10TH ANNIVERSARY GFCC

2020 Global Innovation Summit
November 17 and 18

Crossing the Chasm: Health, Innovation and the Future Economy

This report was prepared by Simone Melo, Roberto Alvarez and Carol Ann Meares. Marina Ponticelli and Zuzanna Zak contributed during their internships.

900 17th Street, NW, Suite 700, Washington, D.C. 20006

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.

The Global Federation of Competitiveness Councils (GFCC) is a nonprofit, 501(c)(3) organization as recognized by the U.S. Internal Revenue Service. The GFCC's activities are funded by contributions from its member organizations.

For more information, please visit www.thegfcc.org.

/thegfcc

@thegfcc

/the-global-federation-of-competitiveness-councils/

Table of Contents

From Our Host: Australian Advisory Board on Technology and Healthcare Competitiveness

Australia warmly thanks GFCC fellows, members and supporters for making the landmark virtual Global Innovation Summit in November 2020 an outstanding success.

Co-hosted by the Australian Government and Australian Advisory Board on Technology and Healthcare Competitiveness, the virtual event attracted more than 700 participants. Leaders from business, academia and government from across the globe enjoyed keynote presentations from international leaders and interactive panel discussions, and explored the latest innovation breakthroughs.

The Hon. Greg Hunt MP, Australian Government Minister for Health.

The Hon. Karen Andrews MP, former Australian Government Minister for Industry, Science and Technology.

Despite the evolving challenges presented by the COVID-19 pandemic, Australia was pleased to host the 2020 Summit as a committed member country of the GFCC. In 2020, meeting virtually became the new norm, and at times, it was difficult to truly feel connected. Pivoting the event to become fully virtual in response to the pandemic allowed us to consider how we might cross the chasm and use our global partnerships to innovate, develop leading health solutions and build future economies. As The Hon. Greg Hunt MP, Australian Government Minister for Health (pictured), noted in his opening address, it is truly a testament to innovation that we were able to hold a summit about innovation during a global pandemic.

In addition to making the event virtual, we endeavoured to make the theme — *Crossing the Chasm: Health, Innovation and the Future Economy* — and program meaningful to both the current and future global context. The two-day event explored the impact of the COVID-19 pandemic from a health, social and economic perspective, as well as the pivotal role that innovation and competitiveness have in supporting the future economy.

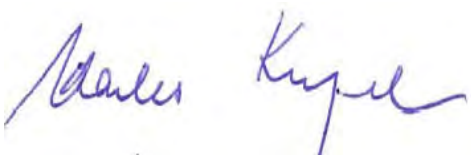
In his address on health and competitiveness, Minister Hunt spoke about how the COVID-19 pandemic has driven systemic changes to the way healthcare is delivered around the world. In Australia, there has been unprecedented integration across many areas of the health sector, including health protection, primary care, aged care, mental health, disability care, hospitals and research.

Minister Hunt was proud to share an evidence-based approach to the COVID-19 response and recovery measures. Australia's decisive actions minimised the spread of the virus in the community and the government's numerous economic

stimulus packages sustained businesses and households throughout the year. As a result, Australia is one of the countries least affected by the pandemic, and the economy performed well in 2019–2020. Confidence in the health response to COVID-19 continues to be essential in underpinning efforts to restore the Australian economy.

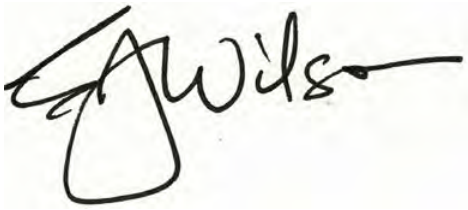
The Hon. Karen Andrews MP, in her former capacity as the Australian Government Minister for Industry, Science and Technology (pictured), outlined how investments in crucial economic sectors during in the pandemic and the aftermath are equally vital to Australia's recovery agenda. Investing in innovative projects to support both rapid and longer-term transformation of ideas into new products and treatments will make a real difference to people's lives — both locally and globally. These investments not only improve people's health, they will contribute to better social and economic outcomes as the country responds to the disruption of the pandemic on daily life.

While Australian researchers are pioneers in many areas of health sciences and practical medicine, our COVID-19 response has benefited from our strong global partnerships in areas such as virus research, global health surveillance, disease treatment and vaccine development. These partnerships enabled Australia to speed up research translation and technology deployment into new health solutions and will continue to support us as we move into pandemic recovery and beyond. Knowledge sharing is vital for global innovation and competitiveness. It is even more critical in the global fight against the coronavirus and for capitalising on opportunities by working through the challenges facing the world at this critical juncture. This underscores the importance of being part of a global network such as the GFCC.



Mr. Charles Kiefel AM
Co-Chair, Australian Advisory Board on Technology and Healthcare Competitiveness

Chairman, The Principals Funds Management



Dr. Jane Wilson
Co-Chair, Australian Advisory Board on Technology and Healthcare Competitiveness

Future Fund Board of Guardians, Non-Executive Director, Sonic Healthcare

Dr Larry Marshall
Co-Chair, Australian Advisory Board on Technology and Healthcare Competitiveness

Chief Executive, Commonwealth Scientific and Industrial Research Organistion

2020 Global Innovation Summit Online

The 2020 GFCC Global Innovation Summit—*Crossing the Chasm: Health, Innovation and the Future Economy*—convened government leaders, academics, CEOs, and entrepreneurs in a two-day online event to discuss health technology solutions and strategies to respond to the COVID-19 socio-economic crisis, and ways to accelerate the future economy.

The Summit, hosted in partnership with the Australian Government and the Australian Advisory Board on Technology and Healthcare Competitiveness, aimed to advance the global innovation and competitiveness agenda by sharing knowledge and exchanging best practices. The Summit, which featured panels of high-level speakers from around the world, was hosted by key Australian leaders including the Australian Minister for Health, The Hon. Greg Hunt MP; the Australian Minister for Industry, Science and Technology, The Hon. Karen Andrews MP; Chairman of the Principles Fund Management, Mr. Charles Kiefel AM; Chief Executive of CSIRO, Dr. Larry Marshall; and the Non-Executive Director of Sonic Healthcare and Future Fund Board of Guardians, Dr. Jane Wilson.

Day 1: Leading in Health Solutions

The current global crisis is, first and foremost, a health crisis. Global economic recovery depends on nations and organizations COVID-proofing cities, the key centers of economic activity. In the short term, the ability to respond swiftly guided by scientific evidence has been a decisive factor in government efforts to manage the effects of the COVID-19 disruption. On the first day, the Summit explored developments in health technologies to respond and mitigate COVID-19 impacts, pathways for vaccines, and frameworks to accelerate innovation in health.

Leader Perspective: Crossing the Chasm: Health, Innovation and the Future Economy: Mr. Charles O. Holliday, Jr., Chairman, GFCC, and former Chairman, Royal Dutch Shell plc; His Excellency Arthur B. Culvahouse Jr., former United States Ambassador to Australia; and The Hon. Deborah L. Wince-Smith, President, GFCC, and President & CEO, Council on Competitiveness.

Leader Perspective: Crossing the Chasm: Health, Innovation and the Future Economy

Mr. Charles O. Holliday, Jr.
Chairman, GFCC

Former Chairman, Royal Dutch Shell plc

Ambassador Arthur Culvahouse Jr.
United States Ambassador to Australia

The Hon. Deborah L. Wince-Smith
President, GFCC

President & CEO, Council on Competitiveness

In the pandemic's aftermath, organizations and corporations worldwide will face new challenges and questions. Leaders and communities will need to transform their economies into more inclusive, diverse, and sustainable systems that can unleash the power of innovation. Mr. Charles O. Holliday, Jr., Chairman, GFCC; and former Chairman, Royal Dutch Shell plc; and GFCC President The Hon. Deborah L. Wince-Smith discussed the importance of global partnerships based on shared values with the U.S. Ambassador to Australia Arthur Culvahouse. COVID-19 has shown how collaborative efforts can catalyze inventions and achieve practical solutions. For example, partnerships among companies, universities, and governments have been crucial for creating and distributing COVID-19 vaccines. Encouraging and investing in further collaboration among nations, companies, universities, NGOs, and governments will pave the way towards a more resilient and sustainable future. The United States and Australian representatives pledged to expand cooperation between the two countries for trade, economic engagement, health, and innovation.

Leader Perspective: Health and Competitiveness

The Hon. Greg Hunt MP
Australian Minister for Health

The COVID-19 pandemic has been one of the biggest challenges that humanity has faced since the Second World War and has irreversibly changed healthcare delivery. COVID-19 demonstrated that deploying digital and other technologies could save and protect lives, enhance communications across the health sector, and improve the delivery of healthcare and the medical experience, while collaboration uniting the private and public sectors can boost the innovation process. For example, by deploying technology and changing operations quickly, the Australian government was able to check up on people's physical and mental health regularly and on their compliance to necessary restrictions. Innovative public and private partnerships backed by state funding underpinned the creation of a national telehealth system that provided medical consultations and medicine delivery to people's homes through electronic prescribing and home-dispensing procedures. This digital transformation has been enabled by an ever-expanding portfolio of technology platforms and innovations, which have also been crucial for deploying efficient testing procedures as well as new ways of producing and distributing vaccines worldwide. The power of cooperation and innovation will

Leader Perspective: Health and Competitiveness: The Hon. Greg Hunt MP, Australian Minister for Health.

be necessary in helping Australia and the rest of the world restore and strengthen national economies.

Leaders Dialogue: The Australian Experience and the Role of International Collaboration to Support the Global Response to COVID-19

INTERVIEWER
Dr. Mehmood Khan
Executive Chairman, Life Biosciences, Inc.

Former Chairman, Council on Competitiveness

INTERVIEWEE
The Hon. Greg Hunt MP
Australian Minister for Health

Former Council on Competitiveness Chairman Dr. Mehmood Khan interviewed Australian Minister for Health, The Hon. Greg Hunt MP, on Australia's COVID-19 experience. They discussed Australia's national coordinated strategies and the importance of early decision-making based on scientific evidence to mitigate the short- and long-term impacts of the virus. Minister Hunt also discussed the Long-Term National Health Plan, which prioritizes preventive medicine and special care for elderly physical and mental health.

> "The crisis enabled the transformation, not just in technology, but also in governance."

Dr. Mehmood Khan: A successful response in the fight against COVID-19 is often a combination of preparedness and correct decision-making at the start of the emergency. What policies and strategic decisions were in place that allowed Australia to manage the responses successfully? Could you comment on the 2019 National Health Plan?

The Hon. Greg Hunt: We had a combination of preparation and decision-making. In 2017 and 2018, the World Health Organization reviewed our pandemic preparedness plan and determined that Australia was well-prepared for an endemic. The bodies of the Department of Health are designed to be a hub, physically and technologically linked across government and vertically within. The National Incident Room is deeply integrated into this structure. We also had a coordinating mechanism of the National Trauma Center, special air service, and the Australian medical assistance team that could be rapidly deployed. All of those existed before the pandemic. And all of those were implemented at the same time. The Chief Medical Officer of Australia and I formed a Cabinet sub-committee, called the National Security Committee, the principal decision-making body with the Prime Minister chairing it. He owned the process we had in place. We were able to make informed rapid, real-time decisions but in a contestable environment and then focus on implementation.

Khan: You described an actual integrated system-wide innovation capacity. I read through Australia's Long-Term National Health from 2019. After the pandemic

Leaders Dialogue: The Australian Experience and the Role of International Collaboration to Support the Global Response to COVID-19: Dr. Mehmood Khan, Executive Chairman, Life Biosciences, Inc., and former Chairman, Council on Competitiveness; and The Hon. Greg Hunt MP, Australian Minister for Health.

experience, what would you do differently with the hindsight of what we have learned?

Hunt: Innovation and healthcare are inextricably linked. It is the story of the last 200 years of medicine, and it is accelerating. If you think of the Australian example—from 50 years life expectancy in late 1800, to mid-1980s, and a child born today—you see the fastest growth in life expectancy in human history over the course of beyond a century. That's directly linked to medical research, innovation, competition, and the exchange of ideas. About the Long-Term National Health Plan, Australia has a hybrid health system. It is not fully nationalized as the United Kingdom (UK) model, and it is not privatized like the U.S. model. Australia's system is a combination of public and private. During the pandemic, we had a very strong cooperation within our state system. If I were to change anything, it would have been moving even faster on that front. During the pandemic, the Prime Minister created a National Cabinet. The Cabinet became a transformative body. A second decision-making body coordinated the work of the states and territories. If we thought of that a year ago, it would have made it even faster and easier. The crisis enabled the transformation, not just in technology but also in governance.

Khan: One of the challenges we're all facing around the world, particularly in developed countries, is dealing with an aging population. My company is very interested in expanding the healthy part of longer living, requiring less intervention in medical terms. What do you have in mind for Australian national policy around aging well?

Hunt: Our principle on aging is first to make sure that there's the hope of care. And the best care of all is preventive. There's a lot of work that has been done on the preventive health of older Australian men, which includes both physical and mental health. One of the great crashing impacts on elderly health comes from loneliness and isolation. We need, as a society, as a country, and as a governance system, to improve and build connections for the isolated or lonely older citizens. They really are at double risk. It is incredibly important to build those networks. That's a key part of what we do. Secondly, there's the physical support that we're looking at building from age 45-50 onwards. The idea is to give people that sense of custodianship of their health. And then the third element is transforming the actual aged care system.

"We can do things much more quickly, subject to safety. Humanity is immensely flexible, and we just have to give ourselves the task and set those rapid stretch goals. Sometimes, what you would call urgent short term rapid needs can lead to the most extraordinary innovation."

Khan: You very astutely mentioned in your speech that the decades-long plan to deploy technology was implemented in weeks. This situation raises a question for me as a medical scientist: what was the bottleneck? What was preventing us from using existing technology to transform the quality of care? As we look to the future, what else is sitting on the shelf that we're not doing?

Hunt: It's probably been the two great learnings for me during this year: the power of partnership with the population and the ability to bring forward reform. Blood donations and vaccination rights have continued because the population was very focused on their health and contributed to the response. The second thing is that we have been able to bring forward reform faster. I mentioned the governance and some of the other reforms, but telehealth is probably the signature. This has become a standard platform for our operations. There was a cultural change and a bureaucratic change. We had to keep the doctors and nurses safe because we saw examples overseas — whether in New York, Italy, or Spain — where a catastrophic health outcome took place, exposing medical professionals. We wanted to keep our elderly and patients safe. We took that platform that we had been developing, and we rolled the dice and implemented it. And we were able to iterate. We recognize there's a change needed. We had a plan, but we just ditched that plan and adopted it overnight because the technology platform had been built. What is the key learning? We can do things much more quickly, subject to safety. Humanity is immensely flexible, and we just have to give ourselves the task and set those rapid stretch goals. Sometimes, what you would call urgent short-term rapid needs can lead to the most extraordinary innovation.

*This interview was shortened and edited to fit the report format. Watch the full original interview on the GFCC Youtube Channel.

PANEL 1: PERSPECTIVES

Putting Health Technology to Work

PANELISTS

Dr. Stefan Hajkowicz
Senior Principal Scientist
Group Leader Data61 Insights
CSIRO

Prof. Mary Foley AM
Managing Director
Telstra Health

Dr. Karen Holbrook
Regional Chancellor
University of South Florida
Sarasota-Manatee

Distinguished Fellow
GFCC

MODERATOR

Dr. Rob Grenfell
Health Director, Health and Biosecurity
CSIRO

Situation

The COVID-19 pandemic has been a live test for digitalization in healthcare systems worldwide. Lockdown measures and the need to avoid face-to-face contact to reduce the spread of the virus pushed the implementation of telemedicine through digital platforms that, in many cases, were already available but did not find usage. Computer science and data modeling mechanisms also played a crucial role in containment and mitigation strategies worldwide. Most important, the development of multiple COVID-19 vaccines at a record pace proves the efficacy and efficiency of applying computer power to scientific knowledge and international collaborative research. The silver lining is that the emergency of the global health situation pushed ten years of digital transformation to a span of a few months in the health sector. In the coming years, health systems are expected to operate at the intersection of healthcare delivery, data science, digital strategy, and policymaking.

Challenges

An innovative ecosystem is emerging in the health sector, with the increased use of disruptive technologies such as artificial intelligence, machine learning, the Internet of Things (IoT), robotics, and blockchain. Countries and organizations face practical challenges in accelerating the galloping wave of technological advancement. Research translation and technology transfer from industry to the healthcare sector is necessary for scaling new technology-based solutions and expanding their use around the world. Countries such as the United States, United Kingdom, China, Canada, and India have boosted investments in health technologies to speed up their development and deployment. It is also crucial to provide funds and incentivize knowledge exchange, research, and co-creation. Finally, the application and use of new technologies depend on advancing regulatory frameworks, and deepening discussions on ethics and privacy to deliver better and more inclusive healthcare to all people.

Key Questions

- How can economies accelerate digital transformation, and what does it mean for future ways of working, learning, and teaching?
- What are some of the most relevant and complex issues arising in connection with digital solutions and digitally driven transformation?

Putting Health Technology to Work: (clockwise from upper left) Dr. Stefan Hajkowicz, Senior Principal Scientist, Group Leader Data61 Insights, CSIRO; Dr. Karen Holbrook, Regional Chancellor, University of South Florida Sarasota-Manatee; Dr. Rob Grenfell, Health Director, Health and Biosecurity, CSIRO; and Prof. Mary Foley AM, Managing Director, Telstra Health.

- What has been the impact of digital transformation on healthcare and medicine?
- What are the main challenges that big digital technology companies are facing when trying to unleash the potential of digital technologies?

Opportunities

New Ways of Teaching and Learning

The digital revolution accompanying the pandemic has proved to be a highly fruitful consequence of the global crisis, creating opportunities for a more productive future. Online teaching and learning scaled effectively, demonstrating unprecedented potential to expand education opportunities for young people, and will likely catalyze a new familiarity with digital technologies. This could blossom into a broader interest in healthcare technology, digital technologies, and artificial intelligence, setting-up new generations for future inventions and successes.

More Investment in Healthcare Technology

The pandemic played a significant role in raising awareness about the importance of healthcare technology and the need for greater support and investment in research in the field. While the United States has been the largest investor in healthcare technologies globally, the United Kingdom, Canada, China, and India are now investing very significant sums of money to ensure that healthcare technology research is fostered and supported.

Escaping the Economic Slump

Digital technologies, such as artificial intelligence and blockchain, can provide significant benefits across the economic sphere. The digital revolution might help societies escape a future economic depression in the same way that electricity prevented the collapse of economies around the world after the 1920 Spanish flu. There has been a relative productivity increase with employees working remotely with less time spent commuting. Digital technologies could also become roadmaps to a yet unexplored prosperous future.

PANEL 2: LEADERS DIALOGUE

Vaccines — Global Innovation and Partnerships

PANELISTS

Dr. Victor Dzau
President
National Academy of Medicine
(United States)

Mr. John Crothers
Australian CEO
Abbott Labs

Dr. Dean Moss
CEO
UniQuest

MODERATOR

Ms. Jane Halton AO PSM
Chairman
Coalition for Epidemic Preparedness
Innovations

Situation

The pandemic's health and socio-economic devastation pushed a race for a vaccine to save lives, stop human suffering, and rescue economies, which led to innovation breakthroughs and first-hand international collaborations. Research labs, universities, governments, pharmaceutical companies, and biotechnology industries worldwide cross-checked information on virus genomics and proteomics and connected available toolkits in different scientific domains. Cooperative schemes were also crucial to deploying and managing COVID-19 testing and contact tracing and advancing drug therapeutics with safety and efficacy. Guaranteeing global health security depends on supplying and deploying vaccines to the world population. Multilateral engagements to foster inclusive and equitable vaccine distribution are crucial to improve public health globally.

Challenges

Scientific advancements and vaccine development alone will not bring the pandemic to an end. Social and policy challenges remain in securing immunization for populations and effectively reducing health risks globally. On the one hand, equitable access to vaccines for everyone is crucial to fully recover the global economy. Without vaccines, COVID-19 will risk greater inequality and xenophobia among countries. On the other hand, misinformation, conspiracy theories, and the spread of fake news undermined confidence in vaccines and health strategies to contain and mitigate the impacts of the virus and reduce its spread.

Key Questions

- What steps were fundamental for a record speed vaccine development?
- What is required for global health security in response to the COVID-19 pandemic, and the likelihood of future pandemics?
- What is needed in terms of manufacturing capability, partnerships between governments and private enterprise, and broader innovation?

Opportunity

Multi-Stakeholder Engagements
Governments, universities, pharmaceutical companies and research institutes played a crucial role in COVID-19 responses across the globe. Multiple research institutes launched scientific studies to discover virus sequencing and genomics, measure virus transmission, and model its spread using data analytics. Partnerships between

Vaccines — Global Innovation and Partnerships: (clockwise from upper left) Ms. Jane Halton AO PSM, Chairman, Coalition for Epidemic Preparedness Innovations; Dr. Victor Dzau, President, National Academy of Medicine (United States); Dr. Dean Moss, CEO, UniQuest; and Mr. John Crothers, Australian CEO, Abbott Labs.

researchers and industry made possible the development of testing kits, protective equipment, and the landmark Oxford University-AstraZeneca vaccine. These achievements have forged new partnerships that can create opportunities to engage in future collaborations. Deepening these ties across sectors will pave the way for addressing other complex challenges such as climate change and rising inequality.

Continue Investments in Quality Science

The pandemic underscored the importance of continuous investments in science to support policy and decision-making. Successful responses took place in countries where governments coordinated strategies based on evidence and scientific advice. Previous investments in infrastructure and basic research were crucial to developing COVID-19 antibody tests, PCR testing, and data modeling of the pandemic spread and its impacts. Leaders worldwide should review budgets to increase funding for R&D. This strategy will strengthen the economy, make the world cleaner and safer, and help fight the spread of diseases.

Strengthening Multilateralism

The COVID-19 pandemic affected the whole world and demonstrated the extent to which countries on the global North and South depend on each other to find a safe and effective way out of the crisis. The COVAX Facility, a multi-stakeholder engagement led by the Coalition for Epidemic Preparedness Innovation (CEPI) and the World Health Organization (WHO), has been coordinating and supporting the deployment of vaccines worldwide. This type of public-private international cooperation is essential to guarantee the safety of the world's population and can also serve as an example for leadership to address other global threats such as terrorism, climate change, gender-based violence, and rising inequality. COVID-19 demonstrated the importance and relevance of strengthening multilateralism and rebuilding international institutions.

PANEL 3: PERSPECTIVES

Paving the Way for a Safer Future

PANELISTS

Dr. Cathy Foley
Chief Scientist
CSIRO

Prof. Ian Frazer AC
Chairman
Australian Medical Research Advisory Board

Dr. Michinari Hamaguchi
President
Japan Science and Technology Agency (JST)

Mr. Simos Anastasopoulos
President
Council on Competitiveness of Greece

Dr. Erol Harvey
CEO
Aikenhead Centre for Medical Discovery

MODERATOR

Dr. Jane Wilson

Future Fund Board of Guardians

Non-Executive Director, Sonic Healthcare

Co-Chair, Australian Advisory Board on Technology and Healthcare Competitiveness

Situation

Countries across the globe have faced multiple socio-economic and health challenges arising from the COVID-19 pandemic. It has been crucial to put health safety measures in place, supply and distribute vaccines, and provide care for people in need. This urgent call for innovative and rapid solutions has helped expand medical field horizons, engaging multidisciplinary frameworks and different technologies to mitigate the pandemic's devastating effects. More than ever, medical research is necessary to build a better future. Partnerships across sectors and organizations have also been crucial to tackle the virus and its impacts on multiple fronts. Governments had to work fast and in tandem with each other, putting forward mitigation strategies under the pressure of an emergency. COVID-19 demonstrated the importance of building resilient systems and capabilities to prepare for the next pandemics or other severe disruptions.

Challenges

Governments around the world were in a life and death race against time. They had to work around-the-clock to develop quick diagnostic techniques and a vaccine, and to produce a greater volume of medical supplies, such as masks and ventilators. Vaccine development and distribution became imperative as the only solution to conquer the virus. Over the past decades, different circumstances have driven careful planning and education programs to create and administer vaccines. During the COVID-19 pandemic, taking the time typically used to develop a new vaccine was not an option; research and vaccine testing had to be accelerated. Another difficult task has been to scale-up production rapidly under the right conditions and to distribute vaccines globally.

Key Questions

- What common challenges and situations have countries faced in the past year?
- What have been the common efforts in finding ways to navigate the pandemic?
- What can countries learn in terms of acquired capabilities to protect themselves from future health crises?

Opportunities

Economic Restructuring
Governments and businesses have engaged in a rapid technology transfer process that underpinned the manufacturing shift needed to meet the global demand for vaccines and other

Paving the Way for a Safer Future: (clockwise from upper left) Dr. Cathy Foley, Chief Scientist, CSIRO; Prof. Ian Frazer AC, Chairman, Australian Medical Research Advisory Board; Dr. Michinari Hamaguchi, President, Japan Science and Technology Agency; Mr. Simos Anastasopoulos, President, Council on Competitiveness of Greece; Dr. Erol Harvey, CEO, Aikenhead Centre for Medical Discovery; Dr. Jane Wilson, Future Fund Board of Guardians; Non-Executive Director, Sonic Healthcare; and Co-Chair, Australian Advisory Board on Technology and Healthcare Competitiveness.

pandemic-related health and safety products, with extensive use of digital technologies to manage logistics and supply chains. Nations have also reviewed supply chain capacities and tried to address existing gaps, kickstarting the local production of products and investing in partnerships and logistics optimization.

Engineering Applications to Science and Manufacturing

Governments and businesses that have coordinated and collaborated across different sectors had better responses to COVID-19 than others. Coordinating various specialists' skills and bringing them to bear to solve a problem or address a complex challenge is an engineering task. Science translation using engineering project management principles enabled a speedy vaccine production and manufacturing shift to produce essential medical equipment. The intangible benefits of this new way of organizing scientific and production processes gives new hope for the post-COVID-19 world.

International Scientific Cooperation

Science diplomacy has been crucial in the fight against COVID-19 and the primary expression of global cooperation. Scientific communities worldwide worked together to develop a body of knowledge, and share information that could help fight the coronavirus. This new approach to science was instrumental in vaccine development. Open-source research and digital technologies fostered rapid scientific discovery, technology development, and practical cooperation.

Day 2: Building the Future Economy

COVID-19 accelerated trends and catalyzed transformation across sectors. Work and education moved online, e-commerce boomed, new businesses and organizational models emerged. The new drive to speed up innovation processes is likely to remain a permanent feature in the future economy. Also, the pandemic raised greater alarm about social gaps and the effects of climate change on societies. Inclusiveness and sustainability will be at the center of business strategies and policies. On the second day, the Summit addressed priority areas and industries for the future economy, models to accelerate innovation, and financial architectures for businesses to access capital.

Leaders Dialogue: In Conversation—Innovation and Competitiveness

INTERVIEWER
Mr. Charles O. Holliday, Jr.
Chairman, GFCC

Former Chairman, Royal Dutch Shell plc

INTERVIEWEE
The Hon. Karen Andrews MP
Australian Minister for Industry, Science and Technology

Australia has used the pandemic as an opportunity to review economic priorities and industrial policies, assessing its national strengths and weaknesses. A key part of the recovery strategy involves ramping up national manufacturing capacity, investing in supply chain resilience, and boosting digital transformation. The government has worked with the business sector to mitigate the financial impacts on sectors particularly affected by lockdowns and travel restrictions, such as hospitality, tourism, and education. Also, investments have been made to boost the potential of recycling, food and beverage, medical equipment, space, clean energy, and defense industries. In the long run, Australia plans to create an enabling environment focused on business-to-business collaboration and networking to increase productivity and competitiveness, powered by digitalization across sectors.

Mr. Charles O. Holliday, Jr.: What steps has the Australian government taken to address COVID-19, and how do you see the pathway out of this situation?

The Hon. Karen Andrews: In Australia, we have been very clear that this is a health and an economic crisis. We have been doing our best to deal with both of them. On the health focus, we took action to secure our borders very early. We prepared appropriate medical stocks and supplies of essential medical equipment and, particularly, personal protective equipment. That meant that we needed to look at what we could do to secure our supplies from overseas and ramp up our national manufacturing. From an economic perspective, we have provided the support we can to businesses and individuals affected by job losses. Some industries have been significantly disrupted. Education, but also tourism and hospitality, have all been very seriously affected. And there are others. We looked at what we could do to support those businesses and position them for recovery. And that's probably the point that we are at the moment. We are looking at the steps we need to take for our long-term recovery in Australia.

Holliday: I know manufacturing is very much a part of Australia's strategy. Could you elaborate on that?

Leaders Dialogue: In Conversation—Innovation and Competitiveness: The Hon. Karen Andrews MP, Australian Minister for Industry, Science and Technology; and Mr. Charles O. Holliday, Jr., Chairman, GFCC, and former Chairman, Royal Dutch Shell plc.

Andrews: Manufacturing is a very important part of our recovery. As the minister responsible, my view was that we needed to play to our strengths. We couldn't continue to try and be all things to all people because, ultimately, we were just spreading our resources too thin and probably not maximizing the opportunities. About 18 months ago, we started looking at where our priorities were, where our strengths were. With the pandemic, we've had to put the 'COVID-19 lens' over the work that we were doing to see whether or not there were any gaps. And there were, in terms of what we're now calling the Supply Chain Resiliency Initiative. We have comparative and competitive strengths in resources, technology, and critical minerals processing. When we started to look at the other areas, we have manufacturing strengths in food and beverage, and there are some enormous opportunities for us to build on that capacity. We have abundant food in Australia, at least three times as much food as we can consume here. We have opportunities to grow our export significantly. Our food and beverage is a key industry, along with recycling and clean energy. Medical products are another priority for us. We also need to make sure that we're looking at defense and space. We are ideally located in the Southern hemisphere for the space industry with a couple of natural advantages. We are working with NASA on their Artemis program so that we can link our businesses into the supply chains in key priority areas for NASA.

Holliday: Could you comment more on what Australia has done to build up economic resilience?

Andrews: We identified some critical issues. And I should caveat everything that I'm saying on the basis that we are a trading nation and we'll always be a trading nation. We need to look at how to build the capacity to either manufacture or secure our economy in times of a crisis. For instance, we've identified that we were very dependent on bringing in personal protective equipment manufactured out of Australia. That can't continue, and we've already taken steps to make sure that we can produce it. We're going through a process to look at all those gaps to meet the needs of Australia or to secure supply chains, considering that transport and freight are a significant issue for us. We are in an island continent in the Southern hemisphere. We're going to be looking at how we can secure and diversify very strong supply chains in times of crisis and bring into our country the goods we need. We have made a conscious decision that we're probably not going manufacture and produce in Australia.

Holliday: We're all as individuals, families, and countries reflecting on lessons learned from the COVID-19 pandemic. I know it's still early in the process, but do you have any early learning from your practice?

Andrews: The standout is the diversification of the supply chain. The first step that we are taking is to ensure that we have supply chain resiliency because we have learned so much about the difficulties that we encountered in insecurity. We don't know what the next issue is going to be. No one knows. All that we can do is put in place mechanisms to deal with the likely scenarios. It may well be another health crisis. How do we make sure that we can secure what we need to support our population in Australia? And then, of course, we will turn our minds to the lights of our nearest neighbors, particularly in the Pacific region, as to how we would be able to support them.

Holliday: You have to make budgetary decisions as a country and put a significant amount of funds toward research to support these new manufacturing strategies. Was that a difficult decision to make as a government?

Andrews: I wouldn't say it was a difficult decision, but it was a lengthy decision, and there was a lot of rigor applied to how we were going to develop the strategy and how we were going to roll it out. Our manufacturing strategy is focused on competitiveness and resiliency. There's also a clear job focus on what we have done. There are three key parts of our manufacturing strategy. The first one is to build scale. We are not looking only at supporting individual businesses. We are looking for a consortium for businesses to work together. We believe that the missing part here in Australia is the business-to-business collaboration. We need our businesses to look at how they can support each other, build it, and scaling manufacturing that way. That's probably the key piece within the strategy. We've long talked in Australia and internationally about the need to have industry-research collaboration and making sure we're looking at the commercialization of good ideas. How do we take that research that has been done at universities or CSIRO, which is our leading science agency, to commercialize it and turn it into scale? And the third stream is how we support Australian businesses to become part of international supply chains. And I think I've touched on the opportunity that we have with NASA and the Artemis program, or we're also looking for other options for us to be part of the supply chains for other nations as well.

"We are looking at how we take charge of the digital economy here in Australia, how we can grow it, how we can start the transition into a full-scale digital economy by 2030. It is a work in progress, and I'm very keen to work with other nations. "

Holliday: This interview wouldn't be complete if we didn't talk about digital transformation. How to keep digital moving forward at the same time that we need jobs for people? What is the right pace for digital transformation?

Andrews: We've started from the announcement that the Prime Minister made about a year ago, saying that, by 2030, he wanted Australia to be a leading digital nation. I'm supportive, and we've got to make sure that we bring the population with us on the digital journey. Digital is a key cause of great optimism for many businesses and many individuals, but there's also a portion of the population for whom autonomous operations equate to job losses. There's a lot of work that we need to do to make sure that we communicate correctly that the digital economy is not something that should be seen as a threat. It is an opportunity for us as part of our manufacturing strategy. We are looking at how we take charge of the digital economy here in Australia, how we can grow it, how we can start the transition into a full-scale digital economy by 2030. It is a work in progress, and I'm very keen to work with other nations.

PANEL 4: PERSPECTIVES

Building the Future Economy

PANELISTS

Dr. Pradeep Philip
Lead Partner
Deloitte Access Economics

Prof. Russell Boyce
Chair for Intelligent Space Systems
University of New South Wales

Dr. Mohd Yusoff Sulaiman
CEO
Malaysian Industry-Government Group for High Technology (MIGHT)

Dr. Tony Lindsay
Director
Lockheed Martin Australia and New Zealand

Dr. Maher Hakim
Chief Advisor of Innovation and Enterprise
Qatar Research, Development and Innovation Council

MODERATOR

Dr. Roberto Alvarez
Executive Director
GFCC

Situation

The COVID-19 pandemic accelerated and amplified trends in businesses and societies, advancing digital transformation across sectors. E-commerce grew substantially, education moved online, and remote work became a reality through the extensive use of digital platforms. This rapid shift towards digital will have lasting consequences at the macro and microeconomic levels, signaling changes in industry mixes, supply chain logistics, capital allocation priorities, and organizational models. Building the future economy depends on assessing and overcoming the effects of the pandemic on the global economy and strengthening partnerships to design future strategies.

Challenges

Countries and organizations must be ready to embrace the growing complexity of a changing economic landscape, navigating and thriving in uncertainty. Resilience means that leadership must nurture the ability to innovate, applying cutting-edge technologies across the board, adapting existing solutions to multiple scenarios. Countries and organizations also face the challenge of preparing the workforce at speed and scale towards a big work transition, which will be a challenge for most businesses and economies. Future workforce attributes will not stop at technical skills, although that is going to be necessary. It will be crucial to stimulate people's ability to grapple with complex situations with creativity, leadership, and ethics. It is also essential to design policy instruments and infrastructure that open the door to innovative system dynamics, including diversity as an asset.

Key Questions

- What are the main opportunity areas to build the future economy?
- What can be done to boost future industries?
- Which industries are best adapting to the COVID situation? How?
- What is the role of manufacturing in the future economy?
- How can countries accelerate the development of future skills?
- What will attract capital to sustainable and resilient projects?

Opportunity

Diversification Drives Robustness
The pandemic spotlighted the fragility of economies dominated by or landlocked between a handful of industries.

Building the Future Economy: (clockwise from upper left) Dr. Roberto Alvarez, Executive Director, GFCC; Dr. Mohd Yusoff Sulaiman, CEO, Malaysian Industry-Government Group for High Technology (MIGHT); Dr. Pradeep Philip, Lead Partner, Deloitte Access Economics; Prof. Russell Boyce, Chair for Intelligent Space Systems, University of NSW; Dr. Tony Lindsay, Director, Lockheed Martin Australia and New Zealand; and Dr. Maher Hakim, Chief Advisor of Innovation and Enterprise, Qatar Research, Development and Innovation Council.

Diversifying the industrial and service base, and portfolio of economic assets will help nations reduce economic risks and build additional capabilities needed in the future economy. Extending services and manufacturing strategies simultaneously is a way to plan for and buffer risks.

Inclusive Growth Strategies

The sustainability of future economic systems depends on designing growth and human capital strategies together. For the past decades, in both advanced and emerging economies, millions of people worldwide have been left behind by globalization, automation, and industry and market shifts. Inclusiveness must be embedded into development plans, unleashing untapped market and human capital potential.

Boost Data infrastructure

Future industries will be highly dependent on and fueled by data. Countries and organizations must build infrastructure to facilitate analytics and optimize the structure of information systems, including ways to transport and store data. Many companies are already investing in cutting-edge computing devices, bringing computation and data storage close to the location where they operate to improve responsiveness and save bandwidth. Policies aiming to lower transaction costs associated with data flows will also advance the future economy.

Explore Convergence in Different Technologies

Multiple disruptive technologies—such as artificial Intelligence (AI), quantum technologies, blockchain, Internet of Things (IoT), robotics, big data, and biotechnology—are converging on the global economy simultaneously. Convergence and combining these different technologies to create new innovations and building upon each other can unlock multiple opportunities and enablers for building the future economy.

Leaders Perspective: Innovation — Shared Values and Partnerships: The Hon. Arthur Sinodinos AO, Australia's Ambassador to the United States of America.

Leaders Perspective: Innovation — Shared Values and Partnerships

The Hon. Arthur Sinodinos AO
Australia's Ambassador to the United States of America

The COVID-19 virus is a common enemy and threat to everyone. It crossed borders, countries, and sectors, yet has also been a catalyst for unity. To fight this pandemic, governments, researchers, and the public and private sectors have all engaged in global partnerships. The most successful ones have been those rooted in shared values, such as security, fairness, liberty, and trust. Australia and the United States have strong and long-standing relationships. Both countries are built on a solid foundation of liberal values, resulting in a liberty-and-opportunities-for-all mentality shared by both American and Australian citizens. This similarity has blossomed into a values-based, scientific and technical partnership that has progressed since 1968, allowing scientific collaborations without the need for government steering or intervention. Unfolding technological revolutions—such as artificial intelligence, cloud computing, and genomics—present several long-term opportunities and challenges for like-minded countries. The United States and Australia share an ambitious vision for progress. They will keep working closely to realize these technologies' potential while also creating a fair level playing field that will live up to human values.

Technology Focus: Innovation Breakthroughs: (clockwise from top) Dr. Thomas Zacharia, Director, Oak Ridge National Laboratory; Prof. Isabel Capeloa Gil, Rector, Universidade Católica Portuguesa; and Prof. William Rawlinson AM, University of New South Wales.

Technology Focus: Innovation Breakthroughs

MODERATOR
Prof. Isabel Capeloa Gil
Rector, Universidade Católica Portuguesa

PRESENTATIONS
Dr. Thomas Zacharia
Director, Oak Ridge National Laboratory

Prof. William Rawlinson AM
University of New South Wales

The opportunity at the intersection of human biology and digital technologies has enabled innovation breakthroughs in health and accelerated the development of solutions to fight COVID-19. The Oak Ridge National Laboratory (ORNL), which is part of the U.S. Department of Energy, applied its expertise in computational science, advanced manufacturing, data science, and neutron science to support research on coronavirus therapeutics and antivirals. ORNL provided access to its supercomputer called "Summit" to the broader R&D community to find solutions to the COVID-19 emergency. "Summit" currently participates in a high-performance computing consortium that brings together computational resources from more than 30 institutions, including other national laboratories, universities, and industries. The computer has been used to analyze the COVID-19 structure and biology, with the capacity to test billions of molecules of potential antiviral drugs in a single day. A conventional computer would take months to run similar experiments. Researchers have applied the digital resources to analyze a growing volume of data on small molecules' interactions with COVID-19's two proteins. Also, computational power and artificial intelligence (AI) techniques have been deployed into an integrated system to monitor the pandemic's evolution. Data mining facilitated the understanding of COVID-19 diagnosis, treatment, epidemiological, and management challenges. Data modeling has been used to provide deep insights into how the virus is transported in different environments, such as open rooms, offices, bars, restaurants, schools, and transportation hubs. In Australia, the University of New South Wales employed genome sequencing work to look at the virus's characteristics. Genome data help to identify possible outbreaks, anticipating risks and possible transmission between populations.

PANEL 5

Fueling Innovation

PANELISTS

Mr. Sam Sicilia
CIO
Hostplus

Dr. Emmanuel Pohl AM
Chairman and CIO
ECP Asset Management

Ms. Alicia Gregory
Head of Private Equity
Future Fund

Mr. Hiro Nishiguchi
CEO
Japan Innovation Network

Ms. Gianna Sagazio
Innovation Director
Brazilian National Confederation of Industry

MODERATOR

Mr. Charles Kiefel AM
Chairman
The Principals Funds Management

Co-Chair
Australian Advisory Board on Technology and Healthcare Competitiveness

Situation

Innovation is the main driver of future growth and prosperity. Investments in innovative practices and technologies in the digital and medical field have helped countries deal with healthcare shortcomings. They are now essential tools to help national economies recover from the economic and social devastation brought about by the pandemic. Advancing cutting-edge and transformational strategies requires funding and forward-thinking capital allocation. Public-private partnerships can be used to enable risk-sharing models that direct money to R&D and facilitate access to capital for startups. Governments will redirect efforts and policies, and increase attention to private investments, public funding, and sustainability. The goal will be to direct capital flows towards companies that engage in innovative activities, particularly innovative startups with cutting-edge technological potential that will ultimately benefit economies and move societies forward. Fueling innovation and creating channels for development with multiple funding sources will be the main focus in the attempt to drive progress across different sectors.

Challenges

State officials, investors, and new businesses face the difficult task of deciding when, how, and who to choose when allocating funds and capital. The main subject of discussion at the government level will be deciding which sectors to prioritize to grant public funding. Nations will have to establish best practices and policies to ensure that capital is efficiently directed towards areas of the economy that have been identified as strategic drivers for economic, technological, and social development. Investors will redirect their capital into fruitful business models that hold innovative potential, and will need to scan the new competitive environment to create groundbreaking ways and solutions to manage risks in this highly digitalized world. Business people will have to develop a quick eye for potential market opportunities for future products and services, while increasing attention to technology development.

Key Questions

- What will the global investment scene look like post-pandemic?
- Which skills will the businesses of the future have to develop to be successful?
- Where should private and public funding be redirected to help governments deal with the post-pandemic economic slump and to kickstart national economies?

Fueling Innovation: (clockwise from upper left) Mr. Hiro Nishiguchi, CEO, Japan Innovation Network; Mr. Charles Kiefel AM, Chairman, The Principals Funds Management, and Co-Chair, Australian Advisory Board on Technology and Healthcare Competitiveness; Ms. Alicia Gregory, Head of Private Equity, Future Fund; Mr. Sam Sicilia, CIO, Hostplus; Ms. Gianna Sagazio, Innovation Director, Brazilian National Confederation of Industry; and Dr. Emmanuel Pohl AM, Chairman and CIO, ECP Asset Management.

Opportunities

A More Innovative Future Ahead

Countries around the world realize that a multidisciplinary approach is key when facing unexpected crises. At the same time, the pandemic has shown that innovation is crucial when dealing with global emergencies. This deep understanding has underscored the overall need for a strong innovation system. The goal is to foster innovation practices able to reach every aspect of human life. In this pool of potential opportunities, new businesses will have to withstand the sustainability and innovation thresholds and bridge the technology gap to stay competitive in the global market.

Multidisciplinary Approaches for the Future

Investors and governments alike have multidisciplinary programs in mind when steering future flows of private and public capital. These strategies will result in new technological practices in healthcare, biomedicine, education, and advanced manufacturing. These areas are destined to be part of our economic future. Venture capital investments are being directed toward funding and supporting innovative startup companies across different sectors.

Venture Capital Investments

Venture capital can generate employment and contribute to repositioning economies around the world. Investments in new businesses focused on innovation and applying new knowledge to create products and services will generate jobs in the future. This boost to national economies is essential to help them through the aftermath of the pandemic. Such investments could become the pipeline for new economic, technological, and social assets that will help countries thrive in the future.

PANEL 6

Leading into the Future Economy

PANELISTS

Dr. Roberto Alvarez
Executive Director
GFCC

Mr. Charles Kiefel AM
Chairman
The Principals Funds Management

Co-Chair
Australian Advisory Board on Technology and Healthcare Competitiveness

Dr. Larry Marshall
Chief Executive
CSIRO

Co-Chair
Australian Advisory Board on Technology and Healthcare Competitiveness

Dr. Jane Wilson
Co-Chair
Australian Advisory Board on Technology and Healthcare Competitiveness

MODERATOR

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

Former Chairman, Royal Dutch Shell plc

Situation

Building the future economy requires purposeful leadership with strategic vision and timely action. During the COVID-19 pandemic, leaders have had to react to the crisis while keeping a future vision. It is also crucial to open doors for diverse voices and youth, fostering an inclusive and sustainable path to the future. New models will emerge from rebuilding and restructuring national economies in the pandemic's aftermath. It is crucial to keep in mind that leading the development and implementation of innovative practices starts with openness, understanding, and trust, with authority stemming from knowledge and not from the title. In times of crisis, people recognize legitimacy and power in those who have answers. During the COVID-19 pandemic, societies have their trust in healthcare professionals, universities, and the scientific community looking to them for solutions and reassurance. This new legitimacy has changed grassroot expectations of leadership for the future. The next generation of leaders will have to earn trust through openness, knowledge, and innovation.

Challenges

Leaders of the future will have to face organizational challenges as never before. In all fields of human existence, the main challenge will be about fueling innovation through an efficient organization. Crises often fuel invention. The COVID-19 pandemic, for instance, has catalyzed innovation and digital development, allowing scientific communities and governments to gather knowledge and solutions quickly to battle the virus. The dire need for a vaccine drove governments to try new technical approaches to speed-up vaccine development. The challenge after the pandemic will be how to keep these new processes going even without the state of emergency. Another challenge is how to prepare the next generations of leaders to operate in a future environment of greater uncertainty and to face even more complex global challenges. Leaders worldwide will have to be trained to deal with crises, disasters, and other disruptions quickly and effectively, displaying the leadership and communication skills to move nations and organizations forward.

Key Questions

- What is needed to build the future economy? How to take principles and turn them into action?
- How do we allocate capital in a diverse way to foster the development of new, innovative resources around the world?
- How can we expand the conversation on leadership and innovation?
- How can we learn from different examples of leadership?

Leading into the Future Economy: (top row) Dr. Jane Wilson, Co-Chair, Australian Advisory Board on Technology and Healthcare Competitiveness; Mr. Charles Kiefel AM, Chairman, The Principals Funds Management, and Co-Chair, Australian Advisory Board on Technology and Healthcare Competitiveness; (bottom row) Mr. Charles O. Holliday, Jr., Chairman, Global Federation of Competitiveness Councils, and Chairman, Royal Dutch Shell plc; Dr. Larry Marshall, Chief Executive, CSIRO, and Co-Chair Australian Advisory Board on Technology and Healthcare Competitiveness; and Dr. Roberto Alvarez, Executive Director, GFCC.

Opportunities

Innovative Futures Ahead

Where leaders laid out effective ways to deal with the pandemic, communities felt a deep sense of trust. We have seen in the past how bold, entrepreneurial, and effective leadership resulted in world-changing innovations. Electricity, refrigeration, and telephone communications are all examples of good leadership catalyzing inventions that drove transformative economic and industrial growth, and made life easier. Government officials and leading entrepreneurs with capital to invest, alongside the digital opportunities of today and the technologies now emerging, have the power to shape the future and make people's lives better.

Communities and Shared Values

Getting out of crises requires good leadership, trust, communication, kindness, and sense of community. Emergencies show societies the importance of collaboration and cooperation. Great leaders have fostered that sense of belonging which brings us together as countries. Decency, kindness to each other, and a sense of charity have led humans to help struggling communities and people through fundraisers and donations. This sense of community will be an important pillar for future societies and generations.

The Power of Diversity

Countries with diverse communities and immigrants can foster a higher degree of competitiveness and innovation. Diversity, in all its aspects, is crucial for knowledge creation. Younger generations have the stamina and the curiosity that leads to questions being asked. These questions are the powerplant for innovation. Diversity improves wealth creation, productivity, and competition, shaping a world in which cooperation and competition are not mutually exclusive. The GFCC aims to leverage diversity, create networks and collaboration across 30 countries to foster conversations about innovation, leadership, and future realities while unleashing the power of cooperation and mutual learning.

