## **Savills Hackathon 2025 – Commercial Real Estate Market Analysis**

In this analysis, we examined trends and microtrends across U.S. commercial real estate markets to inform Savills' client strategies on where, when, whether, and how to lease office space. Using leasing activity data combined with economic indicators like unemployment rates and rent prices, our goal was to provide actionable insights on market timing, momentum, and sector-specific behavior.

We developed the **Market Activity Index (MAI)** as a key measure of leasing momentum within each market. This index is defined as the proportion of new leased square footage relative to total leased square footage, adjusted by one minus the availability proportion. A higher MAI indicates more active leasing environments with lower availability, signaling stronger demand. Alongside MAI, we introduced a **market saturation metric**, calculated as the share of renewals or existing tenant leases relative to the total number of leases. This provides insight into tenant retention and market stability, helping distinguish growth-driven markets from those where leasing activity is primarily renewals.

The analysis was extended to sector-specific dynamics, particularly for industries such as Technology, Advertising, Media, and Information (TAMI) and Legal Services. By computing MAI and saturation separately for these sectors, we were able to highlight nuanced patterns that may not be visible at the broader market level. For instance, some markets showed high saturation but low new leasing activity in certain sectors, reflecting stability without significant expansion.

To advise on timing, we applied ARIMA time-series forecasting models to examine the relationship between unemployment trends, rent prices, and availability. Economic theory suggests that declining unemployment signals business growth and, in turn, increased demand for office space—a pro-cyclical pattern. Our forecasts indicate that rent prices are likely to rise through early 2025 as unemployment continues to fall, making the present an optimal window to secure leases before rates escalate.

Notably, some markets diverge from national patterns. **Houston** emerged as a strong growth market with steady rent increases, supporting immediate leasing action to capture current rates before further growth. In contrast, **San Francisco** continues to exhibit soft demand and falling rents, driven by tech sector contraction and remote work trends. Here, delaying leasing decisions or negotiating flexible terms is advisable.

Finally, we examined the relationship between leased square footage growth and physical occupancy rates, providing an additional layer of insight into true demand beyond headline leasing activity. This multi-angle approach supports informed, data-driven leasing decisions tailored to both market conditions and sector-specific contexts.