



The Intelligent Enterprise

The Future of Real Estate

JULY 2023



Overview

Technology has been reshaping the Real Estate industry landscape. Advancements in manufacturing technologies, digital tools, AI & analytics, and IoT – coupled with customer and employee expectations – are revolutionising how properties are built, bought, sold, managed, and experienced.

The evolution of RealTech and PropTech has far-reaching impact on the industry, streamlining processes, improving customer experiences, and driving innovation across the entire sector.



Technology Impacts the Entire Real Estate Value Chain



CONSTRUCTION & DEVELOPMENT

Design & Architecture
Site Evaluation
Safety & Surveillance
Asset Management/
Maintenance
Supply Chain
Management
Project & Cost
Management
ERP



PROPERTY TRANSACTIONS

Listing & Search
Marketplaces
Tech-enabled
Brokerage
CRM
Virtual Viewing
Agent Assist
Title & Closing
Document Sharing/
eSignatures
Screening & Due
Diligence



PROPERTY MANAGEMENT

Property Management
Building Management
Facilities Management
Utilities Management
Services Marketplaces/
Exchanges



PROPERTY FINANCE

MortgageTech
InsurTech
P2P/ Investment/
Crowdfunding
Property Valuations



Drivers of Evolution in Real Estate



OPERATIONAL EFFICIENCY

The Real Estate industry is increasingly recognising the importance of streamlined supply chain management, enhanced safety protocols, and cost optimisation. Technological advancements such as 5G & IoT and digital twins are seeing early adoption.



SHIFTING CONSUMER DEMANDS

Consumers today demand smart buildings for convenience and energy efficiency. Developers and property managers are integrating innovative solutions, tailored to the changing preferences of modern occupants.



FOCUS ON SUSTAINABILITY

The industry has been one of the first-movers when it comes to sustainability practices. They are embracing eco-friendly practices, energy-efficient designs, and sustainable materials. In many countries, this is being driven by government mandates.



Leading Business Priorities for Real Estate in 2023-24



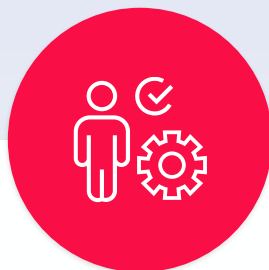
55%

Sustainability



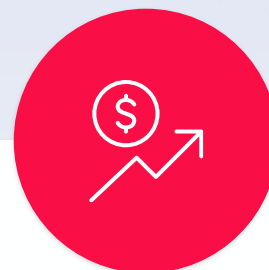
45%

**Innovation of
products/
services**



37%

**Improving
employee
experience,
productivity,
safety**



37%

**Revenue
growth**



29%

**Improving
customer
experience**



Real Estate Innovation

Smart Construction

Construction companies and developers are adopting advanced technologies for resource optimisation and enhanced visibility.

Abu Dhabi's Department of Municipalities and Transport (DMT) launched a "digital twin" project using aerial photography, LiDAR scanning, and game engines to create a detailed digital copy of the city's buildings and infrastructure. It aims to improve service delivery, emergency response, and decision-making processes for planners, engineers, and property professionals.

Obayashi, a leading Japanese builder, completed "3dpod," the first 3D-printed and earthquake-proof building in Japan with ministerial certification. The pod-like structure maximises space while reducing material use. It was printed with a special mortar and high-strength concrete, reducing labour, and construction time while promoting sustainability.



Real Estate Innovation

Response to Consumer Demands

“Smart consumers” are pushing real estate management and brokerage firms to offer digital solutions.

The pandemic saw a sharp spike in the use of VR for virtual walkthroughs for property inspections. This aim to digitise and personalise experiences does not stop there. [Redfin has launched a ChatGPT plugin](#), built with OpenAI, to help users find homes that suit their preferences. The plugin allows people to describe their ideal home and neighbourhood in everyday terms and recommends listings that match their needs.

The response to consumer demands is also driving companies to build capabilities to offer more holistic experiences. Last year, [PropertyGuru acquired Sendhelper](#), a platform that gives access to over 2,000 trained and verified freelance professionals. This means that the company now offers their customers an end-to-end solution that can help them find, buy, and maintain their properties.



Real Estate Innovation

Green Initiatives

According to the World Green Building Council (WGBC), 39% of global energy-related carbon emissions are caused by the built environment.

These innovations demonstrate a global intention to bring in a greener world.

Onsite Power Generation. Australian architecture firm Kennon is constructing a high-rise building in Melbourne that will be powered by solar energy. The building will have a façade consisting of 1,182 solar panels and additional solar cells on the roof. The Skala solar facade system from German company Avancis is geared to produce 50x more electricity than standard rooftop panels, preventing 70T of CO² emissions annually.

Zero Energy Bills. UK's Octopus Energy has partnered with construction specialist Ilke Homes to develop the country's first homes with zero energy bills. The development in Essex will feature 101 homes that are zero-carbon, generating their own clean energy. Air source heat pumps, solar panels, and battery storage will be used to manage energy consumption. Ilke Homes aims to build 10,000 zero-energy-bills homes by 2030.

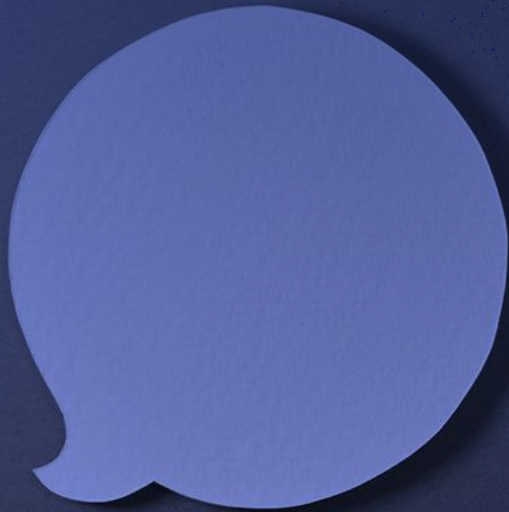
Vertical Gardens. The vertical forest complex in Huanggang, China includes 2 towers of vertical forests featuring balconies with 404 trees, 4,620 shrubs, and perennial plants. The greenery is expected to absorb 22T of CO² and produce 11T of oxygen annually.



Ecosystem Opinion



Sash Mukherjee
VP Industry Insights
Ecosystem



The Real Estate industry is both asset-intensive and people-centric – and technology has emerged as the solution to maintaining the balance.

In Construction, technologies such as BIM, 3D printing and modelling, and asset management solutions help to counter the challenges of labour shortage and changing customer needs – including the growing demands for low-cost housing and sustainable living. In the property transactions market, agents are facing stiff competition with the influx of digital platforms, driving them to adopt smart listings, VR, and blockchain, to stay ahead of the curve.

The RealTech and PropTech market is expected to consolidate as tech providers focus on growing their footprints across the entire Real Estate value chain.



info@ecosystem360.com



www.ecosystem.io