GFCC PERSPECTIVE FROM AUSTRALIA

Crossing the Chasm: Health, Innovation and the Future Economy

The landmark 2020 GFCC Global Innovation Summit devoted two days in November to the exploration of current and future global health challenges, innovation models and opportunity areas for growth through different lenses.

Throughout dynamic panel conversations, high profile speakers and leaders from across Australia and the globe shared their visions for creating the solutions demanded by the COVID-19 crisis and seizing emerging opportunities for growth. The multi-dimensional crisis posed by the COVID-19 pandemic has created some of the most difficult challenges that our leaders have faced in centuries, but countries that led with innovative solutions are "crossing the chasm" into the future economy.

Given the current global crisis is first and foremost a health crisis, it was fitting to devote the first day of the summit to an exploration of innovative health solutions emerging from the COVID-19 pandemic and beyond. Sessions examined emerging health technologies, vaccines and patient safety. Panel discussions provided opportunities to share knowledge and benefit from other member countries' insights and lessons learned.

Australian Government

AUSTRALIAN ADVISORY BOARD
on Technology & Healthcare Competitiveness

One of the many highlights of the day included the Leaders' Dialogue on Vaccines, moderated by Australian leader Ms. Jane Halton AO PSM (pictured). In November 2020, COVID-19 vaccine candidates were still under development, but there was no certainty that any would result in a safe and effective vaccine. Yet, the world has never before had at its disposal the science and technology toolkit that was brought to bear for this process — a global mission to produce a vaccine to reduce the health, social and economic impacts of the COVID-19 pandemic. As well as the economic considerations of the development process, participants also discussed issues for the future of global health security and the likelihood of future pandemics.

Ms. Jane Halton AO PSM, Chairman, Coalition for Epidemic Preparedness Innovations.

Day two was devoted to the discussion of priority areas and industries for the future economy, examining frameworks and models to accelerate innovation and financial mechanisms that support innovators to better access capital. Topics included innovation and competitiveness, fueling innovation breakthroughs, building and leading the future economy, and strengthening shared values and partnerships.

Participants enjoyed a lively dialogue discussing the challenges and opportunities for economic systems and society in a post-COVID-19 context. Leaders examined the rise and benefits of digitalisation — catalysing change across industries and driving integration — and considered global risks such as climate change. Throughout discussions, the pressing need for innovation and adaptation was prevalent.

In the final high-profile panel conversation, moderated by GFCC Chairman Mr Charles O. Holliday Jr (pictured), four thought leaders shared their views on the role of leadership during the current crisis and into the future economy, as well as their perspectives on how the global competitiveness landscape is changing. It was fitting that the closing session of this landmark summit was ultimately a clarion call for stakeholders from across all sectors — health, innovation and economics — to collaborate, strategise and agree on priorities and next steps for building the future economy. Australia looks forward to continuing and building on these conversations at the 2021 Global Innovation Summit.

Mr. Charles O. Holliday, Jr., Chairman, GFCC, and former Chairman, Royal Dutch Shell plc.

Global Federation of Competitiveness Councils

SUSTAINING AND GENERAL MEMBERS

Australia
Advisory Board on Technology and Healthcare Competitiveness

Government of Australia

Brazil
National Confederation of Industry — CNI/SENAI/SESI/IEL

Canada
Western Economic Diversification Canada

Greece
Council on Competitiveness of Greece — CompeteGR

Delphi Economic Forum

Japan
Japan Innovation Network

Japan Science and Technology Agency — JST

Kazakhstan
Kazakhstan Competitiveness Council

Malaysia
Malaysian Industry-Government Group for High Technology — MIGHT

Qatar
Qatar Research, Development and Innovation Council — QRDI

Russia
Eurasia Competitiveness Institute

United States
Council on Competitiveness

UNIVERSITY AND RESEARCH MEMBERS

Australia
Aikenhead Centre for Medical Discovery

Bond University

Monash University

The University of Newcastle, Australia

RMIT University

Brasil
Universidade Estadual da Paraíba

Canada
University of Victoria

Germany
Ludwigs-Maximilian University Munich

Greece
American College of Greece

Japan
Okinawa Institute of Science and Technology

Malaysia
Universiti Teknologi PETRONAS

Mexico
Monterrey Institute of Technology and Higher Education

New Zealand
University of Auckland

Peru
Universidad Nacional de San Agustín de Arequipa

Portugal
Catholic University of Portugal

Qatar
Qatar University

Saudi Arabia
King Abdullah University of Science and Technology

Ukraine
Kyiv National Economic University

United Kingdom
Queen Mary University of London

University of Southampton

United States of America
Arizona State University

Georgetown University

Northeastern University

Ohio State University

Purdue University

University of California San Diego

University of Chicago

University of Illinois

University of North Carolina at Chapel Hill

University of South Carolina

Webster University

CORPORATE MEMBERS

Al-Dabbagh Group

Athens Exchange Group — ATHEX

Bahas, Gramatidis and Partners

Center for Research and Consulting

Lockheed Martin

Nadim Industries

Piraeus Bank

Stratega

Whitecap Investments LLC

GFCC FELLOWS

Distinguished Fellows
Zakri Abdul Hamid

Amr Al-Dabbagh

C. Derek Campbell

Nathalie Cely

Lee Yee Cheong

Luciano Galvão Coutinho

João A. H. Da Jornada

Petros G. Doukas

Luis Fernandes

Nika Gilauri

Yanos Gramatidis

Karen A. Holbrook

Jerry M. Hultin

Carole Hyatt

Charles Kiefel, AM

Stephen Kingon

Ashwani Kumar

Tae Shin Kwon

Joan MacNaughton, CB Hon FEI

Christos Megalou

Peter Meyers

Jan Mládek

Michiharu Nakamura

Liam Nellis

Lucas Papademos

Richard Parker, CBE, FREng

Emmanuel Pohl

Frank-Jürgen Richter

Laura Sandys

Jack Sim

Rogerio Studart

Ahmad Tajuddin Ali

Manuel Trajtenberg

Gregory F. Treverton

Simon Peter "Pete" Worden

Kandeh K. Yumkella

Senior Fellows
Edward D. Agne

Marcelo Augusto de Felippes

Rehan N. Chaudri

Fred Davies

Margareta Drzeniek Hanouz

Mark Esposito

Dionisio Garcia

Banning Garrett

Kwanza Hall

Kathryn Hause

Greg Horowitt

Elisa Jagerson

Nkem Khumbah

Susan McCalmont

Mark D. Minevich

Michael Nelson

Ted Zoller

GFCC TEAM

Charles O. Holliday Jr.
Chairman

The Hon. Deborah L. Wince-Smith
President

Roberto Alvarez
Executive Director and Secretary to the Board

Chad Evans
Treasurer

Vanessa Puerta
Head of Operations

Simone Melo
Community and Communication Manager

10TH ANNIVERSARY GFCC

Global Federation of Competitiveness Councils
900 17th Street, NW, Suite 700
Washington, DC 20006
USA
T +1 202 969 3382
www.thegfcc.org
info@thegfcc.org