Finger on the Pulse:

Infrastructure outlook under the Biden Administration with "Mr. Infrastructure"

WASHINGTON CORE

Interview: Norman Anderson, President & CEO of CG-LA Infrastructure

Nicknamed "Mr. Infrastructure," Mr. Norman Anderson has provided policy recommendations on infrastructure for several U.S. administrations, across partisan lines, from Presidents Clinton to President Biden. As the CEO of CG/LA Infrastructure, a Washington, DC-based infrastructure development, strategy and advocacy firm, he has provided an optimistic yet realistic view of the U.S infrastructure market, including business opportunities within the U.S as well as opportunities abroad for the U.S., and especially in democracies around the world.



Infrastructure outlook under President Biden

Currently, there is a large amount of funding available in the United States, lending to increase revenue at the state and county level from the coronavirus economic stimuluses, as well as \$1.5 trillion allocated under the Trump administration, with more funding to come through a potential infrastructure bill.

On July 1, 2021, the U.S. House of Representatives approved the 'INVEST in America Act', a \$715 billion bill covering surface transportation and water infrastructure. Democrats see it as an early step toward sweeping infrastructure legislation that Congress hopes to complete this September, but there are still high hurdles to overcome in order to coordinate with Republicans. The bill authorizes additional spending for roads, bridges, highway safety, electric vehicle charging stations, rail, transit, drinking and wastewater infrastructure. This will also require increasing private investment in infrastructure, which will natural necessitate substantial private participation.

Now, the United States needs a change of thought on "what to do with America's infrastructure." It is necessary to break away from a traditional concept of infrastructure, which typically focuses on roads and bridges, to instead view infrastructure as a platform for promoting digitization and electrification, and to position infrastructure as an investment for the future. Without this shift in thinking, momentum for infrastructure investment will not be created.

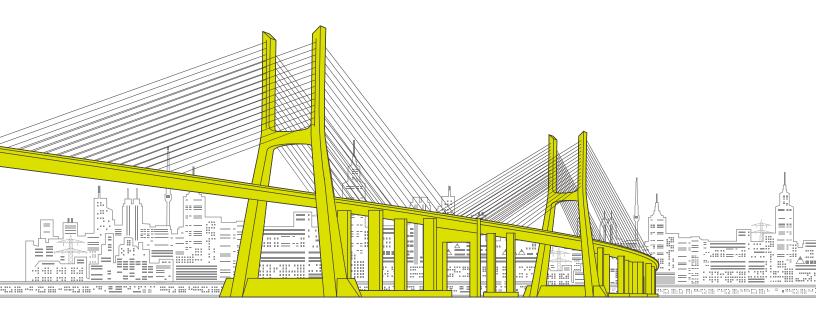
The Biden Administration's infrastructure strategy has three areas of priority, including:

- Environmental: renewables, electrification, electric vehicles.
- Fairness: cities or localities that have been disadvantaged in terms of infrastructure. 40% of infrastructure budget may be allocated to address these inequities.
- Economic productivity: projects such as the high-speed rail, public transit, water infrastructure, healthcare, etc.

Mr. Anderson is hopeful regarding the personnel Biden has chosen, such as Jennifer Granholm at the Department of Energy (DOE) and Pete Buttigieg at the Department of Transportation, although the White House has yet to establish an infrastructure office in the White House which could coordinate efforts across the federal government.

There is a lack of trust in infrastructure projects and policy due to challenges such as frequent delays and cost overruns. These issues can lead to a loss of confidence in politicians, local governments, and contractors that can make it difficult to rally support for new projects. Policy reforms are in need to recover public trust in infrastructure and create a consistent flow of financeable projects that are completed on-time and within budget.





Financing for infrastructure projects

Currently, 37 states have a state-level infrastructure bank, with about half dedicated to transportation, the other half dedicated to water. Mr. Anderson proposes expanding these banks to all fifty states, and financing infrastructure development through the sale of bonds to pension funds. Another critical missing element in the current paradigm is expertise; these banks should have and grow the proper expertise to prioritize amongst infrastructure projects.

Most U.S infrastructure investment is public investment, with around 83% of investment "ringfenced" from the private sector, meaning commercial stakeholders do not participate in investment. Meanwhile, certain emerging markets have a much higher degree of private involvement. For example, most of Brazil's electricity transmission systems projects are funded by private sector investment.

