



**> THE PROPTech CONNECTION**

# **THE FOUNDATIONS OF GROWTH**

## PROPTech IN SAUDI ARABIA

NOVEMBER 2023

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## FOREWORD

### THE PROPTech CONNECTION

The development and economic action plan of the Kingdom of Saudi Arabia (KSA) is truly remarkable. The planned economic development of the Kingdom via the Vision 2030 initiative will materially change how people live, consume and work within the Kingdom.

The adoption of the world's leading technologies across the full asset lifecycle and every sector of the built environment, underpins much of the delivery of the mega-projects.

From the mobility and accessibility of NEOM, to the further amplification of a vibrant tourism industry, via developments like the Red Sea projects, Saudi Arabia will be a global leader in demonstrating how tech can enrich how we use space.

Whilst much of the technology is currently sourced from global partners, the significant investment in the relatively nascent PropTech sector is starting to reap dividends. Many technologies are starting to take shape and become key parts of the Saudi Arabian built environment.

# GLOBAL PROPTech

RESHAPING HOW WE LIVE,  
CONSUME AND WORK

01

# A SPRAWLING ECOSYSTEM

## THE IMPACT OF PROPTECH

An abstract graphic on the left side of the page. It features a central point from which numerous thin, dark blue lines radiate outwards, resembling a sunburst or a stylized galaxy. Scattered across these lines and the background are many small dots in white, light blue, and green. The background is a solid dark blue.

**600+**

**REAL ESTATE USE  
CASES IDENTIFIED**

Real estate use cases  
which technology improves

**110+**

**MAPPED REAL  
ESTATE METRICS**

Numeric impact Proptech  
has on performance

**850+**

**TECH OFFERING + TYPES**

Wide array of tech offering  
and types to utilize

**18,000**

**PROPTechs**

Global solutions servicing  
the real estate sector

*Source: The PTC data*

# PROPTech UNPACKED

## BROAD TERM, REACTIVE TO TRENDS

# 18k

GLOBAL  
PROPTechs

# 120+

COUNTRIES  
WITH PROPTechs

# ≈\$20b

MARKET SIZE  
(2022)

# 9%+

CAGR  
(2023-2033)

### Background to PropTech

PropTech, short for Property Technology, is a term that gained traction in the 1980s with the rise of companies such as Autodesk and Argus.

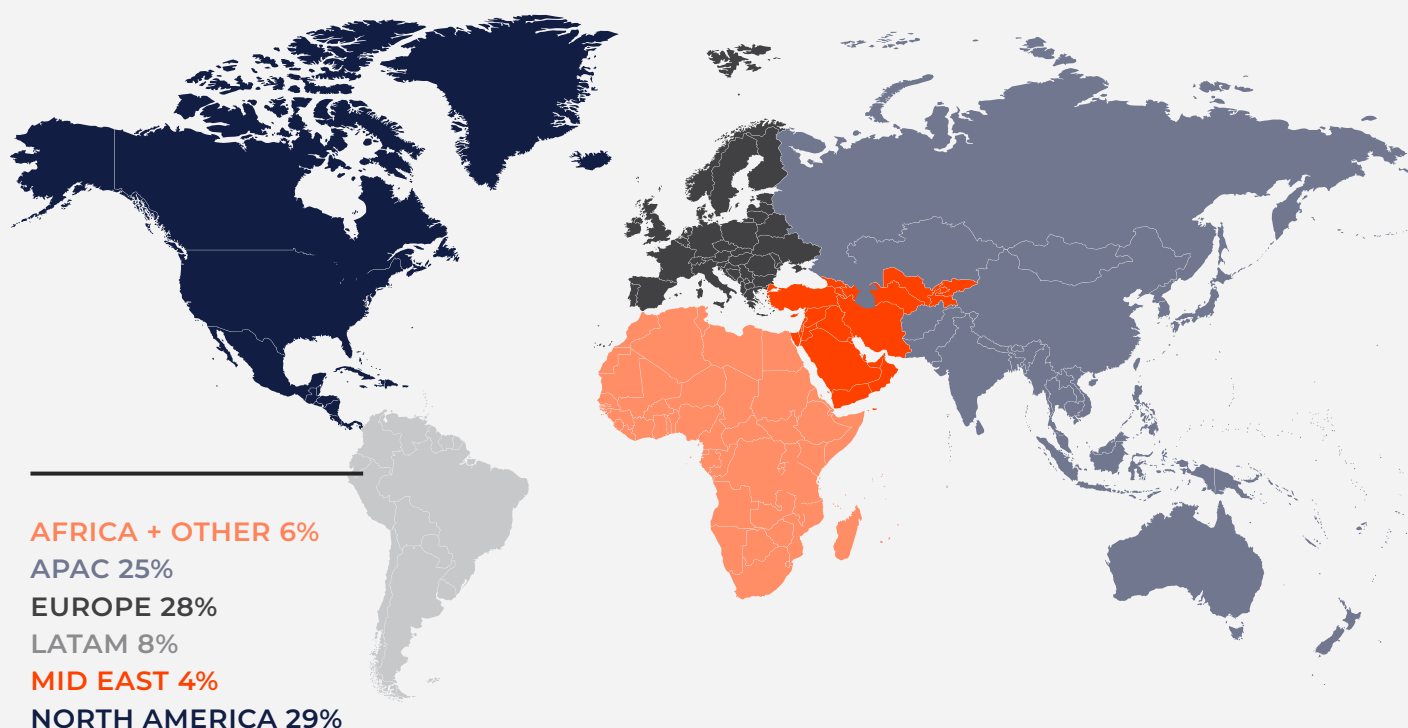
The appetite to transform real estate, gained further traction in the early 2000s (mainly due to the rise in digitized search marketplaces) and the quantum of opportunity, has seen the continual ramp-up in venture capital investment in that time. This is why today, PropTech is one of the biggest global tech verticals and one which continues to grow.

