TRANSWESTERN

REAL ESTATE SERVICES

# Life Science & AI In Commercial Real Estate

The integration of AI in business is likely to bring significant changes to traditional office metrics, including the amount of space used, how the space is utilized, and where it is located. Here are some ways AI might influence these aspects

TRANSWESTERN
REAL ESTATE SERVICES

# GUEST SPEAKER
# Peter Conte of Transwestern

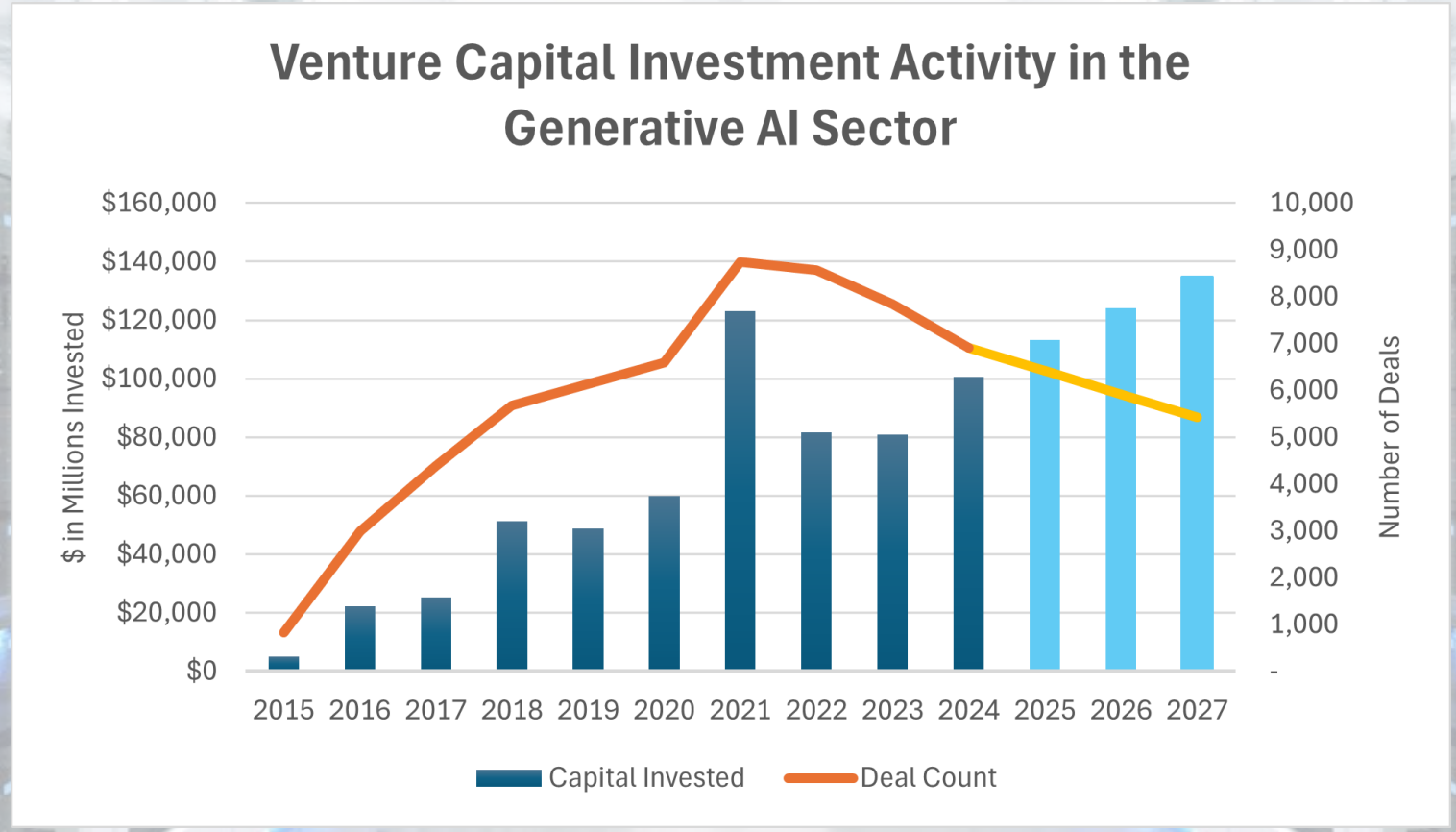


Bringing a unique skill set and broad experience to his role as head of Transwestern's Laboratory + Life Sciences advisory group, Peter leads a national team that assists clients in every stage of the real estate process. With expertise spanning leasing, acquisition, and disposition; portfolio analysis and optimization; and consulting services such as site selection, workforce demographics, and space configuration, the group excels in assisting early-, mid-, and late-stage-funded start-ups, as well as time-honored companies, manage growth through strategic cost analysis and innovative property solutions.

TRANSWESTERN
REAL ESTATE SERVICES

# FUTURE TRENDS





TRANSWESTERN
REAL ESTATE SERVICES

# AMOUNT OF SPACE USED

1. **Remote Work and Flexibility:**
   - AI tools enable more remote work and flexible working arrangements. With AI-driven project management, communication, and collaboration tools, fewer employees may need to be physically present in the office.
   - This could lead to a reduction in the overall office space required as businesses adopt hybrid work models, with employees splitting time between home and office.
2. **Efficiency and Optimization:**
   - AI can optimize space usage by analyzing data on how office space is used. This can lead to more efficient layouts and reduced wastage of space.
   - AI-driven systems can adjust heating, cooling, and lighting in real-time based on occupancy, contributing to energy efficiency and potentially reducing the need for larger spaces.

TRANSWESTERN
REAL ESTATE SERVICES

# HOW SPACE IS USED

1. **Smart Offices:**
   - AI can transform offices into smart environments where various elements like lighting, climate control, and security are automated and optimized.
