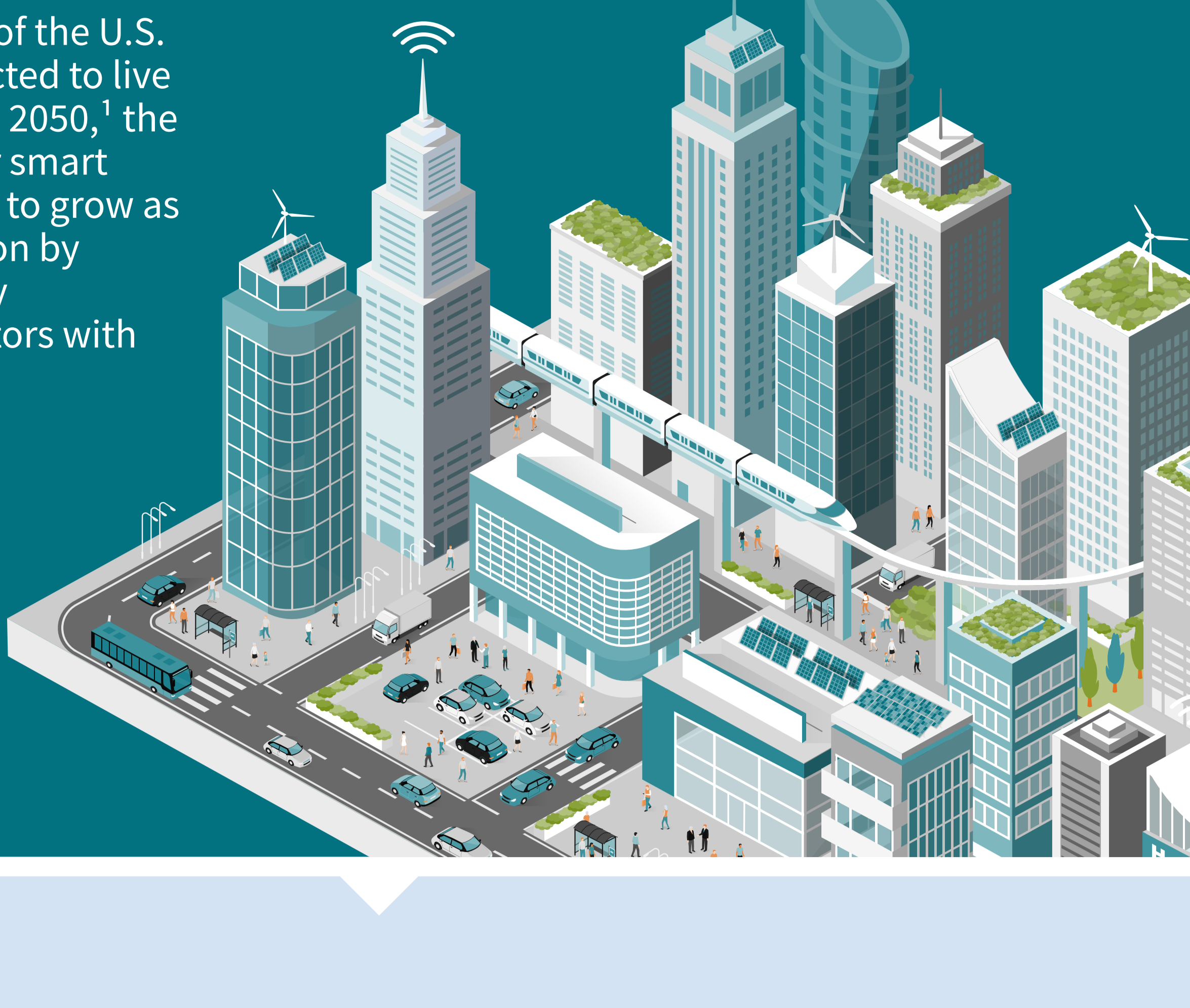


Smart cities may deliver an optimized urban future and investment returns

With nearly 90% of the U.S. population expected to live in urban areas by 2050,¹ the global market for smart cities is expected to grow as high as \$3.7 trillion by 2030,² potentially presenting investors with opportunities.

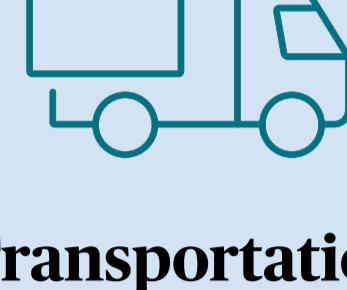


Smart tech is advancing, creating opportunities for investors

Propelled by technological advancements, the smart city revolution offers promising ROI prospects for investors in areas that develop, manufacture, or deploy technologies crucial for:



Connectivity



Transportation

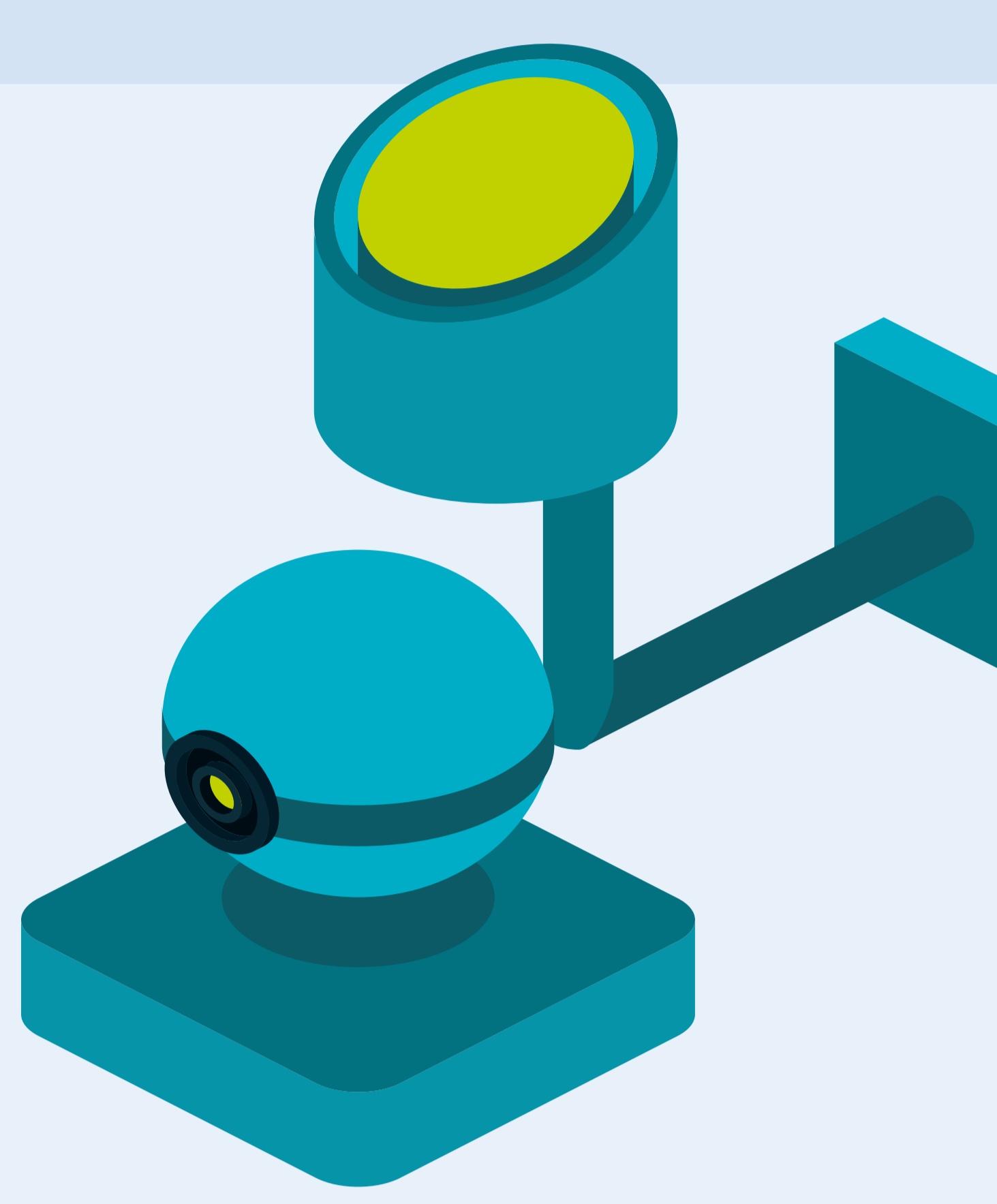


Energy Efficiency

The potential growth of the sector does not guarantee future results.

Sensors

Sensors can act as a smart city's eyes and ears, capturing data on air quality, humidity, ambient light, noise levels, and more, giving decision-makers the information they need. Sensors from companies like Bosch, Airly, and Omron can gather data on pollutants or measure decibel levels. Sensors require semiconductor chips, such as those from Honeywell International, Inc., Intel, and Nvidia.



5G

5G connectivity enables real-time data exchange and is another key technology within smart city infrastructure. Between the passing of the Secure 5G and Beyond Act of 2020³ and the 5G infrastructure market's anticipated CAGR of 62% between 2023 and 2028,⁴ investors are optimistic. U.S.-based companies like Qualcomm, Verizon, and T-Mobile offer 5G connectivity solutions.

AI software & data processing

Not only can AI software and data processing tools quickly collect and aggregate data from sensors across a city, but they are also more accurate than manual data extraction and organization methods. AI analysis capabilities have improved rapidly, boosting investor opportunities. Tableau and Microsoft's Power BI are two examples of companies developing advanced analytics and data visualization platforms.



IoT and cloud/edge computing

IoT and cloud/edge computing enable efficient data processing and system coordination, which allows smart cities to store and communicate data. With the IoT global market size expected to surpass \$3,352.97 billion by 2030⁵ and the cloud/edge computing industry also anticipated to grow,⁶ investors stand to benefit. Cisco and Intel offer a variety of IoT solutions and processors relevant to smart cities.

Cybersecurity

Cybersecurity is increasingly important in all industries, but it is particularly vital for smart cities, as data theft, system or network failure, and intellectual property loss can cause disruptions and physical harm. Palo Alto Networks' and IBM's cloud security services and firewalls could help protect IoT devices.



The smart city in action

The U.S. is facing an infrastructure crisis. Transportation, energy, and water systems are often unable to meet modern demands, which is why U.S. city governments plan on investing roughly \$41 trillion into everything from smart grids to intelligent traffic management.⁷ Electric and autonomous vehicles are also on the rise, with companies investing billions⁸ into further research and development.⁹



A smarter future for cities

Regulations and public opinion could hold back progress in smart cities. Just as rideshare services and self-driving cars have faced opposition in some areas of the U.S., smart city implementations may encounter resistance.

But "smart cities" aren't just about one big change — they are about the future of urban problem-solving and innovation. As investments spur the development and implementation of technologies like IoT devices, sensors, 5G, smart grids, renewable energy sources, and electric and autonomous vehicles, the future for smart cities looks bright.

Sources:

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- (3) Congress (n.d.): S.893 - Secure 5G and Beyond Act of 2020
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- (6) Statista (6/7/2023): Cloud computing - statistics & facts
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- (8) Reuters (4/19/2023): Jaguar Land Rover boosts investment to catch up in EV race
- (9) Ford (2021): Ford Electric Vehicles

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Risk Warning
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