

Frame the Future

Guidelines and Recommendations
for Future Competitiveness



This report was prepared by Simone Melo and Roberto Alvarez.

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The Global Federation of Competitiveness Councils (GFCC) is a network of leaders and organizations from around the world committed to the implementation of competitiveness strategies to drive innovation, productivity and prosperity for nations, regions and cities. The GFCC develops and implements ideas, concepts, initiatives and tools to understand and navigate the complex competitiveness landscape.

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A Message from the GFCC Leadership

On behalf of the Global Federation of Competitiveness Councils (GFCC), we are proud to present *Frame the Future*, the culmination of a progression of path-breaking programming carried out by the GFCC and its members over a period of unprecedented global challenge.

We never imagined a crisis such as the COVID-19 pandemic would come to the GFCC. But, faced with this historic global disruption, the GFCC was positioned to put its platform into action, enabling member countries to share critical information and best practices. Thus began a sequential series of initiatives that paralleled the trajectory of the unfolding pandemic and tackled the impacts left in its wake:

- In eight *Now. Bridge. Reboot.* webinars that took place in 2020 as the pandemic swept the globe, leaders from more than 20 nations discussed COVID-19's effects on their countries, how their governments were meeting the crisis, what innovations were deployed to battle the virus, and how digital technologies were used to keep businesses functioning and society stable.
- In a compilation of papers – *Leading through the Chasm and Into the Future Economy* – 32 highly accomplished leaders from 21 GFCC countries provided their expertise and advice on leading others through crisis, disruption, and transformation.

- The GFCC co-hosted, for the first time, a virtual Global Innovation Summit (GIS) in 2020 – with the Australian Government and the Australian Advisory Board on Technology and Healthcare Competitiveness. The Hon. Greg Hunt MP, Australian Government Minister for Health and the Hon. Karen Andrews MP, former Australian Minister for Industry, Science and Technology were among the speakers. GFCC members and others came together over two days, focusing engagement on *Crossing the Chasm: Health, Innovation and the Future Economy*. The GIS included conversations on global best practices in science and technology-based solutions to the health crisis, and international collaborations that have emerged in support of that response.

These collaborations set the stage for the next chapter of GFCC efforts to support its members. As vaccines began to beat back the virus, measures began to control its spread, and treatments improved for the sick, nations began to emerge in 2021 from economic and social crises and look to the future. We saw a world that had dramatically changed and that, in this new economic environment, the future will be reached on routes that are different than those charted a short two years ago.

At this pivotal moment, the GFCC launched this year the *Frame the Future* dialogue series to co-create new

strategies for a post-pandemic economy. This series helped uncover and highlight powerful lessons learned across the GFCC community – that will serve as a new set of *Global Competitiveness Principles* to guide nations as they “frame their future.”

More than 1,000 participants from more than 60 countries joined 11 live, online sessions held over the past five months, engaging with featured policy-makers, government leaders, CEOs, researchers, experts, and entrepreneurs from 26 nations. Discussions focused on five-future defining dimensions of competitiveness – innovation, resilience, partnership, inclusiveness, and sustainability – and how to integrate these into new strategies and programs for economic growth and inclusive prosperity.

These five topics have come into sharp focus during the pandemic as we have learned: businesses, universities, and governments can innovate much faster than thought possible; our supply chains are fragile and fracture under stress; we face complex economic and societal challenges, but also bright opportunities, that can be addressed only through partnerships; nations are not fully leveraging their human capital because many people do not have access to prosperity-generating economic engines; and that the degradation of our planet's environment and natural assets is accelerating.

Frame the Future participants use these five lenses to examine each of the ten foundational *Global Competitiveness Principles* – Innovation, Talent, Intellectual Property Systems, Infrastructure, Public-Private Partnerships, Regulation, Local Development, Natural Assets, Trade and Global Partnerships, and Benchmarking – and saw opportunities for progress, competitiveness enhancement, and economic gains.

This *Frame the Future* report captures the robust global conversations that arose from a multinational,

multidisciplinary co-creation process. It holds a rich set of ideas that GFCC nations can consider for new policies, plans, and programs to achieve a new future state that is more prosperous and inclusive, and an economy and society more resilient and agile in the face of disruption and accelerating change.

We extend our gratitude to those who took the time and made the effort to offer their expertise and wisdom to help others through the most difficult of times, and our thanks to the hundreds who brought their ideas and energy to this critical

collaboration. We also commend the GFCC staff for their extraordinary work, making possible the programming that has had a positive impact globally during the past two years.

More than ten years ago, we founded the GFCC in the belief that sharing knowledge and best practices on competitiveness policies and strategies would provide benefit to all. Over the past 18 months, as never before, that vision has been fulfilled.



The Hon. Deborah L. Wince-Smith
President, Global Federation of Competitiveness Councils

President & CEO, Council on Competitiveness



Mr. Charles O. Holliday Jr.
Chairman, Global Federation of Competitiveness Councils

Chairman Emeritus, Council on Competitiveness



Dr. Roberto Alvarez
Executive Director, Global Federation of Competitiveness Councils

Frame the Future, An Urgent Task

Future prosperity for everyone while respecting the planet's limited resources and creating opportunities for multiple stakeholders to collaborate and innovate was the vision behind the GFCC *Frame the Future* series. From June 16 to November 3, the GFCC hosted 11 dialogues with 54 leaders from 26 countries to capture insights, design new strategies, and develop ideas to enhance future competitiveness. A global audience with more than 1,000 participants from 62 countries joined the live sessions to exchange information, ask questions, and network.

The conversations gathered views from representatives of business, research, government, and civil society who discussed the ten strategic competitiveness areas highlighted every year in the GFCC *Global Competitiveness Principles*: Innovation, Talent, Intellectual Property Systems, Infrastructure, Public-Private Partnerships, Regulation, Local Development, Natural Assets, Trade and Global Partnerships, and Benchmarking.

Since 2010, the *Global Competitiveness Principles* have reinforced the GFCC's commitment to boost competitiveness and advance living standards across the globe, providing insightful guidelines to countries and cities. The *Frame the Future* series was aimed at setting the stage for future competitiveness through innovation, partnerships, resilience,

inclusiveness, and sustainability – elements that must be part of any competitiveness strategy. The 2021 *Global Competitiveness Principles* incorporate these five dimensions of future competitiveness into guidelines for action.

Why Frame the Future?

The world is living through a period of unprecedented change and faces massive challenges. Global warming, the overuse of natural resources, a massive shift in labor markets due to technological change, the COVID-19 pandemic, poverty, social inequality, and lack of access to critical infrastructure, just to cite a few.

Nations across the globe are in a quest to position themselves in the innovation economy and develop productive, cohesive, and prosperous societies. At this critical juncture, cities and countries increasingly need cross-sectoral collaboration and public-private partnerships to advance sustainable economic models. At the same time, international cooperation is crucial to sustainably advance sustainable development in the Global South.

In addition, the COVID-19 pandemic demonstrated the importance of preparing economies and societies to deal with future shocks, such as new pandemics and epidemics, and also to invest in

Leaders from
26
countries

More than
1,000
people from
62
countries
in the audience

preparedness for other kinds of disruptions such as extreme weather events, droughts, or floods that may increase with rising global temperatures.

Moreover, with the rapid and widespread digitalization of the world's societies, and physical and organizational environment, countries and businesses must safeguard this expanding digital world against rising cyber risks. Building resilience as a capability and improving institutional learning have become essential across public and private sector operations.