### What is PropTech today?

The traditional classification of real estate sectors is changing with their relevance diminishing. Recent examples such as homes being used as offices, the hotelization of office buildings and the tentative steps into a fully digital, interactive world - illustrate the scale of this change. The definition of PropTech has shifted also - and will constantly - as tech surfaces or adapts to meet the needs of these new assets.

We at The PTC, thus define PropTech as any technology that impacts how we live, work and consume within space.

### PROPTech AROUND THE WORLD



The PTC Intelligence

# PROPTech UNPACKED

## CHARTING GROWTH AND DEMAND

### GROWTH TRAJECTORY

The term Proptech encompasses concepts such as Contech, Fintech, Mobility, Climatetech, SMART buildings, Generative AI and many other categorizations. This overlap is a major reason why there has been such large growth in Proptechs.

At The PTC, we are currently tracking over 18,000 companies, up from 14,000 companies in 2019.

The forecast valuation of Proptechs is expected to grow from \$20 billion in 2023 to \$48 billion in 2033. A greater proportion of this growth, we anticipate, will be funded through alternative channels to pure venture capital funds.

The increasingly bespoke needs of large real estate companies has seen many adopt a hybrid investment strategy – indirect investment via venture funds, whilst also operating a corporate venture capital fund for direct investments.

We also expect the continued trend of acquisitions, funded by growth equity funds, creating larger Proptechs who will have a wider, global footprint.

Despite current funding headwinds, these greater pools of investment will enable the continued growth in innovative solutions within Proptech.

### REGIONAL NUANCE

Despite its global depth, the strengths of each country's Proptechs are unique to local market conditions. Some examples include:

- Europe is a leader in energy optimization techs. This is partly due to the financial support and strong focus on policy from the European Union.
- Owing to size (people and capital), North America has a wealth of techs targeting capital efficiency / arbitrage, via unique data analysis.
- India has an extensive number of high-quality, broad functionality software systems.
- Australia has a wealth of Contechs and solutions at the intersection of Fintech and Proptech.
- Japan has strong depth in techs focusing on automation and process improvement.
- The leading techs in the Gulf are data led with a focus on end to end platforms that digitize processes or advanced search tools.
- The ecosystem of Israel has a heavy cyber, communications and data model focus.
- Across the LATAM region wide data structuring platforms are leveraging maturing data sets.
- Africa has strength in the the digitization of transactions with a focus on occupancy.

# MARKET HOTSPOTS

## SNAPSHOT



Global economic trends are driving development and investment in a range of techs for a variety of use cases.