Rather than monopolizing infrastructure investment, the government should act as a facilitator by mobilizing private infrastructure investment, as well as a performance manager to evaluate and manage the progress of projects. In addition to facilitating greater private sector participation, the government should also explore reforms to address delays in the review and approval of projects to generate confidence that such projects are investable and will ultimately deliver its proposed benefits to the public and other stakeholders in a timely manner.

Opportunities for private investment in infrastructure include long-term leasing of public facilities in long-term concessions. For example, institutional investors such as long-term pension funds may invest in projects operated and managed by public facilities. More specifically, the Army Corps of Engineers currently manages a hundred of reservoirs across the country. These present an opportunity for the private sector to develop recreation assets and water resource infrastructure, thus stimulating investment in infrastructure and amenities.

There are also substantial opportunities to invite private investment in high voltage transmission lines in order to transmit renewable energy from generation-heavy zones to demand-heavy zones; some utilities are considering integrating these lines into highways for EV charging. Also, telecommunications and logistics companies could invest in a nationwide 5G hardware network along the interstate highway system. This raises the possibility of establishing a nationwide, fully autonomous transportation network.

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Infrastructure research and development

Infrastructure research and development (R&D) in the United States is mostly conducted by private companies, as opposed to countries like Korea, where a large proportion of the latest technology R&D occurs in university research centers. Currently, Silicon Valley, California; Austin, Texas; and Pittsburgh, Pennsylvania (due to Carnegie Mellon) are among the U.S. infrastructure R&D hubs. However, in order to stimulate more research and development, the U.S should establish a national laboratory in developing and testing infrastructure technologies, similar to the DOE's national laboratories for energy-related technology.

To answer the question of what technology will be needed for the future, the U.S. must consider interconnectedness between infrastructure assets, smart technologies, and new technology development tailored to consumer needs. Considering that the U.S. and Japan have common expertise and experience in "making products that delight individuals." This is the area in which the two countries can work together by incorporating user friendliness and consumer perspectives into infrastructure, which can be enabled through digitization, electrification and smart technologies. This could serve as a key avenue for the U.S and Japan to compete against China.

Opportunities: At home and abroad

The key priority of the Biden Administration's infrastructure strategy is creation and sustainment of domestic jobs. As part of the 'job creation' emphasis will likely lead to an emphasis on securing U.S supply chains for infrastructure-related areas. The 'Buy American' policy, which prioritizes the use of U.S. products, will likely become more important. Furthermore, various 're-shoring' projects may begin in order to restore domestic employment through infrastructure development. For example, a nationwide autonomous trucking network may be established in the United States, which can make the re-shoring of overseas-dependent supply chains substantially more attractive by reducing machinery shipping costs relative to imports.



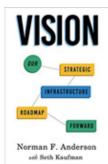
There is a major opportunity for likeminded democracies such as the U.S, Japan, and Australia to work together to capture infrastructure demand overseas. However, this requires creating and pursuing an overseas market for infrastructure services, whereas currently, Chinese firms dominate the overseas markets, such as in Brazil.

This current dominance of China in the overseas market can be partially attributed to a retreat of American infrastructure companies from the global infrastructure service market. Mr. Anderson advocates for an evolution beyond the current top-down model of infrastructure development that the government tends to decide what infrastructure is necessary in favor of a bottom-up model that considers what citizens want, such as clean water and air, and healthcare infrastructure. The infrastructure investment should be planned and designed based on the demands of citizens.

Furthermore, Japanese companies should take a more affirmative and aggressive role in promoting Japanese advantages related to infrastructure technologies and project management. The United States and Japan should learn from each other's business cultures – by advocating less hierarchy within organizations and more risk-taking in terms of pursuing opportunities – and promote partnerships in infrastructure businesses.

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Norman F. Anderson is Chairman & CEO of CG/LA Infrastructure, and Director of the Strategic Infrastructure Performance Institute. CG/LA also leads Blueprint 2025 2X, an initiative focused on doubling U.S. infrastructure investment. Mr. Anderson is, or has been, a member of various World Economic Forum groups, including the

Global Advisory Council on Infrastructure, the Strategic Infrastructure Initiative, and the Advisory Committee on Building Foundations for Transparency. He is a regular columnist in Forbes, and appears regularly on CNBC, Bloomberg, CBC and Fox Business News, discussing the US and global infrastructure markets. His book, Vision: Our Strategic Infrastructure Roadmap Forward was published in March 2021.

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