In meeting these challenges, there are opportunities for business and growth at the intersection of sustainability, resilience, inclusiveness, and innovation. For example, as many countries have plans to fix existing or to develop new infrastructure, new technologies can help make that infrastructure more sustainable and resilient. New digital and physical infrastructure deployments can help connect disadvantaged communities with job opportunities that will increase economic inclusivity. Nations need cost-competitive clean energy systems, and energy efficiency solutions for homes, buildings, factories, vehicles, equipment, and industrial processes — a golden opportunity for new products that can boost the trading potential for innovating supplier nations. A wide range of technology applications could enhance resiliency across sectors — such as health, food and

agriculture, public safety, and infrastructure — mitigating disruption and speeding recovery from disaster.

Leaders and societies need to act purposefully to design and implement strategies that incorporate innovation, partnership, resilience, inclusiveness, and sustainability as key pillars in their action plans to drive value creation and future growth.

What Will You Find in this Report?

The *Frame the Future* report gathers best practices, trends, and recommendations related to the ten strategic competitiveness areas covered in the GFCC *Global Competitiveness Principles*. These concepts and ideas were derived from the *Frame the Future* series and in-depth conversations held with GFCC members and fellows in 2021.

The report provides an overview of five future dimensions of competitiveness (innovation, sustainability, resilience, partnership, and inclusiveness) and introduces a set of goals associated with each one of them.

A summary for each of the ten *global competitiveness principles* (Innovation, Talent, Intellectual Property Systems, Infrastructure, Public-Private Partnerships, Regulation, Local Development,

Natural Assets, Trade and Global Partnerships, and Benchmarking) is included along with a concluding summary of key insights gained through the *Frame the Future* discussions.

Framing a better future for all is possible but it cannot be taken for granted. It depends on timely decision-making and actions from leaders across the globe. This report offers insights and recommendations to turn a vision for a better future into reality and is complemented by the 2021 *Global Competitiveness Principles*.

5 Imperatives x 10 Goals

Sustainability

Humanity has reached a critical point. The planet can no longer withstand the current rate of deforestation, pollution, and environmental degradation without compromising life on Earth with significant biodiversity loss. The Paris Climate Agreement signed in 2016 and the United Nations Sustainable Development Goals signaled to governments, businesses, and populations the urgency of pivoting to sustainable development and decoupling economic growth from the depletion of natural resources.

Although many developing economies are reluctant to make climate commitments they believe may stall their economic growth, sustainable development does not have to be a burden or cause economic losses. There are massive opportunities at the intersection of sustainability and innovation. For example, in a net-zero scenario presented by the International Energy Agency (IEA), the cleantech market would reach \$ 870 billion, surpassing the value of fossil fuel markets by 2030.¹

A focus on sustainability can catalyze the creation of new technologies, new business models, entire new industries, and jobs, while raising living standards. But a successful and much-needed transition depends on providing incentives to the stakeholders in today's production systems.

Science and technology have a critical role to play in developing solutions that can dramatically improve the productivity of natural resources and reduce humanity's footprint on the planet. Experts who participated in GFCC conversations suggested that investments in clean technologies must triple in the next ten years to avoid a climate disaster.

Technology development can be coupled with the adoption of production systems based on circular models throughout value-chains. Carbon emitter industries can adopt new production models that reuse the carbon dioxide byproduct. Investments in carbon storage, sequestration, and processing technologies can become game-changers in the fight against climate change. Carbon pricing must also be considered.

Goals

1. Put a price on carbon.
2. Triple investments in the development of clean technologies.

Innovation

Innovation is the primary driver of economic growth and prosperity, and source of solutions to meet global challenges such as climate change. For the past decades, accelerating technology developments and digital solutions have catalyzed new business models and created new opportunities for entrepreneurs.

The COVID-19 pandemic propelled innovation, pushing businesses, governments, and citizens to adapt and find alternatives for delivering services, selling products, and accomplishing work. Digitalization and innovative practices have helped societies respond to the health crisis and recover from its economic losses. The development of COVID-19 vaccines at record speed was enabled by the U.S. Warp Speed public-private partnership and groundbreaking international scientific collaboration that set a new standard for the speed of innovation in the future.

The nature of innovation itself is changing. It is increasingly systematized, open, and based on data and experimentation. Countries need to invest in creating low-friction business environments that are attractive to investors and enable innovators, while training and supporting entrepreneurs at scale to build a competitive advantage. Regulations and institutions must be designed to encourage innovation, rather than stifling or hindering it.

Goals

1. Make the speed of innovation during the pandemic the standard for the future.
2. Implement organizational and legal solutions to accelerate the trial of new technologies.

¹ Quartz 2021, <https://qz.com/2073244/how-much-is-the-clean-tech-industry-worth/>.

Inclusiveness

Societies are wasting human potential. Today, there are more than 773 million illiterate adults around the globe. Half of the world's population, 3.7 billion people, most women in developing countries, do not have access to the internet. These data reflect on big asymmetries across countries, and between urban and rural areas in developed nations.

The COVID-19 pandemic highlighted these disparities and raised the call to close this divide. Lack of access to basic infrastructure, quality education, skills, and job opportunities impede people from participating in the innovation economy, and hinder a country's ability to thrive and improve its population's well-being.

Lowering the barriers to access better opportunities is a critical issue worldwide. Governments and companies need to address these social gaps and tap into the transformative potential of technology to drive positive change. Including more people in the innovation and digital economy can unleash value creation and productivity, driving inclusive prosperity and higher incomes per capita.

In the corporate sector, research indicates that diverse teams with a mixture of talents from different backgrounds, areas of expertise, and experiences, pay off. Diverse groups are better at decision-making, find more creative solutions to problems, design better products, and can open more market opportunities.

At the same time, technology comes with challenges and can undermine greater inclusivity. For example, studies have recently pointed to some of the downsides of systems based on Artificial Intelligence (AI), such as biases against minorities embedded in algorithms.

Goals

1. Make digital infrastructure, devices, and skills accessible and affordable to all citizens.
2. Act on purpose in all situations to advance diversity and inclusion.

Resilience

The importance of building economic resilience came to the forefront during the COVID-19 pandemic. Supply chains were under enormous pressure to deliver essential goods last year and are now under scrutiny due to shipping delays and shortages of semiconductors. Cities, countries, and organizations need to develop and enhance the capabilities to bounce back, adapt, and perform during a crisis.

Societies are living through a period of uncertainty, and global risks of disruption are rising, including the potential for extreme weather events, cyber attacks on critical infrastructure and economic assets, and even the possibility of a new pandemic or epidemic. Therefore, building resilience as a capability will be a key part of strengthening future competitiveness.

Technology and data provide important tools for fostering economic resilience. Countries, cities, and organizations need to invest in creating trustworthy and transparent data sets to share information as a strategy for preparedness and risk mitigation. Applying lessons learned during past crises is vital for reducing the vulnerabilities of economic systems.

Businesses also have a role to play in systems resilience at the local and national levels. It is crucial to ensure that supply chains can produce and deliver critical goods for all citizens.

Goals

1. Create facilities to share data and knowledge on past crises and drive institutional learning.
2. Redesign supply chains and processes to be more adaptive and more resistant to shocks.

Partnerships

Societies face complex problems that can be solved only through collaboration across sectors, using technologies from different sources, and leveraging human capital from across the globe. Global challenges such as climate change, the depletion of natural assets, contagious diseases, and cyber threats require collaborative problem-solving. Engaging talent from different disciplines, sectors of society, and parts of the globe is a central part of the equation in solving global problems and creating new economic value. From the local to the global level, it is important to create and energize networks that weave together the assets and capabilities of corporations, investors, research and academic institutions, non-profits, entrepreneurs, and government entities.

The GFCC is a multi-stakeholder organization that harnesses the power of cross-sectoral partnerships to advance competitiveness and citizens' well-being in all nations. Universities, government agencies, private sector councils, and corporations participate in GFCC activities together, discussing the most pressing competitiveness issues, and exploring new models and solutions that could bring positive change.

Goals

1. Create organizations to connect public and private entities, facilitating innovation.
2. Adapt legislation to allow resources to easily circulate between the public and private sectors.

GFCC Perspective

Five Critical Dimensions of Future Competitiveness

For more than a decade, the Global Federation of Competitiveness Council's *Global Competitiveness Principles* have been a guiding light for competitiveness councils, governments, and other organizations designing competitiveness policies and strategies. However, during the past decade, the competitive arena has evolved with new technologies, new players, new opportunities, and new models. At the same time, global problems have grown in their urgency. Arising from this transforming landscape are new drivers of competitiveness that call for integrating new dimensions into policies and strategies for economic growth and prosperity:

Innovation: Multiple great revolutions in science and technology are converging on the global economy simultaneously. They are disrupting industries, markets, and jobs, and generating the building blocks for new products and services that will dominate the next economy. Since these technologies will be the source of value creation and prosperity worldwide for the next 50 years, driving innovation must be at the center of competitiveness policies and strategies. This is a main challenge and high priority across the GFCC community spanning 30 countries. In the United States, the Council on Competitiveness Commission



The Hon. Deborah L. Wince-Smith
President, Global Federation of Competitiveness Councils

President & CEO, Council on Competitiveness

on Innovation and Competitiveness Frontiers has challenged the Nation to achieve a 10x increase in our rate of innovation!

Resilience: Business, government, and community operational risk is on the rise. For example, businesses that operate around the world face natural environment-induced hazards, climate change, and geo-socio political risks. With the proliferation of digital systems and

hyperconnectivity across all activities in all industries, government, and society, the potential cyber-attack surface has expanded dramatically, and such attacks have spiked. During the COVID-19 pandemic, there were troubling disruptions in the availability and distribution of critical goods. And companies were forced to shift millions of workers to telework in a matter of days to keep their operations going. Moreover, the revolutionary technologies that are unfolding will unleash a whirlwind of economic, competitive, industry, and societal disruptions. For all of these reasons, we must become more resilient and much more adept at managing rapid change in what promises to be a more turbulent future.

Partnerships: Today's economic opportunities and global challenges have increased the importance of partnerships, for example, between: industry and academia to commercialize university research and inventions; industry, government, and academia to retrain workers who lose jobs due to expanding automation, and train workers for jobs in emerging industries; and NGOs and technology developers to find technical solutions for problems in the developing world such as cleaner power generation, and more sustainable agriculture and industrial development.

More partnerships among and across sectors of the economy and elements of society will be needed to fully develop a nation's competitiveness and solve global challenges.

Inclusiveness: Around the world, many people are not part of the prosperity-generating process. Many latent innovators, potential entrepreneurs, businesses, and communities are not part of an innovation ecosystem. For example, in the United States, three states — California, New York, and Massachusetts — account for 73 percent of venture capital invested, and nearly half of all venture capital goes to just two industries — software and life sciences. Many people lack adequate levels of education and skill to acquire a well-paying job in a modern economy, and the skill levels in some workforces are too low to attract private sector engines of economic growth to their regions. High-speed broadband is the new utility, and the digital divide is a societal disaster. The world is moving to online platforms — for knowledge, work, and accessing job opportunities, health care, education, and services. Yet too many people in rural areas, low-income communities, and underdeveloped countries do not have such access. As a result, their economic opportunities are diminishing, and nations will not be able to fully leverage their human capital. New strategies must expand the footprint of economic opportunity, innovation and entrepreneurial ecosystems, and access to education and training.

Sustainability: There is a fundamental societal need to use a nation's natural assets — oil and natural gas, oceans and waterways, lands and forests, stores of minerals, and even natural scenic beauty — to fuel the economy and improve standards of living. However, too often, these critical resources have been exploited at the cost of pollution, scarred

land, the degradation of biodiversity, the destruction of animal habitats, negative impacts on some human communities, and overuse of natural scenic treasures. For example, the extraction and processing of materials, fuels, and food contribute half of total global greenhouse gas emissions and more than 90 percent of biodiversity loss and water stress.² Global consumption of materials such as biomass, fossil fuels, metals, and minerals is projected to double in the next 40 years.³ Nations need to develop and deploy ways to leverage these natural assets more sustainably.

Moreover, with increasing economic development and rising incomes around the world, the consumption of material goods is on an upward trajectory. According to the UN, the per capita "material footprint" of developing countries increased from five metric tons in 2000 to nine metric tons in 2017. In high-income countries, the per capita material footprint is already 27 metric tons. Globally, 37 percent of waste is disposed of in a landfill, and annual waste generation is projected to increase by 70 percent by 2050.⁴

By 2030, the global middle class could reach 5.3 billion — 1.7 billion more people than today who will consume more energy and material goods. As demand is rising, pressure to make production and consumption more sustainable is growing. In response, companies have undertaken efforts to: reduce their energy consumption; use cleaner sources of energy to power their operations; use more sustainable materials and greener chemicals; reduce water usage, waste, and scrap in manufacturing; deploy more energy-efficient, alternative power vehicles in their fleets; and increase the energy efficiency of buildings, facilities, and the equipment they use. Others are designing greater sustainability into their

products, for example, more energy-efficient appliances, and reduced, recyclable, compostable, or bioplastic packaging.

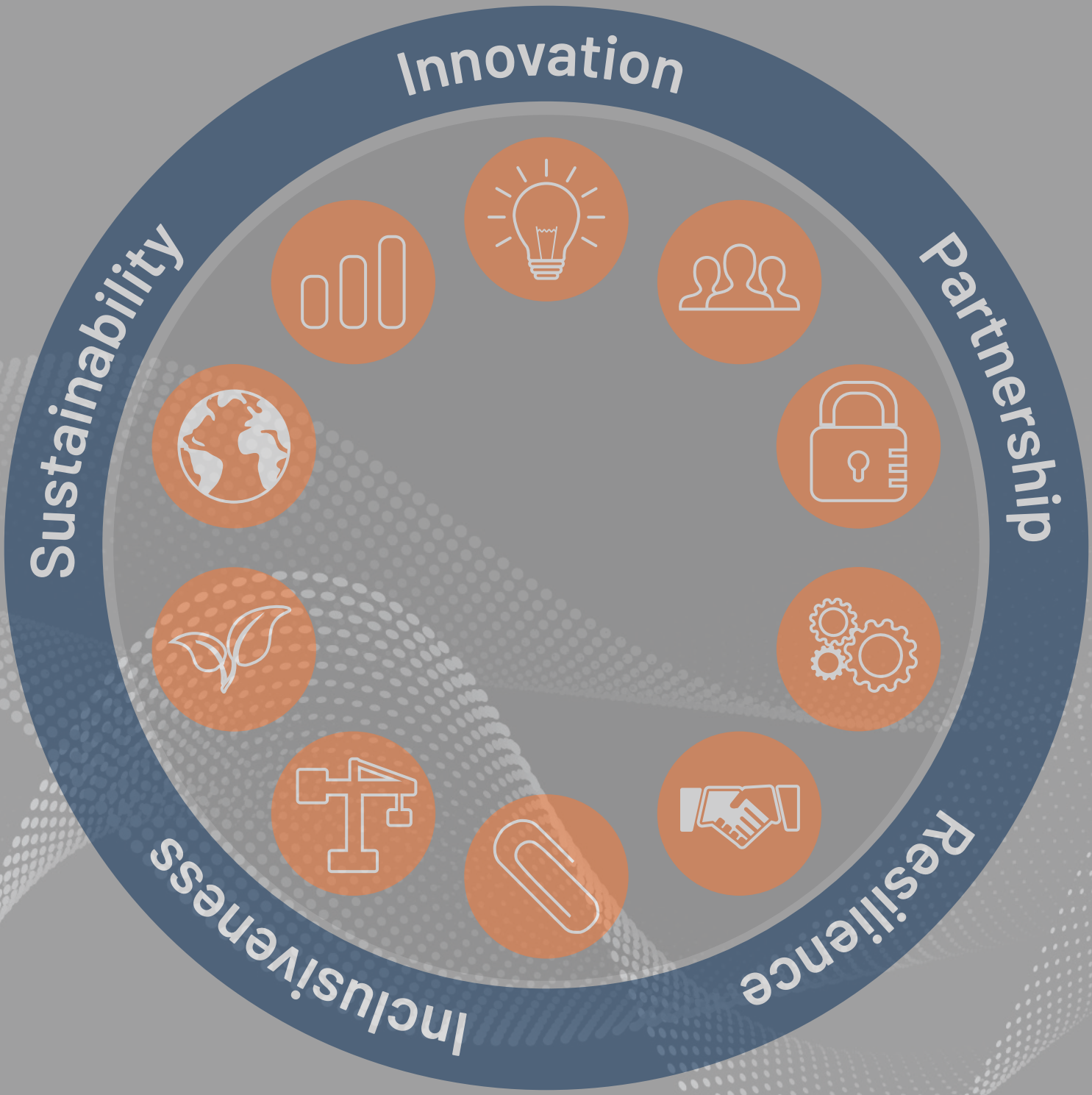
Business efforts to improve sustainability can generate significant returns in areas such as cost savings, brand value, reputation, customer loyalty, and improved risk management. A more sustainable product or process can be a competitive differentiator that consumers recognize and value. Future competitiveness will be dependent on those who can create high-value products in all sectors that will function within the resource limitations of our planet.