### SMARTER BUILDS

Key focus is on de-risking delivery and accuracy of projects, whilst solving issues related to health and safety, resourcing and supply chain.



### AUTOMATED OPERATIONS

Particularly targeting major portfolios with multi-geographical presence, ESG reporting and standardized benchmarking key focus.



### DATA LEVERAGING

Shift in maturity from data wrangling to data use. AI momentum has accelerated priority. Deal arbitrage and supply chain are key areas of use.



### PRODUCTIVE SPACES

Transformation in concept of productivity has led to numerous techs helping reshape, design, leasing and amenities provision.



### REPURPOSING ASSETS FOR SPECIFIC COHORTS

Systemic demand shift in retail, lower grade office, assets is driving technologies that enable repurposing for mixed-use by specific cohorts.



### ENERGY USE, GENERATION + STORAGE

Commitments to alternative methods, with demand management techs and Battery Energy Storage Systems (BESS), being on-point verticals.



### SUSTAINABLE URBANIZATION

Managing population shifts and ESG goals, has driven rise in lifecycle analysis solutions and greater collaboration for new precincts tech.



### CIRCULAR CITIES

Broad concept, touching on renewables, mobility, recycling and waste optimization. Medium-term payback achieved via a combination of solutions.

# SAUDI ARABIA

## A BURGEONING ECONOMY

02

# A LEADING GLOBAL ECONOMY

## A YOUNG NATION READY FOR GROWTH



### RIYADH

The nation's capital  
Population **7.4 million**

### JEDDAH

A vibrant port city  
Population **5.3 million**

### MECCA

The holiest Islamic city  
Population **2.1 million**

### MEDINA

Prominent holy city  
Population **1.6 million**

### DAMMAM

Saudi's oil industry  
administrative center  
Population **1.3 million**

The Kingdom of Saudi Arabia (KSA) has seen huge transformation in the last 20-30 years and continues to evolve and develop materially across most indicators.

Economically, the Kingdom has become a prominent global figure, in part, due to the oil and gas reserves and their structured approach to managing those assets. This combination places Saudi Arabia as the 17th wealthiest nation globally.

Other parts of the economy are increasingly important economic contributors however with telecommunications, professional services and real estate being major industries - whose prominence will be greater as the economic shifts in the future.

The economic success of the country has led to an ever-increasing population. The population has doubled from 18 million in 1993 to 37 million in 2023. Economic migrants account for 38% of the population contributing to a young, vibrant, demographic, and corresponding labor pool.

Although globally attention has focused on Riyadh, Saudi Arabia has four other cities with more than 1 million people and another 15 cities with more than 100,000 people. Each city has its own specific economic or industrial growth focus including tourism, innovation, finance, or logistics which complement the overarching aims of the Kingdom and provide alternative touchpoints for investors, entrepreneurs, residents, or visitors.

# FERTILE LANDSCAPE FOR SUCCESS

## DIGITAL NATIVES WITH SUPPORTING TECH

Favorable demographics coupled with tech capabilities, provides the springboard for advancement.

The use of technology is already a part of day-to-day life in Saudi Arabia.

Digitized services, particularly in banking, have already gained mainstream adoption, leveraging the elite digital infrastructure in place. The recent strong performance in the Digital Experience Maturity Index, highlights how important a role technology plays and how the tools are in place to launch the next wave of tech adoption.

**29 YRS**  
MEDIAN  
AGE



**85%**  
URBANIZED



**96%**  
USE WEB



**79%**  
DIGITALLY  
NETWORKED



**93%**  
HAVE BANKED  
DIGITALLY



**99%**  
INTERNET  
COVERAGE

*The PTC Research*

# THE BLUEPRINT FOR TRANSFORMATION

03

# VISION 2030: OILING A NEW ENGINE

The 3 pillars are the bedrock of Vision 2030 (V2030) – the growth roadmap for how Saudi Arabia will deliver economic, cultural and social prosperity.

Technology is central to delivering the transformational aspirations of V2030 and its utilization is inherent in each pillar and their overarching objectives.

Progress in key objectives through examples like new e-governance systems and the support of the SME ecosystem, via the Public Investment Fund (PIF), highlights the pivotal role technology will play in diversifying the KSA economy.

