DIFC Innovation Hub | Dubai PropTech Hub

PropTech 2033

Dubai in the next era **of built environment innovation**

In Partnership with

دائرة الأراضي والأملاك
Land Department

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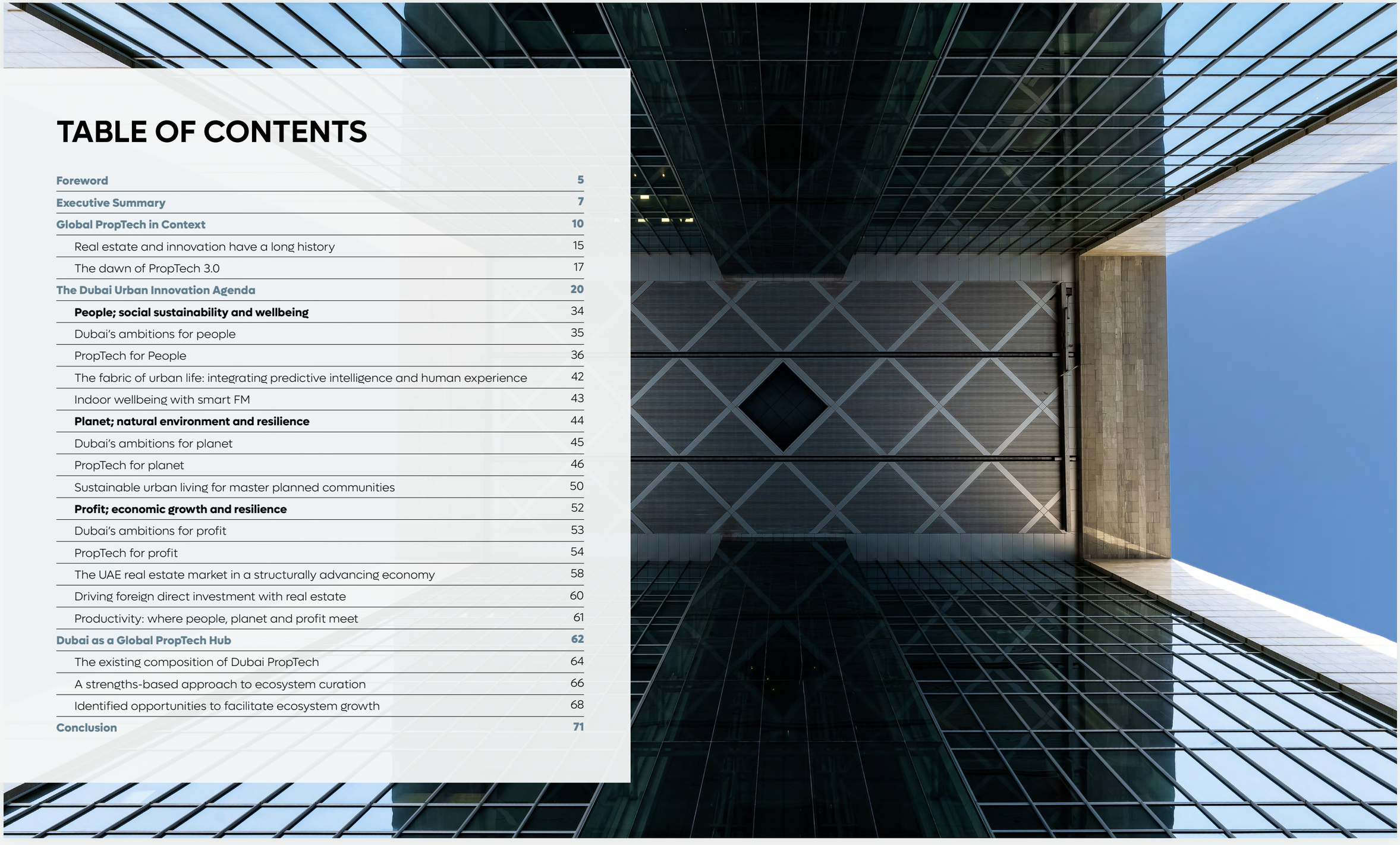

FOREWORD

Mr. Mohammad Alblooshi
Chief Executive Officer
DIFC Innovation Hub

Under the visionary leadership of His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, the Dubai PropTech Hub was launched in 2025 to reinforce Dubai's position as a global leader in real estate innovation, in line with the Dubai Economic Agenda D33 and the Dubai Real Estate Sector Strategy 2033.

The timing of Dubai PropTech Hub's launch was no coincidence. As this paper presents, PropTech (property technology) is at a major inflection point globally. Technological, demographic, societal and environmental changes (among others) are compelling real estate and built environment leaders to innovate at a scale unseen in living memory. It will be the task of PropTech innovators to affect the changes needed to meet these challenges in the years and decades to come.

It is with Dubai's longstanding heritage of innovation in the built environment, that it embraces opportunities of the future. The aim is not simply to match the characteristics of PropTech innovation clusters of past cycles and in different regions, but to lead the way in commercialising novel PropTech solutions. This will leverage cultural, geographic, climactic, regulatory and other attributes that make Dubai the natural epicenter for building innovative companies and products that will change the face of real estate innovation.

The task at hand is undoubtedly a large one, made possible by the collaboration of DIFC, Dubai Land Department, Binghatti, Majid Al Futtaim, Union Properties, Sobha Realty, Transguard Group and the growing number of inspiring Dubai-based PropTech companies working tirelessly to reimagine our built environment.

FOREWORD

Mr. Majid Al Marri
CEO of the Real Estate
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Dubai Land Department

The global real estate sector is undergoing a profound transformation, and today, digital infrastructure, data intelligence, and advanced technologies are no longer merely complementary tools. They are foundational pillars that shape transparency and long-term value creation. In this evolving landscape, Dubai has chosen to adapt and lead.

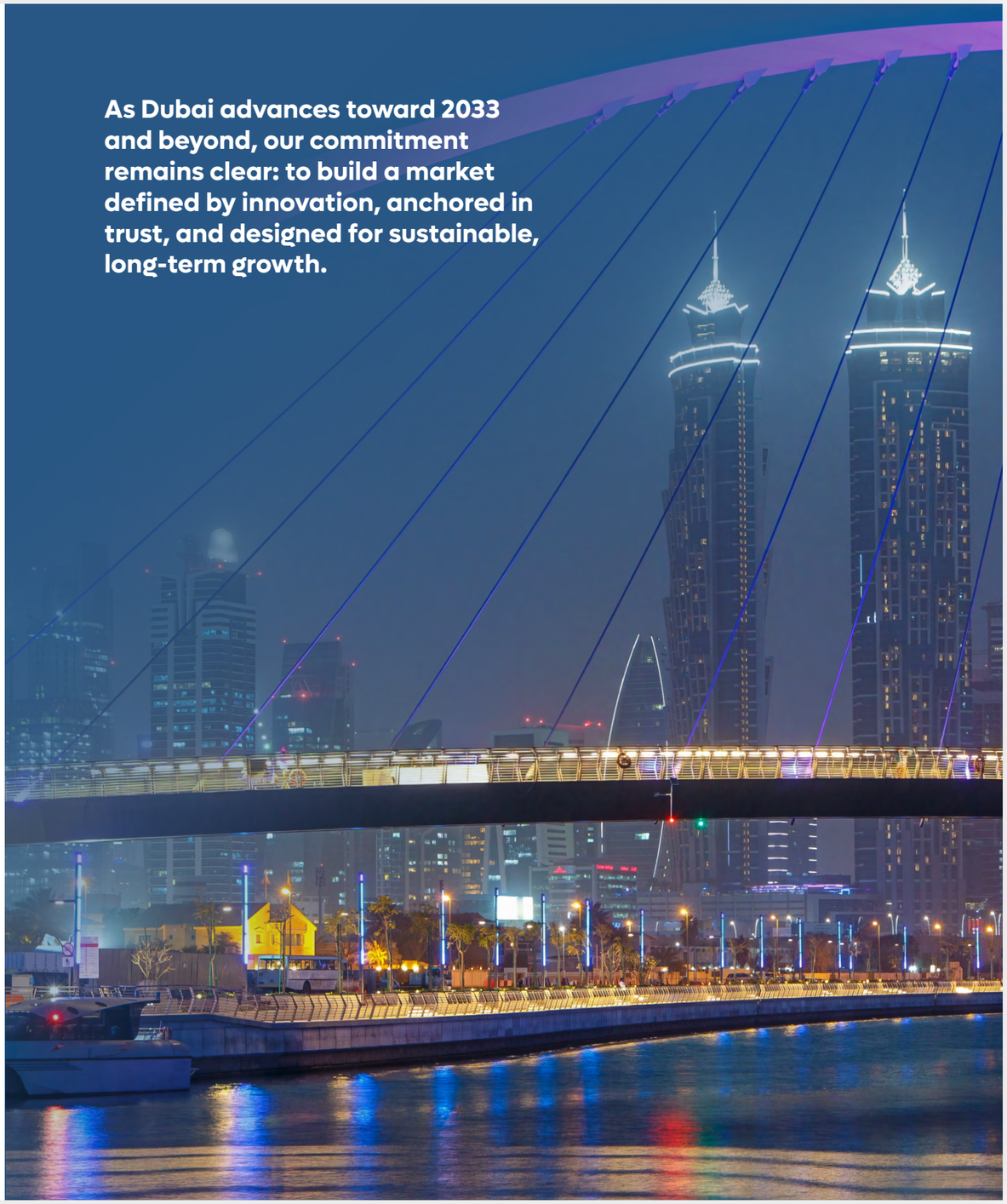
The PropTech 2033 report reflects this ambition, outlining a future in which real estate markets are powered by integrated digital ecosystems, AI-driven insights, and trusted governance frameworks that enhance investor confidence and unlock sustainable growth. This direction is firmly aligned with the Dubai Economic Agenda D33, which positions innovation, digital transformation, and global competitiveness at the core of economic expansion. Through initiatives such as Sandbox Dubai, the emirate is creating a controlled yet dynamic environment for testing and commercialising next-generation technologies.

The Dubai Real Estate Strategy 2033 complements this vision by strengthening transparency, expanding participation, and reinforcing Dubai's position as one of the world's most trusted and resilient real estate markets. It emphasises long-term value over short-term scale, embedding governance, digital enablement, and regulatory innovation into the sector's very fabric.

Under the directives of His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai, Deputy Prime Minister, Minister of Defence, Chairman of The Executive Council of Dubai, and Chairman of the Higher Committee for Future Technology and Digital Economy, the launch of the Dubai PropTech Hub marks a defining step in accelerating this transformation. The Hub reflects a clear national commitment to positioning Dubai at the forefront of real estate innovation, where advanced technologies are not only adopted but also developed, tested, and scaled for global impact.

In partnership with key stakeholders across the public and private sectors, Dubai Land Department continues to integrate proptech into regulatory frameworks, registration systems, and investor services, ensuring that innovation strengthens governance, enhances transparency, and reinforces trust.

Therefore, more than a whitepaper, PropTech 2033 is a roadmap for collaboration that invites developers, technology innovators, investors, and policymakers to co-create a future-ready real estate ecosystem that is resilient, data-driven, and globally competitive.



EXECUTIVE SUMMARY

The built environment is entering a decisive period. Rapid urbanisation, climate uncertainty, demographic change, and the emergence of frontier technologies are fundamentally reshaping how cities are planned, financed, built, operated, and experienced. Against this backdrop, PropTech is evolving from a collection of point solutions into a system-level enabler of economic growth, sustainability, and human wellbeing. This next phase, termed PropTech 3.0, represents a structural shift in how value is realised across the real estate sector and the wider urban economy.

This paper examines the global evolution of PropTech through a longitudinal lens and assesses Dubai's unique position to lead the next wave of innovation. The coming decade aligns closely with Dubai's, the UAE's, and the United Nations' strategic agendas, presenting a once-in-a-generation opportunity to reimagine the built environment from a passive store of wealth to a driver of productivity, resilience, and quality of life.

GLOBAL PROPTECH IN CONTEXT

Since the mid-2010s, the longstanding term "PropTech" evolved into an umbrella term for digital technologies applied to the built environment. Over the past decade, the sector has expanded to an estimated 20,000 companies globally, spanning real estate transactions, asset management, construction, facilities management, and urban services. While real estate is often characterised as conservative, the built environment has, in reality, been shaped by successive waves of innovation for millennia. This has been driven by necessity, scale, and societal change.

Today, transformational megatrends are accelerating this trajectory. The rise of generative AI and related frontier technologies marks the transition to PropTech 3.0: an era defined not by isolated tools, but by AI-native, data-rich systems capable of optimising outcomes across entire urban value chains.

DUBAI'S URBAN INNOVATION AGENDA: ALIGNMENT BY DESIGN

To assess how PropTech 3.0 intersects with Dubai's ambitions, Dubai PropTech Hub analysed 18 strategic agendas spanning Dubai, the UAE, and the United Nations (including the Dubai Economic Agenda (D33) and the Dubai Real Estate Sector Strategy 2033). The analysis revealed strong and recurring alignment with the Triple Bottom Line framework: outcomes for people, planet, and profit. The highest occurring themes are listed in the below table.

PEOPLE

Social development and quality of life; healthcare access and quality; and heritage and identity preservation.

PLANET

Resource efficiency; utilities and renewable energy; and green urbanism

PROFIT

Economic growth (broadly); trade; and digital transformation

Using large language models, we analysed 8,307 PropTech companies founded between 2015 and 2025, identifying 833 existing use cases directly supporting these strategic agendas. This evidence base confirms that PropTech is not peripheral to policy objectives, it is a practical delivery mechanism for them.