   - AI can facilitate dynamic workspace allocation, where desks and meeting rooms are assigned based on real-time demand rather than fixed assignments, leading to more flexible and efficient use of space.
2. **Collaboration and Innovation Spaces:**
   - With AI taking over routine tasks, there might be a shift towards creating more spaces designed for collaboration and innovation. These could include huddle rooms, brainstorming areas, and tech-enabled meeting rooms.
   - The design of office spaces might evolve to support activities that require human interaction, creativity, and strategic thinking, rather than routine tasks that can be automated.

TRANSWESTERN

REAL ESTATE SERVICES

# LOCATION OF OFFICES

1. **Decentralization:**
   - AI and digital collaboration tools enable effective remote work, potentially reducing the need for centralized office locations.
   - Businesses may opt for multiple smaller offices or coworking spaces in various locations rather than a single large headquarters, allowing them to be closer to employees and clients.
2. **Smart Cities and Urban Planning:**
   - The integration of AI in urban planning and smart city initiatives might influence where businesses choose to locate their offices. Proximity to AI-enabled infrastructure and smart services could become a significant factor.
   - Companies might also consider locations based on access to AI talent pools and innovation hubs.

TRANSWESTERN
REAL ESTATE SERVICES

# ADDITIONAL CONSIDERATIONS



**Health and Safety:**

- AI can monitor and manage health and safety within office spaces, from ensuring social distancing to tracking air quality. This could influence the design and layout of offices to prioritize employee well-being.
- AI-driven health checks and contact tracing can help create safer office environments, encouraging a return to physical offices with enhanced health protocols.

**Sustainability:**

- AI can contribute to more sustainable office spaces by optimizing energy use, reducing waste, and managing resources more efficiently.
- Companies might invest in AI-driven sustainability initiatives, leading to the development of green buildings and eco-friendly office spaces.
- Overall, AI is set to transform the traditional office landscape, making it more flexible, efficient, and responsive to the needs of modern businesses and employees.