## PILLAR 01 AMBITIOUS NATION

Enhance government effectiveness

Enable social responsibility

## PILLAR 02 THRIVING ECONOMY

Grow and diversify the economy

Increase employment

## PILLAR 03 VIBRANT SOCIETY

Strengthen Islamic and national identity

Offer a fulfilling and healthy lifestyle

# VISION 2030

## DELIVERY PATHS

**03** VISIONARY  
PILLARS

**06** OVERARCHING  
OBJECTIVES

**27** BRANCH  
OBJECTIVES

**96** STRATEGIC  
OBJECTIVES

**11** REALIZATION  
PROGRAMS

# THE VISION 2030

## THE REALIZATION PROGRAMS



### Quality of Life Program

Transforming health, lifestyle and improving culture, public space and leisure.



### Fiscal Sustainability Program

Adroitly manage the Kingdom's budget, with digital governance and better cost management.



### Housing Program

Provide affordable housing to citizens, with 70% home ownership by 2030.



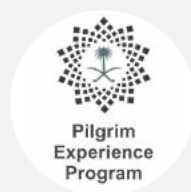
### Health Sector Transformation Program

Provide modern facilities and healthcare access to all.



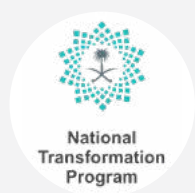
### Financial Sector Development Program

Driving progress in banking, insurance, stock and debt markets in the KSA.



### Pilgrim Experience Program

Providing a distinguished spiritual experience with world class services and amenities.



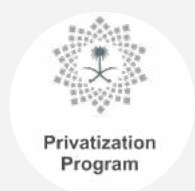
### National Transformation Program

Delivering change in education, healthcare and infrastructure.



### Public Investment Fund Program

The KSA's sovereign wealth fund, PIF will drive growth via strategic investment.



### Privatization Program

Drive private sector growth and investment into public sector enterprises.



### National Industrial Logistics and Development Program

Deliver an integrated industrial and logistics ecosystem.



### Human Capability Development Program

Develop skillsets with training and new job opportunities.

**Note** Programs with orange keylines have major real estate focus

# THE VISION

## TECH ENABLED REAL ESTATE

04

# THE HOUSING PROGRAM

## E-GOVERNANCE DRIVING CHANGE



### DEVELOPMENT

Via the Saudi Real Estate Development Center, Etmam is the digital platform helping developers digitally attain permits.



### OWNERSHIP

Sakani is the vehicle for providing affordable options for Saudi's to purchase housing. 1.4m+ households and businesses have been helped.



### LEASING + RENTING

The e-service EJAR, protects renters from landlord misconduct. More than 4.5m leases have been registered since the start of the program.

**330+**

DEVELOPED

Construction permits issued via digital platform, Etmam

**5%**

OWN

Home ownership down payment (30% in 2017)

**137%**

LEASED

New rental options in 2023 v 2022

**95k**

DEVELOPED

Households served by Developmental Housing (2025)

**70%**

OWN

Home ownership by 2030 (62% in 2022)

**230k**

LEASED

Housing in Mullak Owner-occupier Program

Source: Vision 2030 data

# CONSTRUCTING A FUTURE

## RAPID DEVELOPMENTS



The V2030 has led to vast developments, which will leverage some of the leading construction technologies to safely deliver, scalable, waste minimized, projects.

Saudi Arabia is at the forefront of global construction. With \$819b currently deployed, across 5,200 projects, construction accounts for 6% of the KSA's GDP – with an 8.8% aim by 2030.

The ambitious commitments and timescales provides a unique opportunity to combine and leverage the leading construction technologies.

Utilizing 3D printing and modular build methods will help deliver the estimated 1.2m homes and 300k hotel rooms, within the targeted 2030 deadlines.

The commitment to delivering green buildings with waste minimization and carbon emissions being two key targets – will heavily leverage tech. Technologies like advanced construction materials and carbon capture, usage and storage (CCUS) will play a major role in achieving these aims. Given the scale of the KSA developments, the benefits yielded from this will be significant.

Project management will be another key aspect, leveraging technology. The use of data and visualization techniques to monitor progress and manage risk, are two example use cases. Technologies such as Building Information Modeling (BIM), Internet of Things (IoT) devices and VR / AR inspection tools will combine to enable safe and accurate delivery.