THE ECONOMIC CASE: PRODUCTIVITY, PERFORMANCE, AND VALUE CREATION

PropTech 3.0's impact is most compelling where these dimensions converge. Indoor environmental regulation (such as smart HVAC monitoring and controls) simultaneously improves occupant comfort, reduces energy consumption and emissions, lowers operating expenditure, and enhances worker productivity. Applied across Dubai's office stock, this represents an estimated AED 2.24 bn in annual economic opportunity.

More advanced interventions, including nature-inspired and biophilic design enabled by data and AI, could unlock productivity gains of up to AED 51.05 bn annually, underscoring the scale of value at stake when built environments are treated as performance assets rather than static infrastructure.

DUBAI AS A GLOBAL PROPTECH HUB

As of January 2026, Dubai PropTech Hub tracked 231 UAE-based PropTech companies, with approximately 45 per cent concentrated in real estate search, listing, and property investment, including tokenisation. While this reflects global PropTech 2.0 patterns, it also highlights the opportunity ahead: to cultivate a more diversified, outcome-driven PropTech ecosystem aligned with Dubai's broader urban ambitions.

Dubai's leadership vision, centred on formulating new ideas rather than following established precedent, creates a powerful platform for experimentation, scale, and global influence. The Dubai PropTech Hub is positioned as the catalyst for this transition: convening stakeholders, shaping market narratives, incubating differentiated solutions, and translating strategic ambition into execution.

This report identifies five priority opportunity areas:

- **Positioning Dubai as the global living lab for PropTech 3.0**
- **Educating the global market on Dubai's built environment agenda**
- **Incubating differentiated, vernacular PropTech solutions and business models**
- **Supporting Dubai-born PropTechs to achieve global scale and impact**
- **Igniting a technology-enabled wellbeing and productivity feedback loop**

Together, these actions position Dubai not only as a participant in the next wave of PropTech, but as one of its principal architects.

GLOBAL PROPTECH IN CONTEXT

Singapore embodies the global convergence, cross-sector overlap, and future-facing transformation of the built environment

GLOBAL PROPTECH IN CONTEXT

Prior to the mid-2010s, the "PropTech" moniker took on various meanings spanning decades and geographies, particularly in reference to technical services in the property sector and mechanical propulsion systems. Then, inspired by its elder cousins FinTech, HealthTech, EdTech, InsurTech and others, PropTech of its present use emerged to help define the swelling movement that had given rise to listing platforms, Airbnb, and other digital technologies applied to the built environment.[1] North Americans, more familiar with "real estate" as a term for the legacy sector, had been correspondingly using terms such as "CRETech", "RETech" and "real estate tech".[2] As a spirited international debate ensued, the disparate monikers further consolidated into PropTech, which has evolved into a global movement spanning the entire real estate value chain and adjacent disciplines (such as construction, finance, climate, health, mobility, space and infrastructure, to name a few). We analysed these overlapping verticals in the context of PropTech via an analysis of 12,049 companies categorised by PitchBook as "real estate technology". We found that 1,535 of them were also categorised as FinTech; 548 as ConTech; 371 as Marketing Tech; and 352 as CleanTech. Figure 1 visualises these and others. Our research suggests these overlaps will increase as market demands evolve, which we expect to further diversify PropTech's use cases, stakeholder groups and sector growth.

Figure 1 REAL ESTATE TECHNOLOGY | 12,019

[1] You can see early use of PropTech via X (formerly Twitter) posts, academic articles, digital archives and the term's emergence in Google Ngram data.

[2] Russo, P. 2025. What We Mean When We Say PropTech. Commercial Observer. Published 18 March 2025.

Overlapping verticals can partly be explained by contrasts in how each are defined. While CleanTech and HealthTech can be framed as verticals with relatively unified and coherent goals (improving environmental outcomes and human health, respectively), PropTech can be classified more as a growing cluster of built environment use cases with diverse objectives. For example, geospatial artificial intelligence tools used by urban planners to enhance productivity fall squarely within PropTech, as do fractional investment marketplaces used by real estate investors to democratise assets; smart building technologies used by facilities managers to improve building operational performance; and so on (see Table 1). As we will present in this paper, the objectives of PropTech can be economic (financial return, efficiency, productivity, etc); social (democratisation, social amenity, public health, etc); environmental (climate resilience, biodiversity, resource efficiency, etc); or a combination. Beneficiaries could be the general public, asset owners, builders, service providers, occupiers, or others. Infamously, the decision maker is not always the same party as the beneficiary, which has complicated adoption and go-to-market strategies for many PropTechs.[3]

TABLE 1: **EXAMPLES OF DIVERSE PROPTECH USE CASES**

PropTech use case	Objectives	Other relevant verticals
Asset fractionalisation and/or tokenisation	Democratisation, sales to more buyers, assisted homeownership, immutable transaction records	FinTech
Geospatial data visualisations and AI	Planning, spatial scenario analysis, due diligence, locational insights	MobilityTech, SpaceTech
Building operational analytics and automation	Optimised maintenance schedules, occupier comfort and wellbeing, energy efficiency	CleanTech, ClimateTech, HealthTech
Construction procurement and cost management	Project cost savings, sustainable materials, project time savings, accounts receivable	Supply Chain Tech, FinTech, ConTech

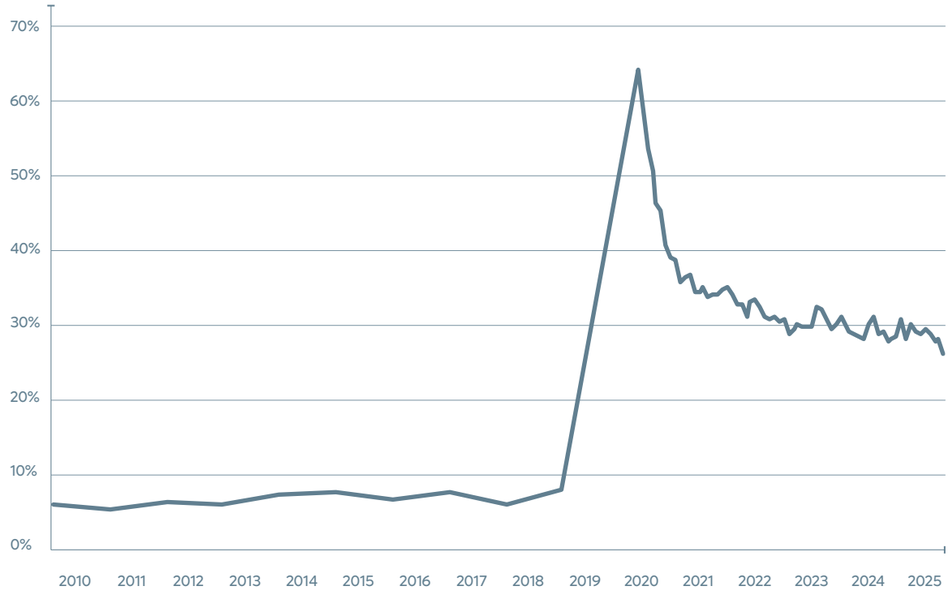
[3] The "split incentive problem" in real estate occurs when the party benefiting from an intervention differs to the party responsible for affecting it. For example, in a scenario where a building occupier is responsible for the energy bill, but the asset owner is responsible for any capital expenditure or technologies to improve energy efficiency.

While the opportunities presented by PropTech are immense, the sector has struggled in multiple areas. Anecdotal evidence indicates that geographic expansion has not been straightforward for many growing PropTech companies, due to contrasting jurisdictional factors (e.g. legal and regulatory frameworks, units of measurement, cultural norms and language), drivers of asset performance, and others.[4] In addition, the framing of real estate as a wealth preservation asset has led some to associate the real estate sector with a conservative, risk-averse attitude toward innovation.

But the nature of real estate has radically transformed in recent decades, as technology collides with traditional space utilisation models. The rise of the knowledge economy shifted the offspring of agriculturalists and factory workers to downtown office blocks, and then to location-independent hybrid work models (see Figure 2).[5] Ecommerce is shifting a creeping proportion of retail commerce from storefronts to complex networks of "dark" warehouses and fulfilment centres. The prevailing AI boom has turbocharged the real estate sector's interest in data centres and energy infrastructure. Looking forward, ageing populations in the Global North, swelling younger populations in the Global South, global environmental pressures, technological uncertainty and an array of other megatrends further heighten the necessity for real estate professionals to innovate in their careers, their companies and their assets.

Hybrid work has reached a new equilibrium post-COVID

Figure 2
Data source: wfhresearch.com (US data)



REAL ESTATE AND INNOVATION HAVE A LONG HISTORY

While it took PropTech until the 2010s to consolidate under the banner we recognise today, the wider phenomenon of built environment innovation has been tethered to societal development for millennia. An introductory study of urban history, for example, highlights the role of agriculture in the advent of human settlements, and with them, permanent architecture. Dating back 12,000 years, Mesopotamia (present-day Iraq) is popularly cited as the "cradle of civilisation" in this context.[6] The continuing role played by innovators of the Middle East and North Africa in the ensuing millennia were foundational to the urban technological advancements enjoyed globally today.

The industrial revolutions, too, integrated emergent technology and the built environment. Mass-produced construction materials and their standardisation enabled more durable structures, beyond flagship buildings. Steam-powered equipment accelerated excavation and foundation work. Railroads and private motor vehicles expanded cities and suburbs, reshaping land values and urban planning. Steel frame construction and reinforced concrete allowed skyscrapers. Electric lighting and power systems extended building usability and urban life after dark, while mechanical HVAC systems made large indoor spaces comfortable year-round. New Yorkers cite the elevator's impact on the skylines of global cities, and urban planning with them.[7] A combination of advancements in physics, materials science and the advent of tower cranes accelerated this.

[4] While this is a common industry hypothesis, our analysis of PitchBook data does not validate it. 31.5 per cent of B2B PropTech companies catalogued have at least one satellite office, compared to 28.5 per cent of B2B fintechs and 27.0 per cent of B2B HealthTechs.

[5] Figure 2 data is sourced from Barrero, Jose Maria, Nicholas Bloom, and Steven J. Davis, 2021. "Why working from home will stick," National Bureau of Economic Research Working Paper 28731.

[6] Frye, R; Edzard, D; & von Soden, W. 2025. History of Mesopotamia. Encyclopedia Britannica.

[7] Block, A & Aarons, Z. 2019. PropTech 101: Turning Chaos into Cash Through Real Estate Innovation. Advantage Media Group.

As the third industrial revolution delivered a compact computer fit for a desk, entire real estate professions were disrupted, and entirely new professions emerged. Property surveyors transitioned from slide rules and Parry's tables to spreadsheets. Architects transitioned from sketchpads to CAD software. In retrospect, the era of the PC-enabled real estate professional would be termed "PropTech 1.0".[8] Then, PropTech 2.0 came into being in the dot-com age—most notably through the transition from newspaper real estate listings to online portals such as Realtor.com (US, 1995); realestate.com.au (Australia, 1995); Domain (Australia, 1999); Rightmove (UK, 2000); Trulia (US, 2005); Zillow (US, 2006); Zoopla (UK, 2007); Property Finder (UAE, 2007); and others.

In 2008, Airbnb was founded. In the wake of its meteoric rise was a swelling cohort of would-be entrepreneurs and investors hoping to land the next real estate unicorn.[9] By the end of 2025, private market data platform PitchBook had catalogued over 16,000 companies across "real estate technology" and "construction technology". Other sources claim there are up to or in excess of 20,000, depending on divergent categorisations.[10]

[8] Baum, A. 2017. PropTech 3.0: the future of real estate. Oxford Future of Real Estate Initiative. Said Business School, University of Oxford. April 2017.

[9] Unicorns are companies (usually technology companies) that achieve valuations at or in excess of USD 1 bn.

[10] Stealth mode is a term used for start-ups that are operating under secrecy prior to a public launch or announcement. According to LinkedIn data, there were thousands of registered stealth-mode entrepreneurs on the platform as of January 2026. Early-stage companies are less likely to be tracked by private market data platforms due to the limited awareness and media activity surrounding them.

THE DAWN OF PROPTECH 3.0

The 2020s have witnessed a wave of emergent technologies that further transform the infrastructure of PropTech and built environment innovation. Blockchain, initially posited in the 2008 Bitcoin white paper, has been put forward for an array of PropTech use cases over the past decade, including land registry, smart contracts, asset tokenisation and payments, among others.[11] Then, with Facebook's rebrand to Meta on 28 October 2021, the metaverse became front-of-mind for many real estate boardrooms, who feared an XR-native workforce no longer in need of offices.[12] Scarcely a year later, a little-known non-profit called OpenAI launched ChatGPT, giving rise to the latest (and persisting) AI wave. Unlike its predecessors, the latest AI hype has persevered (and even grown) for more than three years. Over this time, a wave of AI evangelists have offered sensational claims that would fundamentally transform real estate, such as a doubling of human life expectancy in 5-10 years, and mass unemployment by 2027.[13]

TABLE 2: **THE THREE WAVES OF PROPTECH**

	PropTech 1.0	PropTech 2.0	PropTech 3.0
Period	1980s-1990s	2000s-2010s	2020s-
Paradigm	Digitisation and digitalisation	Platforms and networks	Tech-human integration, general intelligence
Tech	Personal computer, operating systems, digital imaging, databases, programmable logic	Internet, applications, cloud computing, 4G, wifi, SaaS, APIs, smart phone + devices, internet-of-things, machine learning, renewable energy, 3D printing…	Frontier AI, deep learning, quantum computing, materials science, blockchain, extended reality + haptics, brain-computer interfaces, robotics, internet-of-everything, energy storage…
Product examples	Property Market Analysis (PMA); Autodesk, Argus, Yardi	Zillow, Rightmove, REA, Airbnb, Property Finder, House Canary, Pacaso, Opendoor, Matterport, LandTech, Beanstock	Buildable, Laiout, Fifth Dimension AI, Gendo, Conduit, Concrete for Change, Smart Bricks…

Data sourced from DIFC, Oxford FoRE, MIT Real Estate, Clearance Ventures, Fifth Wall, MetaProp, noa, Pi Labs, PT1, and Zacua Ventures

The technological advancements underway this decade harken back to Baum, et al's 2017 expectation of a new wave for PropTech, termed PropTech 3.0. But instead of a heavy emphasis on blockchain, it appears that extended reality, frontier energy systems, quantum computing advancements, mobility advancements, materials science, and yes, AI, will also play noteworthy roles. But these technologies represent the "how" of innovation. In the PropTech 3.0 era, there is also an opportunity to outperform past eras in areas such as use case (the "what") and the problem being solved (the "why"). Given PropTech 1.0's concentration in Silicon Valley and PropTech 2.0's wider geographic distribution (with outlier concentrations in London, New York City and Tokyo), it remains to be seen which hub(s) will serve as the epicentre(s) of PropTech 3.0.

Figure 3

A new era for PropTech?

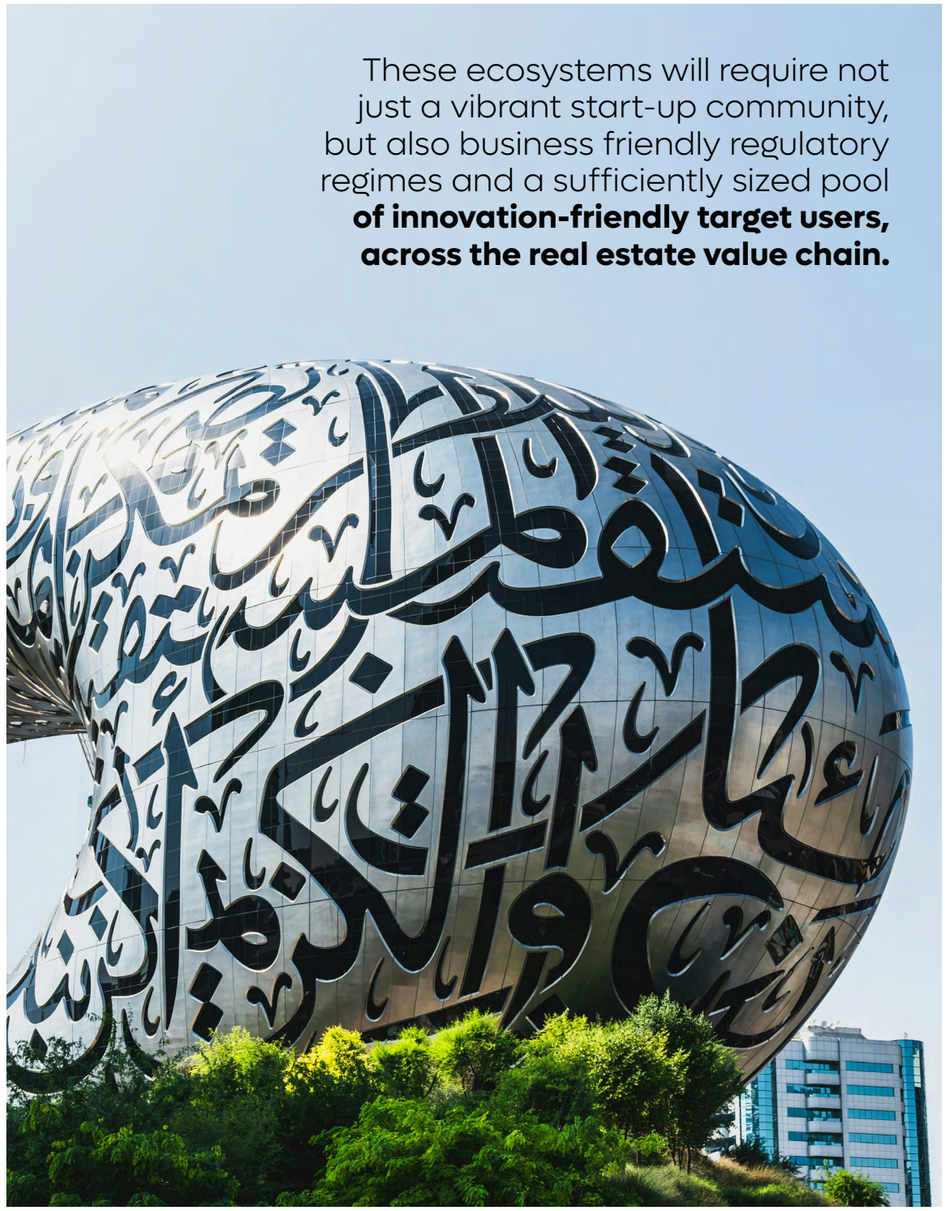
Monthly "PropTech" Google Search activity (Google Trends)

[11] Graham, L; Baum, A; & Jia, J. 2023. A piece of the action: innovations in fractional ownership and use of space. Pi Labs. London, United Kingdom.

[12] XR is the acronym for "extended reality" which is an all-encompassing term for virtual reality (VR), mixed reality (MR) and augmented reality (AR).

[13] During a January 2025 panel at the World Economic Forum, Anthropic's Dario Amodei claimed that AI could double life expectancy in 5-10 years. The AI 2027 scenario was published in April 2025. It predicts job displacement in 2025-26 and rapid societal collapse in 2027.

These ecosystems will require not just a vibrant start-up community, but also business friendly regulatory regimes and a sufficiently sized pool **of innovation-friendly target users, across the real estate value chain.**



THE DUBAI URBAN INNOVATION AGENDA

THE DUBAI URBAN INNOVATION AGENDA

Real estate and the wider built environment are central to Dubai's past and future ambitions. Masterplans and strategic agendas have served as a north star for broad-based public and private sector initiatives since the 1960s, when Dubai's first urban masterplan was published. The strategic agendas of Dubai, the UAE and United Nations serve as helpful reference material for the direction-of-travel of the Emirate, which in turn illuminates potential areas of PropTech development and/or adoption. Our research shortlisted 18 prevailing strategic agendas for analysis.[14] Objectives within the strategic agendas can be categorised into people (social), planet (environmental), or profit (economic)—forming the *Triple Bottom Line*.[15] In Table 3 overleaf, we have summarised high-level themes from the shortlisted strategic agendas and sorted them into these categories. In the following pages, we have provided a more granular taxonomy of strategic agendas in matrix format. The remainder of this chapter analyses each category of the Triple Bottom Line in the context of PropTech. This includes the use of LLMs to extract 833 PropTech use cases across the Triple Bottom Line themes, which are listed in Tables 5-9.

[14] The UAE Government catalogues its strategies and visions for online access.

[15] Elkington, J. 1997. Cannibals with Forks: The Triple Bottom Line of 21st Century Business. Oxford: Capstone Publishing, 1997.

TABLE 3: **STRATEGIC AGENDAS AND THE TRIPLE BOTTOM LINE**

PEOPLE

Inclusive Communities & Wellbeing
- Vibrant, healthy, and cohesive communities
- Accessible, integrated service centers (health, education, recreation)
- Affordable, diverse housing options
- Empowerment of youth, women, Emiratis, and people of determination
- Enhanced safety, security, and quality of life

Mobility & Access
- 20-minute city: 80 per cent of services within 20 minutes
- Sustainable, flexible, and accessible transport for all

Culture & Identity
- Safeguard cultural and urban heritage
- Promote arts, entertainment, and community pride

PLANET

Sustainable Urbanism
- Double green/leisure areas, expand parks and public spaces
- 60 per cent of land as nature reserves/rural areas
- Green corridors for walking, cycling, and sustainable mobility

Climate & Environment
- Green/sustainable manufacturing
- Environmental monitoring (air, water, waste)
- Net Zero 2050: clean energy, emissions reduction, climate adaptation

Resource Efficiency
- Optimise spatial/ infrastructure use
- Sustainable irrigation, urban agriculture, biodiversity

PROFIT

Economic Growth & Innovation
- Double foreign trade, expand to 400+ cities
- Attract FDI, VC, and global talent
- Scale-up programs for SMEs, unicorns, and traders
- Digital transformation: AED 100B annual contribution

Real Estate & Investment
- Double real estate GDP contribution
- Grow transactions, market value, and portfolios
- Affordable and sustainable real estate programs

Business Ecosystem
- Unified commercial licensing, regulatory sandboxes
- Support for startups, deep tech, and PropTech innovation
- Investment incentives and global marketing

DUBAI STRATEGIC AGENDA MATRIX:

EXPLICIT FOCUS AREAS FOR EACH AGENDA

			UAE Centennial 2071	National Policy on Vital Residential Communities	Dubai Social Agenda 33	National Strategy for Wellbeing 2031	UAE National Air Quality Agenda 2031	Dubai Quality of Life Strategy 2033	UNSDG 11	We the UAE 2031 Vision	Dubai 2040 Urban Master Plan	National Climate Adaptation Action Plan	UAE National Vision 2021	UAE National Strategy for Wellbeing 2031	The UAE's Green Agenda - 2030	National Electric Vehicles Policy	National Strategy for Advanced Innovation	D33 Agenda	The UAE's Net Zero 2050 Strategy	National Climate Change Plan of the UAE 2017-2050	Dubai Real Estate Sector Strategy 2033
PEOPLE (SOCIAL)	**Health**	Preventative Health	✓	X	✓	✓	✓	✓	X	X	X	✓	X	X	X	X	X	X	X	X	X	X
		Healthcare access and quality	X	✓	✓	✓	X	✓	X	✓	✓	X	✓	X	X	X	✓	X	X	X	X	X
		Healthy building interventions	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		Mental and physical wellbeing	✓	X	✓	✓	X	✓	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X
		Life expectancy	X	X	✓	X	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X
	Leisure & Culture	Culture and entertainment	X	✓	✓	✓	X	✓	✓	X	✓	X	X	X	X	X	X	X	X	X	X	X
		Community events	X	✓	✓	✓	X	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		Parks and recreational spaces	X	✓	X	✓	X	✓	✓	X	✓	X	X	X	X	X	X	X	X	X	X	X
		Religion and spirituality	X	✓	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		Heritage and identity preservation	✓	✓	✓	✓	X	✓	✓	X	✓	X	✓	X	X	X	X	X	X	X	X	X
	Education	Quality of education	✓	X	✓	✓	X	✓	X	X	X	X	✓	X	X	X	✓	✓	X	X	X	X
		Access to schools and higher education	✓	✓	X	✓	X	✓	X	X	✓	X	✓	X	X	X	✓	✓	X	X	X	X
		Talent development and upskilling	✓	X	✓	✓	X	✓	X	X	X	X	X	X	X	X	✓	X	✓	X	X	X
		Duration of education	X	X	X	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X

DUBAI STRATEGIC AGENDA MATRIX:

EXPLICIT FOCUS AREAS FOR EACH AGENDA

			UAE Centennial 2071	National Policy on Vital Residential Communities	Dubai Social Agenda 33	National Strategy for Wellbeing 2031	UAE National Air Quality Agenda 2031	Dubai Quality of Life Strategy 2033	UNSDG 11	We the UAE 2031 Vision	Dubai 2040 Urban Master Plan	National Climate Adaptation Action Plan	UAE National Vision 2021	UAE National Strategy for Wellbeing 2031	The UAE's Green Agenda - 2030	National Electric Vehicles Policy	National Strategy for Advanced Innovation	D33 Agenda	The UAE's Net Zero 2050 Strategy	National Climate Change Plan of the UAE 2017-2050	Dubai Real Estate Sector Strategy 2033
PEOPLE (SOCIAL)	Community	Social cohesion and wellbeing	✓	✓	✓	✓	X	✓	X	X	X	X	✓	X	X	X	X	X	X	X	X	X
		Social development and quality of life	✓	X	✓	✓	X	✓	X	✓	X	X	✓	X	✓	X	✓	X	X	X	X	X
		Family wellbeing	X	X	✓	✓	X	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		Population growth	X	X	X	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X
		Public services provision	X	✓	X	✓	X	✓	✓	X	X	X	✓	X	X	X	X	X	X	X	X	X
		Diversity, equity and inclusion	✓	X	✓	✓	X	✓	✓	X	X	X	✓	X	X	X	X	✓	X	X	X	X
	Security	Physical security and safety	X	X	X	✓	X	✓	✓	✓	X	X	✓	X	X	X	X	X	X	X	X	X
		Cybersecurity	X	X	X	✓	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X	X
		Safe public spaces	X	X	X	✓	X	✓	X	X	X	X	✓	X	X	X	X	X	X	X	X	X
		Food security	X	X	X	X	X	X	X	✓	X	✓	X	X	X	X	X	X	X	X	X	X
		Judicial fairness and policing	X	X	X	✓	X	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X
		Economic security and workplace safety	X	X	X	✓	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Mobility	Accessible transport and services	X	X	X	X	X	✓	✓	X	✓	X	✓	X	X	X	X	X	X	X	X	X
		Private transport infrastructure	X	X	X	X	X	✓	✓	X	✓	X	X	X	X	✓	X	X	X	X	X	X
		Public transport infrastructure	X	X	X	X	X	✓	✓	X	✓	X	X	X	X	X	X	X	X	X	X	X
		Cycling and micromobility infrastructure	X	X	X	X	X	✓	X	X	✓	X	X	X	X	X	X	X	X	X	X	X
		Walkability	X	X	X	X	X	✓	X	X	✓	X	X	X	X	X	X	X	X	X	X	X