**Overall, AI is set to transform the traditional office landscape, making it more flexible, efficient, and responsive to the needs of modern businesses and employees.**

TRANSWESTERN
REAL ESTATE SERVICES

# RESEARCH & DEVELOPMENT (R&D) SPACES

1. **Automated Laboratories:**
   - Robotic Systems: AI-driven robotic systems can handle repetitive tasks such as pipetting, sample preparation, and data collection, reducing the need for extensive bench space.
   - AI-Powered Instruments: Advanced AI-powered instruments can conduct multiple experiments simultaneously, optimizing space by consolidating equipment into multifunctional units.
2. **Data Analysis and Computational Biology:**
   - Dedicated AI Workspaces: Spaces may be reconfigured to house high-performance computing (HPC) clusters and AI servers, centralizing computational resources.
   - Collaboration Zones: As data scientists and biologists increasingly work together, collaborative spaces equipped with advanced visualization tools and interactive displays will become more common.

TRANSWESTERN
REAL ESTATE SERVICES

# MANUFACTURING & PRODUCTION AREAS

1. **Smart Manufacturing Facilities:**
   - **Predictive Maintenance**: AI can predict equipment failures, allowing for smaller, more efficient production spaces by reducing downtime and optimizing equipment layout.
   - **Automated Quality Control**: AI systems can conduct real-time quality control, reducing the space needed for separate quality assurance labs.
2. **Flexible Production Lines:**
   - **Modular Spaces**: AI can support the rapid reconfiguration of production lines to accommodate different products, leading to the use of modular, flexible manufacturing spaces.
   - **Supply Chain Optimization**: AI can optimize inventory management, reducing the need for large storage areas by ensuring just-in-time delivery of materials.

TRANSWESTERN
REAL ESTATE SERVICES

# OFFICE AND ADMINISTRATIVE AREAS

1. **Hybrid Work Environments:**
   - **Remote Work Enablement**: AI tools for project management, communication, and data sharing will support more remote work, leading to smaller central offices.
   - **Hot Desking**: With AI tracking space usage, hot desking can be implemented more effectively, optimizing office space by ensuring desks are used only when needed.
2. **Enhanced Collaboration Spaces:**
   - **Innovation Hubs**: Offices may feature more spaces designed for brainstorming and collaboration, equipped with AI-powered tools for real-time data analysis and visualization.
   - **Virtual Collaboration**: AI-powered virtual reality (VR) and augmented reality (AR) tools can create immersive collaboration experiences, reducing the need for large physical meeting rooms.

TRANSWESTERN
REAL ESTATE SERVICES

# REGULATORY AND COMPLIANCE AREAS



1. **AI-Driven Compliance Monitoring:**
   - **Automated Documentation**: AI can handle much of the compliance documentation, reducing the need for large archive rooms by digitizing records.
   - **Regulatory Reporting**: AI systems can streamline regulatory reporting processes, minimizing space dedicated to compliance departments.

TRANSWESTERN
REAL ESTATE SERVICES

# CLINICAL TRIAL SPACES

1. **Virtual and Decentralized Trials:**
   - **Remote Monitoring**: AI can enable remote monitoring of clinical trial participants, reducing the need for large clinical trial facilities.
   - **Data Collection and Analysis**: AI systems can automate data collection and analysis, allowing for more streamlined and compact trial management spaces.
2. **Patient Interaction Areas:**
   - **Telemedicine**: AI-driven telemedicine can reduce the need for large patient interaction areas by facilitating virtual consultations and follow-ups.
   - **Wearable Technology**: AI can analyze data from wearable technology, allowing for more decentralized and smaller-scale patient monitoring spaces.

TRANSWESTERN
REAL ESTATE SERVICES

# FUTURE TRENDS

1. **AI-Enhanced Sustainability:**
   - **Energy Efficiency:** AI can optimize energy usage in labs and offices, supporting sustainable practices and reducing the need for large HVAC systems and related infrastructure.
   - **Smart Building Management:** AI-driven building management systems can optimize space usage based on real-time data, ensuring efficient use of all areas.
2. **Personalized Workspaces:**
   - **Adaptable Environments:** AI can create adaptable work environments tailored to individual preferences and tasks, leading to more dynamic and multifunctional spaces.

TRANSWESTERN

REAL ESTATE SERVICES

# SUMMARY

**AI is poised to transform space utilization in the pharmaceutical and life sciences industries by enabling more efficient, flexible, and collaborative environments. This will likely lead to smaller, smarter, and more sustainable spaces that support the industry's evolving needs.**

# THANK YOU

It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout.