Infrastructure Masons

State of the Digital Infrastructure Industry

ANNUAL REPORT 2024

Insights and Predictions
from 500+ Industry Leaders

For The Digital Future

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Dean Nelson

Chairman and Founder
Infrastructure Masons

Dear Reader,

Digital Infrastructure is the new utility, a necessity to participate in the modern world just like running water and electricity. I started Infrastructure Masons (iMasons) in 2016 to unite the people who design, construct, operate and maintain the networks, equipment and facilities of this new utility. Our community represents the builders of the digital age. This Digital Infrastructure is the great equalizer that enables anyone, anywhere to participate in the digital economy.

Demand for digital services is forecasted to double and potentially triple the size of Digital Infrastructure capacity over the next decade. Our goal as iMasons is to build Digital Infrastructure that integrates with every community in an economically, socially and ecologically responsible and sustainable way.

To achieve this goal, we must collaborate with local government and civic leaders, businesses and investors, and utility and service providers to ensure that our presence in every community creates jobs, improves neighborhoods, promotes equality and helps restore ecosystem balance. This is true for communities that are established data center hubs and communities poised to gain their first Digital Infrastructure development.

Today, iMasons has over 6,000 members who collectively represent more than $200 billion in infrastructure projects across 130 countries. We have a responsibility to think holistically about how we approach the growth of Digital Infrastructure to enable everyone to participate in the digital age.

This report unpacks that thinking and outlines the challenges we must overcome to achieve this growth responsibly and sustainably. Today, those global challenges center on access to power capacity, attracting and retaining people, addressing industry perception to ensure we are a good neighbor where we operate, and maintaining our commitments to protect the planet. Navigating these challenges will enable a balanced and responsible deployment of Digital Infrastructure in established and emerging markets around the world.

The iMasons board and I are responsible for the contents of this report. We invite you to reach out with questions and welcome your support in our mission of a greater digital future.

Sincerely,

About the Report

This is Infrastructure Masons' (iMasons') inaugural State of the Digital Industry Annual Report. It is intended to provide a holistic picture of the importance of Digital Infrastructure and to guide strategic decisions about where, when and how Digital Infrastructure is built, operated and maintained. The report is available to the public and was prepared for an audience of policy makers, economic development officers, investors, civic leaders and neighbors in the local communities where Digital Infrastructure is deployed.

The report aggregates and synthesizes information shared by iMasons' global members who represent some of the largest Digital Infrastructure portfolios in the world. In accordance with iMasons' values, all content is anonymous except where noted. This approach provides a unique perspective about the Digital Infrastructure industry that's difficult to achieve in any other forum. It surfaces the industry's biggest challenges to responsible and sustainable growth and provides insights into trends and conditions in established and emerging markets around the world.

The Digital Infrastructure industry will continue to grow at an accelerated pace to meet increased global demand for digital services that are as essential to human prosperity. iMasons prepared this report to help ensure this growth occurs in a manner that is economically, socially and ecologically responsible and sustainable.

Special acknowledgement to technology journalist John Roach for his assistance in creating this report.

Executive Summary

Digital Infrastructure is a collection of data center locations that delivers electronic services to people and machines. Today, it's as important to any community as its airport, train station, waterworks, power generation, transmission lines and substations. It enables technologies that people use every day to connect, communicate, work and play. It's the utility of the digital age and woven into the fabric of modern life.

In 2021, iMasons reported that the Digital Infrastructure industry includes 7 million data center locations around the world with a combined capacity of 105 GW and an annual electricity consumption of 594 TWh representing 2.4% of the global electricity draw. Demand for electronic services will double and could triple the size of the industry over the next decade. Global member discussions identified four critical challenges to fulfill this unprecedented demand.

Access to concentrated sources of clean power, the ability to find, train, hire and retain people to build, operate and maintain Digital Infrastructure, a willingness to earn a positive perception by being a good neighbor in the communities we build and a steadfast focus on decarbonization of Digital Infrastructure to do our part to protect the planet.

Exploding Digital Infrastructure Demand

3x industry growth over the next 10 years

2024 Critical Challenges

Power | People | Perception | Planet

Clean energy zones

are master-planned towns or city-size areas developed around concentrated sources of clean energy to serve multiple industries, including multi-tenant data center complexes.

Deeper conversations among iMasons spawned a potential solution to simultaneously address the challenges around power, people, perception and the planet: clean energy zones. Clean energy zones are master-planned towns or city-size areas developed around concentrated sources of clean energy to serve multiple industries, including multi-tenant data center complexes. Complementary power-intensive industries could co-locate in these zones and seed communities filled with skilled people resources.

The zones could also help scale next generation materials such as green concrete and clean energy technologies including sustainable storage, renewable fuels, small modular reactors, hydrogen fuel cells, enhanced geothermal and fusion.

The challenges and opportunities for the Digital Infrastructure industry are universal, though differ in the details between established markets and emerging markets.

In established markets, a combination of power generation, power transmission and supply chain constraints are driving new data center development to locations outside of the industry's central hubs that have available power capacity; skilled people are required to support new growth as well as replace industry veterans near retirement; and the industry must engage with communities where it builds to change the perception of the industry by effectively integrating into the local ecosystem. In emerging markets, access to reliable clean power is a challenge in some regions and an opportunity in others; an oversupply of people must be trained to account for workers lured abroad; and there's potential to earn a positive perception in communities from day one. Everywhere, the protection of the planet must remain a top priority.

Africa, Latin America and India stand out for their growth potential and opportunity to leapfrog the industry's past challenges. The regions are home to 3.5 billion people, or 44% of the world's population, reflecting a median age of 28.2. Today, they account for just 5% of the global live data center capacity, but they represent the largest future consumption and market growth. Projects under construction, committed to be built or in the early stages of development, are on pace to quintuple capacity over the next five to ten years.

Fulfilling the demand for Digital Infrastructure is not optional. The world needs it to advance and thrive. iMasons believes our industry's approach to addressing these expansion challenges must be deliberate.

Responsible and sustainable growth that's economically, socially and ecologically in balance with communities requires collaboration with governments, utilities, development agencies, investors and civic leaders. Together we can solve our biggest challenges and ensure a greater digital future for all.

Africa, Latin America and India represent 44% of the world's population **but only 5% of global data center capacity.**

01 Introduction

What is Digital Infrastructure?

Digital Infrastructure is a collection of data center locations that delivers electronic services to people and machines.

Digital Infrastructure is a collection of data center locations that delivers electronic services to people and machines. It's what passes messages between devices and allows a smartphone to open the door of a smart home. It enables voice and video calls, internet searches and chatbot queries, online gaming and social media, credit card transactions and online shopping and much, much more. Data centers are real estate locations that house information technology equipment to process, store and transmit data.

They are where generative artificial intelligence (AI) is trained and deployed; what facilitates ATM withdrawals, contactless payments, online brokerages and cryptocurrency exchanges; what enables music and video streaming; and what makes possible everything from remote work and online school to telehealth, digital twins and self-driving cars. Digital Infrastructure provides access to the sum of human knowledge and is the equalizer that allows anyone, anywhere to participate in the digital economy.

The digital economy made up more than 15% of the global GDP and was valued at $14.5 trillion in 2021, according to a report from the World Economic Forum. Data centers enable all this economic activity. There are three categories for data center deployments: providers, networks and blockchain.

Providers include cloud, hyperscale, colocation, enterprise, government and edge data centers that host websites and enable electronic services ranging from AI applications and data analytics to data backup and online gaming.

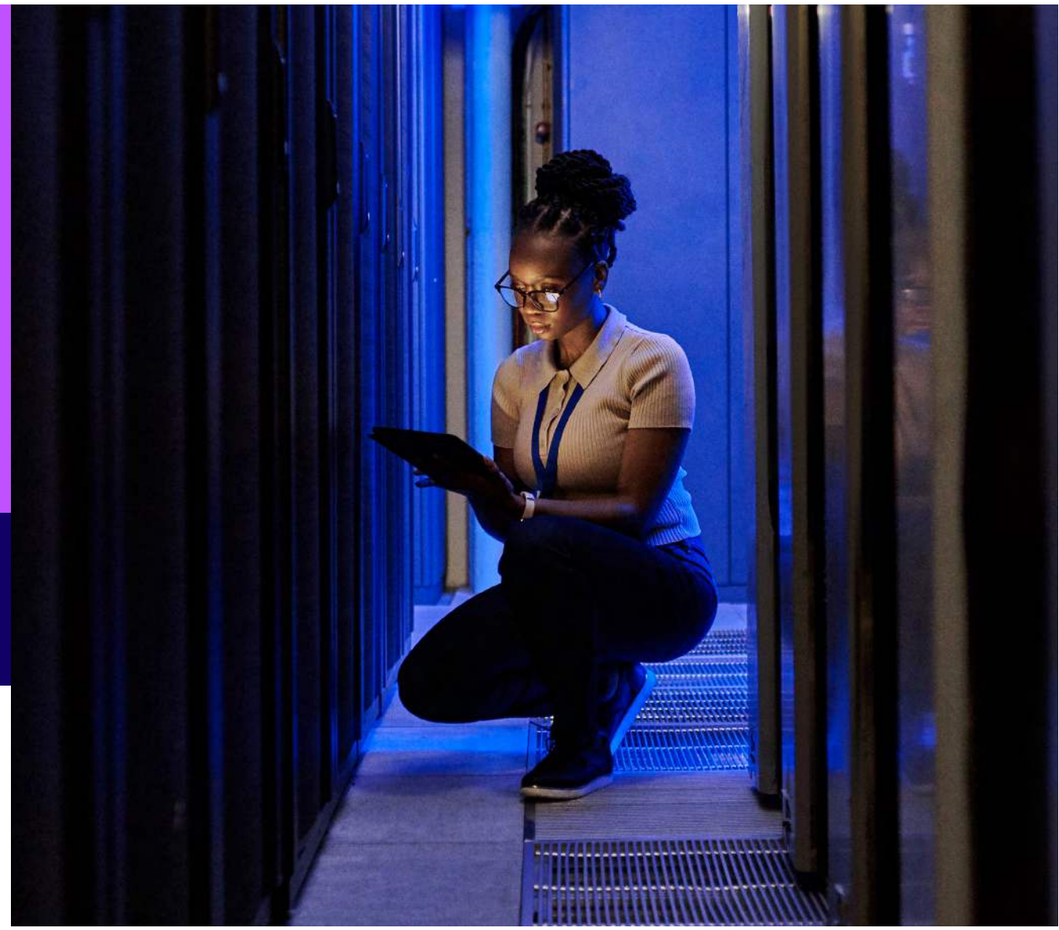
Network data centers include a range of types including internet exchanges where internet service providers and content delivery networks exchange internet traffic as well as cell towers and base stations that transmit data between people, homes, offices and other data centers.

Blockchain data centers include cryptocurrency mining and other peer-to-peer networks exchanging records of transactions.

Like other utilities such as running water and electricity, Digital Infrastructure was a curiosity long before it became a necessity. It grew organically, out of sight, out of mind and on the back of analog technology. Early websites were hosted on single servers in office closets and bedroom corners that were reached through dial-up modems. In the late 1990s and early 2000s, the dotcom bubble fueled construction of internet exchanges.

In the 2010s, businesses, governments and institutions began to shift from on-premises server rooms to leasing space in colocation data centers, building enterprise data centers, and moving their workloads to public hyperscale cloud providers. Then, boom. COVID-19 hit. The pandemic-induced lockdowns forced a shift to remote work and online school, boosted content streaming and online gaming, and spurred e-commerce for everything from food to furniture, all of which accelerated growth of Digital Infrastructure. Then, just as the Digital Infrastructure industry started to catch its breath post-pandemic, generative AI exited the research lab and turbocharged growth anew.

Today, Digital Infrastructure is as important to any community as its airport, train station, waterworks, power generation, transmission lines and substations. It enables technologies that people use every day to connect, communicate, work and play. It's moved from a curiosity and nice-to-have to the enabler of the digital age. It's woven into the fabric of modern life, visible and essential. Humanity needs it and wants more. It will continue to grow. This report is intended to help ensure that this growth is responsible, sustainable and in balance economically, socially and ecologically with the communities it serves.



Industry size and growth trends

In 2021, there were 7 million data center locations around the world, according to iMasons. Each of these data center locations has a unique street address and ranges in size from hyperscale data centers with more than 1 GW of power capacity to micro edge deployments on street corners that draw less than 10 kW of power. In total, they represented 105 GW of built power capacity in 2021 and an annual electricity consumption of 594 TWh. This electricity consumption represented 2.4% of global electricity draw that year, which was more than the electricity consumed in the entire United Kingdom. The Digital Infrastructure industry is forecast to double and possibly triple in size over the next 10 years with 38 GW of new capacity required for generative AI alone by 2028. Total power consumption by data centers could double by 2026 to more than 1,000 TWh, according to forecasts from the International Energy Agency.

Expansion of the data center sector in the US is expected to account for more than one third of additional demand through 2026 and together with heat pumps and electric vehicles account for half the expected gains in total demand in Europe.

Meanwhile, Africa, Latin America and India are home to 44% of the world's population yet account for just 5% of the global live data center capacity, according to DC Byte, a market research firm. Projects under construction, committed to be built or in the early stages of development, are on pace to quintuple capacity in those markets over the next five to ten years.

