

2020 GII Virtual Summit: Resetting amid COVID-19

At the sixth Global Infrastructure Initiative Summit, experts shared perspectives on how the infrastructure industry has responded to the COVID-19 crisis, how it can restart and reset, and how it can integrate pre-COVID-19 agendas with postpandemic realities.







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Introduction

McKinsey launched the Global Infrastructure Initiative (GII) in 2012 as a forum for global infrastructure leaders from across the value chain to address some of the perpetual challenges facing the industry, including identifying and quantifying infrastructure gaps, delivering essential infrastructure and capital projects more effectively, and better utilizing existing assets. In 2019, the world spent \$11.6 trillion on infrastructure across real estate, transport, utilities and telecommunications, energy and mining, and social infrastructure. These collective assets are the critical foundation for a competitive and healthy business and living environment, and the COVID-19 crisis will only increase pressure to deliver projects and close the preexisting infrastructure gap.

On June 10 and 11, 2020, more than 400 senior global infrastructure leaders joined the 2020 GII Virtual Summit to consider the industry's path forward as it resets amid COVID-19. "The world is in a tough spot, but infrastructure is part of what will keep economies going," said Kevin Sneader, McKinsey global managing partner. "We need to take stock of where we go from here."

Plenary conversations centered on responses to the crisis, how the industry can reset, and the role of pre-COVID-19 agendas in the next normal. Six roundtables took deep dives into distinct sectors—engineering, construction, and building materials; energy and resources; infrastructure investors; real estate; transport infrastructure; and urban mobility.

Across all sessions, participants continued to focus on the critical themes in infrastructure today: 1) the role of technology now and in the future, 2) the persistent need to address the climate crisis and build sustainably, and 3) the methods to fund infrastructure in the midst of an economic crisis. While challenges certainly remain, the summit highlighted the agility of actors across the industry in the face of unprecedented challenges and revealed much optimism for the future.

We wish to acknowledge our 2020 GII Summit partners, who have been instrumental in building and supporting the GII community. Thank you to our strategic partners at CDPQ; our pillar partners at Bentley Systems, Clifford Chance, Spencer Stuart, Trimble, and WSP; and our institutional partners at Canada Infrastructure Bank. •

We'd like to hear from you if you would like to get involved in any of the recommended activities or if any of these ideas inspired changes in your organization. We also welcome recommendations on areas to focus on at future roundtables or disruptive projects or practices to consider for site visits. Please send your updates, ideas, or suggestions to info@giiconnect.com.

Best ideas from the summit

Conversations revealed innovative ideas for meeting today's challenges, as well as cross-cutting themes that will shape the path ahead for the industry as a whole. Below are some of these top ideas.

Financing

- Increase investment in infrastructure projects that radically affect long-term global trends (for example, low-cost housing to support increasing urbanization and climate-resilient infrastructure).
- Implement a nimbler capital-allocation process to respond to the rapidly changing environment.
- Focus on projects that are "shovel worthy" rather than "shovel ready."

Technology adoption

- Maintain the flexibility and technical adaptability demonstrated in the COVID-19 response in steady-state operations by being willing to design and launch new means of connecting with people and operate digitally.
- Adapt to a contactless economy by increasing technology deployment across construction methodologies and employee and customer interactions.

Resilience

- Create solid project pipelines through assessments of long-term project resiliency—in terms of industry disruption, changing user expectations and demands, and climate impact.
- Redefine delivery models to remove frictions and inefficiencies and unlock new profits.
- Increase the resiliency and flexibility of supply chains by obtaining services and materials from more and different sources.

Collaboration

- Seize the chance to increase collaboration between the public and private sectors infrastructure will continue to be an attractive investment opportunity and critical to governments.
- Redesign contractual terms to encourage better collaboration, transparency, and risk and profit sharing.
- Build trust and long-term strategic relationships with partners to foster better problem solving.