# THE GIGA-PROJECTS

## REDEFINING SCALE

Touching on every facet of space use, the 13 “giga-projects” have an estimated total value of approximately US\$900 billion. They are key to KSA’s economic diversification strategy.

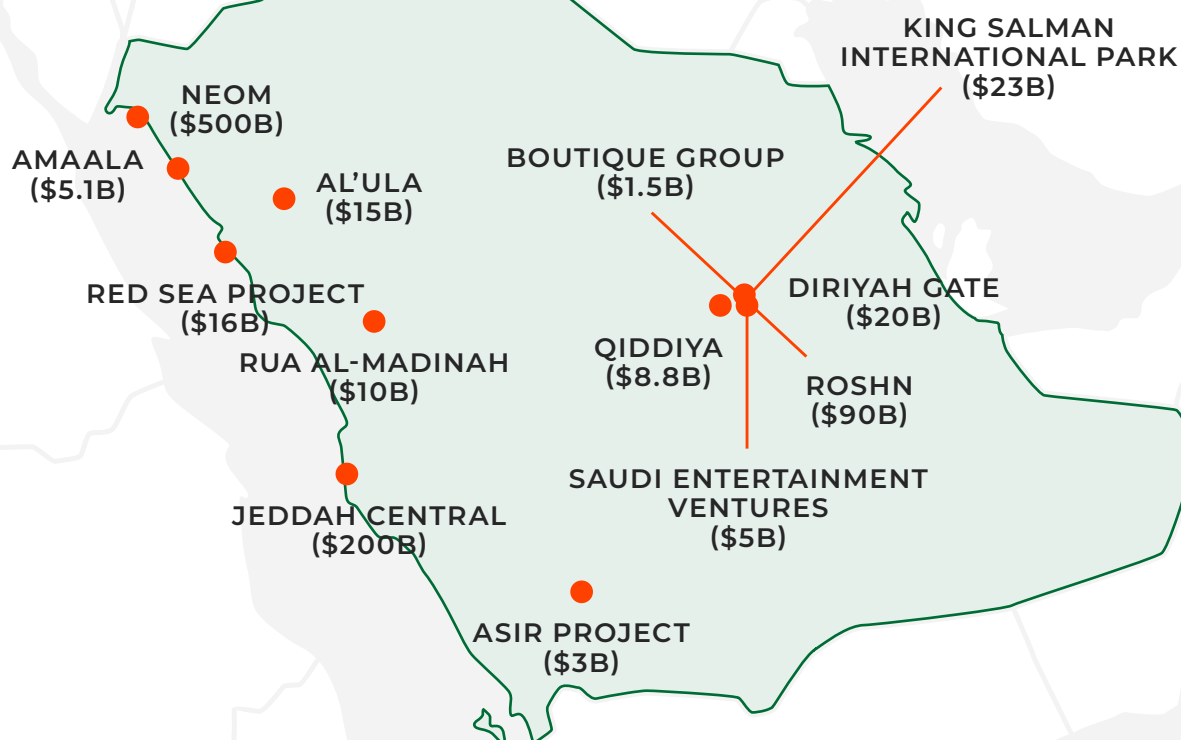
The giga-projects are the highest profile real estate realization from V2030.

With the projects dispersed across the country, and touching on all major sectors, the level of technology that is being used from inception, development to management is vast.

The scale and ambition of the projects puts significant pressure on items like resourcing, supply chains, planning and future OPEX management.

Every major Proptech tech type, thematic and value delivery will be realized via these projects and will be essential to successful delivery and use.

### CONTRACTS AWARDED TO DATE



Source: MEED Middle Eastern Business Intelligence

# THE RISE OF SAUDI PROPTech

05

# SAUDI ARABIA PROPTech

## STRONG PROGRESS IN INITIAL SECTORS

The impact of V2030 initiatives has accelerated ecosystem growth and innovation has centered on the digitization of transactions.

### CURRENT SAUDI PROPTechs



# 38

**PROPTechs IN  
SAUDI ARABIA**

Many of the current solutions overlap with the Fintech sector. Consequently, there is a high concentration of solutions servicing residential – with a focus on transactions, aggregation and management services. Co-working and IoT are other key areas.