DUBAI STRATEGIC AGENDA MATRIX:

EXPLICIT FOCUS AREAS FOR EACH AGENDA

			UAE Centennial 2071	National Policy on Vital Residential Communities	Dubai Social Agenda 33	National Strategy for Wellbeing 2031	UAE National Air Quality Agenda 2031	Dubai Quality of Life Strategy 2033	UNSDG 11	We the UAE 2031 Vision	Dubai 2040 Urban Master Plan	National Climate Adaptation Action Plan	UAE National Vision 2021	UAE National Strategy for Wellbeing 2031	The UAE's Green Agenda - 2030	National Electric Vehicles Policy	National Strategy for Advanced Innovation	D33 Agenda	The UAE's Net Zero 2050 Strategy	National Climate Change Plan of the UAE 2017-2050	Dubai Real Estate Sector Strategy 2033
PLANET (ENVIRONMENT)	Environment	Green urbanism	X	✓	X	X	X	✓	✓	X	✓	X	X	X	✓	X	X	X	X	X	X
		Biodiversity	X	X	X	X	X	✓	X	X	✓	✓	X	X	✓	X	X	X	X	X	X
		Urban agriculture	X	X	X	X	X	✓	X	X	✓	X	X	X	X	X	X	X	X	X	X
		Greenspaces and parks	X	✓	X	X	X	✓	✓	X	✓	X	X	X	X	X	X	X	X	X	X
		Nature reserves	X	X	X	X	X	✓	X	X	✓	X	X	X	X	X	X	X	X	X	X
	Sustainability	Sustainable mobility	X	X	X	X	X	X	✓	X	✓	X	X	X	✓	✓	X	X	X	X	X
		Utilities and renewable energy (solar, EVs)	X	X	X	X	X	✓	✓	X	X	X	X	X	✓	✓	X	X	✓	X	X
		Waste management	X	X	X	X	X	✓	✓	X	X	X	X	X	X	X	X	X	✓	X	X
		Air, noise, water quality	X	X	X	X	✓	✓	✓	X	X	✓	X	X	X	X	X	X	X	X	X
		Reduce greenhouse gas emissions	X	X	X	X	X	X	✓	X	X	X	X	X	✓	✓	X	X	✓	X	X
		Climate adaptation and resilience	X	X	X	X	X	X	✓	X	X	✓	X	X	X	X	X	X	X	✓	X
	Planning	Sustainable urbanisation	X	X	X	X	X	X	✓	X	✓	X	✓	X	X	X	X	X	X	X	✓
		Smart system for cities	X	X	X	X	X	X	X	X	X	X	✓	X	X	X	X	X	X	X	X
		Resource efficiency	X	X	X	X	✓	X	✓	X	✓	✓	X	X	✓	X	X	X	✓	X	X
		Disaster risk reduction	X	X	X	X	X	X	✓	X	X	✓	X	X	X	X	X	X	X	✓	X

DUBAI STRATEGIC AGENDA MATRIX:

EXPLICIT FOCUS AREAS FOR EACH AGENDA

			UAE Centennial 2071	National Policy on Vital Residential Communities	Dubai Social Agenda 33	National Strategy for Wellbeing 2031	UAE National Air Quality Agenda 2031	Dubai Quality of Life Strategy 2033	UNSDG 11	We the UAE 2031 Vision	Dubai 2040 Urban Master Plan	National Climate Adaptation Action Plan	UAE National Vision 2021	UAE National Strategy for Wellbeing 2031	The UAE's Green Agenda - 2030	National Electric Vehicles Policy	National Strategy for Advanced Innovation	D33 Agenda	The UAE's Net Zero 2050 Strategy	National Climate Change Plan of the UAE 2017-2050	Dubai Real Estate Sector Strategy 2033
PROFIT (ECONOMIC)	Economy	Economic growth (productivity)	✓	X	X	X	X	X	X	✓	✓	X	X	X	✓	X	X	✓	✓	✓	✓
		Economic growth (FDI)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	✓	X	X	✓
		Economic growth (trade)	X	X	X	X	X	X	X	✓	X	✓	X	X	✓	X	X	✓	✓	X	X
		Economic diversification	✓	X	X	X	X	X	X	✓	X	X	X	X	X	X	✓	X	X	✓	X
		Standard of living (GDP/capital)	X	X	X	X	X	X	X	✓	X	X	✓	X	X	X	X	X	X	X	X
		Government expenditure	X	X	X	X	X	X	X	X	X	X	X	X	X	X	✓	✓	X	X	X
		Retail and commercial activity	X	X	X	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X
		Innovation and entrepreneurship	✓	X	X	X	X	X	X	X	X	X	✓	X	X	X	✓	X	X	✓	X
		Digital transformation	X	X	X	✓	X	X	X	X	X	X	✓	X	X	X	✓	✓	X	X	✓
		Financial innovations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	✓	X	X
		Investment and business incentives	X	X	X	X	X	✓	X	X	X	X	✓	X	X	X	✓	X	X	✓	X

DUBAI STRATEGIC AGENDA MATRIX:

EXPLICIT FOCUS AREAS FOR EACH AGENDA

			UAE Centennial 2071	National Policy on Vital Residential Communities	Dubai Social Agenda 33	National Strategy for Wellbeing 2031	UAE National Air Quality Agenda 2031	Dubai Quality of Life Strategy 2033	UNSDG 11	We the UAE 2031 Vision	Dubai 2040 Urban Master Plan	National Climate Adaptation Action Plan	UAE National Vision 2021	UAE National Strategy for Wellbeing 2031	The UAE's Green Agenda - 2030	National Electric Vehicles Policy	National Strategy for Advanced Innovation	D33 Agenda	The UAE's Net Zero 2050 Strategy	National Climate Change Plan of the UAE 2017-2050	Dubai Real Estate Sector Strategy 2033
PROFIT (ECONOMIC)	**Real estate**	Real estate sector growth	X	X	X	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X
		Quality and affordable housing	X	X	✓	X	X	X	✓	X	✓	X	✓	X	X	X	X	X	X	X	X
		Commercial and industrial development	X	X	X	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X
		Tourism sector and infrastructure	X	X	X	X	X	X	X	✓	✓	✓	X	X	X	X	X	X	X	X	X
	Employment	Job creation	X	X	X	X	X	X	X	X	✓	X	X	X	X	X	X	✓	✓	X	X
		Workforce integration (youth, Emiratis)	X	X	✓	X	X	X	X	X	X	X	✓	X	X	X	X	✓	X	X	✓
		Attracting global talent	X	X	X	X	X	X	X	✓	X	X	X	X	X	X	X	X	X	X	X
		SME and startup support	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	✓	X	X	X
	Knowledge	Research and development	✓	X	X	X	X	X	X	X	X	X	X	X	X	X	✓	X	✓	X	X
		Knowledge-based industries	✓	X	X	X	X	X	X	X	X	X	✓	X	✓	X	✓	X	X	X	X
		Global competitiveness and collaboration	✓	X	X	X	X	X	X	X	X	X	✓	X	X	X	✓	X	X	X	X

PEOPLE: SOCIAL SUSTAINABILITY AND WELLBEING

In 2001, a study commissioned by the US Environmental Protection Agency found that its respondents spent on average 87 percent of their time indoors.[16] While spatial habits change across time and geography, UAE residents are nevertheless estimated to spend as much as 95 percent of their time indoors.[17] This implies an average of 72 minutes outdoors daily. What results from this insight are two complementary points to consider:

01 The strong weighting of time spent indoors in the UAE and elsewhere places the heaviest burden of social outcomes on the experiences humans have within buildings; and

02 It becomes important to maximise the quality and utility of fleeting moments spent outdoors, removing as many physical, psychological and social barriers as possible to enable maximally healthy and fulfilling lifestyles in pursuit of UAE and Dubai wellbeing and liveability ambitions.

The impact of the indoor human experience on wellbeing has been studied in depth across multiple disciplines. In a 1984 study published in Science, Roger Ulrich found that patients recovered faster when they had a view of nature from their hospital room instead of a brick wall. They also needed less pain medication and were more pleasant toward nursing staff.[18] Other studies have validated this claim, giving rise to biophilic (nature-inspired) design and other spatial and experiential innovations. Over this time, brutalist architecture has given way to human-centered design, car-dependent urbanism to walkability, and derelict industrial spaces to mixed-use hubs of culture, leisure and the knowledge economy.

[16] Klepeis, et al's 2001 "National Human Activity Pattern Survey" appears to be the source of this statistic. It is helpful to note that the survey was undertaken in the United States, and is now more than two decades old.

[17] Mfareej, M; Askanani, A; Alderbi, A; & Al Qattan, A. 2017. Indoor air quality (IAQ) in the UAE. Research in Environmental Health and Safety. International Journal of Recent Scientific Research. 8(8).

[18] Ulrich, R.S. 1984. View through a window may influence recovery from surgery. Science. 224(4647).

DUBAI'S AMBITIONS FOR PEOPLE

Dubai's social sustainability ambitions are unmatched elsewhere in the world. Of the strategic agendas analysed for this paper, the most reoccuring societal focus areas, evidenced in Table 4, were:

- **Social development and quality of life**
- **Healthcare access and quality**
- **Heritage and identity preservation**
- **Access to schools and higher education**
- **Quality of education**
- **Diversity, equity and inclusion**

PropTech plays both direct and indirect roles in the achievement of Dubai's social sustainability ambitions. It is also multifaceted, with opportune interventions across the real estate value chain. Healthcare access and quality is a helpful example: urban planning analytics platforms can optimise the distribution of healthcare facilities as Dubai grows, and traffic/epidemiological simulations can maximise the efficiency of physical access. Indirectly, the burden on healthcare can be mitigated by preventative lifestyle-enhancing urban interventions such as climate-resilient outdoor recreation planning and design. At the construction stage, efficiency interventions (rework avoidance, resource efficiency, etc.) can markedly reduce the cost and time associated with building and upgrading the healthcare system, optimising budget allocations. These and other use cases extracted from our sample of 8,307 global PropTech company descriptions founded between 2015 and 2025 are summarised in Table 5 and Table 6.

PROPTECH FOR **PEOPLE** Table 5

		Planning, design and pre-construction	Construction	Asset's useable life
HEALTH	**Preventative health**	Urban health impact modelling; Pathogen transmission airflow simulation; Pollution buffer and greenbelt zoning; Urban heat island mitigation; Waste stream planning	Telemetry-guided dust suppression systems; Negative-pressure isolation room construction; Thermal disinfection of water systems; Antimicrobial photocatalytic surface treatments	IAQ sensors and alerts; HVAC UVGI operation; Water quality sensors and Legionella management; Predictive maintenance for ventilation
	Healthcare access and quality	Accessibility analysis to clinics and hospitals; Redundancy planning for emergency care; EMS route optimisation; Siting of modular clinics; Health infrastructure resilience modelling	DfMA modular clinics and wards; Prefabricated surgical suites; Preassembled medical gas racks and pipelines; Fibre backbones for telemedicine; Rapid-deploy pop-up health pods	Telemedicine kiosks; Patient routing in community apps; Remote diagnostics; Smart pharmacy lockers
	Healthy building interventions	Passive design for thermal comfort; Low-VOC material specification; Daylight and glare optimisation; Acoustic zoning in design; High-performance façade strategy	Airtightness testing and remediation (blower-door); HEPA/electrostatic filtration unit installation; Electrochromic glazing installation; Thermal bridge remediation with insulated panels; IAQ sensor network commissioning	Continuous IAQ monitoring; Automated shading; Smart leak detection; Energy-efficient retrofits
	Mental and physical wellbeing	Biophilic masterplanning; Citywide noise mapping; Sun/shade comfort modelling; Walkability-first street grids; Quiet zone allocation	Acoustic baffles with in-situ reverberation testing; Low-VOC finish systems; Vibration isolation mounts for floors; Daylighting louver assemblies	Circadian lighting schedules; Wellness app integrations; Community fitness hubs; Meditation/quiet zones; Adaptive acoustics
	Life expectancy	Population health risk modelling; Heat-stress mapping and mitigation; Proximity planning to critical care; Active mobility networks for prevention; Pollution exposure reduction	Safe potable water systems with real-time monitoring; Fire suppression and refuge area builds; High-grade ventilation installs	Home health monitoring; Safety system predictive maintenance; AI emergency response; Air and water quality optimisation
EDUCATION	**Quality of education**	School acoustic and daylighting standards baked into design; Safe routes to school network planning; Thermal comfort targets by classroom typology	Electrochromic glare control glazing; Low-EMF cabling and shielding; Operable partitions on tracks for flexible pedagogy	Smart classroom controls; AR/VR learning; IAQ and thermal monitoring; Preventive maintenance for learning spaces
	Access to schools and higher education	Transit-oriented siting of schools; Proximity modelling to catchment demand; Micro-campus distributed networks; Safe cycling and pedestrian routes; Inclusive access planning	Multimodal access points and sheltered stops; Tactile wayfinding and signage; Safe crossings and curb ramps; Secure bicycle parking and racks; Accessibility lifts and ramps	Transport scheduling; Campus engagement platforms; AR navigation for accessibility; Smart security
	Talent development and upskilling	Maker-lab and vocational centre siting; Co-working and incubator zoning; Skill hub distribution modelling; Digital backbone allowances for training; Community partnership spaces	Makerspace and instrumented lab fit-outs; VR/AR training rooms; Modular vocational classrooms; Heavy-duty power and extraction for fabrication	Smart co-working; Skill simulators; Mentorship platforms; Resource booking
	Duration of education	Lifelong learning hub placement; Adult education centre planning; Digital connectivity for remote learning; Extended-hour safety design; Access routes for caregivers	Adult-learning centre fit-outs; Extended-hours lighting and controls; Safe access and wayfinding; Acoustic comfort retrofits	Lifelong learning scheduling; Immersive course platforms; Digital credentialing; Maintenance for hubs