Responding to COVID-19

The impact of the global pandemic on lives, jobs, and economies is unprecedented in modern history—and industry responses have ranged from the prescient and coordinated to the reactive and improvisational. But there was consensus among summit participants that, on the whole, organizations' responses have been better than expected or excellent (Exhibit 1). Participants discussed the industry-wide response in terms of prioritizing investments, adjusting financing models, and keeping projects moving.

Prioritize projects

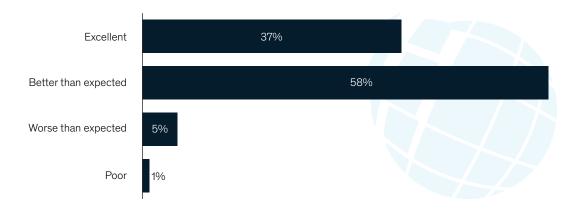
With so much uncertainty resulting from COVID-19, climate change, digitization, and other disruptions, companies are grappling with how to prioritize projects and pipelines. "Many organizations are having to juggle two distinct time horizons," said Ehren Cory, president and CEO of Infrastructure Ontario, "considering what they need to do to manage through the crisis to keep assets and projects moving but also what the long term looks like."

One suggested way forward is to redetermine the baseline of infrastructure priorities. "Previous infrastructure stimuluses reveal the importance of infrastructure projects in stimulating the

EXHIBIT 1:

Summit participants agreed that their organizations have responded well to the pandemic.

How would you rate your organization's response to the COVID pandemic with regard to managing major projects under construction and/or keeping critical infrastructure operating?



economy, but ultimately value is created or destroyed by pursuing the right projects," said Cory. "So determining the right projects will be key."

Adapt financing

Decisions about priorities will hinge on discussions of funding models and sources of financing. And while the financial picture is changing—and some funding gap is likely to remain—on the whole, projects are finding financing.

"Most deals currently being developed and close to signing are progressing relatively well, despite happening virtually," remarked Nick Wong, co-head of the Worldwide Projects Group at Clifford Chance. "And generally, stakeholders are engaged in closing deals and moving them through to funding." For projects currently under construction, lender groups are finding ways to assist contractors and others to get deals done. They are also taking a reasoned approach to granting waivers that enable construction to continue even amid lockdowns and physical-distancing protocols.

Fundamentally, investors need to be strategic as the world unfolds, distinguishing between projects that are affected by the crisis and projects that were on shaky ground from the get-go and will need to be restructured going forward.

Governments may also need to be creative about paying for critically needed infrastructure, which may be more challenging in emerging economies. Capital-market solutions, such as those used in Latin America, have been closing, and the market has become quite tight. But multilaterals and credit agencies are stepping up quickly to fill these gaps.

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-Ehren Cory, president and CEO of Infrastructure Ontario

Continue to deliver major projects and essential infrastructure—on time

Many participants spoke of a sense of lost momentum and ongoing risk, particularly for countries or parts of the economy most reliant on public funding for their infrastructure pipelines. The longer the crisis persists, the more concerns emerge around flight of talent and capabilities, lost time, and the speed at which fundamental supply challenges can be addressed.

But there are also ways to ensure that projects keep moving—and there are examples of innovation and good planning around the world.

In the Middle East, for example, flexible working practices that have been readily accepted in some parts of the world had not yet taken hold before COVID-19. Since the crisis's onset, however, project owners have been remarkably flexible as long as they could see progress and knew key personnel were available. "It is requiring a leap of faith of not being able to see everyone on site every day," said Lara Poloni, CEO of EMEA for AECOM. But it's happening—and it suggests an opportunity to adopt such flexibility in steady-state operations.

In Bangladesh, the government has been working hard throughout the pandemic to keep infrastructure on track around the clock, with ministers negotiating tight contracts. In Australia, clear priorities and a strong project pipeline have put the country in a good position to continue progress. Australia also has mature and diverse frameworks for funding and developing infrastructure, which will allow a relatively quick return to normal. Ontario also had a robust pipeline of \$60 billion of public transportation projects pre-COVID-19. While the country has had to rethink sequencing, it has remained committed; the province launched a request for quotation for the Ontario Line, a new subway line, in the past month.