# SEED

**AVERAGE STAGE  
INVESTMENT**

The increased level of funding has inspired the recent growth in solutions. Many are newly created, and as such most are at the Seed level. Recent Series A activity, however, suggests a more maturing landscape.

Source: The PTC intelligence

# ANALYSIS: SAUDI PROPTech

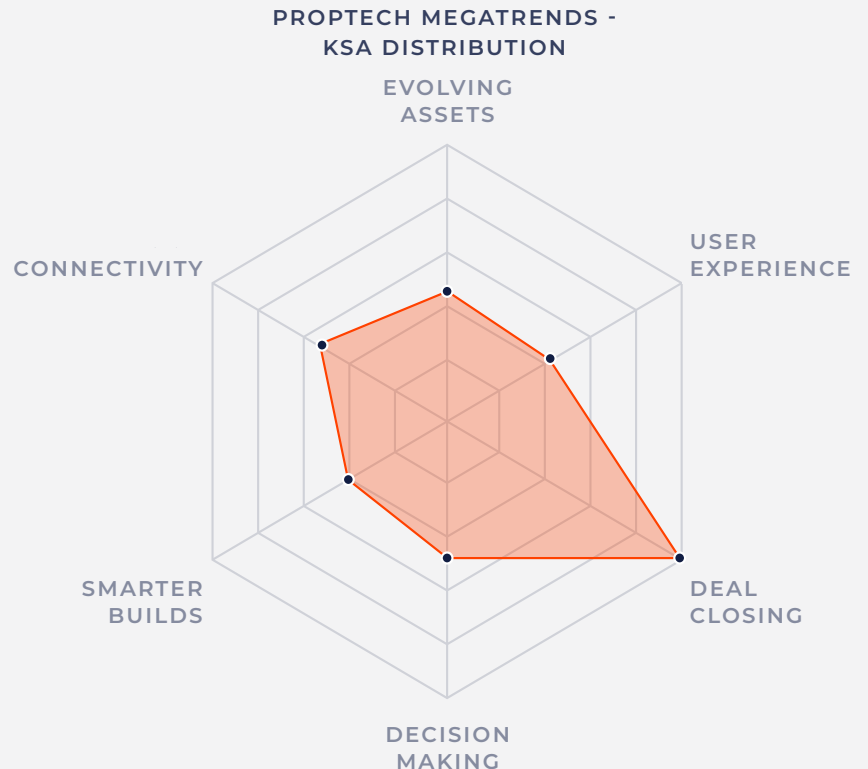
## CONCENTRATION BUT GROWING BREADTH

### MEGATRENDS DISTRIBUTION

Digitizing transactions, principally through marketplaces and portals, is where the majority of Proptechs offerings in Saudi Arabia operate.

Thus, the distribution shows a critical mass within one of our key megatrends, Deal Closing. A number of the leading techs provide strong platforms for renters, buyers and owners to transact or manage their properties (across multiple real estate sectors).

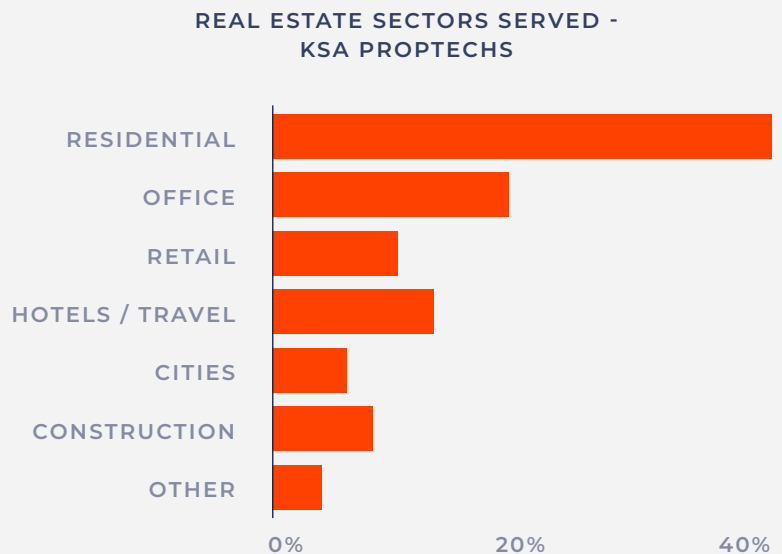
The rise in solutions leveraging data tools and in co-working, is shown by the Connectivity and Evolving Assets performance.