Digital Infrastructure projects to meet the demand for electronic services represent major capital investments in local communities. For example, in 2022 $3.9 billion of the $4 billion in investment in the data center hub of Prince William County, Virginia was for data center projects, according to the Data Center Coalition (DCC), a voice for the data center industry in the United States.

Digital Infrastructure deployments also represent a meaningful increase in local jobs outside of data centers. For every direct job at a data center in the US, there are six more jobs created, according to the coalition. These jobs are in construction, electrical and mechanical engineering, security, catering, delivery and other fields. Unaccounted for are new jobs in digital services that Digital Infrastructure supports. This multiplier effect of data center jobs holds true around the world, from the established data center markets of North America and Europe to the emerging markets of Africa, Latin America and India. Data centers and the jobs they create are also a steady source of tax revenue.

38 GW

of new capacity will be required for generative AI alone by 2028.

For every dollar that data centers use in local government services, they put back **between $8 and $17 in local tax revenue to that community, according to DCC.**

> "Generative AI and large language model training is the most fundamental shift seen in the data center industry for a very, very long period of time."
>
> **— iMasons member**

Most data center owners and operators in the US pay sales, use and property taxes. For every dollar that data centers use in local government services, they put back between $8 and $17 in local tax revenue to that community, according to DCC.

In 2010, data centers emerged as a new asset class for institutional investors due to their durable nature and consistent long-term returns. Today, firms that help build and finance data centers expect that demand for digital services will fuel continued growth in the industry for decades. Private equity and global real estate services companies fund, build and operate data centers around the world.

Recent investments, mergers and acquisitions announced by these companies have exceeded $100 billion for infrastructure to keep up with demand for cloud services and to train and deploy next-generation AI technologies. Ironically, even with the significant growth of cloud usage over the last decade, some estimates show that only 20% of enterprises and governments have fully integrated public cloud into their platforms. AI-fueled growth has eclipsed forecasts from the industry's biggest participants and industry analysts. Revised forecasts suggest capacity could double in just a few years, and triple in the next 10 years.

This AI-driven shift in the industry impacts data center design, location and use. Data center campuses dedicated to large language model training, for example, have less latency constraints than data centers dedicated to cloud computing and thus have greater flexibility to locate in regions that are prioritized for abundant clean power rather than access to population centers.

On the other hand, most AI-inferencing applications are latency sensitive and may require a proliferation of edge data centers deployed throughout cities and towns to enable services such as intelligent, personalized chatbots and self-driving cars along with the growing demand for content distribution and immersive experiences such as augmented reality and gaming in and out of the metaverse.

Uncertainty about the impact of AI on the industry is also prompting developers to future-proof data center designs and site selection for multiple outcomes and multiple uses rather than race to meet the perceived needs of AI today. In addition, today's centers of gravity – Northern Virginia and Silicon Valley in the US, and Frankfurt, London, Amsterdam, Paris and Dublin in Europe – will be replicated around the world. The need for land with power along with data privacy concerns and country-led data sovereignty requirements will drive this localized growth on every continent.

Many of these new data center builds will dwarf earlier generations. A decade ago, 10 MW was a big deal for any data center development. Today, hyperscale dedicated campuses are more than 200 MW and some are pushing into the multi-gigawatt scale. Core data center campuses delivered by most colocation providers start at 100 MW. Near edge deals range from 10 MW to 50 MW and far edge is now up to 5 MW.

> "We're getting into the yottabyte era,"
>
> **an iMasons member said about the amount of data generated by people and machines.**

A yottabyte is equivalent to 1 trillion terabytes. A single terabyte can hold up to 250 movies. People and machines will be generating data equivalent to 250 trillion movies every year. People need to understand and appreciate the critical role that data center infrastructure is going to play in connecting the data with the people and the vehicles and the enterprises around the world.

1 terabyte = 250 movies

02 Community Insights

Conversations among iMasons around the world revealed four universal challenges to the continued growth of the Digital Infrastructure industry:

POWER

The projected global growth of Digital Infrastructure to meet accelerating demand for electronic services will require access to additional electric power, which is a challenge in almost every market in the world and why power is the top-of-mind challenge to growth across the industry.

PEOPLE

Sustaining industry growth requires people to build, maintain and operate Digital Infrastructure, yet the industry currently faces an estimated shortfall of 300,000 people by 2025. Attracting, training and retaining people is the second biggest challenge for the industry.

PERCEPTION

The public is gaining a negative perception of the Digital Infrastructure industry in some areas as its physical footprint grows. The need to earn a positive public perception in the communities in which we build is the industry's third biggest challenge.

PLANET

As iMasons members discussed the challenges of power, people and perception driven by the unprecedented demand for Digital Infrastructure, another key issue continued to loom: the planet. The industry will grow to meet demand. Without a deliberate focus on decarbonization in growth decisions the industry's carbon footprint will significantly increase, making net-zero commitments unachievable. iMasons view growth-at-all-costs as unacceptable and made protecting the planet a top priority.

Clean Energy Zones

Clean energy zones are master-planned towns or city-size areas developed around concentrated sources of clean energy to serve multiple industries, including multi-tenant data center complexes.

Conversations about the challenges around power, people, perception and the planet surfaced a new vision for the digital infrastructure industry: clean energy zones. These are master-planned towns or city-size areas developed around concentrated sources of clean energy to serve multiple industries, including multi-tenant data center complexes. The size of these zones and corresponding energy generation will vary by each market's current capacity and growth trends.

In some markets, such as Africa and Latin America, these zones could be less than 100 MW while others, such as the US, could exceed 10 GW. Complementary power-intensive industries such as battery and green hydrogen production could co-locate in these zones. Housing, schools, restaurants and retail in these zones would attract people with an opportunity to gain the skills necessary to work in and support the Digital Infrastructure and adjacent industries.

The zones could also support next generation building materials such as carbon storing concrete that need funding and local, concentrated demand to economically scale. Similar scaling would be possible for next generation clean energy technologies including sustainable storage, renewable fuels such as hydrotreated vegetable oil (HVO) to replace diesel, small modular reactors, hydrogen fuel cells, enhanced geothermal and fusion.

Clean energy zones could enable accelerated growth of Digital Infrastructure across the established markets of North America and Europe and allow the emerging markets of Africa, Latin America and India to scale faster as they leapfrog many of the challenges the industry faced in the last two decades. Successful development of these zones will require coordination between the Digital Infrastructure industry and governments, power and water utilities, community leaders, adjacent industries and anyone else who wants to see the digital economy grow in the digital age.

The following pages unpack these challenges and offer support for the vision of clean energy zones.

POWER

Without power, there is no digital economy.

Each data center location requires land, network connections and power to function. Without power, there is no digital economy. Data center performance is measured in uptime, or the percentage of time it is available to provide electronic services. The industry standard is five nines, or 99.999%, of availability. Uptime requires redundancy of power, which is why most data center locations contain backup power solutions such as uninterruptible power supply systems and on-site generators. Power is so central to data centers that they are measured in units of power capacity in megawatts (MW) and gigawatts (GW). This power capacity metric is also used to describe the size of data centers and the overall industry.

Today, access to power is constrained and threatens to stunt the advances of civil society that Digital Infrastructure enables. The industry's push for increased power capacity is global. Some markets lack power generation capacity; others lack power transmission and distribution capacity. Other complications include interconnection study delays, supply chain bottlenecks for transformers and generators, and substation construction slippage. These constraints are forcing a rethink of where to locate data centers.

> "We need to move the data center to the power instead of moving power to the data center."
>
> **— iMasons member**

The Digital Infrastructure industry prioritizes access to clean power sources. For the past decade, some of the world's most valuable companies were the world's largest buyers of clean power. For example, four of the world's leading technology companies accounted for 54.6 GW of cumulative purchases through February 15, 2023, according to Bloomberg New Energy Finance. Today, clean power options are scarce in the reliable, always-on capacities required to meet demand.

> "We need to recognize that there's a physical constraint on the rate of expansion for data centers that's tied to the rate of decarbonization of our energy system."
>
> **— iMasons member**

This constraint has spurred activity within the Digital Infrastructure industry to seed development of new clean power sources. On the table is everything from fusion and green hydrogen to enhanced geothermal and small modular reactors. These options will take years to decades to scale. A potential bridge between now and then is a greater reliance on traditional nuclear power plants, though challenges remain around siting and permitting, waste disposal and public acceptance.

Another near-term bridge is on-site generation with fuel cells using natural gas, which is already in use at data center locations around the world to augment grid power or gain independence from it. While natural gas emits less carbon than coal and can bridge the transition to clean baseload energy sources in the short to mid-term, the Digital Infrastructure industry must deliver additive carbon offset, capture and sequestration projects in parallel to pay down the carbon debt from its use.

To address the power challenge today, some Digital Infrastructure developers are scoping project sites with access to reliable power capacity that are adjacent to established data center hubs where access to fiber is also available.

Four of the world's leading technology companies account for **54.6 GW of renewable energy purchases.**

Other developers are moving to second and third tier market cities that have available power capacity and local demand for low-latency digital services. Regions further afield with abundant and established sources of clean power such as hydroelectric and geothermal are also getting a second look for development of data center campuses. Mid to long-term solutions may rest in master-planned clean energy zones.

PEOPLE

There will be an estimated 300,000 unfilled jobs throughout the Digital Infrastructure industry in 2025.

There will be an estimated 300,000 unfilled jobs throughout the Digital Infrastructure industry in 2025. Attracting, training and retaining people to work in the industry is a struggle around the world. People are needed to build data centers and rack servers, design and configure networks, install backup power supplies and cooling systems, connect electric power systems, maintain and operate equipment, secure facilities and troubleshoot technical issues.

The industry needs general contractors and construction workers. It needs architects, mechanical engineers, electrical engineers and network engineers. It needs facilities technicians, HVAC technicians and electricians. It also needs people experienced in finance, sales, marketing and communications as well as people to manage supply chain logistics, sustainability programs and human resources. The Digital Infrastructure needs people as much as people need Digital Infrastructure.

Jobs in the Digital Infrastructure industry are plentiful, fun and well compensated ... and the best kept secret in the world. The industry's secrecy is part of the problem. While people with the skills or potential to work in Digital Infrastructure are out there, their knowledge of the industry is lacking. As a result, today Digital Infrastructure companies poach talent from each other, with bigger and more resourced firms luring away talented workers from smaller companies within the industry.

One solution is to find, hire and train people from outside of the industry. Indeed, many leaders in the Digital Infrastructure industry today built and operated other types of major infrastructure earlier in their careers, from airports and hospitals to hotels and stadiums. Some Digital Infrastructure companies have found success hiring mechanical and electrical engineers from oil refineries and the shipping industry.

Others champion military veterans and transitioning armed forces personnel as an underutilized talent resource. Many veterans bring leadership skills along with expertise in mechanical and electrical engineering. They have experience operating and maintaining complex machinery and systems from aircraft carriers and nuclear submarines to mobile operations command centers. To bring them on, the industry needs to make them aware of the opportunities and invest in their training.

70% of people in the industry are 45 years old or older

40% of the current workforce is expected to retire within the next 15 years

Another concern is that the current workforce is graying out. Surveys indicate that 70% of people employed in the industry are 45 years old or older. Estimates from Uptime Institute show 40% of the current workforce is expected to retire within the next 15 years. We need solutions to fill the pipeline now to address the current and future gaps in people resources. One method is to turn an industry challenge into a solution. Women represent half of the world's population. Today, the Digital Infrastructure industry employs less than 10% females. We could fulfill the industry people resource shortfall by tapping into this talent pool. The IM Women member resource group, made up by many of the most senior female leaders in the Digital Infrastructure industry, is tackling this directly by providing methods to attract, retain and grow female talent.

Other surveys show that 45% of people in the industry have more than 20 years of experience in the industry.

> "When they age out, we're going to lose their knowledge. We need to capture it and retain it."
>
> **— iMasons member**

That's a problem that coalitions of industry partners and iMasons are attempting to crack. For example, programs such as the iMasons Capstone Project pairs senior year students at select colleges and universities to work on a Digital Infrastructure project with industry mentors. Other initiatives throughout the industry are focused on curriculums that teach school-age children about the connection between digital services and Digital Infrastructure as a first step to preparing them for careers in the industry. "The biggest thing we're doing is going out to schools and talking to kids. That's the magic," an iMasons member said.

Some of these students will graduate straight into Digital Infrastructure industry jobs, others will pursue advanced degrees in mechanical, electrical or computer engineering with an eye toward the Digital Infrastructure industry.

Careers in Digital Infrastructure are also seen as a viable path for people interested in technology but who lack the skills or desire to program computers. In fact, while AI may pose a threat to many careers, the skilled trades needed to power AI are safe for years to come.

PERCEPTION

It is critical that we as an industry continue to focus on creating awareness of the good things that are happening, but also acknowledge the need to get better at sustainable deployments that help the local community.

When people stream a movie, do they know it came from a data center? When people send a group text, do they know the message was received by a cell tower, routed along a network of fiber optic cables through data centers, and then to other cell towers near their family and friends? When a storm knocks out the power grid, do people know backup generators at data centers maintain critical digital services that first responders rely on to keep communities safe and secure?

Many builders of the digital age say that people outside the Digital Infrastructure industry lack an understanding of Digital Infrastructure. This lack of understanding, industry insiders believe, causes pushback as its physical footprint expands in the communities it serves, challenging growth. While this may be true, it's also true that Digital Infrastructure developers are often aloof from the communities where they build. To overcome this challenge, the insiders and outsiders must work together to ensure that each data center is a welcome member of the community.

> "If the digital infrastructure industry wants to be perceived as a good neighbor, it must be a good neighbor."
>
> **— iMasons member**

Today, the words quiet, secretive and opaque describe the Digital Infrastructure industry. These traits allow the industry to acquire land, power and other resources needed to build and operate data centers without driving up costs and community resistance. Once the infrastructure is live, the industry prefers to remain out of the public eye. This is rooted in a desire to protect the privacy and security of the data contained inside data centers and routed along fiber optic cables. Yet this lack of transparency deepens mistrust. What's more, seeking privacy through secrecy is an illusion: online maps reveal the location of nearly every data center, fiber optic cable and other piece of Digital Infrastructure around the world.

Meanwhile, the industry's clandestine nature precludes the authentic community engagement required to hear and address concerns that it employs few people, raises prices for land, consumes an unfair share of power and water, disturbs the peace, disrupts the view and pollutes the air. The industry must demonstrate it hears these concerns with steps to address them. It must show up at community meetings, listen to civic, business and government leaders and work with them to find solutions to points of contention. It must do this wherever it establishes a presence, from Chicago to Cape Town and Mumbai to Montevideo. The industry must demonstrate its ability to engage, compromise and adapt to the unique communities it joins.

Education programs for school age children are emerging around the world that connect the dots between Digital Infrastructure and digital services. Other efforts shine a light on the benefits that Digital Infrastructure brings to communities. This includes tax revenue and a boost to direct and indirect employment without industrial wear and tear on roads or large consumption of local community services such as hospitals and schools. In addition, organizations are beginning to rethink data center design and construction to integrate buildings into the local ecosystem and help restore the landscape to its original biome. Still missing is a repeatable strategy to seamlessly integrate with every community the industry enters, from data center hubs with several gigawatts of power capacity to communities receiving their first 100-kW edge deployment. Every community will have data centers of various sizes and will be able to participate in and benefit from the digital economy The Digital Infrastructure industry must work with each community to determine how many data centers should be built and where and how they integrate with the community and landscape.

> "It is critical that we as an industry continue to focus on creating awareness of the good things that are happening but also acknowledge the need to get better at sustainable deployments that help the local community."
>
> **— iMasons member**

The Digital Infrastructure industry must work with each community to determine how many data centers should be built and where and how they integrate with the community and landscape.

PLANET

In today's world, rapid industrial growth and decarbonization are diametrically opposed. The planet cannot lose out to the demand for digital services and shareholder value.

The timeframe of Digital Infrastructure's growth coincides with commitments from the world's biggest companies to achieve net-zero carbon emissions. In today's world, rapid industrial growth and decarbonization are diametrically opposed. While companies remain committed to decarbonization, carbon reduction requirements are scarce in request for proposals sent to suppliers. The planet cannot lose out to the demand for digital services and shareholder value.

The purchasing decisions of the Digital Infrastructure industry shape decarbonization markets, policy and behaviors. The industry must stay focused on decarbonization as it races to meet demand. It must incentivize carbon avoidance projects, double down on cost efficient carbon sequestration and use holistic carbon accounting. This starts with budget tracking for carbon: Companies need to know their carbon debt, what increases are planned in that carbon debt and the actions to reduce that debt to zero as quickly as possible.

Reality drives the need for holistic carbon accounting. Clean power capacity is constrained by location and lacks cost-effective long duration storage to replace baseload. Production of carbon negative materials and equipment is immature and not funded to scale.
The pace of clean tech lags the demand for Digital Infrastructure.
As a result, carbon debt will increase at least in the short term.
The industry must track this accumulating debt and accelerate the decarbonization technologies that pay it down. This consistent carbon debt measurement will allow key decision makers to see the impact of their investments and justify solutions that simultaneously achieve economic, social and ecological goals.

Over the long term, the industry's focus on decarbonization could usher in an era of abundant clean power and carbon negative materials and equipment. Advances in digital services such as AI may lead to discoveries and innovations that open the door to this future. For example, AI was used to advance battery storage technology to address global power constraints helping solve base load challenges. In addition, rack densities needed to support generative AI workloads are driving a shift to rack level liquid cooling technologies, which are more energy efficient than operating current cooling systems.

Government regulations such as the European Green Deal are poised to shape the sustainable development and operation of Digital Infrastructure in Europe by requiring companies to report on metrics including carbon emissions, energy usage and waste heat utilization. These regulations could serve as a model for the industry to shape and follow in other regions around the world.

The current mix of regulations, and lack of them in markets such as the US, is a challenge for uniform sustainable development. Without rules, there's a risk companies will defer carbon reduction commitments if capacity constraints and/or voluntary compliance dents profits.

On the other hand, the industry can build on its track record of establishing sustainable frameworks and metrics, such as power usage effectiveness, or PUE, and technology advancements to increase work done per watt in data centers without a concurrent increase in power consumption to operate it.

In the absence of regulation, progress toward decarbonization requires the Digital Infrastructure industry to coalesce as a community and collaborate on solutions.

The iMasons Sustainability Committee, for example, leads workshops to address the decarbonization challenge, share best practices and spur innovation through publications, and engage industry experts in finding solutions for real-world impacts. Of particular interest for the Sustainability Committee are Scope 3 emissions, which are those that an organization indirectly causes through its value chain and can account for more than 80% of its carbon footprint. Currently, less than one quarter of Digital Infrastructure industry companies report Scope 3 emissions.

The iMasons Climate Accord, which launched in April of 2022, unites the Digital Infrastructure industry on decarbonization through measurement and reduction of carbon in materials, equipment and power. As the industry makes progress on this initiative, it can compound the impact of adjacent industry efforts such as construction. For example, several members of the accord released an open letter in 2023 calling for the use of less concrete where possible and to specify and deploy the lowest carbon concrete available while meeting structural, performance and cost criteria.

Concrete, steel and aluminum are responsible for 23% of global carbon emissions, while concrete alone makes up 11% of total global emissions.

A tripling of the Digital Infrastructure industry could mean a tripling of data centers that use these materials. The industry must implement low-carbon solutions or it will triple its carbon debt as it triples in size to meet capacity demand.

The iMasons Climate Accord has united over 250 companies, representing $6T dollars in market cap, on decarbonization of digital infrastructure through materials, equipment and power. 2024 is a critical moment to ensure we double down on the efforts to drive investment into solutions to track and reduce emissions. If we continue to lead with our wallets, we can achieve our net-zero carbon goals while our industry delivers on the unprecedented demand and growth.

Currently, less than 1/4 of Digital Infrastructure industry companies report Scope 3 emissions.

Concrete, steel and aluminum **are responsible for 23% of global carbon emissions, while concrete alone makes up 11% of total global emissions.**

03 Market Insights

iMasons represents the builders of the digital age and intentionally takes a wide aperture approach to its definition of Digital Infrastructure. The definition encompasses all elements that make up the infrastructure landscape of data centers including the information technology equipment that processes and stores data, the facilities that house that equipment and the networks that connect them all. Businesses that provide market research and intelligence on the Digital Infrastructure industry may take a narrower view to provide insights relevant to their clients' interests and needs.

DC Byte is a data center market intelligence firm that covers 1,546 companies responsible for nearly 7,000 data center campuses around the world. The firm shared data with iMasons to help prepare this report. DC Byte's coverage includes companies that build and operate hyperscale, colocation, enterprise and edge data centers. Each data center campus may include multiple, independent data centers. DC Byte does not track fixed and mobile network data centers, government data centers or blockchain data centers that are included in iMasons definition of Digital Infrastructure.

Additional insights and information gathered from iMasons members during meetings, interviews and informal conversations were synthesized and anonymized, except where noted, to complement DC Byte's data to create a snapshot on the state of the Digital Infrastructure industry at global and regional scales and across established and emerging markets.

GLOBAL

There were 34,223 MW of live data center capacity around the world at the end of the third quarter in 2023, according to DC Byte. An additional 10,082 MW were under construction, 25,500 MW committed for development and 25,775 MW in the early stages of development. Between 2020 and 2023, the average annual industry growth rate was 3,542 MW.

34,223 MW
LIVE CAPACITY

10,082 MW
UNDER CONSTRUCTION

25,500 MW
COMMITTED TO DEVELOPMENT

25,775 MW
EARLY STAGE DEVELOPMENT

If this pace continues, there will be 51,933 MW of live capacity in 2030 with an additional 74,184 MW in the pipeline. Based on recent market activity, including mega-scale campus deals, the firm suspects this forecast is conservative. Other industry observers forecast growth of three to five times current capacity over the next five to ten years.

The growth is fueled by the dominant hyperscale providers who continue to expand their footprint and scale in markets around the world. Many are making $10-billion-plus infrastructure investments to fuel their platform growth and in the promise of future revenue from generative AI. This trend started in the US, spread to Europe and is coming to the rest of the world. Data sovereignty requirements are also increasing around the world, prompting the industry to establish a presence in more countries to serve local governments as well as data-sensitive sectors such as financial services and healthcare.

> "I expect global growth to continue. The throttle, if you will, on that growth is going to be available utility capacity. That is causing many of our clients to look at alternative markets or regions."
>
> **— iMasons member**

AMERICAS

In the Americas, there are 16,635 MW of live capacity, 5,380 MW under construction, 9,194 MW committed for development and 10,072 MW in the early stages of development, according to DC Byte. Vacancy rates are at decade lows – 6% across the Americas, and 3% in the US.

16,635 MW
LIVE CAPACITY

5,380 MW
UNDER CONSTRUCTION

9,194 MW
COMMITTED TO DEVELOPMENT

10,072 MW
EARLY STAGE DEVELOPMENT

6%
VACANCY RATE

Northern Virginia is the largest market in North America, with 2.1 GW of supply, an increase of nearly 20% between 2022 and 2023, according to market data. Other fast-growing North American markets are Silicon Valley, Dallas/Fort Worth and Chicago. AI as well as strong interest from technology, finance and healthcare industries are driving the demand.

Hyperscalers have recently announced mega-campuses in the South and Midwest to support AI model training as well as continued cloud growth.

Power availability constraints in markets such as Northern Virginia and Silicon Valley are pushing some developers to look to neighboring regions, though the major hubs remain sticky due to the availability of fiber and a “mature market of people that understand the industry,” an iMasons member noted.

> Major hubs remain sticky due to the availability of fiber and a “mature market of people that understand the industry.”
>
> **— iMasons member**

In Latin America, live data center capacity is 799 MW. The biggest markets are in Brazil and Mexico, with Chile and Colombia also attracting an increasing share of development.

Across Latin America, an additional 445 MW are under construction, 297 MW committed for development and 798 MW in the early stages of development.

Please see the Latin America Market Spotlight for more information.

ASIA PACIFIC

Asia Pacific has 8,946 MW of live capacity, 2,578 MW under construction, 9,114 MW committed for development and 9,644 MW in the early stages of development, according to DC Byte. Vacancy is 10%.

8,946 MW
LIVE CAPACITY

2,578 MW
UNDER CONSTRUCTION

9,114 MW
COMMITTED TO DEVELOPMENT

9,644 MW
EARLY STAGE DEVELOPMENT

10%
VACANCY RATE

Inventory is growing rapidly across the region, with Tokyo, Sydney and Singapore each with more than 500 MW of live capacity, according to market data. Demand is across verticals as businesses and governments continue to undergo digital transformation.

Singapore has less than 2% vacancy, as the region has a limited power supply and high sustainability requirements.

This has pushed the industry to neighboring markets, including Johor in Malaysia and Batam Island in Indonesia.

Robust demand is expected across the region for the foreseeable future, which will spur continued development among colocation providers for cloud service providers and enterprises.

In China, there are 448 data centers across the country, according to Statista, a data and market research firm. Beijing is the second biggest market in the world with 1,799 MW of capacity. Shanghai is the seventh largest market with 725 MW.

The data center market in China wobbled during COVID-19 but it is growing again.

> "The fundamentals of the market that are common to the rest of the world are exactly the same in China. China is very, very good at adapting quickly and then accelerating fast."
>
> **— iMasons member**

Live capacity in India is 687 MW. The real story is in the pipeline. There are 555 MW under construction, 1,603 MW committed for development and 3,177 MW in the early stages of development. Please see the India Market Spotlight for more information.

EUROPE, MIDDLE EAST AND AFRICA

Europe, the Middle East and Africa have 8,641 MW of live capacity, 2,124 MW under construction, 7,193 MW committed for development and 6,059 MW in the early stages of development, according to DC Byte. Vacancy is 6%.

8,641 MW
LIVE CAPACITY

2,124MW
UNDER CONSTRUCTION

7,193 MW
COMMITTED TO DEVELOPMENT

6,059 MW
EARLY STAGE DEVELOPMENT

6%
VACANCY RATE

In Europe, growth is spreading from the established markets of Frankfurt, London, Amsterdam and Paris to tier two and three cities. Data sovereignty requirements along with land and power constraints in the established markets are driving the trend.

The search for clean power is driving development in the Nordic countries, though the industry must compete for powered land with other power-intensive industries such as green hydrogen and battery production.

In the Middle East, government tenders and incentives to enable digital transformation and the shift to cloud services are driving robust growth. Several hyperscalers are deploying in the region, which benefits from subsea cable connectivity to Europe, Asia and Africa. The Middle East market is concentrated in United Arab Emirates, Saudi Arabia and Israel, with 1,467 MW of capacity compared to 228 MW in the rest of the region.

Africa has 254 MW of live data center capacity across the continent, concentrated in South Africa, Nigeria and Kenya. An additional 186 MW are under construction, 296 MW committed for development and 240 MW in the early stages of development. Please see the Africa Market Spotlight for more information.

> “Africa has 1.4 billion people with a median age of 18.8. The young will drive rapid growth.”
>
> **— iMasons member**

04 Market Spotlights

LATIN AMERICA

AFRICA

INDIA

Africa, Latin America and India are home to 3.5 billion people, or 44% of the world's population. The median age is 28.2. Today, these regions account for just 5% of the global live data center capacity, according to DC Byte, but they represent the largest need.

The youth in these markets are the future consumers of digital services yet these markets have the smallest data center capacity in the world.

To address this disparity, projects under construction, committed to be built or in the early stages of development, are on pace to quintuple capacity over the next five to ten years.

Digital Infrastructure growth in Africa, Latin America and India is fueled by demand to participate in the digital economy. Research shows that 10% of broadband penetration adds about 2% to the GDP. Greater broadband penetration in turn drives demand for data centers. Every $10 million invested in new data center builds generates $100 million to $200 million in economic activity. Growth in Digital Infrastructure and the digital economy in Africa, Latin America and India requires the coordination of governments and utilities with project developers. The following pages provide a zoomed in view on each of these three key growth markets.

AFRICA

1.4 BILLION
POPULATION

18.8
MEDIAN AGE

254 MW
LIVE CAPACITY

Africa is home to 1.4 billion people, 54 countries and at least 75 languages with more than 1 million active speakers. The continent is culturally and geographically diverse, rapidly urbanizing and bursting with a young population eager to participate in the digital economy. To begin to meet this demand, there are 254 MW of live data center capacity across the continent, concentrated in South Africa, Nigeria and Kenya, according to DC Byte. An additional 186 MW are under construction, 296 MW committed for development and 240 MW in the early stages of development. This picture may prove conservative. Hyperscaler and investor interest in Africa is growing. New subsea cables are nearing completion that will provide increased connectivity between the east and west coasts of Africa, and to Europe, the Middle East and Asia. Terrestrial fiber networks are minimal but beginning to penetrate the inland countries of Africa from the north to south and east to west.

The Digital Infrastructure industry's ability to accelerate growth of the digital economy in Africa hinges on government support to attract hyperscale investment. This includes tax incentives, policies that spur enterprises to move data to the cloud and commitments from governments to serve as anchor clients. Hyperscale developers prefer a single government point of contact to guide the development process including acquisition of land, building permits and access to power, as well as to ensure compliance with anti-bribery, security and sustainability requirements. Markets that provide this type of government support along with political and economic stability will attract investment in Digital Infrastructure and a piece of the digital economy. Today, the primary markets for Digital Infrastructure development in Africa are in South Africa, which first attracted hyperscale investment in 2019 and saw its capacity outlook shoot up from 30 MW to more than 250 MW.

Today, a half dozen hyperscale providers are in South Africa, primarily through lease agreements with colocation providers. A similar narrative is beginning to play out in Nigeria, which is within reach of more than 500 million people in West Africa, and in Kenya, which offers the political, currency and power stability needed for a data center hub in East Africa.

The main challenge and opportunity for Digital Infrastructure development in Africa revolves around access to power, though the specifics are different in each market. In South Africa, the power grid is robust but a shortage of power generation capacity leads to regular load shedding that requires data centers to run on backup generators for several hours each day. In Nigeria, power generation is robust but the grid is weak, leading to frequent outages. As a workaround, data center operators rely on backup generators, produce power on site with natural gas and establish direct connections to high voltage transmission lines.

In Kenya, a stable power grid supplied by more than 90% clean energy sources is a key attraction for digital infrastructure investment.

Development of Kenya's geothermal resources could serve the power-dense infrastructure needed to train next-generation AI systems.

The global skills shortage throughout the global Digital Infrastructure industry is acute in Africa. People trained in Africa often depart for industry jobs in the US, Europe and Asia or get scooped up by international companies when they enter an African market. To counter these trends, industry participants must collaborate to support programs that educate today's youth about Digital Infrastructure and prepare them for jobs in the industry. The talent pipeline must produce an oversupply, knowing many people will go abroad to gain additional experience. Indeed, several of the industry's leaders in Africa today have recently returned from careers abroad to grow the Digital Infrastructure industry in their native countries and enable access to the digital economy for all.

In Kenya, a stable power grid supplied by **more than 90% clean energy sources** is a key attraction for Digital Infrastructure investment.

LATIN AMERICA

665 MILLION
POPULATION

31
MEDIAN AGE

798 MW
LIVE CAPACITY

Latin America, which includes South America, Central America, Mexico and the Caribbean, is home to 665 million people with a median age of 31 spread across 33 countries. The Digital Infrastructure industry gained a foothold in the region nearly two decades ago and today there are 799 MW of live data center capacity, according to DC Byte. The biggest markets are in Brazil and Mexico, with Chile and Colombia are also attracting an increasing share of development.

Across Latin America, an additional 445 MW are under construction, 297 MW committed for development and 798 MW in the early stages of development. Long-term forecasts for continued and accelerated growth are optimistic based on rising GDP in several countries, a young population and growing demand for digital services from the industrial and financial sectors. Political and economic instability in some countries cloud this optimism and today limit hyperscale activity.

São Paulo, Brazil, has the highest concentration of data center capacity in Latin America. Several colocation data centers serve enterprise customers, including multinational companies with regional offices in the city and the financial sector, which includes the Brazilian stock exchange, B3. Existing and planned wholesale colocation facilities on the outskirts of São Paulo are intended to attract hyperscale clients. More than 80% of Brazil's grid power is from clean energy sources, including hydro, wind and solar.

A similar pattern is found in Mexico, with colocation facilities first serving enterprise customers in Mexico City from nearby Querétaro, which is the country's data center hub. Today, hyperscale activity, primarily large cloud providers, is increasing in Querétaro, though access to power is a challenge and competitive. Recently completed facilities face a one to three year wait for grid connections. To work around the power challenge, developers are looking elsewhere for land within latency constraints of Mexico City and with available power capacity.

Abundant wind, solar and hydroelectric power sources have put Chile on a path to achieve a 70% clean energy grid by 2030, which could attract interest from hyperscale developers in search of clean power for AI workloads. Wholesale colocation providers are preparing for this possibility with future-proof data center designs to support the high rack densities and cooling requirements of AI. Any location with available clean power in Latin America could capitalize on the trend toward clean energy zones.

Today, the availability of power, fiber and land within latency constraints of population centers dictates Digital Infrastructure development in Latin America. Santiago, Chile, is a growing data center hub with access to subsea cables that connect the region to North America and will offer connectivity to Asia-Pacific. Similarly, Bogotá, Columbia's tax favorable free trade zones are beginning to attract more Digital Infrastructure development with connectivity to other markets in Latin America and North America.

Attracting and training people to work in the Digital Infrastructure industry is a challenge in Latin America as it is around the world. As a short-term solution, developers look to hire talent from adjacent industries such as telecommunications and put them through intensive training programs.

Longer term, data center providers are establishing partnerships with technical schools and universities to train the next generation of electrical and mechanical engineers. Governments and developers prefer local talent to work in the industry, rather than talent from abroad.

Optimism for the Digital Infrastructure industry's continued growth in Latin America has prompted developers to stockpile components currently caught in supply chain bottlenecks including generators and chillers. They note that the Digital Infrastructure industry is on a non-stop train in Latin America, where it goes will depend on the availability of resources.

More than 80%
of Brazil's grid power is from clean energy sources, including hydro, wind and solar.

INDIA

1.4 BILLION
POPULATION

28.2
MEDIAN AGE

687 MW
LIVE CAPACITY

India is home to 1.4 billion people with a median age of 28.2 and considered the next big market for the Digital Infrastructure industry. Live capacity is 687 MW, according to DC Byte. The real story is in the pipeline. There are 555 MW under construction, 1,603 MW committed for development and 3,177 MW in the early stages of development.

An active dialogue among market observers is whether total live capacity in 2030 will be 3 GW or 10 GW. Power availability and reliability along with perceived versus real market demand will drive the trajectory. Either way, government support, a revving economy and digitally savvy youth are expected to fuel digital infrastructure industry growth for years to come.

Access to subsea cables, land and government support made Mumbai, on the west coast, India's earliest data center market. Development started in the city center to serve the financial sector then moved east across the bay to serve Navi Mumbai, an industrial hub. Chennai, with subsea cable access on the east coast, and centrally located Hyderabad are the second and third biggest markets in India. Hyperscale interest in Hyderabad could make it the largest submarket in India.

Future growth may also occur in new clean energy zones near these hubs and other locations that could support data center campuses with 10 GW or more of available capacity. These zones could support cloud workloads as well as next-generation AI model training. Hyperscalers champion the approach to overcome challenges around power stability, water availability and network connectivity. Realization of the clean energy zone concept in India requires government support as well as close partnerships between industrial developers and utilities.

Today's power grid in India is unstable. Government and business support to improve grid reliability varies across states. Some data center operators run generators around the clock. Others accept frequent outages. Nationally, India is on track to at least quadruple power capacity in the next 10 years.

The power will serve multiple uses including the country's aggressive investment in electric cars. Data center developers recognize the need to collaborate with energy sector developers to ensure access to this new power capacity. This has led to joint ventures between data center developers and firms with energy infrastructure expertise. These ventures are focused on hyperscale clients, who must meet service level agreements of 99.999% uptime and net-zero carbon goals.

The pipeline of projects in various stages of development across India indicate optimism in the demand for digital services. Whether the demand will materialize remains an open question among hyperscalers. Domestic internet access is predominantly mobile, rather than broadband.

Is that a concern? Less than 3% of people pay taxes in India. Is that the actual user base? Small businesses remain frugal with their digital spend. A handful of enterprise companies represent more than 90% of market capitalization. If they commit to the cloud, the opportunity is huge. Sites with abundant renewable energy are also seen as potential AI centers. With government support for their development, capacity could reach the high end of the 2030 forecast range.

Today, India has 17% of the world population and 1.5% of global data center capacity. To have a fair share of the digital economy, data center capacity needs to grow by 10 to 15 times. Grow it will. If it can grow in lockstep with local communities and use low-carbon power, equipment and materials, it can leapfrog many of the challenges the Digital Infrastructure industry faces in established markets around the world.

Nationally, India is on track to at least quadruple power capacity in the next 10 years.

05 Conclusion

This is the first iMasons State of the Industry Report. Going forward, the association intends to release a report annually to provide insight into trends and challenges across the Digital Infrastructure industry. Collectively, these reports will document how these trends and challenges change over time and iMasons' progress in addressing them through the four strategic pillars of education, inclusion, innovation and sustainability.

Today, these challenges center on power, people, perception and the planet as the industry races to meet accelerating demand for digital services around the world. Digital Infrastructure is the equalizer that allows anyone, anywhere to participate in the digital economy. Every person in the world deserves access to the internet. Growth in Digital Infrastructure is inevitable. To address today's challenges and achieve the forecast doubling and potentially tripling in growth over the next decade will require educating the public about the Digital Infrastructure industry, engagement and collaboration with local communities where capacity is being built; recruiting an inclusive workforce of people to participate in the industry; innovating solutions that improve access to clean power; and championing sustainability throughout the industry to protect the planet.

As the Digital Infrastructure industry continues to grow, data centers will become a fixture in communities around the world to enhance communications and deliver low latency electronic services to people and machines. The expansion of this data center footprint requires the industry to be a good neighbor in every community it serves. It must engage with local government and civic industry groups, listen to their concerns, and learn to compromise, adapt and change. "If the digital infrastructure industry wants to be perceived as a good neighbor, it must be a good neighbor," an iMasons member said.

In addition, the Digital Infrastructure industry must take a new approach to the development of data center campuses. One potential approach that emerged through conversations with iMasons members around the world is for clean energy zones: master-planned towns or city-size areas developed around concentrated sources of clean energy to serve multiple industries, including multi-tenant data center complexes. These zones can leverage economies of scale to advance decarbonization across materials, equipment and power. Execution of this concept requires partnerships between the Digital Infrastructure industry's biggest companies, governments, power and water utilities, private equity, adjacent industries and communities that form and grow there. This is a vision that emerged from collaboration among Digital Infrastructure industry professionals and one that continued collaboration can achieve.

> To be perceived as a good neighbor, the Digital Infrastructure industry must be a good neighbor.

Contributors

The challenges and solutions to sustainable growth of the Digital Infrastructure industry outlined in this report were identified through formal and informal conversations with iMasons members around the world. A warm, heartfelt thanks to all of the contributors to the 2024 report. You represent the best of our community, and we sincerely appreciate you and all that you do.

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iMasons Global Partners

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iMasons Alliance Partners

We would also like to thank our strategic alliance partners and SOI Report contribution partners for their collaboration and support in progressing our common goals in education, inclusion, innovation and sustainability.

About Infrastructure Masons

Infrastructure Masons (iMasons) is a global, nonprofit, professional association of individuals connected and empowered to build a greater digital future for all.

Since its launch in 2016, the organization has brought together 6,000 individuals across 130 countries, a community representing USD 150+ billion in infrastructure projects. iMasons provides an agnostic platform for members to connect, grow, and give back across four strategic pillars: Education, Inclusion, Innovation, and Sustainability.

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