Digital tools have also been integral in keeping projects moving. For instance, some companies have been pursuing remote permit and licensing processes; others have shown that remote monitoring can be very valuable. This practice, born of necessity, may unlock a broader digitization trend. •

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Resetting amid COVID-19

Investment in infrastructure is likely to be a critical pillar of economic revitalization. "Generally speaking," said Jérôme Stubler, chairman of VINCI Construction, "for every \$1 spent on infrastructure, \$6 to \$7 will be generated in the economy in the next ten to 15 years. So it's important to invest." But returning businesses, projects, and supply chains to operational health will be immensely challenging. Indeed, nearly three-quarters of participants polled agreed that restoring workforce productivity and rebuilding confidence will require a cautious restart (Exhibit 2). Still, ideas for restarting emerged around planning, building customer and stakeholder confidence, and focusing on the long term.

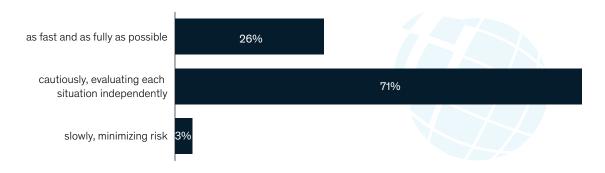
Double down on better planning now

The impact of the pandemic on infrastructure activities varies drastically across the globe. The Czech Republic, Germany, and Poland had almost no decrease in activities; Canada, countries across South America, and the United States experienced a slight drop; and France, Italy, Singapore, and Spain saw a significant decrease. But better planning starting now can help all countries and regions manage their respective backlogs of projects.

EXHIBIT 2:

The majority of summit participants surveyed agreed that work should resume cautiously.

To restore our workforce productivity and rebuild customer confidence we should resume work...



For instance, construction productivity could be increased by choreographing personnel and setting clear expectations for time on-site. It was also suggested that pulling one lever will not jump-start the recovery; we need to pull all of them, including investing in building as a means to create jobs and activate the economy.

Rebuild customer and stakeholder confidence

The industry may still be reluctant to undergo a digital transformation, but technology truly has the potential to enhance or destroy business models—and it will play a critical role in rebuilding customer and stakeholder confidence. Organizations should consider increasing technology deployment across construction methodologies and employee and customer interactions to adapt to a contactless economy.

Air travel presents one of the ripest opportunities for transformation to rebuild passenger and public confidence. "It is imperative for the aviation industry to change to meet the health expectations and demands created by the pandemic," remarked Deborah Flint, president and CEO of the Greater Toronto Airports Authority (GTAA). "Every activity people do today involves a fear of COVID-19—nothing feels entirely safe—and this fear has been heavily attributed to aviation. But in fact, the aviation industry is known for its ability to quickly adapt to new safety and security protocols—like it did after 9/11."

GTAA air traffic was reduced by 98 percent year over year in May; getting those numbers up will require airlines and airports to use technology to rebuild the sense of safety and security that the industry depends on. "The journey through the airport—from garage through screenings and boarding—needs to be contactless, and it can be contactless," said Flint. Air quality needs to meet high ventilation and filtration standards, surfaces need to be cleaned to new levels, and employees who may have been exposed should be tracked through databases. Baggage drop procedures and security procedures will all need to be modified.

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—Deborah Flint, president and CEO of the Greater Toronto Airports Authority (GTAA)

Be patient and assess long-term project resilience

Resetting will require patience, particularly on the part of investors. Infrastructure investing has always been about the long term, playing out not over months but many years. "I don't think the consequences have begun to fully reveal themselves," said Michael Sabia, chairman of the Canada Infrastructure Bank. "And it will be a long time before we understand what the next normal looks like. So, this says to me, 'Be patient.'"

Investors can consider long-term industry disruption, changing user expectations and demands, and climate impact as they make decisions. They can tailor their portfolios to be weighted more toward assets that have shown resilience—such as power, water systems, and renewables—and less toward those that have been critically affected. Still, as Sabia pointed out, "If you had a high-quality asset prior to the crisis, you'll probably have a high-quality asset postcrisis."