		Planning, design and pre-construction	Construction	Asset's useable life
LEISURE & CULTURE	**Culture and entertainment**	Zoning for flexible cultural venues; Public art corridors in plans; Heritage-sensitive massing; XR-ready spatial allowances	Modular black-box theatres; Acoustic treatment and rigging; LED wall and immersive AV installation; Demountable event infrastructure	Smart booking for venues; Rotating exhibition scheduling; Interactive digital art walls; AR heritage/culture tours
	Community events	Event-ready public realm design; Crowd flow and egress simulation; Power/data and staging provisions; Acoustic planning for open-air events	Modular stages; Demountable canopies; Event power pedestals; Portable sanitation hookups; Crowd-sensing beacons	Event scheduling platforms; Smart ticketing/access; Real-time crowd analytics; Community engagement apps
	Parks and recreational spaces	Green space allocation via GIS; Biodiversity corridors; Blue/green infrastructure siting; Sports facility masterplans; Smart irrigation design	Modular playground equipment; Permeable paving systems; Smart irrigation installation; Outdoor fitness stations; Shade structures	Smart park lighting; Sensor-based irrigation; AR nature trails; Maintenance robots; Community fitness tracking
	Religion and spirituality	Privacy and acoustic comfort modelling; Inclusive ablution facilities; Heritage-sensitive layouts; Shared-use scheduling considerations	Modular prayer rooms; Acoustic panel installations; Prefab ablution blocks; Qibla alignment and signage tech; Privacy screens	Shared worship scheduling; Digital heritage archives; AR spiritual experiences; Automated cleaning; Community events
	Heritage and identity preservation	Heritage impact assessments; Adaptive reuse feasibility; Cultural motif integration; Digital archiving during design; Conservation zoning	Material salvage and cataloguing; Laser cleaning for façades; AR-guided reconstruction; Drone inspection and photogrammetry	AR heritage tours; Digital storytelling; Preservation sensors; Automated climate control for artifacts
MOBILITY	**Accessible transport and services**	Transit-oriented development (TOD); Multimodal access nodes; Inclusive service catchments; Micromobility corridors; Digital wayfinding	Sheltered multimodal stops; Modular access points and lifts; AR QA/QC for accessibility tolerances	Mobility-as-a-service; Transport scheduling; Demand-responsive services
	Private transport infrastructure	EV charging network strategy; Smart parking locations; Autonomous vehicle corridor planning; Road resilience; Traffic modelling	Prefabricated EV charging islands; Robotic cable tray/conduit installation; Smart parking sensors embedded in slabs	EV charging management; Parking guidance; Predictive road safety
	Public transport infrastructure	Transit route optimisation; Hubs and interchange planning; Smart ticketing infrastructure; Network resilience; Accessible station siting	Modular station platforms; Platform screen doors; Accessible lifts/escalators with IoT telemetry	Real-time operations; Smart ticketing; Station maintenance
	Cycling and micromobility infrastructure	Protected cycling network planning; Micromobility hub siting; Safe intersections; Corridor continuity; Wayfinding for riders	Precast protected lane separators; Modular micromobility docks/chargers; Traffic calming devices	Bike-sharing; Route guidance; Micromobility maintenance
	Walkability	Pedestrian-first street grids; Shade and comfort corridors; Safe crossings; Inclusive public space programming; Wayfinding	Pedestrian arcade structures; Precast curb extensions; Textured crosswalk systems	Pedestrian navigation; Engagement platforms; Sidewalk maintenance

		Planning, design and pre-construction	Construction	Asset's useable life
COMMUNITY	**Social cohesion and wellbeing**	Community-centric block patterns; Shared amenities programming; Social network-informed neighbourhood design; Digital engagement platforms in plans	Rapid-build community halls; Prefabricated shade structures; Public realm notice boards with digital integration; Inclusive playground equipment	Resident engagement platforms; Community governance apps; Real-time sentiment analytics; Programmed social events
	Social development and quality of life	Mixed-use social infrastructure planning; QoL indicator scenario modelling; Inclusive neighbourhood standards; Access to services mapping; Public realm quality metrics	Modular social centres; Noise abatement installs; Accessible path construction; Green roof amenity builds	QoL dashboards; Outcome tracking; Community programme marketplaces
	Family wellbeing	Family-friendly neighbourhood typologies; Childcare facility allowances; Safe play and school routes; Recreation zone planning	Childcare centre fit-outs; Lactation rooms with hygiene tech; Safe play surfacing; Anti-pinch door hardware	Smart home safety; Family engagement platforms; Predictive maintenance for family spaces
	Population growth	Demand-led housing capacity modelling; Scalable mixed-use allocations; Utility and service resilience; Social services capacity	Scalable modular housing blocks; 3D-printed infill structures; Industrialized micro-unit conversions	Occupancy sensors; Digital resource allocation; Community growth dashboards
	Public services provision	Public service hub siting via GIS; Emergency response corridors; Smart utility backbone routing; Resilience nodes	Containerised service hubs; Rapid-deploy emergency shelter pods; Micro-utility nodes installed with BIM-to-field QA	Utility monitoring; Digital service portals; Feedback apps
	Diversity, equity and inclusion	Accessibility audits; Mixed-income inclusionary zoning; Gender-sensitive space programming; Cultural diversity hubs; Universal design baselines	Tactile paving and detectable warnings; Accessible ramp systems; Gender-safe sanitation blocks; Audible beacons at crossings	Smart accessibility systems; Inclusion apps; Adaptive space controls
SECURITY	**Physical security and safety**	CPTED in urban layouts; Emergency access routes; Smart surveillance placements; Wayfinding and lighting strategy; Evacuation modelling	Anti-ram bollards and barriers; Smart lighting masts; Blue-light help points; AR-guided wayfinding signage installation	Access control; Emergency response platforms; Predictive crime analytics; Safety system maintenance
	Cybersecurity	Secure-by-design digital infrastructure; Data privacy zones; Identity management architecture; Segmented network planning	Tamper-proof IoT device enclosures; Secure cable plant and physical segmentation; PKI device provisioning at handover	Continuous monitoring; Automated patching; Identity verification
	Safe public spaces	Visibility-first public space design; Smart lighting plans; Emergency egress routes; Slip/trip hazard minimisation; Crowd management	Smart crosswalk kits; Slip-resistant surfacing; Prefab shade and seating modules; Traffic calming installations	Surveillance and response platforms; Predictive crowd safety; Asset maintenance programmes
	Food security	Urban agriculture corridors; Vertical farm siting; Community garden networks; Local food logistics nodes; Irrigation and water reuse planning	Rooftop hydroponic modules; Vertical farm containers craned-in; Cold-chain micro-hubs from modular shells	IoT hydroponics ops; Food distribution platforms; Community agriculture apps
	Judicial fairness and policing	Community justice hub siting; Civic transparency in layouts; Equitable policing coverage mapping; Safe complaint access points; Public legal education spaces	Transparent civic centres with public rooms; Controlled-access evidence storage; Privacy-zoned CCTV installations	Digital justice portals; Community reporting apps; Civic tech maintenance
	Economic security and workplace safety	Resilient employment districts; Safe workplace standards; Co-working and training spaces; Home-to-work connectivity; Remote work infrastructure planning	Wearable collision-avoidance; Real-time air/noise exposure control; VR safety training areas in site cabins	Workplace automation; Predictive safety maintenance; Training/upskilling platforms

THE FABRIC OF URBAN LIFE: INTEGRATING PREDICTIVE INTELLIGENCE AND HUMAN EXPERIENCE

Ahmed El Shamy
CEO
Majid Al Futtaim Development

> The measure of a successful city is no longer found in the height of its skyline, but in the responsiveness of its streets. As we navigate the complexities of rapid urbanization and the global climate crisis, the real estate sector is undergoing its most profound metamorphosis since the industrial revolution. We are moving beyond the era of static "brick and mortar" into a future defined by PropTech 3.0 - a phase where technology and human experience are indistinguishable. To build the cities of tomorrow, we must view innovation not as a digital layer, but as the very fabric of urban life, integrating predictive intelligence and human-centric design into the core of every development.

Modern placemaking has shifted the industry's focus from mere asset management to the creation of meaningful human environments, particularly as research indicates that residents spend approximately 95 per cent of their time indoors. In the past, buildings were passive containers; today, they are becoming active participants in the health and productivity of their occupants. By leveraging AI-driven property management and IoT sensors, we can now mitigate "invisible" performance killers; for instance, we know that carbon dioxide levels above 1,000 ppm can reduce cognitive performance by 15 per cent. Future buildings will function as proactive wellness sanctuaries, automatically adjusting temperatures and air quality to optimize human potential without the occupant ever needing to touch a thermostat.

This evolution requires a fertile ecosystem where innovation can be tested and scaled at the speed of global demand. Our strategic partnership with the Dubai PropTech Hub provides exactly this, serving as a critical catalyst within the Dubai Economic Agenda (D33) to de-risk bold technologies and refine the regulatory frameworks necessary for a digital-first economy. By operating within this specialized innovation sandbox - supported by a database that reveals a powerful link between market incentives and entrepreneurial activity, we are able to pilot solutions that address the "Triple Bottom Line." This collaboration ensures that we aren't just following trends, but are actively contributing to an ecosystem where sales tools, investment platforms, and sustainability tech converge to drive economic and social returns.

Looking ahead, the strategies for future cities must bridge the gap between financial performance and environmental resilience. With buildings and construction accounting for 37 per cent of global CO_2 emissions, the shift toward "Green Urbanism" is an economic imperative. Our strategy focuses on deploying PropTech innovations that demonstrate clear financial returns while moving us toward the goal of near-zero emission buildings by 2030.

By integrating smart irrigation, renewable energy, and blockchain-based transparency, we are engineering a city that is not only smarter and more profitable but fundamentally more sustainable. The goal is to ensure that as our technology advances, our connection to the physical world and to each other remains the central priority of the built environment.

INDOOR WELLBEING WITH SMART FM

Rabie Atieh
CEO and Board Member
Transguard Group

> Tomorrow's smart workplace is already arriving in offices across the Middle East. Specialist FM and prop-tech teams are using AI to move from reactive maintenance to living, learning buildings: BMS data, IoT sensors and CAFM systems are being fused to predict failures, optimize energy and continuously improve the indoor environment. Yet most offices are still run on static set-points and time schedules, even though we know conditions like CO_2, light and temperature directly shape how we think and feel, and how we think and feel changes throughout the day.

Research shows that when indoor CO_2 climbs toward 1,000 ppm, cognitive performance can drop by around 15 per cent, and at 1400 ppm, complex decision-making performance can fall by up to 50 per cent. Optimal office temperatures cluster roughly around 21–23°C; above 24°C, performance declines by about 2 per cent for every extra degree. Lighting also matters, standard guidelines recommend 300–500 lux for general office tasks, with higher levels for focused work, and studies show that boosting illuminance within this range can increase productivity and alertness.

The next step is a truly symbiotic relationship between buildings and its occupants. Networks of sensors will continuously read CO_2, occupancy, light levels and temperature at a micro-zone level, even right down to the individual. AI will interpret this data in real time, learning team rhythms and individual preferences. Ventilation will increase automatically before CO_2 impairs focus. Blinds and tuneable LEDs will adjust spectrum and intensity to support circadian rhythms, and temperature will subtly shift to occupancy requirements without wasting energy.

In this future, the building becomes a quiet co-pilot for productivity and wellbeing, always sensing, always learning, continuously balancing comfort, performance and sustainability. Employees won't think about lux, ppm or degrees – they'll simply feel more focused, more energized and more productive at work.

PLANET: SOCIAL SUSTAINABILITY AND WELLBEING

Each year, the United Nations Environment Programme (UNEP) publishes its *Global Status Report for Buildings and Construction*, which is the primary reference for the phrase "real estate and construction are responsible for 37 percent of energy and process-related carbon dioxide emissions".[19] Related environmental challenges are not yet as closely followed by the global real estate community, including resource efficiency and waste; deforestation; desertification; biodiversity loss; and environmental quality (air, water, soil, noise, light, radiation, etc.). Anecdotally, it appears that present attitudes are shifting. Drivers of these changes can be split into push factors (regulatory threats, costs, reputational issues); and pull factors (talent and tenant attraction, green financing, accreditations). As a result, global real estate groups are actively working to minimise their environmental impact, and in some cases, reverse historic environmental impacts of the sector. This has created a market for PropTech innovations, particularly those that can also demonstrate financial returns.

[19] UNEP. 2025. Global Status Report for Buildings and Construction. Published 17 March 2025.