### REAL ESTATE SECTORS

Much of the early V2030 deliverables, have impacted the Residential sector. The concentration of Proptech reflects this - a natural pool of activity and demand.

There are signs of greater breadth, particularly in Construction and Office, where strong offerings are emerging. Cities is also an area we expect to see strengthen, adding depth to the strong incumbents, as large developments complete.



Source: The PTC intelligence

# SPOTLIGHT MARKETPLACES

LOADING . . . .

# MARKETPLACES

## THE DIGITAL ENABLERS

The rapid increase in asset ownership has led to many solutions focusing on providing the means to expediate or facilitate transactions.

### KEY THEMES



#### Model amelioration

The significant investment from V2030 is transforming real estate and citizen aspirations. The Program's objectives have put digital enablers at the forefront of changing how to source and execute on transactions.



#### Data-led insights

Leveraging connected data is a key offering of the marketplaces. With the rich seam of data that will arise from connected and inter-dependent projects like NEOM, leveraging this will be a key market feature.

### CUSTOMER TYPES



#### Domestic renters (B2C)

The nuances of local market dynamics and opportunities within the Rent Now Pay Later vertical are seeing success. More generally, greater provision of affordable housing is driving need for these offerings.



#### Tourists (B2C)

Reacting to strong market factors regarding increased ownership and the provision of greater entertainment spaces / travel destinations, many platforms focus on serving this deep wallet persona.

### TECH OFFERING



#### Platform

The significant rise in home ownership, coupled with the greater liquidity and renter rights has driven both supply and demand for platform enablers. Giga-projects and housing provision will provide greater need and market depth for these offerings.



#### Mobile apps

Building on the performance of Fintech (with 93% of Saudis having banked electronically) and the deep smartphone penetration in KSA (97%), many of the marketplace offerings have mobile functionality.

### MARKETPLACES

36%

% of KSA Proptechs

### META SECTORS



Living  
(Renting)



Living  
(Buying)



Consuming  
(Travel)

# INVESTMENT IN SAUDI PROPTech

## FAVORABLE MARKET FOR GROWTH

**\$1.5b**

SIZE OF KSA PROPTech  
MARKET (2025)

**10+**

ACTIVE KSA  
PROPTech INVESTORS

**15%**

KSA PROPTech  
CAGR (2030)

The increase in Proptech funds will accelerate growth and domestic Proptech capability.

The rapid development of the giga-projects, and initiatives like the National Transformation Program, will facilitate greater investment and development of the Saudi Proptech ecosystem.

As the existing platforms build out their datasets and leverage further advanced data tools, investment will be greater in this space.

Saudi Internet of Things (IoT) offerings and VR or AR solutions, and more broadly, technologies focusing on sustainability, are also key areas - where recent accelerator programs have yielded promising technologies which are attractive to investors.

The pipeline of opportunity for Saudi Arabian Proptechs is unparalleled and this presents a compelling opportunity for funds, domestic and international, to invest in this market. As such, we expect the growth and maturing of the KSA Proptech market to continue.