Climate resilience remains a key component of the future of infrastructure. "What is more unpredictable than the current economy is the speed with which we'll be able to deliver the investment in infrastructure to cope with the climate transition," Stubler said. "Some past infrastructure won't be compatible with climate change, so we need to consider timing in terms of the climate transition."

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Integrating the pre-COVID-19 agenda into the post-COVID-19 action plan

While the COVID-19 crisis threatens to exacerbate the industry's productivity challenge, it could provide the impetus to reimagine and reform the industry. About 80 percent of participants polled agreed that the industry should incorporate the pre-COVID-19 agenda in their plans for the next 12 months (Exhibit 3). But how should we approach this challenge? How do we accelerate technology adoption? What no-regrets steps can we take to make the industry more sustainable and future-proof infrastructure? How can culture change spur productivity?

The question for many is whether the disruption will be led by traditional industry players or if technology companies who have shown interest in investing in the industry will take the lead. Incumbents need to think hard about how to harness these trends rather than risk having others move in.

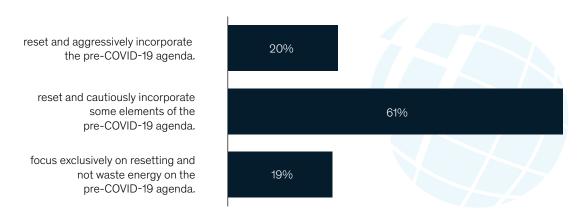
Adopt technology

Industry leaders are demonstrating an increasingly strong belief in the need for new technology and digital tools to increase productivity. "What we're living in is testing what we thought was impossible

EXHIBIT 3:

The majority of summit participants surveyed agreed that organizations should incorporate

Over the next 12-months, the COVID-19 crisis compels us to...



just a few weeks ago," said Alexandre L'Heureux, president and CEO of WSP Global. "Tech is going to enable us to do better—to design more efficiently and collaborate more effectively."

Different actors will play different roles in making this happen. Owners, for instance, can take a more systematic approach to managing capital programs and how they continue to work with designers and builders; collaboration will be critical. Service providers will be important enablers of technology, especially in designing future cities and pushing the technology agenda. Indeed, at the contractor level, Rob Painter, CEO of Trimble Inc., reaffirmed the important role that simulation and scenario modeling of scheduling can play, as well as automated site entry and exits in the context of health and safety during

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-Alexandre L'Heureux, president and CEO of WSP Global

the pandemic. "And policy makers can be a catalyst for the use of technology," Painter suggested. He pointed to Japan's smart initiatives, the European Union's task force for rail, and the United States' federal highway aid program as examples of the use of government incentives to use technology to help build projects on time and on budget.

Put sustainability front and center in spite of COVID-19

Governments and communities responded immediately to COVID-19 because we had no choice. Addressing climate change should be seen the same way, according to summit participants. "We need to put this at the forefront," said L'Heureux. "We need to match the long-term interests the industry has around climate change with the future needs of cities." The reality is that climate change will persist long after we learn to manage with COVID-19 or a vaccine is developed.

This will require the industry to prioritize renewable energy and demand-side management. It may also require the industry to adopt a risk-based approach across project life cycles assessing the risks of both operational projects and those in development. "Right now, we prepare for coastal flooding, but we need to address not just the near-term impact but also longer-term events such as deforestation, sea-level rise, and chronic drought," said L'Heureux.

Embrace new ways of working

COVID-19 has forced a massive change in workplace practices and will continue to do so; for example, in allowing for more flexible work arrangements long term and encouraging organizations to seek opportunities to partner. "Necessity is the mother of invention, and this crisis has pushed us," said Charles Emond, president and CEO of CDPQ.

"I don't think offices will close entirely," he went on, "but people will appreciate the flexibility to telework. And this will have a big impact on how cities are built and our infrastructure, as it will affect peak hours from a transportation perspective."

Strong collaboration has not always been a hallmark of the industry, but it has been and will continue to be an important part of progress through the crisis. "There's a truism in Canada," said Ehren Cory, "that we've lost the third P in PPP. But the past few months have forced us back into a better place of collaboration and partnership." This sense of togetherness will need to continue for the industry to deliver necessary infrastructure and spur economic recovery. 🏮

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-Charles Emond, president and CEO of CDPQ



Assessing the sector perspective

While broad themes persist across the industry, each sector faces its own challenges and opportunities. In six sector-focused roundtables, participants discussed the realities of key industry sectors and what they need to succeed going forward.

Engineering, construction, and building materials: Reset to succeed

The global pandemic is accelerating emergent disruptive trends that affect the engineering, construction, and building materials (ECB) sector. How can ECB players navigate this crisis while making bold moves to establish a winning position for the future? How will the value and profit pools shift in the future construction ecosystem? What no-regrets actions can companies take now to succeed beyond the crisis?

Three-quarters of polled ECB participants reported that their companies had increased their investments in new technologies and business models to adapt to the next normal since the beginning of the COVID-19 crisis. Conversations revealed six actions ECB companies can take to prepare for the next normal.

Maintain the pace of digital adoption brought on by COVID-19. Many participants mentioned that COVID-19 forced a surprisingly well-functioning and seamless digitization journey, and 84 percent of those polled plan to accelerate these investments.

Reshape the delivery model. By redefining delivery models with high transparency and seamless collaboration, players can remove significant frictions and inefficiencies and unlock new profits. Digital twins, robotics, automated as-built functionality, and the like can transform how work is done and delivered.

Create space to foster rapid disruption and innovation. Disruptive moves often require a higher degree of freedom than traditional structures provide. Participants cited separate innovation-dedicated business units (company within a company) and even fully standalone entities as potential solutions to this challenge.

Reconsider talent demographics to attract winning competencies of the future. Various competencies closely linked to digitization will be needed. As one industry leader remarked, "Today's gamers might be tomorrow's builders."

Prioritize investments and ensure executive sponsorship and focus. Now more than ever, organizations need to strike the right balance between shorter- and longer-term efforts. Obtaining executive sponsorship has become increasingly important to making the right moves and securing sufficient resources.

Boost efficiency through redesigned contractual setups. Technology and data science are helping predict project outcomes and therefore enabling more efficient setups, such as collaborative contracts with risk and profit sharing.

Energy and resources: Double down on collaboration

The energy and resources sector isn't widely recognized as highly collaborative, but more than three-quarters of those polled said that responding to COVID-19 required new collaboration approaches and overcoming a fear of "unfair" risk—reward distribution. Amid the crisis, how can owners and contractors in the sector collaborate to improve execution, efficiency, and resilience and deliver mutually beneficial outcomes? Participants shared five ways the sector can do better.

Execute projects through partnerships, not contracts. About 80 percent of business between owners and engineering, procurement, and construction (EPCs) contractors right now is based on transactional contracts that are generally on a lowest-cost basis, creating a win-or-lose relationship. Instead, owners and contractors should focus on creating common objectives for all parties. EPC companies want to be included in the full process; some are not even bidding for EPC lump-sum projects anymore.

Engage suppliers earlier. Collaboration should go all the way down the supply chain, and subcontractors should be engaged earlier in the planning process. Suppliers can help shape projects in pre-FEED and execution, and they can help owners develop future solutions.

Develop collaborative relationships with executive engagement. Collaborative projects work best when collaboration starts at the top. Leaders should be clear about their companies' strategic objectives so that all parties can work toward mutually beneficial arrangements.

Take time to build trust and long-term strategic relationships. It is difficult to work through problems when partners have never spoken to each other. Players can set up recurring sessions to build trust, and they should avoid waiting until there's a problem to reach out to partners.

Harness the benefits of remote work and digital tools. Virtual meetings can be scheduled and held much more quickly than in person, and remote teams can work in a more agile way. While the sector has the tools to improve outcomes, adoption remains spotty. Companies that use technology to collaborate will work together more effectively and successfully.

Infrastructure investors: Emerge more resilient

Infrastructure investors are rightly concerned about cash constraints and asset resilience but continue to be optimistic about the robustness of infrastructure assets and their role as attractive investments. Summit conversations considered how the next normal will shift investment priorities, including building portfolio resilience, and the public—private investment opportunities available to accelerate recovery.

Invest in assets with flexibility built into their operations and capital structure. Participants discussed the virtue of building downside risk into projections, managing counterparty risk, maintaining an appropriate level of liquidity, targeting assets that stand out as future proof, and building flexibility into the investment operating model and capital structure. According to polled participants, cash constraints and demand shock are top concerns. Investors have been reminded that in shocks such as the COVID-19 pandemic, even stable infrastructure investments can be affected negatively. Investments should hence be structured and managed with the ability to react to unforeseen risks.

Select assets by business model, not asset class. Clear trends of asset performance by class amid COVID-19 are currently visible. The market situation has put a spotlight on business models and valuations, and social infrastructure—such as affordable housing and care homes—has returned to the fore. Diversification can allow funds to manage exposure to shocks affecting a particular asset class.

Continue decarbonization and the energy transition. Support for decarbonization and energy transitions is still high, and investors will continue to avoid stranded assets, such as coal power plants. This is reinforced by the fact that fiscal stimulus programs are expected to focus on "green" endeavors—for example, the €1 trillion European Green Deal in development.

Cooperate with government. Greater coordination across the private and public sectors will be needed to ensure that infrastructure can play a role in recovery. Some existing models could point the way, including asset recycling models in Australia and new capital-raising initiatives of some Asian governments, such as short-term budget financing and crisis-response facilities to drive "shovel ready" and "shovel worthy" infrastructure to support jobs. Governments could

better access private-sector innovations by defining outcomes rather than actions and becoming the investor of last resort to de-risk projects using rapid procurement models; investors can be more innovative in how they fund infrastructure.

Real estate: Adapt to the next normal

Physical distancing has changed the way people inhabit and interact with physical space, creating an unprecedented crisis in real estate. Participants discussed ways to respond to the immediate threat and lay the groundwork for tackling long-term challenges; use digital design, customer experience, and advanced analytics to strengthen relationships with employees, investors, and end users; and differentiate assets, build portfolio value, and change the economics of real estate.

Rebalance the portfolio for the long term. Leaders can focus on three kinds of investments: in currently held assets to meet changing demand; in emerging asset classes with links to infrastructure, connectivity, warehousing, cold storage, and data centers; and in assets aligned with underlying market and demographic trends.

Incorporate product flexibility. While floor plates may not translate easily between uses, maintaining a flexible workspace and awareness of changing customer desires—from physical amenities to shorter leases and modifiable floor areas—will be in focus.

Digitize and integrate the customer experience. Real estate has an opportunity to use customers' increased openness to the integration of technology into offices and homes as a means to provide a seamless experience—such as lease completion and tenant-facing tools that connect personal services, environmental controls, and security.

Optimize and build resilience into design and the supply chain. Leaders can deploy modular and off-site fabrication to increase worker safety and productivity and optimize construction procurement costs and timelines to enable margin retention during periods of cost volatility.

Instill confidence. Companies can instill confidence by partnering with healthcare providers to develop and communicate trustworthy safety and health plans and by investing in highly visible operational changes while also expanding the physical health and safety infrastructure. There are also opportunities to expand micromobility options while engaging with transit authorities to increase safety in high-density environments.

Transportation: Reimagine passenger-transport infrastructure

Reopening passenger services and regaining customer trust amid COVID-19 offer the opportunity to comprehensively reimagine a more resilient public-transport system—one that, like many initiatives in the industry, could include an increased role for public-private partnerships (PPPs). How can existing operations be adjusted to balance physicaldistancing needs with increasing traffic volume? And what modifications to existing infrastructure are needed? While participant polling revealed a lack of consensus on

the most important priorities for transportation systems following the crisis, the discussion revealed three takeaways for a more resilient future.

Treat transport infrastructure as a backbone for economic recovery and fund it accordingly. Movement of goods and people is essential to the global economy and economic growth. But reduced occupancy due to safety concerns will lead to revenue challenges; additional funding and funding sources for operations and investments will be needed. There is the potential to radically redefine the business case that underpins transit in the postpandemic world.