DUBAI'S AMBITIONS FOR PLANET

In 2023, Dubai hosted the COP 28 UN climate conference, which launched the Buildings Breakthrough Initiative. The goal of the initiative is to establish near-zero emission and resilient buildings (NZERBs) as the *new normal* by 2030, attracting an initial 27 signatories.[20] During the conference, the UAE submitted that 81.4 percent of its total emissions reduction targeted by 2030 will come from the building sector. This will require an increase in the retrofit rate, energy conservation initiatives, and metering for distributed renewable energy, among others.[21] It is our view that these will be enabled by PropTech and adjacent innovations.

Dubai's strategic agendas also heavily feature environmental themes. Of the strategic agendas analysed for this paper, the most environmental focus areas, evidenced in Table 4, were:

Resource efficiency

Utilities and renewable energy

Green urbanism

Environmental outcomes are well established in mature markets such as North America and Europe, but less so in the present Dubai PropTech ecosystem. Given the UAE and wider MEASA region's heritage of climate resilience, there is an opportunity to incubate, test and export UAE-made PropTech in this domain with the involvement of local universities, adjacent sectors and the entrepreneurial community. A sample of pre-existing use cases extracted from our sample of 8,307 global PropTech company descriptions founded between 2015 and 2025 are summarised in Table 7.

[20] UNEP. 2023. The Buildings Breakthrough: Global push for near-zero emission and resilient buildings by 2030 unveiled at COP28. Published 06 December 2023.

[21] Emirates Green Building Council. n.d. UAE Sustainable Built Environment Blueprint.

PROPTECH FOR **PLANET** Table 7

		Planning, design and pre-construction	Construction	Asset's useable life
ENVIRONMENT	**Green urbanism**	Mixed-use, transit-oriented zoning; Passive design codes in masterplans; Heat island mitigation corridors; Green roofs and façades policy envelopes; Material circularity districts	Mass timber erection systems; Carbon cured concrete; Prefab green roof trays and façade planters; High albedo pavements; Onsite material passport tagging	Urban heat/comfort dashboards; Green roof/façade irrigation control; Material circularity tracking; Community platform for mode shift
	Biodiversity	Habitat connectivity mapping; Biodiversity net gain targets; Native species landscape palettes; Bluegreen network siting; Ecological buffer zoning	Wildlife over/underpass modules; Native planting with IoT soil sensors; Pollinator roofs; Low spill lighting installs; Habitat fencing with smart gates	Wildlife movement analytics; Habitat health sensors; Light pollution management; Citizen science apps
	Urban agriculture	Rooftop/vertical farm siting via GIS; Food logistics micro hub planning; Greywater reuse schemes for irrigation; Community allotment zoning; Agritech utility allowances	Containerised hydroponic modules craned in; Solar powered grow lights; Climate controlled farm rooms; Smart fertigation manifolds; Food safe cold chain micro hubs	Farm yield and energy management; Demand linked distribution; Grow recipe optimisation; Community subscription platforms
	Green spaces and parks	Park accessibility catchment analysis; Shade tree canopy planning; Sports and recreation programming; Smart irrigation network layout; Permeable surface coverage targets	Permeable paving systems; Smart irrigation mains and controllers; Modular play/fitness equipment; Precise tree pit structural cells; Shade canopies	Smart park lighting and patrol routes; Irrigation scheduling; Asset maintenance robots; Usage analytics
	Nature reserves	Protected area boundary optimisation; Wildlife corridor planning; Visitor capacity modelling; Ranger station siting; Low impact access routes	Boardwalks on screw piles; Acoustic and camera traps deployment; Ranger station prefab cabins; Antipoaching sensor towers; Low impact wayfinding	Remote monitoring (acoustic/camera); Visitor flow management; Ranger dispatch; Habitat restoration scheduling
PLANNING	**Sustainable urbanisation**	Compact growth scenarios; Mixed income inclusionary policies; Infrastructure phasing; Service catchment optimisation; Circular economy land use overlays	Industrialised housing modules; Mixed use DfMA assemblies; High density transit ready podiums; Offsite bathroom/kitchen pods; Lean construction with 5D BIM	Mixed use occupancy optimisation; Shared amenity scheduling; Service catchment analytics; Circular economy marketplace
	Smart systems for cities	City OS architecture; LoRaWAN gateway placement; Digital twin districts; Open data/API governance; Edge compute nodes for real time ops	LoRaWAN/5G small cell mounts; City IoT cabinets; Sensor fusion nodes; Digital twin commissioning (BIM to field); Interoperable BMS gateways	City OS monitoring; Open data APIs; Digital twin ops; Edge analytics for incident response
	Resource efficiency	Material bank and takeback networks; Grey/blackwater segregation planning; Demand response districts; Shared logistics micro hubs; Adaptive reuse pipelines	Material passports/QR tagging; Deconstruction ready detailing; Onsite water reuse plant skids; Smart meters and submeters; Reverse logistics staging	Water/energy intensity dashboards; Smart scheduling and curtailment; Material reuse exchanges; Demand controlled ventilation
	Disaster risk reduction	Hazard heatmaps and risk scoring; Evacuation route design; Emergency shelter capacity planning; Critical comms resilience nodes; Early warning system coverage	Early warning sirens and beacons; Emergency power microgrids; Fire hardening cladding; Redundant comms shelters; Rapid deploy shelter pods	Incident detection and mass notification; Emergency microgrid dispatch; Post event damage assessment via drones; Recovery logistics platforms

		Planning, design and pre-construction	Construction	Asset's useable life
SUSTAINABILITY	**Sustainable mobility**	Micromobility corridor networks; Bus rapid transit lanes; Mode shift scenario modelling; First/last mile hubs; Universal access route planning	Precast protected bike lane separators; Modular micromobility docks/chargers; BRT platform kits; Tactile wayfinding and audible beacons	Mobility-as-a-service platforms; Realtime headway management; Micromobility fleet ops; Accessibility navigation
	Utilities and renewable energy	District energy and microgrid siting; Rooftop PV potential mapping; EV charging demand modelling; Solar carport corridors; Battery storage nodes	Rooftop PV arrays and inverters; Solar carports; Battery storage containers; Prefab EV charging islands; Smart switchgear and metering	PV/ESS monitoring and dispatch; EV charging management and pricing; Demand response; Fault diagnostics
	Waste management	Neighbourhood waste stream modelling; Organics and recycling hub siting; Underground vacuum systems routing; Construction waste backhaul logistics; Producer responsibility zones	IoT bin sensors; Modular MRF lines for sorting; Underground vacuum waste pipe installs; Anaerobic digesters; Construction site material segregation systems	Smart route optimisation for collection; Contamination alerts; Recycling participation analytics; Organics diversion tracking
	Air, noise water quality	Ambient sensor grid planning; Noise buffer and façade strategies; Watershed protection zones; Stormwater quality targets; Industrial emission setback	Continuous ambient air monitors; Acoustic barriers and tuned absorbers; UVGI and HEPA retrofits; Oil/water separators and smart valves	Ambient quality dashboards; IAQ/Noise alerts; Stormwater quality compliance; Leak detection and response
	Reduce greenhouse gas emissions	Citywide embodied carbon baselines; District energy and electrification pathways; Mode shift carbon budgets; Building retrofit priority mapping; Carbon sink corridors	Low carbon concrete mixes; Mass timber structural frames; Electric plant and site power; Onsite solar/battery for temporary works; EPD driven procurement	Operational carbon accounting; Retrocommissioning analytics; Electrification performance tracking; Offsetting/REC registries
	Climate adaptation and resilience	Floodplain and surge mapping; Heat stress refuges; Critical infrastructure redundancy; SUDS network planning; Resilience hubs siting	Deployable flood gates; Backflow preventers; SUDS modules (bioswales, raingardens) prefabricated; Thermal resilient shade structures; Seismic dampers/base isolation	Early warning integration; Resilience hub operations; Flood sensor telemetry; Heat refuge programme management

SUSTAINABLE URBAN LIVING FOR MASTERPLANNED COMMUNITIES

Eng. Amer Khansaheb
CEO & Board Member
Union Properties PJSC

As sustainability becomes the defining pillar of modern urban development, PropTech, technology's transformative role in Real Estate, now stands at the heart of building resilient, future-ready, and wellness-driven communities. At Union Properties, we are harnessing advanced technologies to future-proof our assets, exceed evolving customer expectations, and champion a new era of sustainable living, in alignment with the Dubai 2040 Urban Master Plan, the UAE Green Agenda 2030, and the Dubai Real Estate Sector Strategy 2033.

By elevating quality, sustainability, and integrated urban design as core priorities, we ensure that every development delivers an exceptional standard of luxury, wellbeing, and long-term environmental stewardship. PropTech is central to this mission, with AI, IoT, and data analytics enabling real-time monitoring, predictive maintenance, optimised resource efficiency, and full ESG transparency. This commitment is exemplified by our flagship projects, Takaya and Mirdad.

Takaya offers 788 premium residential units featuring energy-efficient façades, smart utility management, and advanced building systems that optimise lighting, HVAC, and energy performance, achieving up to 27.7 per cent reduction in operational energy and water consumption. The development also integrates 150 parking spaces equipped with EV chargers to advance green mobility.

Similarly, Mirdad incorporates climate-controlled central plazas, intelligent BMS systems, and flood-prevention solutions, enabling significant gains in energy optimisation, waste reduction, and community resilience. Half of its parking spaces are equipped with EV charging systems, reinforcing our sustainability-first approach.

Beyond our developments, our facilities management subsidiary, ServeU, has driven a 39 per cent reduction in paper consumption through digital transformation, while autonomous eco-cleaning robots have improved operational efficiency and reduced energy use.

Dubai Autodrome, another major subsidiary, features over 5,000 solar panels generating 5.6 million kWh of clean energy annually, substantially lowering carbon emissions and setting a new benchmark for the region. Complementing this, the deployment of LED lighting and BMS upgrades across our portfolio has reduced power, water, and chilled-water consumption by up to 30 per cent.

Guided by a steadfast commitment to sustainability and eco-conscious living, Union Properties continues to unlock the power of innovation to shape premium, future-ready communities that enrich quality of life and strengthen long-term investment value.

PROFIT: ECONOMIC GROWTH AND RESILIENCE

In 2025, the combined value of all the world's real estate was estimated to be USD 393.3 trn.[22] In addition, the construction and real estate services sectors are regarded both as major employers and drivers of economic activity globally.[23] While real estate has historically been associated with rentier capitalism and wealth preservation, this appears to be evolving in highly transformative ways.[24] While real estate investors of yesteryear might have primarily (or solely) focused on owning assets and collecting rent, occupier markets are increasingly demanding operational assets (think flexible workspaces, branded residences, assisted living, etc). These operational real estate models have been leveraged by the industry to differentiate assets; attract visitors, tenants and buyers; and drive economic returns. While the Urban Land Institute (ULI) recognised just eight categories of real estate suitable for investment and development in 2004, this had grown to 27 by 2023.[25]

In the information age, global talent pools have grown increasingly interconnected with online mediums, trade and travel. As a result, competition to provide the best places to live and work expand beyond the assets within a local market (intra-market competition) to the cities of the world (inter-market competition). Therefore, the ability for a city or country to attract and retain the talent needed for outsized economic development will involve differentiating the built assets within which human talent's quality of life will be determined.

Put another way, highly mobile talent pools create an economic incentive for ambitious urban hubs to maximise quality of life to retain talent. As one example of the real estate sector's role, longstanding cost of living pressures in Sydney, Australia (particularly housing) led the NSW Productivity Commission to warn it could become "a city with no grandchildren" in a 2024 report.[26]

[22] Savills. 2025. World's real estate worth $393.3 trn and is the world's largest store of wealth. Published 29 September 2025.

[23] Evidenced by their status as their own sub-sectors under the International Standard Industrial Classification (ISIC).

[24] Rentier capitalism is an economic system where wealth is primarily driven by ownership of assets rather than productive activity. In the cases of real estate, this would mean holding an asset and colleting rent without adding any additional economic value (such as operating or improving the asset).

[25] Baum, A & Shegoyan, V. 2024. The real estate manager of the future.

[26] New South Wales Government. 2024. Sydney is at risk of becoming a city with no grandchildren – Productivity Commission report finds. Published 13 February 2024.

DUBAI'S AMBITIONS FOR PROFIT

The economic miracle of Dubai over recent decades was in no small part a product of its built environment innovation. As Dubai looks to the future, its strategic agendas are no less transformational. Our strategic agenda analysis indicates a heavier focus on digital and knowledge economies. This is where Dubai's world-famous real estate sector merges its feats of civil and mechanical engineering with feats of software engineering, and the next generation of frontier technologies.

As a direct contribution to economic activity, the Real Estate Sector Strategy aims to double real estate's contribution to Dubai's GDP by 2033. Other strategic agendas, such as the Dubai 2040 Urban Master Plan, showcase the real estate sector's multifaceted contribution, including land for hotel, leisure and commercial activity. Peripheral contributions include initiatives where built environment initiatives add to the lure of Dubai as a destination to live, work and play. Of the strategic agendas analysed for this paper, the most reoccurring economic focus areas evidenced in Table 4 were:

- **Economic growth (broadly)**
- **Global trade**
- **Digital transformation**
- **Quality and affordable housing**

From buyer-asset matching tools, to the next generation of CRMs, geospatial AI, construction efficiency tools and beyond, PropTech is central to the efforts being undertaken by Dubai's leading property developers and other industry participants to enhance real estate's contribution to Dubai's economy. A sample of pre-existing use cases extracted from our sample of 8,307 global PropTech company descriptions are summarised in Table 8 and Table 9.

