house is still on fire and you're fuelling the flames
 21 January 2020

This is what Greta Thunberg told the World Economic Forum's 2020 Annual Meeting in Davos about the urgent action needed to prevent climate change.



The Conversation
Five ways to turn CO₂ from pollution to a valuable product
 20 January 2020

CO₂ will need to be removed from the atmosphere to avoid catastrophic heating. Can the process be incentivised?.



VoxEU
A Green Deal will not work without refocusing productivity
 20 January 2020

The new president of the European Commission, Ursula von der Leyen, has announced a 'European Green Deal' and the Commission has asserted Europe's need to develop a new growth model to achieve climate neutrality. However, the Commission's limited view of 'productivity' ignores the fact that raising labour productivity can raise emissions and accelerate climate change. Instead, this column argues that a welfare-oriented Green Deal needs to focus on resource and energy productivity, not raising labour productivity.



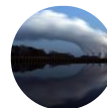
World Economic Forum
Achieving net-zero emissions by 2050 will rest on these 3 pillars
 17 January 2020

Scaling up technology, policy support and stimulating demand: we will need to focus on all three if we are to realise a net-zero emissions world within the next three decades.



Rocky Mountain Institute
Sunshine for Mines: A Brighter Vision for Sustainable Resources
 15 January 2020

In both life and work, it's important to reflect on your past accomplishments and how they inform your future journey. When RMI started its mining initiative five years ago, carbon reduction wasn't on the radar for mining companies, and the... Read More The post Sunshine for Mines: A Brighter Vision for Sustainable Resources appeared first on Rocky Mountain Institute .



Frontiers
Coral Reefs in the Gulf of Mexico Large Marine Ecosystem: Conservation Status, Challenges, and Opportunities
 14 January 2020

The importance of coral reefs (CR) within marine ecosystems has become widely recognized. Although shallow CR are not as abundant in the Gulf of Mexico (GoM) as in other areas such as the Caribbean, their uniqueness, singularity, isolation, and conservation status make their conservation highly important. Corals and CR, both shallow and deep, are more widely distributed throughout the GoM than previously thought, providing new venues of research but also new challenges for their sustainable management. They are widely present in the three countries circumscribing the GoM (Cuba, Mexico, and the United States).

Demand Evolution

Asian economic growth, technology and policy are driving oil and gas demand

The 34 industrialized nations of the Organisation for Economic Co-operation and Development account for just 1.3 billion of the world's 7.7 billion people. Non-member, developing countries are therefore poised to dictate the future of global energy markets. The pace and structure of economic growth in China, India, and the ASEAN nations (collective population: 642 million) will shape global energy demand, and will exert significant influence on trade patterns and geopolitics. While global oil demand is widely expected to continue growing well into the coming decade, there is a sense that passenger vehicle fuel demand in particular may peak soon - due to the adoption of electric vehicles, and to efficiency gains for internal combustion engines. While this could slow the pace of overall demand growth, a lack of alternatives to oil means it will likely remain a staple of heavy truck and air travel, which are poised to increase alongside economic growth. In addition, oil as a feedstock for plastics and petrochemical production is expected to increase.

Global demand for natural gas is expected to continue growing, with the only uncertainty related to by how much - mainly due to its role in power generation. Gas-fired generation is often touted as an environmentally-suitable complement to renewables. However, there is a geopolitical aspect of demand to consider; a lack of local supply is making developing Asian economies more dependent on liquefied natural gas imports from China, while Europe is seeing a politically-motivated diversification away from Russian supply - which in turn is encouraging new entrants like the US (where both natural gas and renewables are continuing to replace coal-fired power plants). Technology also plays in potentially unpredictable ways into future demand. The electrification of transportation systems, for example, coupled with the increasing affordability of renewable energy technologies, may have a transformational impact. Policies and regulations related to these technologies, and to energy security, domestic resource development, and environmental protection, will also have an effect on oil and gas markets. In developing countries, related uncertainty and potential impact can be significantly greater than in the developed world, because local market structures and legacy infrastructure are relatively immature.

Related insight areas: [China](#), [Future of Mobility](#), [Future of Economic Progress](#), [India](#), [United States](#), [Chemical and Materials Industry](#), [Automotive](#), [Climate Change](#), [Sustainable Development](#), [Electricity](#), [ASEAN](#), [Future of Energy](#), [European Union](#)



World Economic Forum
Davos 2020 - Averting a Climate Apocalypse

21 January 2020

Averting a Climate Apocalypse Global emissions of carbon dioxide remain on course to rise above 1.5°C despite clear and present risks.



Pew Research Center
Renewable energy is growing fast in the U.S., but fossil fuels still dominate

15 January 2020

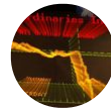
Solar and wind power use has grown rapidly in the past decade, but as of 2018 those sources accounted for under 4% of all energy used in the U.S.



Peterson Institute for International Economics
Trump's phase one deal with China relies on overblown estimates of what the US can sell

21 January 2020

The centerpiece of President Donald Trump's much anticipated "phase one" trade agreement with China, signed January 15, is a commitment by Beijing to import an additional \$200 billion worth of American goods and services over the next two years. Trump is certain to cite that pledge time and again...



The Conversation
How we consume electricity has changed dramatically in the past 20 years – and the market has failed to keep up

14 January 2020

The next 20 years of Britain's electricity policy must look very different from the previous 20.



World Economic Forum
How the media can be a meaningful stakeholder in the quest to meet the SDGs

20 January 2020

With quality journalism and education for the public, global news media can raise awareness of the SDGs.



Australian Strategic Policy Institute
Northern Australia's value not lost on friends and rivals

20 January 2020

It has been painfully obvious for years that our major ally, the US, major regional partner, Japan, and major market, China, all see more strategic value in northern Australia than successive federal governments and much ...



VoxEU
Special Issue of Economic Policy on the economics of climate change

17 January 2020

Climate change is at the top of our policy agendas. What can economics contribute to help deal with this important global challenge? With the aim to answer this question, the Managing Editors of Economic Policy are opening a call for papers for a special issue on "The Economics of Climate Change" to bring together the best ideas to inform the debate and provide high-impact policy advice.

Oil and Gas Innovation

New technologies are unlocking oil and gas supplies, driving efficiency and bolstering alternatives

Technology development in the energy sector is constantly evolving, often with profound implications for markets. Technological innovation can increase the efficiency of oil use, reduce the environmental impact of the oil and gas industry, and better enable the use of new alternative energy sources. It can also aid in the exploration and discovery of new sources of oil and gas, and make the exploitation of these resources more profitable. This can work in both competing and complementary ways that complicate market forecasts. For example, technological innovation has played a critical role in unleashing unconventional new sources of oil and gas supply in the US, which has reshaped global energy markets. At the same time, technology has enabled significant cost reductions in generating wind and solar energy - which, coupled with supportive public policies, have propelled more rapid deployment of renewables. Ultimately, technology is helping spur more competition among potential energy sources.

In the US, for example, renewables are expected to account for 31% of electricity generation by 2050, up from 18% in 2019, according to a report published by the US Energy Information Administration - while generation from natural gas is expected to increase to 39% of the total from 34% over that same period. Because of the challenges tied to decreasing the use of fossil fuels, new technology will play a pivotal role in helping reduce ongoing carbon emissions. This is the case in terms of potentially large-scale use and commercialization of carbon capture and sequestration technologies, hydrogen solutions, and coal gasification - though related costs and challenges in terms of deploying them on a broad scale make these longer-term possibilities. It is increasingly important to understand how the Fourth Industrial Revolution is re-shaping what is commercially viable to include in the global energy supply portfolio, and impacting local and regional demand, while re-mapping patterns of trade. According to the World Economic Forum's Digital Transformation Initiative, there is potentially \$1 trillion in additional value that can be unlocked by the Oil and Gas industry alone by embracing new digital opportunities.

Related insight areas: [Innovation](#), [Advanced Materials](#), [Electricity](#), [Future of Energy](#), [Information Technology](#), [Future of Mobility](#), [Circular Economy](#), [Climate Change](#), [Digital Economy and Society](#), [Fourth Industrial Revolution](#)



[Australian Strategic Policy Institute](#)
Rules needed to stop arms race in space

23 January 2020

Laws and regulations covering outer space are mired in geopolitical gridlock and are failing to keep pace with burgeoning commercial use of space and new technologies. Dependency on space is increasing both in everyday civilian ...



[Istituto Affari Internazionali](#)
There Is No Green Deal without a Just Transition

20 January 2020

In: IAI Commentaries There Is No Green Deal without a Just Transition Issue: 20|01 There Is No Green Deal without a Just Transition Luca Bergamaschi * Since the adoption of the Paris Agreement in 2015 – whose preamble explicitly refers to the just transition – an important debate has started on how to manage the ecological transition in a fair and orderly way. The concept of “just transition” is not new. Its essence has always been at the centre of the great industrial revolutions of the past and one of the driving forces behind the birth of modern welfare systems. Without guaranteeing the conditions for social stability – through rights, sustainable working conditions and social protection – it is impossible to maintain the economic and political stability of a state.



[World Economic Forum](#)
How conscious consumerism is taking root in India

20 January 2020

It's said that most people are unaware of the climate crisis and unwilling to change their behaviour. A new pan-Indian study shows this isn't the case - but we can all do more.



[Social Europe](#)
The fierce urgency of COP26

20 January 2020

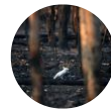
Adam Tooze stresses that the critical COP26 conference later this year hinges on European unity and radical leadership.



[Hoover Institution](#)
Victor Davis Hanson: Chaos in Europe – It's tricky being world's largest importer of gas, oil and critic, too

16 January 2020

Despite its cool Green parties and ambitious wind and solar agendas, Europe remains by far the world's largest importer of oil and natural gas.



[World Economic Forum](#)
The heat is on businesses to respond to climate change

15 January 2020

Climate change-related risks to business are huge. Here's how they should be preparing.



[World Resources Institute](#)
This Month in Climate Science, December 2019: Pre-term Births, Fewer Fishermen and Accelerated Arctic Melt

13 January 2020

Climate scientists recently found that extreme heat is leading to more pre-term births, warming waters in New England are linked to a decline in fishermen, and unprecedented changes in the Arctic show the region is changing more quickly than anticipated. This post summarizes these and other studies published in December 2019.

The Environment and Oil

Public policy has the potential to change the mix of industries serving as global energy providers

Environmental concerns are driving energy-related public policies aimed at addressing climate change by decarbonizing. The Paris Agreement on climate change, ratified in 2016 as hundreds of national governments made voluntary related commitments, could have a broad impact; however, the Paris Agreement commitments are widely seen as insufficient to achieve the deal's stated goal of capping temperature rise well below 2°C above pre-industrial levels. This in turn has spurred calls for more policy action (there is growing interest in carbon-pricing policies like a carbon tax or carbon-permit trading, for example). The COP24 global climate talks in Poland in late 2018 did not do much to address concerns raised by the Paris signatories related to a report that had just been published by the UN scientific panel on climate change - which warned of dramatic consequences from just 1.5°C of warming. These concerns were tied to efforts by oil and gas exporters Russia, Saudi Arabia, Kuwait, and the US to weaken a statement endorsing the UN panel's report, to the need to reduce fossil fuel use in countries where alternative energy supplies may be unavailable, and to a need for the developed world to help fund decarbonization in the developing world.

Local environmental concerns have prompted policies that have attracted international media attention - like the targets set in France, the United Kingdom, and Norway to entirely eliminate internal combustion engines in the next few decades. Efforts with a similar intent can vary widely, however, depending on an individual country's level of development, degree of economic diversification, and existing energy mix. Local sentiment will have a big influence on the types of policies that can be adopted; the *gilets jaunes* ("yellow jackets") protests that pushed France to scrap a fuel tax increase in late 2018, and the failure of the state of Washington in the US to pass a carbon tax, underlined the fact that people are deeply concerned about the personal cost of cleaner energy and a cleaner environment. Major international oil and gas corporations increasingly recognize the importance of transitioning to more sustainable energy in the future. Spurred by shareholders and public sentiment, these companies have invested greater amounts in renewable energy, and have launched initiatives to promote more sustainable and environmentally responsible oil and gas development and production (such as the Oil and Gas Climate Initiative, an effort organized by the World Economic Forum in partnership with more than a dozen oil and gas companies).

Related insight areas: [Civic Participation](#), [France](#), [Sustainable Development](#), [Global Governance](#), [Environment and Natural Resource Security](#), [Climate Change](#), [Water, Cities and Urbanization](#), [Public Finance and Social Protection](#), [United States](#)



Rocky Mountain Institute

Pipes or Wires?

24 January 2020

This article is a guest posting by Audrey Schulman, co-executive director of HEET in Massachusetts. Audrey championed the Energy Shift Pilot Project, a project team at e-Lab Accelerator 2019. After the 2018 explosions in the Merrimack Valley, it has become a... Read More The post Pipes or Wires? appeared first on Rocky Mountain Institute .



European Council on Foreign Relations

Unsettled union: The future of the Belarus-Russia relationship

21 January 2020

Minsk retains enough power to decline any Russian proposal it deems unacceptable – even if this results in a further rise in economic tension.



GreenBiz

Trend: Shipping sails toward decarbonization

20 January 2020

The following is adapted from State of Green Business 2020, published by GreenBiz in partnership with Trucost, part of financial information and analytics giant S&P Global.



World Economic Forum

Azerbaijan's role in a cohesive and sustainable world

18 January 2020

Azerbaijan has been on a steady upward trajectory since 2007. By positioning itself as a strategic transport hub and investing in infrastructure for natural gas exports, Azerbaijan is laying the groundwork for solid, sustainable economic growth.



World Economic Forum

The future looks bright for solar energy

16 January 2020

The cost of solar modules has fallen dramatically over the past decade, and is expected to halve again by 2030. Could this spell the end for fossil fuels?.



Circle of Blue

Water Crises Again Ranked a Top Global Risk in World Economic Forum Report

15 January 2020

Environmental factors most concerning for respondents to annual risk survey. By Brett Walton, Circle of Blue The world's business elite, apprehensive about turbulent geopolitics after a year of international turmoil, nonetheless sees the biggest risks to society in the coming decade stemming from changes taking place outside boardrooms and parliaments. Degradation of the [...] The post Water Crises Again Ranked a Top Global Risk in World Economic Forum Report appeared first on Circle of Blue .



Frontiers

Air Quality Characterization at Three Industrial Areas in Southern Italy

14 January 2020

Outdoor air pollution is responsible for more than 4 million premature deaths worldwide and its contribution is particularly severe in industrial contaminated sites, where epidemiological studies highlight often mortality rate larger than the national average. In the framework of the CISAS project, this study investigates spatial and temporal variability of air pollution across three industrial contaminated sites in southern Italy classified as "High Risk Area of Environmental Crisis": Crotona, Milazzo, and Priolo.

The Oil and Gas Workforce

Better training and a better gender balance could significantly help the industry

The oil and gas industry faces many challenges related to its workforce: difficulty in attracting and retaining the best talent, a lack of qualified technical professionals in emerging markets, gaps due to cyclical hiring tied to oil price fluctuations, and a need to re-skill its broader talent pool in the era of increasing digitalization. These issues take on varying degrees of significance in different regions around the world - but taken together they create significant amounts of general uncertainty. An adequate university education for a petro-technical professional should include technical skills, project management fundamentals, and professional skills in areas like finance, health, safety, environmental sustainability, and computer science. Analyses have suggested that the quality of engineering undergraduates varies widely based on school and region - mostly due to limited teaching capabilities, inadequate facilities, and a lack of sufficient funding and training programmes in developing countries.

The oil and gas industry's human capital challenge is exacerbated by the under-representation of women in its workforce - which results from gender imbalances in science, technology, engineering and mathematics (STEM) fields at universities, from negative public perception of the industry, and from proven difficulties in retaining mid-career, female talent. The World Economic Forum's 2016 Future of Jobs report noted that while women accounted for about 35% of all STEM graduates globally, in the energy industry only 24% of junior-level employees, 19% of mid-level employees, and just 11% of senior employees were women. As it seeks to address its gender issues, the industry's workforce will also be affected by digitalization. Some jobs may disappear, while new opportunities will likely emerge. For example, many roles traditionally filled on offshore rigs can now be done remotely, potentially improving safety while changing the nature of related tasks (well logging and directional drilling are examples of potentially affected work). The Fourth Industrial Revolution promises to require evolving digital skills, even in traditional jobs - making an ability to digitally train and re-train talent critical.

Related insight areas: [Leadership in the Fourth Industrial Revolution](#), [Education and Skills](#), [Artificial Intelligence and Robotics](#), [Gender Parity](#), [Values](#), [Workforce and Employment](#)



Frontiers
How Social Capital Affects Environmental Performance in China
 21 January 2020

Chinese society's unique characteristics present challenges with regard to discovering new ways to tackle tremendous environmental problems. This paper examines the effect of provincial social capital on environmental performance in China. In the first stage of the analysis, we measured the environmental performance levels of the 2011–2017 panel data of 30 provinces in China. We did this using data envelopment analysis (DEA). After introducing the concept of social capital, we innovatively built the social capital index system based on China's national conditions and measured social capital data from three perspectives. Then, we used the Probit regression model to explore the effect of social capital on environmental performance.



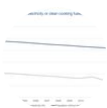
World Economic Forum
Fighting malnutrition from the grassroots of India
 18 January 2020

In Jharkhand, about 48% of children under five are underweight and 29% wasted, the highest rates in the country.



London School of Economics and Political Science
Why 'greening' the EU's institutions remains far from straightforward
 17 January 2020

In response to the increasing salience of climate change, there have been renewed efforts to enhance the green credentials of the EU's institutions. As Tobias Tesche writes, these efforts include proposals for the European Central Bank and European Investment Bank to take climate change into greater consideration when making decisions. Yet not all of these proposals have been well received [...].



World Economic Forum
Here's how the private sector can lead the global energy transition
 16 January 2020

The private sector has a huge role to play in supporting the global transition to a sustainable energy ecosystem. Here's where the industry should focus its efforts.



Brookings
As Oman enters a new era, economic and political challenges persist
 15 January 2020

Notwithstanding his robust rule, Oman under Sultan Qaboos was plagued with economic hardship and a closed political scene that led to various episodes of dissidence.



VoxEU
Central banks and climate change
 15 January 2020

Central banks have been called on to contribute to fighting climate change. This column presents a framework for thinking about the issue and identifies some major trade-offs and choices. It argues that climate should be a major part of risk assessments and that capital ratios could be used in a proactive way by applying favourable regimes to 'green' loans and investments. It also suggests that central banks may want to take several climate change-related aspects into account when designing and implementing monetary policies. However, the central bank should retain absolute discretion to interrupt any action if its first-priority objective – price stability – were to be compromised.



Project Syndicate
Making Impact Investing Work
 13 January 2020

After decades on the margins of finance and philanthropy, impact investing is finally moving into the mainstream, with most major asset-management firms having launched impact-investment funds and strategies. But without stronger standards, greater diversity of players, and a wider focus, a promising shift could become corporate whitewash.

References

1. Energy Geopolitics

- 6 Lessons on Energy Decarbonization from Countries Leading the Way, World Resources Institute, www.wri.org
- Finding Europe's Way in the World, Project Syndicate, www.project-syndicate.org
- Unappreciated hazards of the US-China phase one deal, Peterson Institute for International Economics, www.piie.com
- How to unlock the promise of electric transportation, World Economic Forum, www.weforum.org
- A pragmatist's guide to zero-emission logistics, World Economic Forum, www.weforum.org
- 8 Environment and Development Stories to Watch in the New Make-or-Break Decade, World Resources Institute, www.wri.org
- Why India is the new hotspot for renewable energy investors, World Economic Forum, www.weforum.org

2. A New Supply Story

- Forging a Sustainable Path Towards a Common Future | DAVOS 2020, World Economic Forum, www.youtube.com
- Greta Thunberg: Our house is still on fire and you're fuelling the flames, World Economic Forum, www.weforum.org
- Five ways to turn CO₂ from pollution to a valuable product, The Conversation, theconversation.com
- A Green Deal will not work without refocusing productivity, VoxEU, voxeu.org
- Achieving net-zero emissions by 2050 will rest on these 3 pillars, World Economic Forum, www.weforum.org
- Sunshine for Mines: A Brighter Vision for Sustainable Resources, Rocky Mountain Institute, rmi.org
- Coral Reefs in the Gulf of Mexico Large Marine Ecosystem: Conservation Status, Challenges, and Opportunities, Frontiers, www.frontiersin.org

3. Demand Evolution

- Davos 2020 - Averting a Climate Apocalypse, World Economic Forum, www.youtube.com
- Trump's phase one deal with China relies on overblown estimates of what the US can sell, Peterson Institute for International Economics, www.piie.com
- How the media can be a meaningful stakeholder in the quest to meet the SDGs, World Economic Forum, www.weforum.org
- Northern Australia's value not lost on friends and rivals, Australian Strategic Policy Institute, www.aspistrategist.org.au
- Special Issue of Economic Policy on the economics of climate change, VoxEU, voxeu.org
- Renewable energy is growing fast in the U.S., but fossil fuels still dominate, Pew Research Center, www.pewresearch.org
- How we consume electricity has changed dramatically in the past 20 years – and the market has failed to keep up, The Conversation, theconversation.com

4. Oil and Gas Innovation

- Rules needed to stop arms race in space, Australian Strategic Policy Institute, www.aspistrategist.org.au
- There Is No Green Deal without a Just Transition, Istituto Affari Internazionali, www.iai.it
- How conscious consumerism is taking root in India, World Economic Forum, www.weforum.org
- The fierce urgency of COP26, Social Europe, www.socialeurope.eu
- Victor Davis Hanson: Chaos in Europe – It's tricky being world's largest importer of gas, oil and critic, too, Hoover Institution, www.foxnews.com
- The heat is on businesses to respond to climate change, World Economic Forum, www.weforum.org
- This Month in Climate Science, December 2019: Pre-term Births, Fewer Fishermen and Accelerated Arctic Melt, World Resources Institute, www.wri.org

5. The Environment and Oil

- Pipes or Wires?, Rocky Mountain Institute, rmi.org
- Unsettled union: The future of the Belarus-Russia relationship, European Council on Foreign Relations, www.ecfr.eu
- Trend: Shipping sails toward decarbonization, GreenBiz, www.greenbiz.com
- Azerbaijan's role in a cohesive and sustainable world, World Economic Forum, www.weforum.org
- The future looks bright for solar energy, World Economic Forum, www.weforum.org
- Water Crises Again Ranked a Top Global Risk in World Economic Forum Report, Circle of Blue, www.circleofblue.org
- Air Quality Characterization at Three Industrial Areas in Southern Italy, Frontiers, www.frontiersin.org

6. The Oil and Gas Workforce

- How Social Capital Affects Environmental Performance in China, Frontiers, www.frontiersin.org
- Fighting malnutrition from the grassroots of India, World Economic Forum, www.weforum.org
- Why 'greening' the EU's institutions remains far from straightforward, London School of Economics and Political Science, blogs.lse.ac.uk
- Here's how the private sector can lead the global energy transition, World Economic Forum, www.weforum.org
- As Oman enters a new era, economic and political challenges persist, Brookings, www.brookings.edu
- Central banks and climate change, VoxEU, voxeu.org
- Making Impact Investing Work, Project Syndicate, www.project-syndicate.org

Acknowledgements

- Cover and selected images throughout supplied by Reuters.
- Some URLs have been shortened for readability. Please follow the URL given to visit the source of the article. A full URL can be provided on request.

Continue the experience online

Explore the collective intelligence of the World Economic Forum

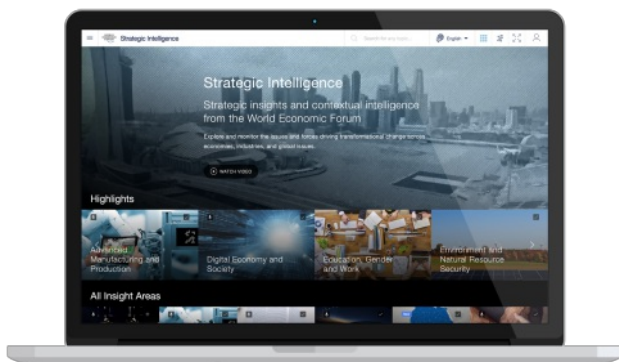
In today's world, individuals and organizations can find it difficult to keep up with the latest trends or to make sense of the countless transformations taking place around them.

How can you decipher the potential impact of rapidly unfolding changes when you're flooded with information—some of it misleading or unreliable? How do you continuously adapt your vision and strategy within a fast-evolving global context?

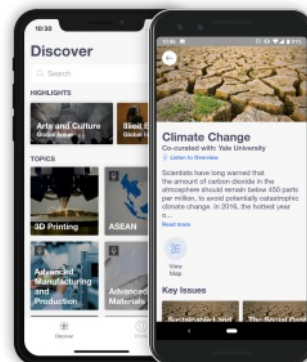
Leaders require new tools to make better strategic decisions in an increasingly complex and uncertain environment. The World Economic Forum developed Strategic Intelligence to help you understand the global forces at play and make more informed decisions.

Connect to Strategic Intelligence

Visit [Strategic Intelligence](https://intelligence.weforum.org) on the web or download the [Strategic IQ](https://wef.ch/si) app on your mobile device to learn more.



intelligence.weforum.org



wef.ch/si





COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

World Economic Forum
91-93 route de la Capite
CH-1223 Cologny/Geneva
Switzerland
Tel.: +41 (0) 22 869 1212
Fax: +41 (0) 22 786 2744
contact@weforum.org
www.weforum.org