Increase focus on the customer and reimagine public transport. Twenty percent of those polled saw focusing on customer confidence and experience as an imperative. Doing so should increase ridership in the long term. Additionally, the industry should not lose sight of the need for sustainable transportation.

Accelerate digitization. In transport, digitization can provide the transparency and productivity to enable a better customer experience and keep costs down. Discussions centered on the benefits of predictive analytics, true automation, and improved working productivity given the lessons from working from home—and how these technology-based examples would bend the long-term operating cost curve. Players could start by gathering critical operational data—to enable condition-based maintenance planning—as well as demand predictions for better long-term investment decisions.

Urban mobility: Accelerate priorities

Cities across the world have identified mobility as key to achieving their targets for lower CO2 emissions, improved economic growth, equity, and overall livability. Participants considered what is needed to accelerate new modes of transformation and the supporting policy and infrastructure redesign. While PPPs show promise, participants discussed three additional tactics that cities can use to overcome the pandemic-caused challenges and seize the moment to shape the mobility system of the future.

Invest less in concrete and more in silicon. Budgets are tight, and physical distancing will further strain existing capacity to transport passengers. Expanding existing capacity while maintaining safety requirements with low investment can be addressed by implementing digital solutions like off-peak pricing and positive train control.

Overcome old habits and procedures. In the context of current constraints in working, government agencies are pragmatically addressing the most urgent problems. Now is the time to drive permanent, positive process adjustments, as the inertia is already overcome.

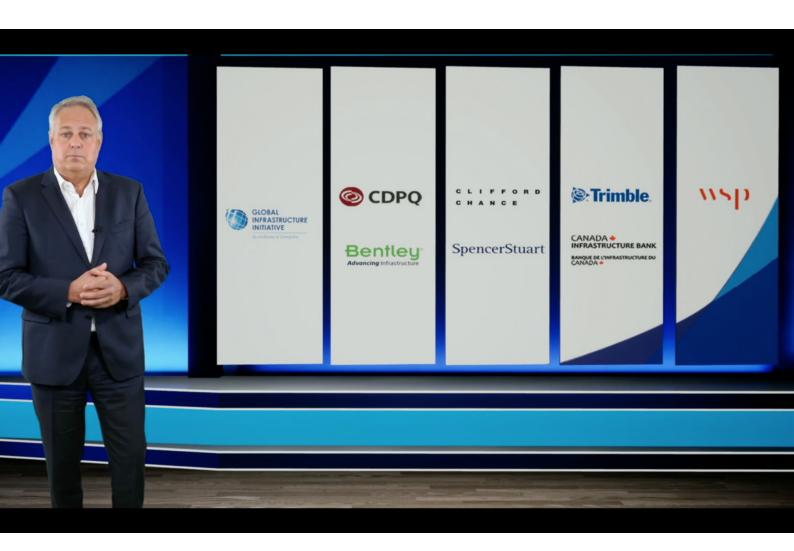
Harness digitization. The sudden digitization of practices has forced agencies to adopt digital tools to continue functioning—for instance, by pursuing contactless payment systems. Others have shown that remote monitoring can be very valuable.

Global Infrastructure Initiative

19

The first-ever virtual GII Summit surfaced important insights and actions that will collectively help the industry move forward in improving infrastructure delivery and operations while resetting from the COVID-19 pandemic. As players pursue new funding models, innovative uses of technology, and increased resilience of assets and operating models, collaboration and partnerships will be key. Let's continue the conversation on how we can do better in meeting the evolving needs of our communities. •

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Participants

More than 400 world leaders in capital projects and infrastructure joined us virtually on June 10 and 11, 2020 to discuss resetting amid COVID-19.