PROPTECH FOR **PROFIT** Table 9

ECONOMY

	Planning, design and pre-construction	Construction	Asset's useable life
Economic growth (productivity)	Zoning for high-density mixed-use districts; Transit-oriented development for workforce mobility; Digital twin modelling for productivity scenarios; Infrastructure phasing for minimal downtime	Industrialised construction for rapid delivery; Robotics for cycle-time reduction; Prefabricated modules for lean workflows; BIM-integrated QA/QC	Smart building automation for operational efficiency; IoT-driven predictive maintenance; Occupancy analytics for space optimisation
Economic growth (FDI)	Strategic land-use planning for investment clusters; Incentive-linked zoning overlays; Digital permitting platforms; ESG-compliant masterplans	Fast-track modular construction for investor timelines; AR/VR QA for transparency; Off-site fabrication for cost certainty	Investor dashboards for asset performance; Digital compliance reporting; Smart lease management
Economic growth (trade)	Logistics hub siting; Free-zone spatial planning; Port and intermodal connectivity modelling; Customs clearance digital infrastructure	Prefabricated warehouse shells; Automated racking systems; IoT-enabled cold-chain facilities; Robotics for material handling	Smart logistics platforms; Blockchain for trade documentation; Predictive asset utilisation
Economic diversification	Mixed-use innovation districts; Knowledge-economy cluster planning; Adaptive reuse strategies; Circular economy overlays	Modular lab and tech park fit-outs; Makerspace construction; Plug-and-play infrastructure for new sectors	Smart co-working ecosystems; Digital resource marketplaces; AR/VR collaboration hubs
Standard of living (GDP/capita)	Housing affordability modelling; Inclusive neighbourhood design; Access to services catchment analysis; Mobility integration	Prefabricated housing units; Rapid-deploy community amenities; Prefabricated retail shells; Lean construction for cost control	Smart home systems; Community engagement platforms; Energy-efficiency retrofits
Government expenditure	Public service hub optimisation; Infrastructure ROI modelling; Digital procurement platforms; PPP structuring in masterplans	Modular civic buildings; BIM-driven cost control; IoT commissioning for utilities; Prefabricated emergency shelters	Digital governance dashboards; Asset lifecycle cost analytics; Smart utility billing
Retail and commercial activity	Retail corridor planning; Footfall heatmap modelling; Mixed-use podium design; Digital signage infrastructure	Modular retail pods; Prefabricated façade systems; AR-enabled store fit-outs; Robotics for MEP installs	Smart POS integration; Occupancy analytics; Dynamic leasing platforms
Innovation and entrepreneurship	Innovation hub siting; Co-working and incubator zoning; Digital backbone provisioning; Maker-lab allowances	Modular innovation centres; VR/AR training rooms; Heavy-duty power and extraction for fabrication	Smart co-working platforms; Digital mentorship ecosystems; Resource booking apps
Digital transformation	City OS architecture; Fibre and 5G backbone planning; IoT sensor grid design; Open-data governance frameworks	IoT cabinet installs; Edge compute node deployment; Digital twin commissioning; Interoperable BMS gateways	Smart city dashboards; Predictive analytics; API-driven service integration
Financial innovations	Fintech cluster planning; Secure data centre siting; Blockchain-ready infrastructure; Digital ID integration	Prefabricated data halls; High-security vault construction; IoT-enabled access control; Redundant power systems	Smart transaction platforms; Cybersecurity monitoring; Digital compliance tools
Investment and business incentives	Incentive-linked zoning; ESG-compliant design overlays; Digital permitting and approvals; Infrastructure readiness modelling	Fast-track modular builds; Transparent BIM-to-field QA; Robotics for accelerated timelines	Investor performance dashboards; Smart compliance reporting; Lease optimisation

		Planning, design and pre-construction	Construction	Asset's useable life
REAL ESTATE	**Real estate sector growth**	Mixed-use masterplans; Market absorption modelling; Digital sales platforms; PropTech integration in design	Modular residential/commercial shells; Automated façade systems; IoT commissioning for smart readiness	Smart leasing platforms; Predictive valuation tools; Digital asset management
	Quality and affordable housing	Affordable housing catchment analysis; Inclusionary zoning; Modular typology planning; Lifecycle cost modelling	Prefabricated housing units; 3D-printed infill structures; Off-site bathroom/kitchen pods; Lean assembly	Smart home retrofits; Energy-efficiency upgrades; Digital tenancy platforms
	Commercial and industrial development	Industrial cluster planning; Logistics corridor modelling; Utility capacity planning; Digital permitting	Prefabricated industrial shells; Automated racking and conveyors; IoT-enabled cold-chain facilities; Robotics for assembly	Smart warehouse management; Predictive maintenance; Blockchain for supply chain
	Tourism sector and infrastructure	Hospitality corridor planning; Visitor flow modelling; Cultural asset integration; Digital wayfinding	Modular hotel pods; Prefabricated resort villas; AR-enabled experience fit-outs; Rapid-deploy event infrastructure	Smart booking systems; Dynamic pricing engines; AR/VR tourism experiences
EMPLOYMENT	**Job creation**	Workforce demand modelling; Skills hub siting; Vocational training integration; Digital labour platforms	Modular training centres; VR/AR skill simulators; Robotics for safe assembly; Makerspace fitouts	Digital upskilling platforms; Workforce analytics; Smart scheduling tools
	Workforce integration (youth, Emiratis)	Inclusive employment zoning; Apprenticeship programme spaces; Digital credentialling infrastructure; Community skill hubs	Modular vocational classrooms; AR/VR training pods; Accessible workplace retrofits	Smart HR platforms; Digital mentorship ecosystems; Workforce engagement apps
	Attracting global talent	Talent cluster planning; Mixed use livework typologies; Digital connectivity allowances; Cultural amenity integration	Modular coliving spaces; High-spec office fitouts; Robotics for premium finishes	Smart coliving management; Global talent portals; Digital concierge services
	SME and startup support	SME hub siting; Flexible lease structuring; Digital permitting for small businesses; Shared logistics planning	Modular SME pods; Plug-and-play retail shells; IoT-enabled utilities; Robotics for rapid fitout	Smart leasing platforms; Digital SME marketplaces; Resource booking apps
KNOWLEDGE	**Research and development**	R&D cluster planning; Laboratory typology design; Utility redundancy modelling; Digital backbone provisioning	Modular lab shells; Controlled environment rooms; IoT commissioning for precision; Robotics for clean installs	Smart lab management; Predictive asset calibration; Digital collaboration platforms
	Knowledge-based industries	Knowledge district planning; Mixed use innovation corridors; Digital infrastructure overlays; Talent pipeline modelling	Modular knowledge hubs; Makerspace fitouts; VR/AR collaboration rooms; IoT-enabled utilities	Smart knowledge platforms; Digital IP management; AR/VR immersive learning
	Global competitiveness and collaboration	International business district planning; Cross-border logistics modelling; Digital trade facilitation; ESG-compliant design	Modular trade pavilions; IoT-enabled customs facilities; Robotics for secure handling; Prefabricated conference halls	Smart trade platforms; Blockchain for compliance; Global collaboration portals

THE UAE REAL ESTATE MARKET IN A STRUCTURALLY ADVANCING ECONOMY

بن غاطي
BINGHATTI

Katralnada BinGhatti
CEO and Managing Director
Binghatti Holding Limited

The UAE real estate market is often assessed through short term price movements and transaction cycles. However, such a narrow lens does not reflect the market's underlying fundamentals or its evolution into a structurally supported, economically integrated sector.

Dubai's economy continued to demonstrate strong momentum in the first half of 2025, surpassing projections and reinforcing its position as one of the world's most competitive urban economies. GDP grew by 4.4 per cent to AED 241 bn in the first half of the year, with growth accelerating to 4.7 per cent in the second quarter alone. More broadly across the UAE, the real estate sector is increasingly aligned with the country's long-term economic diversification agenda, supported by robust non-oil growth, sustained job creation, rising long-term residency, and consistent investment inflows that continue to underpin housing demand across income segments.

These economic fundamentals are further reinforced by sustained population growth. According to the Dubai Statistics Center, Dubai's population grew by approximately 3.5 per cent in 2025, with net migration adding over 70,000 new residents. This continued inflow reflects the city's enduring appeal as a global destination for professionals, entrepreneurs, and families seeking long-term settlement.

Government policy reforms have further strengthened market depth and stability. The introduction of long-term residency schemes, flexible visa frameworks, and expanded foreign ownership regulations has widened the base of end-users and long-horizon investors. These reforms have supported sustained transaction activity. According to the Dubai Land Department, real estate transactions in Dubai reached approximately AED 283 bn during the first nine months of 2025, representing a year-on-year increase of 22 per cent.

At the same time, continued national investment in world-class infrastructure, aviation, logistics, and hospitality has created a dependable pipeline of economic activity such as tourism that is underpinning real estate absorption. Dubai's tourism sector continued its upward trajectory in 2025, welcoming 13.95 million international visitors in the first nine months of the year, according to the latest data released by the Dubai Department of Economy and Tourism (DET). This growth underpins demand across residential, hospitality and mixed-use development.

In parallel, developers across the UAE, including Binghatti Holding Limited, are adopting more disciplined supply strategies. These include phased project launches, stronger financial controls, and closer alignment with end user demand. This approach has supported market balance even as new supply is delivered. According to leading real estate consultancies, residential prices in Dubai increased by approximately 15.6 per cent year on year in 2025, while rental values rose by around 12 per cent, reflecting healthy absorption levels.

As the UAE real estate sector continues to be shaped by economic diversification, population growth, forward-looking policy, and rapid technological advancement, including the growing role of Dubai PropTech, current market dynamics are best understood as a reflection of a maturing and resilient market. Real estate today is increasingly anchored in fundamentals, supported by long-term drivers, and aligned with the country's broader economic ambitions.

DRIVING FOREIGN DIRECT INVESTMENT WITH REAL ESTATE

SOBHA REALTY

Francis Alfred
Managing Director
Sobha Realty

> PropTech has the power to redefine the future of cities through disciplined, developer-led adoption at scale. As the real estate sector evolves to support Dubai's goal of doubling its GDP contribution by 2033, the focus must shift from isolated experimentation to technologies that enhance delivery certainty, strong governance, and sustained asset performance.

At Sobha Realty, PropTech is seamlessly integrated across the entire real estate lifecycle, backed by a backward-integrated operating model where design, engineering, and project delivery are managed in-house. This structure enables direct control over quality, timelines, and outcomes. With over 30 years of development expertise and construction ongoing for 40,000+ homes with a GDV of AED 85Bn+, Sobha operates at a scale where even small improvements in design efficiency, construction productivity, and quality closure lead to substantial long-term economic value, generating a ripple effect across design, construction, and other critical stages of development.

Sobha leverages a connected ecosystem of 75+ technologies, forming a high-impact core that drives value throughout the lifecycle. In design and engineering, BIM-led coordination accelerates project alignment, reduces rework, and ensures consistent quality. Cost certainty is reinforced through advanced estimation platforms, enabling better budget management and streamlined execution. In construction, Integrated BOQs and Work Management System (WMS) provide realtime visibility, productivity tracking, and quality assurance, ensuring higher efficiency and faster project delivery.

Quality and site execution are further strengthened through PlanGrid, the central quality and field management platform. Managing over 2.5 million project records monthly, it streamlines workflows, ensuring consistent quality control, faster issue resolution, and traceability across construction sites.

In the post-handover phase, Salesforce CRM ensures a seamless customer experience, while CAFM systems track service requests and manage assets, ensuring long-term performance and enabling preventive maintenance for future generations of homeowners. Facility management is seamlessly integrated into the customer journey, ensuring that long-term needs are met efficiently.

The result is consistent quality at scale. By aligning technology adoption with a fixed annual delivery cadence and long-term resource planning, Sobha avoids the volatility often seen in subcontractor-heavy models and ensures continuity of skill, data, and learning across the organisation.

As PropTech evolves, developers will play a key role in shaping its impact. Emerging technologies like tokenisation, AI-driven construction, smart contracts, and IoT-enabled buildings will transform real estate, driving liquidity, efficiency, and long-term performance. These innovations will move beyond pilots to become sustained economic engines, supporting cities that scale responsibly and endure across generations.

By aligning PropTech with clear execution goals, we are not just addressing today's challenges but also actively shaping the future of real estate in Dubai and beyond, driving innovation and resilience in the built environment.

PRODUCTIVITY: WHERE PEOPLE, PLANET AND PROFIT MEET

Following the early discoveries of biophilic design and patient recovery in the 1980s, further experiments on indoor environmental quality were undertaken. These identified opportunities for optimised indoor environments to affect worker productivity. In 2024, European PropTech researchers undertook a secondary data modelling study in this area, identifying GBP 41.5 million of annual productivity improvements for a typical 500,000sqft London office building from biophilic design interventions alone.[27] Extrapolated across central London's office stock, this represents GBP 23.74 bn of annual economic activity. Using the same figures for Dubai's 123 million sqft of office stock as of 2026, optimised biophilic interventions alone would represent AED 51.05 bn of added annual economic productivity to the emirate.[28]

In 2025, a study of Demand Logic data identified a GBP 364,880 economic productivity shortfall for a standard 100,000 sqft London building caused by suboptimal indoor temperature regulation. Extrapolated across central London's office stock, this represented an opportunity cost of GBP 1.04 bn of annual economic productivity. Using the same figures for Dubai's 123 million sqft of office stock as of 2026, temperature regulation interventions alone would represent AED 2.24 bn of added annual economic productivity.[29]

Following through on such opportunities, and quantifying them, could turbocharge Dubai's talent attraction initiatives and further strengthen economic growth while concurrently supporting Dubai's quality-of-life and urban greening efforts.