Frame the Future: As nations set their sights on the future, the GFCC launched a global conversation about integrating these five future-defining dimensions of competitiveness into the areas of strategy and policy articulated in the GFCC *Global Competitiveness Principles* — innovation, talent, intellectual property systems, infrastructure, public-private partnerships, regulation, local development, natural assets, trade and global partnerships, and benchmarking. Looking across the five new dimensions and the Principles, there are many opportunities for connection and convergence — for example, at the intersection of inclusiveness and infrastructure, sustainability and innovation, and resilience and public-private partnerships. It is time to think creatively, employ multidisciplinary approaches, and mobilize multi-sector collaboration at those intersections to make those connections and turn them into competitiveness enhancers and economic benefits.

² UN Environmental Program, <https://www.unenvironment.org/news-and-stories/press-release/un-calls-urgent-rethink-resource-use-skyrockets>.

³ Global Material Resources Outlook to 2060, OECD.

⁴ What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050, World Bank, 2018.



FRAME THE FUTURE

Advancing the Competitiveness Agenda

Sessions

-  Jun 16: Opening Session
-  Jun 30: Innovation
-  Jul 14: Talent
-  Jul 28: Intellectual Property Systems (Lockheed Martin)
-  Aug 11: Infrastructure
-  Aug 25: Public-Private Partnerships
-  Sep 08: Regulation
-  Sep 22: Local Development (CNI)
-  Oct 06: Natural Assets
-  Oct 20: Trade and Global Partnerships
-  Nov 03: Benchmarking (JST)

Framing a prosperous and sustainable future with opportunities to include all citizens in a resilient innovation economy is the GFCC's vision. But without timely decision-making and action — and without mobilizing assets and capabilities from governments, businesses, academia, and all parts of society — that vision for a better future will not come into reality. Every stakeholder needs to become a shareholder.

During 11 conversations, the GFCC convened policymakers, government leaders, CEOs, researchers, experts, entrepreneurs, and young leaders from 26 nations to *Frame the Future*. More than 1,000 participants from 62 countries participated in the sessions, sending questions and interacting online with speakers.

The *Frame the Future* series aimed to develop a future competitiveness agenda incorporating five dimensions: innovation, partnerships, resilience, sustainability, and inclusiveness. There isn't only one direct nexus among these five dimensions, but multiple possible connections and feedback loops.

It starts with a baseline. The planet can no longer withstand the current pace of environmental degradation, pollution, and ocean acidification. Climate change is a global threat. By the end of 2021, 730 million people are expected to be living in extreme poverty (defined as living on less than \$1.90 per day). Technology,

innovative models, and a deliberate focus on sustainability and resilience present enormous potential for growth, development, inclusion, and prosperity.

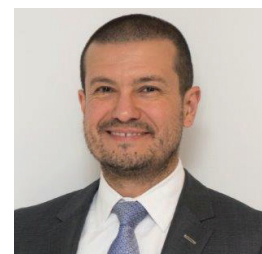
It is time to act now. The *Frame the Future* series generated important insights and concrete recommendations to advance the competitiveness agenda outlined in this report.

Frame the Future Hosts



The Hon. Deborah L. Wince-Smith
President, Global Federation of Competitiveness Councils

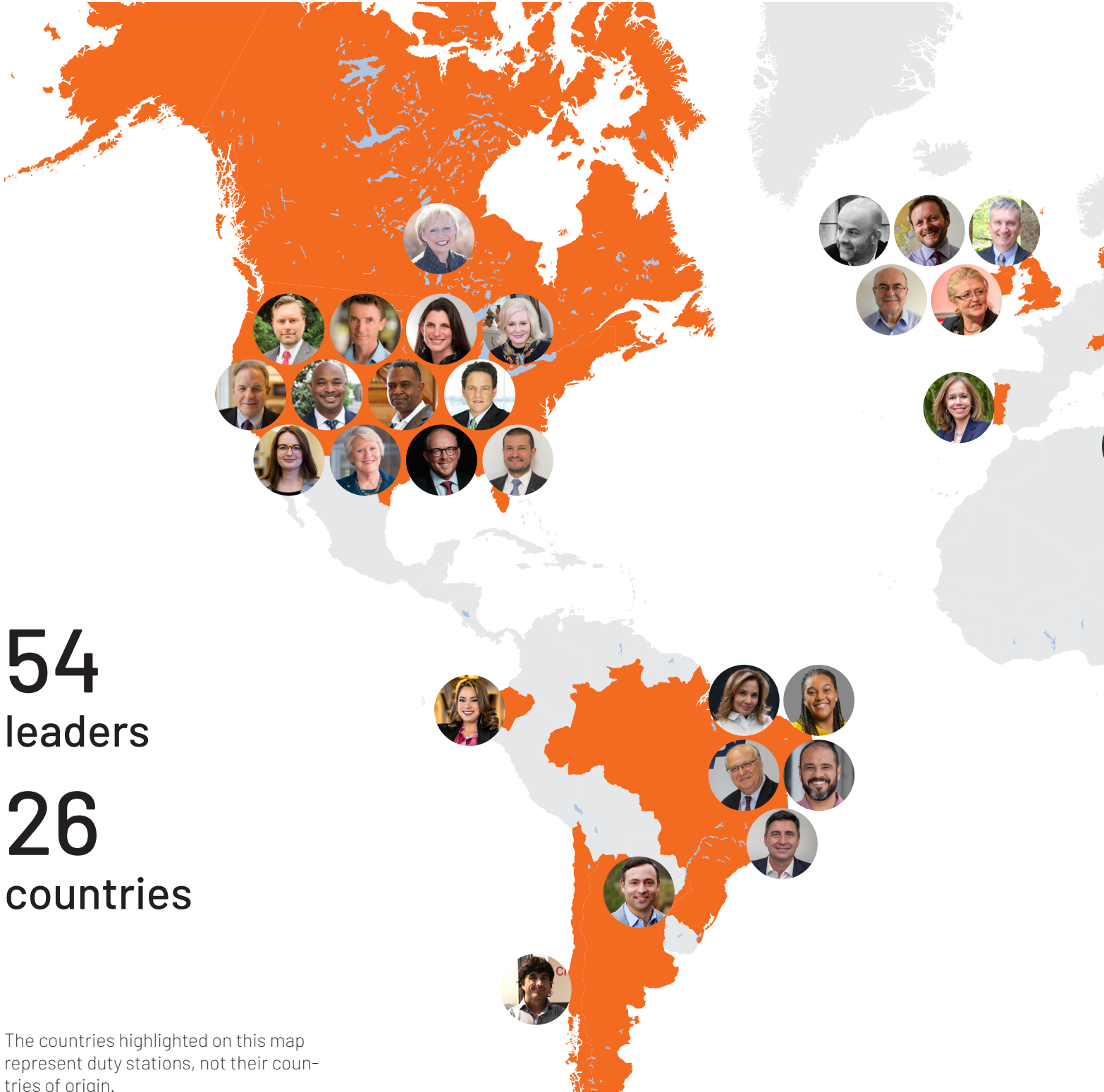
President & CEO, Council on Competitiveness



Dr. Roberto Alvarez
Executive Director, Global Federation of Competitiveness Councils

FRAME THE FUTURE

Global Leadership





FRAME THE FUTURE

Innovation

June 30

Panelists



Prof. Ken Sloan
Deputy Vice-Chancellor and Senior Vice-President (Enterprise & Governance), Monash University Australia



Mr. Hiro Nishiguchi
CEO, Japan Innovation Network (JIN)



Dr. Ghadah Al-Dabbagh
Head of the Omnipreneurship Lab, Al-Dabbagh Group, Saudi Arabia



Mr. Jaime Alvarez
Head of Future Studies, National Council of Innovation for Development (CNID), Chile



Mr. William Lese
Managing Partner, Braemar Energy Ventures





Summary

The transformation of production and consumption systems, economies, and societies requires intention, action, and a relentless commitment to reinvent existing models. Innovation is a social process that requires the engagement of businesses, researchers, government, civil society, and entrepreneurs, as well as the circulation of resources. Creating and growing innovation ecosystems depends on cross-sector collaboration and strong leadership. Furthermore, there is a trend towards developing a common language for innovators through the systematization of organizational solutions, methods, and innovation processes and frameworks. That should be further accelerated via training and education and the empowerment of innovators in organizations and society.

- Fostering a close relationship between innovators and policymakers is key to promoting innovation. The more cutting-edge an innovation is, the more important it is to establish a relationship between policy and business.
- Incorporating innovative approaches into business models and practices requires intention and planning from the outset.
- Leadership within a startup, SMEs, and large enterprises can make the difference in innovative efforts. A strong leadership team, with an understanding of technology and clear goals can improve innovation efforts that are transformative for the business.

Recommendations

- Empower innovation and technology-literate leaders in business and policy.
- Reimagine value chains adopting a systems' design perspective.
- Work across sectors and connect policy with business to drive change.
- Act and invest today to design future processes, businesses, and economies.
- Accelerate the training of innovation teams and leaders in all instances.
- Review legal frameworks that impact innovation for speed, cross-sector collaboration, and risk-taking in all sectors.
- Train people in business and policy on innovation methods and concepts, and the factors that affect innovation.

FRAME THE FUTURE

Talent July 14

Panelists



Dr. Michael Fung
Deputy Chief Executive,
SkillsFuture



Prof. Aleksandar Subic
Deputy Vice-Chancellor (STEM
College) & Vice President, Digital
Innovation, RMIT University



Prof. Isabel Gil
Rector, Universidade Católica
Portuguesa



Mr. Charles O. Holliday Jr.
Chairman, Global Federation
of Competitiveness Councils
Chairman Emeritus, Council
on Competitiveness



Ms. Isabelle Christina
Ashoka Young Changemaker
Founder, Black Girls Project
Program Ambassador, Unicef





Summary

The COVID-19 pandemic accelerated the transition towards the future of work. The rapid shift to telework and online learning supported by widespread use of digital technologies and cloud systems to support business and education during lockdowns accelerated existing trends. It increased the demand for digital skills which was already growing to fill better-paying jobs and support digitalization across economies. Across the globe, the pace of reskilling and upskilling has been slow. Countries continue to waste human capacity, with many people stuck in low-paying jobs that will soon no longer exist due to automation. Countries and organizations need a systemic approach that addresses skills gaps and mismatches, and takes advantage of technology and digital tools to seize the benefits of the digital economy for sustainable development.

- The transition to telework and online learning during the COVID-19 pandemic created an opportunity to accelerate talent development. Widespread access, flexibility, experiential learning, and lifelong learning are at the core of this shift.

- Technology is propelling the talent transition in two directions. On the one hand, rapid technological advancements are driving job displacement. On the other hand, technology can take over hazardous work, enhance productivity, and create new jobs, occupations, and industries. Future talent strategies must leverage technology to enable the future of work and drive inclusive prosperity. The use of data can boost skills development through personalization of training and education, new models of certification, and enhanced understanding of skills matches and mismatches.
- Revamping skills systems is a complex task that will require the involvement of multiple stakeholders in a cross-sector and multi-level ecosystem. These stakeholders should strive to make upskilling and reskilling accessible and affordable to everyone.

Recommendations

- Use data to drive the management of the higher education system to a new level.
- Train people to deal with complex problem-solving through system-thinking.
- Use the world as a lab for testing ideas and leverage real-world projects in education.
- Combine national top-down skills road mapping with bottom-up skills development.
- Focus on partnerships and ecosystem building to expand education capacity.
- Engage people in new and more flexible ways of work.
- Persevere in building partnerships and scalable training models.

FRAME THE FUTURE

Intellectual Property Systems

July 28

Panelists



Dr. Claudio Furtado
President, National Institute
of Industrial Property



Mr. Christopher Geiger
Enterprise Risk and
Sustainability Director,
Lockheed Martin



Ms. Gulay Ozkan
Founder, GEDS Strategic Design



Dr. Noam Shemtov
Deputy Head of the Centre for
Commercial Law Studies, Queen
Mary University London



Dr. Paul Roben
Associate Vice Chancellor,
Office of Innovation and
Commercialization, University of
California San Diego



HOST
Mr. Chad Evans
Treasurer, GFCC
Executive Vice President,
Council on Competitiveness





Summary

The IP landscape is becoming increasingly complex, dynamic, and relevant as nations transition to knowledge-based, technology-driven economies. Intangible assets, in the forms of patents, trademarks, copyrights, brands, software, and research, now account for 80 percent of S&P market value. Digital technologies are key drivers of this systemic change. Data, AI, and open innovation initiatives have enabled new business models and the ability to co-design and co-create through digital platforms. Expanding the pool of inventors and innovators – for example through education, entrepreneurial skills development, and expanding access to capital – will increase the population that can obtain IP rights and capture the prosperity they can generate. Today, however, gender and racial gaps persist. In the United States, only about 16 percent of patent holders are women, and fewer than three percent are people of color.

- Expanding access to and protecting IP is crucial for driving innovation that benefits both individuals and society

at large. Making data sets and patent licenses available and developing technologies through open-source platforms can reduce costs, and increase accessibility and inclusiveness. Corporations can also benefit from open innovation, crowdsourcing, and open models as a source of new innovative products, processes, and services, coupling new models with IP rights.

- Researchers, entrepreneurs, and creators often struggle with high costs and difficulty in accessing IP systems. Many of them do not understand how patents, copyrights, and trademarks work, or do not have the legal services that may be needed to acquire this protection, leading to low engagement with IP rights.
- Emerging technologies are bringing new challenges to IP systems. Examples include the role of AI as a tool or an inventor, and the allocation of IP rights and benefits when the IP is co-created. It is increasingly important to consider data stewardship and the involvement of innovators in the design of new IP systems.

Recommendations

- Combine the use of open source and proprietary IP across sectors.
- Streamline IP processes and make them simpler and faster.
- Involve creators and innovators in the design of future IP systems and offices.
- Make future IP offices more data-centric and create new value from data.
- Engage with and train people in all social segments and geographies on IP systems.
- Lower the costs for innovators in disenfranchised communities to use IP systems.
- Integrate data stewardship into IP strategies and systems.

Session Partner



FRAME THE FUTURE

Infrastructure

August 11

Panelists



Dr. Frannie Leutier
Senior Partner, SouthBridge CEO,
SouthBridge Investments



Ms. Elisa Jagerson
Senior Fellow, GFCC
General Partner, Wildcat
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Dr. Mahmoud Samir Abdulwahed
Director of Strategic Innovation,
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Ms. Pia Henrietta Moon
CEO and Co-Founder, Carbo
Culture



HOST
Mr. Charles O. Holliday Jr.
Chairman, Global Federation
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Chairman Emeritus, Council
on Competitiveness





Summary

As infrastructure plays a critical role in the economy and people's lives, the threat posed by climate change and the risks of more frequent extreme weather events are reshaping investments in and the design of infrastructure. Countries should make mitigating potential impacts of climate change a priority in building new and modernizing existing infrastructure, acting now to develop green, reconfigurable, adaptable, resilient infrastructure solutions. Governments need to price carbon and redesign the economic incentives provided to big polluter industries, nudging the transition to a carbon neutral economy. Digital technologies must be leveraged to optimize systems and make them more efficient and productive. Countries should act now to provide visibility to all costs associated with infrastructures and further educate consumers on the benefits and prospects of more sustainable and resilient infrastructure systems.

- There are two ways to reduce carbon dioxide in the atmosphere to mitigate climate change impacts: substantially reduce greenhouse gas emissions and sequester the greenhouse gases that already exist in the atmosphere. Humanity will need both. Through a combination of innovative technology, investment, and policies, carbon in the atmosphere can be lowered to manageable levels.
- Enhancing and expanding partnerships between universities, industries, and governments to accelerate the transformation of infrastructure is fundamental. In addition, investments to apply and repurpose existing technology can make infrastructure more sustainable now, and help cities and nations close the infrastructure gap worldwide.
- Without government support and action, the transformation to more sustainable infrastructure change cannot happen. There needs to be an immediate and long-term commitment from governments on pricing carbon and giving funding to companies that are developing innovative technologies.

Recommendations

- Act locally to develop infrastructure but resource projects with global expertise.
- Establish a clearinghouse for models and best practices for sustainable infrastructure projects.
- Leverage existing technology and business models to develop more sustainable infrastructure
- Invest to build future infrastructures and educate users and consumers.
- Factor climate change in all infrastructure investment decisions.
- Put a price on carbon, create new markets and innovate in infrastructure financing.
- Build infrastructure to be reconfigurable, adaptable, and digitally connected.

FRAME THE FUTURE

Public-Private Partnerships

August 25

Panelists



Dr. Tapiwa Chiwewe
Senior Research Manager &
Program Director, IBM



Dr. Eduardo Jorge Oliveira
Head of the Center for Strategic
Technologies in Health, Paraiba
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Mr. Anuar Buranbayev
Managing Partner, Center for
Research and Consulting



HOST
Ms. Lori Schmidt
Distinguished Fellow, GFCC
President, Loral Management
Group





Summary

Public-private partnerships (PPPs) should foster collaboration between government agencies and private sector entities toward achieving clear and specific goals. PPPs should not be used to execute ordinary projects where the public or private sector has the resources and capabilities to do it alone, when the public sector lacks resources, or to circumvent public procurement processes. PPPs should deliver a public good and advance the creation of future industries by focusing on the public purpose projects will serve. PPPs require a new type of leadership, one that is attuned to risk-sharing, future-building, and collaboration. Partnerships are crucial for the development of infrastructure and new technologies across the globe. They will gain further importance in the coming years as emerging nations adopt more sophisticated models in which the public and private sectors will need to work together nationally and regionally to build and accelerate their future economies.

- PPPs generate value by bringing the distinct resources and capabilities of public and private entities to a project that could not be accomplished by either sector acting alone. Partnerships involving universities and businesses create value in society through more effective innovation projects and the creation of new markets.
- Both public and private sector partners need to agree to the rules of engagement, understand the risks involved, ensure balanced contributions and mutual benefits, and account for any development costs associated with the partnership.
- Legal frameworks and regulations that support PPPs need to be flexible and adapt to the rapid pace of technological, business model, and consumer market change. Regulations must allow the public sector to take risks.

Recommendations

- Define clear and explicit goals upfront for PPPs.
- Leverage PPPs to build innovative infrastructure, technologies, and service models.
- Engineer PPPs to include R&D costs, reward expertise, and account for risks.
- Preserve the unique value of PPPs, avoiding their use to replace public procurement.
- Adopt a risk-sharing, future-building, and collaborative mindset when using PPPs.
- Adapt regulation and use technology to support innovative PPP processes.
- Engage resource auditing and government oversight bodies in support of PPPs.

FRAME THE FUTURE

Regulation

September 8

Panelists



Mr. Tengku Azrul
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Dr. Margareta Drzeniek
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Mr. Juan Pedro
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Ms. Laura Sandys CBE
Distinguished Fellow, GFCC
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Mr. Chad Evans
Treasurer, GFCC
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Council on Competitiveness





Summary

Today's pace of technological change poses a challenge to local, national, and international regulators. New technologies reach the market every day, different industries are emerging, and there is a growing blurring across traditional sectoral boundaries and policy areas. These changes have amplified the systemic nature of the issues regulators address, as well as the diverse interests and goals of different stakeholders and social groups. Governments are struggling to keep pace with technological change and have been slow to assess or regulate powerful new technologies. Regulations can be a powerful tool to spur innovation, promote the energy transition, and tackle climate change. But governments must adopt future-proof regulatory frameworks that anticipate new trends will emerge and leverage new opportunities, fostering dialogue with the private sector and the population-based on trust and transparency. A focus on risk assessment as an alternative to process compliance can help to boost innovation in regulation.

- Regulatory approaches need to become more collaborative to address the challenges posed by rapid technology advancement, climate change, and rising income inequality. The development of regulations should not be left only in the hands of governments; the private sector and civil society must participate in the process to create new approaches. Consumers can play a pivotal role in driving change through purchase preferences.
- Operating regulatory systems conducive to innovation depends on accepting and being prepared to deal with risk, strengthening the dialogue between the public and the private sectors, and facilitating institutional and business learning. There is an urgent need for legal frameworks and platforms that support new regulatory approaches.
- Governments need to develop and implement new capabilities, with improved communication channels across agencies, and strengthened transparency for formulating regulations. Beyond that, governments can leverage the potential of technology to advance regulation, using data and AI to understand the ramifications of regulatory changes, assess impacts, and streamline processes.

Recommendations

- Act explicitly and continually to make regulation transparent.
- Shift the focus of regulation from process compliance to risk assessment.
- Build public-private joint task forces to advance regulation update at speed.
- Adopt a system thinking perspective when making interventions using regulation.
- Use digital technologies and modeling to understand regulatory decisions and their ramifications.
- Develop new capabilities and bring new types of expertise into government.
- Create frameworks that allow for experimental regulatory environments.

FRAME THE FUTURE

Local Development September 22

Panelists



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Mayor of Sparta
Chairman of the Board, Capital Partners



Dr. Jefferson Gomes
Technology and Innovation
Superintendent, SENAI-CNI



Mr. Kwanza Hall
Senior Fellow, GFCC
Former U.S. Representative



Ms. Maria Skotte
Director, Clean



Dr. Paul Madden
Director, Centre for
Competitiveness



Ms. Gianna Sagazio
Innovation Director, CNI





Summary

Today, 55 percent of the world's population lives in cities, and urbanization is expected to continue to expand. By 2050, nearly seven out of ten people will live in cities, according to the World Bank. Cities face a common set of challenges related to waste management, energy consumption, and CO2 emissions, and account for the lion's share of global resource consumption. This concentration of population and consumption is an opportunity for city and regional leadership to become protagonists in the fight against climate change and the quest for future value creation – launching and growing clean businesses and industries. To achieve these goals, cities and regions need to foster an environment that enables innovators and attracts talent and entrepreneurs from around the world through investments in infrastructure, access to capital, and high-quality amenities. Local development must draw on place-based innovation to tackle local problems by tapping resources globally and cutting-edge technologies. PPPs are crucial to accelerating local development and the creation of innovation hotspots.

- Cities and regions need to survey and understand their available assets. One proven strategy is to build on top

of existing natural assets, historical strengths, and cultural capabilities, and introduce new business models and leverage technology to boost productivity levels. Cities can also leapfrog by betting on future industries and technologies – if they clearly understand the enabling factors for those and how they connect with local assets.

- Advancing place-based innovation depends on fostering an environment that enables innovators by investing in infrastructure, attracting talent, providing access to capital, and developing high-quality amenities. But these ingredients alone are not enough, it is necessary to invest in connecting players, and nurturing the local and or regional innovation ecosystem.
- Leadership attuned to the needs of and accessible to local populations, and that collaborates with multiple stakeholders is essential to drive city and regional development. It is crucial to foster and grow local alliances and partnerships. Finding a strong initial group of supporters for local/regional transformation and working with them to expand the circle of stakeholders engaged, build trust in society, and advance common goals and interests is a proven strategy.

Recommendations

- Develop a clear and deep understanding of local and regional assets.
- Invest in quality of life and make the city or region livable and attractive to talent.
- Leverage digital and clean technologies to build a future edge in your region.
- Reimagine processes, flows, and local/regional metabolism using technology.
- Invest in connecting stakeholders and create structures to support that.
- Formulate a clear strategy and build a cohesive support group, scale from there.
- Be accessible and available as a city or regional leader to build trust and scale.

Session Partner



FRAME THE FUTURE

Natural Assets

October 6

Panelists



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Science Advisor Campaign for
Nature Scientific Advisor to the
President Islamic Development
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Mr. Omar Al-Ansari
Secretary General Qatar
Research, Development, and
Innovation Council



Dr. Karin Calvinho
CTO & Co-founder, RenewCO2



Prof. Guy Poppy
Chief Scientific Advisor,
Food Standards Agency,
UK Government
Director, Transforming UK Food
Systems

SPF Professor of Ecology,
University of Southampton





Summary

The current use of natural assets — such as fossil fuels, water, land, and vegetation — is not sustainable for societies' long-term needs and has to be reevaluated. Human overuse of resources has caused environmental damage and accelerated climate change effects. There are different levels of industrialization and resource exploitation across the globe causing disproportionate environmental impact. Governments and corporations need to strengthen commitments to tackle this situation. Technology can be a powerful tool to improve natural resources management and turn the current “perfect storm” into a “perfect opportunity” for future sustainable growth. There are also business opportunities at the intersection of innovation and sustainability. Societies need innovative solutions that bring ESG best practices into resources development, including in emerging economies. Partnership and collaboration at the global level are crucial to protect the planet, reduce biodiversity loss, and mitigate the negative impacts of rising temperatures. Moreover, the asymmetries in knowledge and expertise across the globe create big opportunities for global collaboration.

- Natural resources are not equitably distributed across the globe. This situation can be an opportunity to expand partnerships involving nation-states, governments, and private entities. Coupling world-class environmental and sustainability expertise with natural resource projects in developing countries would positively impact the planet and local economies.
- Innovation is key and new, advanced technologies can be used to increase the productivity of natural resources. Finding the best use cases for their introduction may provide the key to accelerating the trajectory toward a sustainable and resilient future. New technologies can also be applied to map, understand, and preserve biodiversity.
- The heavy reliance on natural assets in all facets of industries, from product creation to final delivery to customers, needs to change in the face of climate change and natural resource depletion. Such a decoupling depends on rethinking existing supply and value chains, understanding and reimagining how the inputs and outputs of all links in the chain connect.

Recommendations

- Train changemakers to understand and redesign complex systems.
- Expand funding for the development of clean and sustainable technologies.
- Adopt a challenge-based approach for the development of new technologies.
- Scale sustainable technologies that fit well in existing business models.
- Give visibility to carbon emissions and treat carbon as a resource.
- Leverage global networks to take ESG best practices to frontier markets.
- Use technology to map and monitor biodiversity at scale.

FRAME THE FUTURE

Trade and Global Partnerships

October 20

Panelists



Mr. Simos Anastasopoulos
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Dr. Taeho Bark
President, Lee & Ko Global
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Former Minister of Trade, South
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Dr. Barbara Stephenson
Vice-Provost for Global Affairs
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Ms. Ana Maria Monteverde
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WOW



Mr. Stefan Kraxner
Head of Competitiveness
Performance Division,
Competitiveness Office of Abu
Dhabi, Department of Economic
Development





Summary

International trade is the foundation for the global economy. It allows governments, businesses, and consumers to obtain the resources, goods, and services they need, whether they are sourced or produced locally or in a foreign country. In the past decades, technological developments coupled with reduced trade barriers facilitated global exchanges leading to rapid growth across economies. Since 1990, trade has driven 24 percent income rise globally, and 50 percent among the 40 percent poorest populations.¹ However, the financial benefits stemming from globalization have not been shared evenly across populations, and not everyone enjoys the positive impacts of the free flows of goods, people, and services. As a result, societies are experiencing a growing distrust and political backlash against open markets. More recently, the COVID-19 pandemic brought the resilience of global supply chains to the forefront, highlighting the dependency of nations on manufacturing capabilities hosted by developing countries. To compound the situation, the rise of digital technologies and data flows is changing the nature of global trade — we increasingly trade bits and bytes instead of atoms — blurring the policy arena.

- Shortages in the supply of critical goods coupled with security concerns have led countries to review investments in critical technologies and manufacturing capacity, and to take steps to strengthen supply chain resilience. Nations need to address the social challenges that arise with global trade to regain political support from populations and advance the global trade system.
- The emergence of digital technologies is changing the nature of global trade flows and trade policy, which is becoming more complex with data, internet governance, innovation, etc. Technologies also open new avenues for business and engagement across the globe.
- The World Trade Organization (WTO), which oversees trade negotiations, has been under scrutiny due to its inability to advance important discussions related to global value chains. Meanwhile, calls for new models and frameworks to regulate international trade are gaining momentum. Countries and increasingly cities must leverage all opportunities, including in research, to build new bridges, regain trust, and give momentum to global negotiations.

Recommendations

- Leverage research networks to build trust and advance global engagement.
- Invest to uplift countries and segments of the economy and society left behind.
- Expand trade via regional and bilateral agreements.
- Use technology to connect entrepreneurs to markets, capital, and expertise globally.
- Engage with global competitors to find opportunities for common agendas.
- Develop government capacity to deal with the trade, digital, innovation blurring.
- Adopt transparent standards for data visibility, accountability, validation.

¹ World Bank 2021, <https://www.worldbank.org/en/topic/trade/overview#1>.

FRAME THE FUTURE

Benchmarking November 3

Panelists



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Summary

Competitiveness is a fast-paced game. Holding an economic advantage today does not guarantee high productivity levels and a competitive edge in the future if improvements are not constantly made. Globalization, rapid technological change, and growing trade interdependency pose challenges to static competitiveness strategies and demand efficient methods to boost productivity and performance. In a scenario of rapid change, benchmarking has become a fundamental tool for countries and businesses willing to identify strategic gaps and learn from others to remain competitive in the global economy. The COVID-19 pandemic amplified the importance of advancing institutional learning and memory as critical capabilities to prepare economies and societies for future shocks and disruptions. Governments and populations need to build datasets with shared information across agencies and industries to guide future strategies. It is crucial to understand the value of investing resources in preparedness to minimize and mitigate future risks.

- There is a need to preserve memory and develop the capacity to share lessons learned across nations. Humanity needs to invest in enhancing institutional learning from past crises to build future resilience. Global facilities and networks to share information on the crisis, extreme events, and responses need to be created.
- It is critical to share datasets and information on preparedness across communities and government agencies to improve cities' and countries' performance and boost resilience. Preparedness is not just a cost for economies, but rather an investment to create future value, reduce risks, and mitigate future losses.
- Countries need to address the empathy gap that exists around the globe today by circulating resources and talent, increasing transparency, and sharing information to build trust in the international system.

Recommendations

- Invest to preserve social and organizational memory.
- Develop templates, standards, procedures, and protocols for information sharing.
- Create facilities to share data and information about disasters and crises.
- Create national, city, and regional risk and hazard maps.
- Facilitate and promote the circulation of talent across sectors and countries.
- Invest to develop benchmarking and resilience capacity in all cities and nations.
- Make benchmarking a central component of all policy cycles.

Session Partner



It Is Time to Accelerate Learning and Action

The GFCC was established to help cities and countries advance economic growth and prosperity through collaboration and partnerships. Over time, the competitiveness landscape has changed significantly, as a GFCC survey had anticipated in 2015. The competitiveness policy arena has become more complex and discussions over emerging technology, economic, and social issues have gained momentum. New challenges have come to the center of competitiveness strategies raising questions about the sustainability of economic models.

The COVID-19 pandemic demonstrated that risks such as climate change, pollution, and extreme weather, just like viruses, do not respect national and regional boundaries. Beyond that, increased cyber threats, social inequality, and skills gaps require learning and best practices dissemination, international cooperation, and cross-sector engagement.

In the workplace, technology is propelling an accelerated transition to a new future state. It is driving profound changes in labor markets and causing disruption and job losses due to automation. But advances in digital technologies also hold the potential to raise productivity and income, with growing demands for talent in higher-paid job roles.

In this era of disruption, rapid change, and transformation, the GFCC, its mission, and values are ever more relevant.

With growing connectedness across the globe, societies must increasingly rely on each other to thrive and achieve innovation, productivity, and inclusive prosperity. Countries and businesses need to develop and enhance their capabilities to learn from others, network, and exchange best practices. There is a massive potential to accelerate growth through learning and best practices exchange. The GFCC, as a cross-sectoral network of organizations with a footprint in over 30 countries, is well-positioned to energize a global conversation and facilitate this endeavor.

During the *Frame the Future* series, the GFCC gathered 54 leaders from 26 countries in 11 dialogues with more than 1,000 participants from across the globe in the audience, demonstrating its potential to be a platform for global engagement and learning. [The organization released reports before and after the sessions, and video summaries with key takeaways are available on YouTube.](#)

The *Frame the Future* goal was to mobilize leaders to think about and discuss strategies, models, and best practices through the lenses of five future-defining dimensions of competitiveness - innovation, partnerships, resilience, inclusiveness, and sustainability - accelerating critical learning and propelling purposeful action worldwide.

No one knows exactly what the competitive landscape will look like in the future. However, the type of thinking that emerged in the *Frame the Future* sessions provides good signs on the path for action, serving as a guide for stakeholders that will develop future policies and strategies.

Emergent Trends

Innovate at speed

The pace of change is speeding up, and governments, businesses, academia, and all types of organizations will be required to act faster to meet the challenges the world faces today and deliver results to societies at speed. The COVID-19 pandemic raised the bar for innovators and challenged previous models. The digital, organizational, business, and manufacturing transformations that took place in the past two years, along with the development of COVID vaccines at record speed demonstrated that we can innovate much faster than ever thought possible. Global collaboration, public-private partnerships, entrepreneurship, and learning-by-doing played crucial roles.

Work with data

Data will be woven into all aspects of the future economy and is increasingly embedded in people's daily lives. But governments are falling behind in leveraging the expanding flow of data to benefit their populations. Business expertise in data-driven decision-making can help fill

this gap. Collaboration between governments and other sectors can use data to build more prosperous and inclusive economies focused on results with improved efficiency and productivity.

Redesign institutions

Across the globe, regulatory frameworks, legislation, and how institutions and government agencies fulfill their missions need to be reviewed and updated in the context of rapid technological, economic, and global market change. Institutions need to undergo a transformation enabled by digitalization to solve complex problems at speed, deliver results, remove barriers to and foster innovation and include many more people in the innovation economy, innovation ecosystems, and the benefits they generate. Governments cannot cling to old models and power structures tied to low productivity levels if they want to accelerate economic and social change. In many parts of the world today, the public and private sectors are set apart by law, preventing resources from circulating across sectors.

Allow for experimentation

The public sector needs to cultivate a culture of risk-taking and experimentation, allowing businesses to try new technologies and models. A smoother transition to an innovation-driven economy depends on regulatory policies that ensure robust private-sector competition, encourage innovation, and do not favor incumbent firms, technologies, or

solutions. Governments will need new organizational models, capabilities, and legal frameworks to encourage experimentation, take risks, and keep pace with the speed of change, while taking into account the risks taken, and new technologies and models developed by private sector entities.

Seize green opportunities

Many companies and government leaders believe that the more they invest in the green economy, the more the effort will erode their competitiveness. But that does not need to be the case. There are massive opportunities at the intersection of sustainability and innovation. A focus on sustainability can catalyze the creation of new technologies, new business models, drive jobs, and raise living standards. A successful and must-needed transition depends on boosting the investment in developing clean technologies, an effort that should be coupled with massive information dissemination and nudging players, locked into today's production systems, to phase-in new technologies, processes, and business models.

Think Globally, Act Locally

The stakes are high, and the costs of not acting now will be very high for future generations. Prospects for economies and societies that do not transition into an innovative, inclusive, and sustainable future are grim. The five *Frame the*

Future dimensions of competitiveness and the ten goals outlined in this report represent a call for action by all nations, private and public sectors, civil society, entrepreneurs, and innovators in a global partnership.

Governments and organizations must keep in mind the old saying: "think globally, act locally" and use the potential of global connectivity to access knowledge, expertise, and talent internationally to find solutions for local problems. The GFCC can be the platform to facilitate learning and best practices exchange, harnessing the power of collaboration to build a better local future state.

Everyone needs to become a shareholder in the design of a new economic model — one that can solve complex issues at speed, deliver results, foster innovation, and fight inequality while also preserving the environment. The cards have already been dealt, but the ability to win a more prosperous future depends on the decisions and actions our leaders and populations make today!

Global Federation of Competitiveness Councils

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