Neil Abraham — EVP & Chief Strategy Officer, Realty Income

Pratik Agarwal — Managing Director, Sterlite Power

Raj Agrawal — Partner, Global Head of Infrastructure, Kohlberg Kravis Roberts (KKR)

Philip Aiken — Chairman, Balfour Beatty

Talal Al-Dhiyebi — Chief Executive Officer, Aldar Properties

Bashar Al-Malik — Chief Executive Officer, Saudi Railway Company (SAR)

Alwalid Alekrish — Vice President for Programs and Projects, Royal Commission for Riyadh City

Alberto Alemán — Chief Executive Officer, ABCO Global

Sir Danny Alexander — Vice President and Corporate Secretary, Asian Infrastructure Investment Bank

Nazir Alli — Adviser, J & J Group

Jose Rene Gregory Almendras — CEO & President, AC Infrastructure Holdings Corporation

Sara Alvarado — Head of Risk, Canada Infrastructure Bank

Teresa Alvardo — San José Director, SPUR

Dev Amratia — Chief Executive, nPlan

Ron Antevy — Chief Executive Officer, e-Builder, Inc

Fernando Arenas — Real Estate Director, Arima Real Estate SOCIMI SA

Agustin Arias — Director of Projects and Planning, Metro de Panama

Jason Arnoldy — Managing Partner, Triten Energy Partners

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Jennifer Aument — President, North America, Transurban

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Benjamin Bao — Managing Director, China Investment Corporation

David Barnes — Chief Financial Officer, Trimble

Jim Barry — CIO, BlackRock Alternatives Investors, and Global Head, BlackRock Real Assets

Roger Bayliss — Projects Director, MTR Corporation

Lori Bean — Partner, Clifford Chance

Heidi Beck — Chief People Officer, Pacific National

John Beck — Executive Chairman, AECON

Ann Bentley — Global Board Director, Rider Levett Bucknall UK

Gregory Bentley — Chief Executive Officer, Bentley Systems

Ralph Berg — Global Head of Infrastructure, OMERS Infrastructure Europe

Gus Bergsma — Chief Revenue Officer, Bentley Systems

Brad Berkley — Chief Financial Officer, Artemis Real Estate Partners

Pierre-Ignace Bernard — Senior Partner, McKinsey & Company

Phillip Bernstein — Associate Dean, Yale School of Architecture

John Bianchini — Chief Executive Officer, Hatch

Aaron Bielenberg - Partner, McKinsey & Company

Matt Binsfeld — President & CEO, J.F. Brennan Company

Matthew Birenbaum — Chief Investment Officer, AvalonBay Communities

Leo Birnbaum — COO, Integration, E.ON

Jose Luis Blanco Alvarez — Partner, McKinsey & Company

Rudi Blankestijn — Vice President, McKinsey & Company

Janusz Bogdański — Executive Director, Technology and Development Office, PKN Orlen

John Bookout — Partner, Apollo Global

Robert Booth — Managing Director, Ellington Properties

Gabriel Borras — Chief Executive Officer, Panama, WSP

Brendan Bourke — Chief Executive Officer, Port Of Melbourne

David Bowcott — Global Director – Growth, Innovation & Insight, Aon

Denise Bower — Executive Director, External Engagement, Mott MacDonald

Ryan Brain — President & CEO, Canada, WSP Global

Roy Brannen — Chief Executive, Transport Scotland

Ulrik Branner — Chairman & Executive, LetsBuild

Denis Branthonne — Founder & CEO, Novade

Andreas Breiter — Partner, McKinsey & Company

Sean Breslin — Chief Operating Officer, AvalonBay Communities

Marcel Brinkman — Partner, McKinsey & Company

Greg Brokenshire — President, Alberici Constructors Ltd

Jan Bunge — Managing Director, Squint Opera

Clare Burgess — Partner, Clifford Chance

Suzanne Burns — Partner, Spencer Stuart

Lauren Callaghan — Consultant, Spencer Stuart

Philippe Camu — Global Co-Head and Co-Chief Investment Officer, Goldman Sachs Infrastructure Investment Group

Mike Carragher - President & CEO, VHB

Wayne Carson — President, Kilmer infrastructure Developments

Ani Castonguay — Executive Vice-President, Public Affairs, CDPQ

Raymond Ch'ien — Chairman, Hang Seng Bank

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