[27] Graham, L; & Baum, A. 2024. Techopolis: liveability, technology and the future of cities. Pi Labs. London, United Kingdom.

[28] Dubai's office stock figure was sourced from projections in Knight Frank's H1 2025 Dubai Office Market Review.

[29] Graham, L; Darby, M; Short, J; & David, S. 2025. The Annual Building Operational Performance Index. Demand Logic. September 2025. London, United Kingdom.

DUBAI AS A GLOBAL PROPTECH HUB

DUBAI AS A GLOBAL PROPTECH HUB

Under the visionary leadership of His Highness Sheikh Mohammed bin Rashid Al Maktoum and his forebears, Dubai has emerged as a global hub for intercultural cooperation, international trade, ambitious engineering projects, and more recently, advancements in the knowledge economy. Central to His Highness' vision is a novel approach to innovation: to use one's own creativity and intelligence to formulate new ideas when faced with challenges, rather than simply following precedent set by others. His Highness' bold approach is well aligned with the innovation literature, which encourages organic ecosystem curation capitalising on inherent characteristics. Combined with the strategic agendas analysed in this paper, a roadmap for Dubai's PropTech ecosystem eventuates. This chapter presents the existing composition of Dubai PropTech, and offers an outlook for its evolution during the critical era of PropTech 3.0.

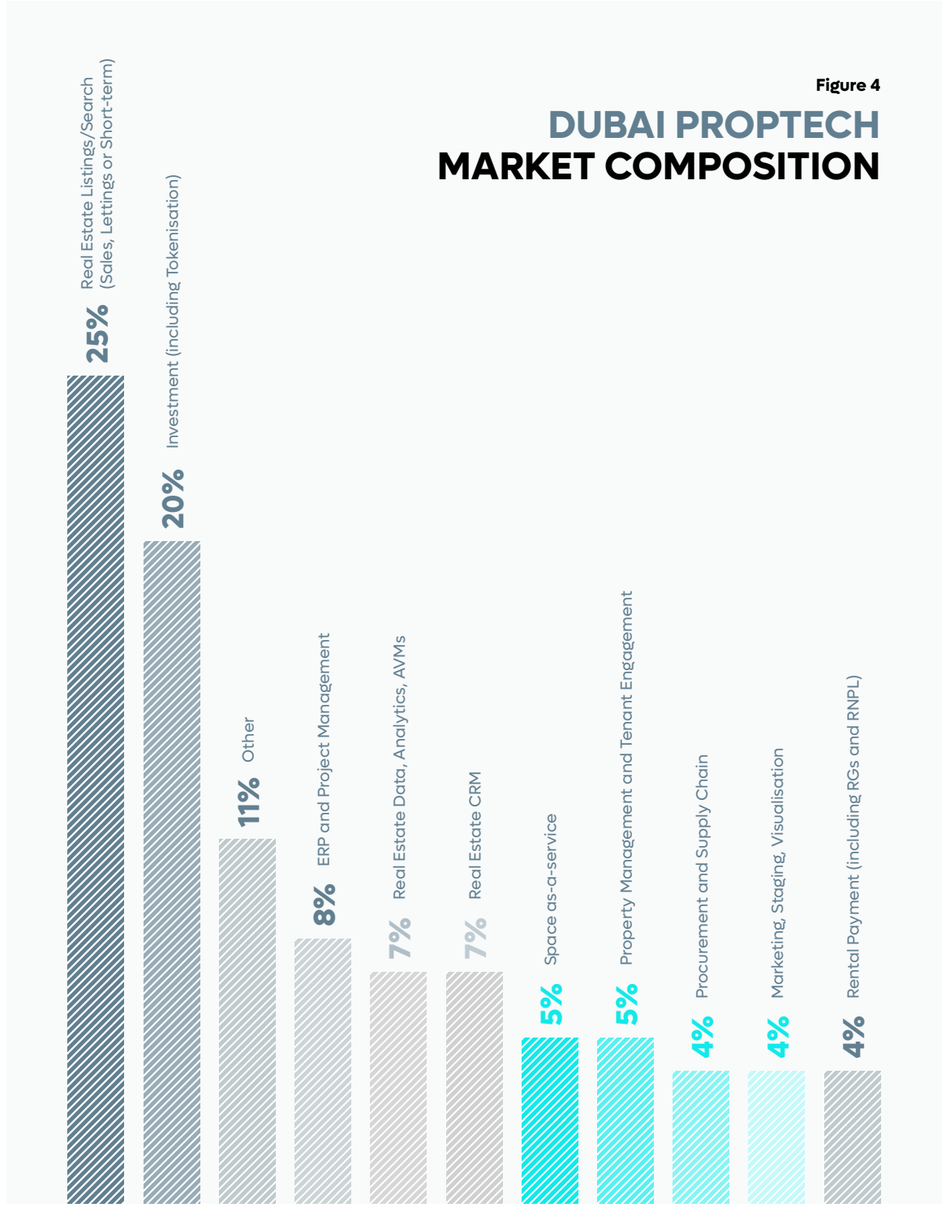
THE EXISTING COMPOSITION OF DUBAI PROPTECH

Like other PropTech ecosystems, the composition of Dubai's PropTech ecosystem has been influenced by contextual factors such as its real estate market (with strong foreign direct investment capital flows and ratio of new build to established assets), regulatory initiatives (such as tokenisation and rental payment norms) and others. The UAE's PropTech investment landscape is embryonic, which means many of its emergent PropTech innovations are yet to be publicly recognised. The Dubai PropTech Hub is tracking UAE-based PropTechs across multiple sources, including private market data platforms; DIFC registrations and inbound enquiries; participants in recent Dubai PropTech Hub initiatives; desk research; and interpersonal networks. Figure 4 visualises the distribution of UAE-based PropTechs by descriptor within Dubai PropTech Hub's present database comprising 231 companies as of January 2026. There is evidently a strong presence of transaction, marketing and investment use cases within the existing ecosystem, reflecting prevailing market strengths. This is the foundation from which market growth and diversification is undertaken.

[30] Maktoum, MbR. 2024. Chapter One: The Lion and the Gazelle. My Vision: Challenges in the Race for Excellence. Originally printed in 2012.

Figure 4

DUBAI PROPTECH MARKET COMPOSITION



A STRENGTHS-BASED APPROACH TO ECOSYSTEM CURATION

Just as Dubai's PropTech ecosystem enjoyed early successes in marketing and investment (including tokenisation) use cases due to market forces, we have ideated a non-exhaustive list of other areas where Dubai is well positioned to take (or maintain) a leading position globally.

A clear direction of travel: as explored in The Dubai Urban Innovation Agenda chapter, the strategic agendas pertaining to Dubai (at the municipal, emirate, national and UN levels) offer a wealth of use cases to innovators seeking alignment and product-market fit for their knowledge and skillsets. Collective buy-in among industry stakeholders (such as semi-governmental entities and real estate developers) reinforces the commercial benefits of this alignment.

Climate resilience: inspired by a heritage of climate-adaptive architecture (materials, urban design and the Barjeel cooling tower, etc.), climate resilience is a longstanding artefact of Dubai and the MEASA region. It is, however, a comparatively novel phenomenon in other markets. There is an opportunity for Dubai to incubate climate resilience PropTechs across the real estate value chain (including design, building materials, construction methods and building operational innovations) that face growing value propositions in other markets (such as Europe), offering opportunities for global expansion.

Quality of life ambitions: for decades, Dubai has been deeply committed to the welfare and quality-of-life of its citizens and residents. This is formalised in multiple strategic agendas analysed in The Dubai Urban Innovation Agenda chapter. An abundance of use cases in PropTech and adjacent verticals emerge, including urban design, urban greening, and indoor environmental quality, to name a few.

Regulatory context: Dubai's reputation as one of few markets that gained momentum with real estate tokenisation can be partly attributed to regulatory tailwinds that were not as present in other markets. The participation of regulators and other stakeholders along the real estate value chain is a strong differentiator for Dubai, and presents an opportunity to foster additional use cases.

Geographic factors: Dubai's central location has long established it as a trade hub of global significance, which has contributed to its status as a neutral business hub for a diverse array of global innovators and entrepreneurs. Ease of access to both the Global North and Global South, and its neutrality, offer a platform for the exchange of ideas and innovations that is rare elsewhere in the world.

Cultural factors: complementary to Dubai's geographic position, it also has the opportunity to exploit cultural artefacts. Western markets, for example, have begun adopting Islamic finance principles to address cost-of-living challenges among their communities, particularly in the context of housing.

IDENTIFIED OPPORTUNITIES TO FACILITATE ECOSYSTEM GROWTH

Positioning Dubai as the global living lab for PropTech 3.0: through regulatory sandboxes and real estate sector buy-in, Dubai is equipped to offer global PropTech companies a supportive and business-friendly environment to test, develop and commercialise their solutions. For established international PropTech companies offering products of strategic interest to the UAE and MEASA region, Dubai PropTech Hub will launch a Global Landing Pad programme aimed at maximising the success of market entry. In addition, continuing education for real estate professionals will increase technology literacy at all levels of organisational hierarchies, aimed at refining PropTech due diligence, procurement and deployment competencies. Buy-in across regulators, semi-governmental entities and investors is also critical.

Educating the global market on Dubai's built environment agenda: from our research, we have identified high levels of interest among PropTech companies in conducting business in Dubai. However, their understanding of Dubai's strategic ambitions and sector nuances are divergent. Through conferences, Dubai PropTech Hub's Global Landing Pad, and strategic communications, there is an opportunity to proactively prioritise strategically interesting PropTech companies and use cases.

Incubating differentiated vernacular PropTech solutions and business models: Dubai is equipped with unique characteristics (regulatory, geographic, climactic, cultural, etc.) to originate and incubate unique PropTech solutions in an array of PropTech subdomains. The UAE's USD 1.4 trn "AI deal" announced in 2025 with the US adds the requisite infrastructure to Dubai's PropTech ambitions. Deepening engagement between academia, venture studios, regulators, investors and the entrepreneurial community is an opportunity for ecosystem enablers such as Dubai PropTech Hub. In the medium-term, this opportunity results in Dubai exporting novel PropTech solutions to global markets facing evolving built environment challenges.

Igniting a technology-enabled wellbeing and productivity feedback loop: the strategic agendas of Dubai have a high emphasis on quality of life and wellbeing. PropTech solutions applied to this paradigm within buildings and urban environments quantifiably improve worker productivity, according to research cited in this report. This is a catalyst for stronger entrepreneurial activity, feeding the success of PropTech and other verticals, leading to further improvements to the human experience of the built environment. For this reason, Dubai PropTech Hub places an emphasis on this cluster of use cases in its PropTech ecosystem efforts.

Supporting existing differentiated Dubai-made PropTechs to achieve global impact: with Dubai-made PropTech companies achieving milestones that evaded other markets, there is an opportunity to further develop enabling infrastructure for these companies to expand to international markets. This strengthens Dubai's PropTech market while also aligning with employment and unicorn-status ambitions within Dubai's strategic agendas. Example use cases fall within real estate marketing, investment and tokenisation, among others.

CONCLUSION

As the global real estate sector undergoes major transformation, Dubai stands in a pivotal leadership position, shaped by the convergence of technological acceleration, ambitious national agendas, and the emirate's longstanding culture of innovation. The analysis undertaken in this paper makes clear that PropTech 3.0 is not merely a continuation of previous cycles of digitalisation, but the beginning of a structural redefinition of how cities and buildings are designed, built, operated, and experienced. Across every domain of the built environment, from planning and construction to asset management and urban wellbeing, emerging technologies are creating opportunities for outsized impact.

Dubai's strategic agendas span social development, environmental resilience, economic diversification, and digital transformation. This provides a powerful blueprint for where impact can be most meaningfully applied via PropTech adoption. These agendas, when interpreted through the lens of the Triple Bottom Line, reveal hundreds of viable PropTech use cases across the real estate and urban lifecycle. With 833 mapped use cases and a rapidly growing ecosystem of local and international innovators, Dubai is uniquely positioned to act as both a testbed and global exporter of built environment innovation.

The sectoral opportunities outlined throughout this report show that PropTech's value extends far beyond efficiency gains. It enhances quality of life for residents, strengthens climate resilience, elevates the competitiveness of the local economy, and can unlock bns in productivity improvements through better indoor environmental performance alone. These interdependencies form a reinforcing cycle where better urban environments attract stronger talent, stronger talent drives technological innovation, and that innovation reshapes the built environment in return.

Realising this potential will rely on sustained ecosystem coordination: regulators empowered to design enabling frameworks, developers embracing frontier technologies, investors fuelling experimentation, academia deepening research capacity, and PropTech companies driving focused, commercially viable innovation. The Dubai PropTech Hub plays a pivotal role here, not only as a convening platform, but as a strategic engine aligning local strengths with global opportunities.

Dubai's next chapter will be defined by how effectively it positions itself as the global living laboratory for PropTech 3.0. With its regulatory agility, diverse population, world-class infrastructure, and bold economic vision, the emirate has the necessary ingredients to lead a new global wave of built environment transformation. If successfully harnessed, PropTech will not simply support Dubai's future ambitions, it will become one of its defining competitive advantages.

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