# NEOM

## A NEW FUTURE

06

# EPICENTER OF TECH AND SPACE

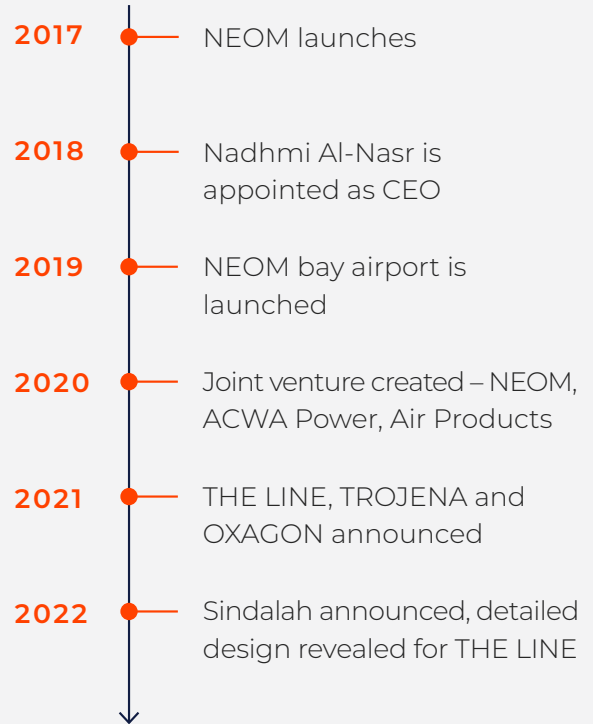
## A GLOBAL ICON WITH TECH AT CENTER

Out of the all the giga-projects under the Vision 2030 program, NEOM is the most well-known due to its enormous scale and breadth of impact. NEOM's mega-projects will include large scale residential, industrial, a SMART city, tourism hubs and infrastructure developments, creating a new self-sufficient economy. The giga-project is being primarily funded by PIF which has committed US\$500bn in backing. By balancing adoption and creation, NEOM is set to utilize PropTech to construct what will be recognized as one of the most technologically advanced, large scale developments in history.

**\$500B**  
FUNDING  
COMMITTED

**100%**  
RENEWABLE  
ENERGY

**6 HOURS**  
FLIGHT FROM  
40% OF WORLD



### NEOM'S BREADTH OF PROPTech USE



#### Manufacturing

Driving the circular economy, non-linear production, integrated supply chains and research-based innovation.



#### Technology and digital

Harnessing the power of cognitive technology to build an ecosystem of disruptive and sustainable solutions.



#### Design and construction

Construction built on advanced technology, best-in-class efficiency, worker welfare and competency.



#### Energy

Developing 100% clean energy at scale via unrivaled wind and solar resources, and the world's largest hydrogen plant.



#### Tourism

Reshaping global tourism enhanced by world-leading design, immersive digital experiences and seamless travel.

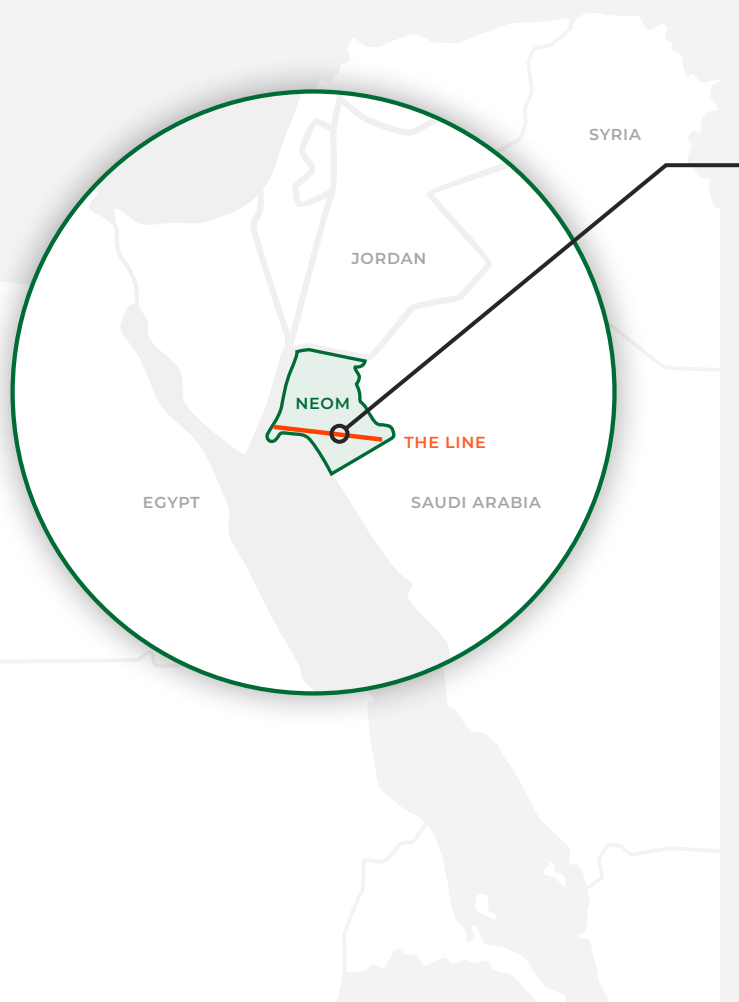


#### Mobility

Walkability and cycling inspire a human centric urban design enabling transport innovation and sustainable mobility.

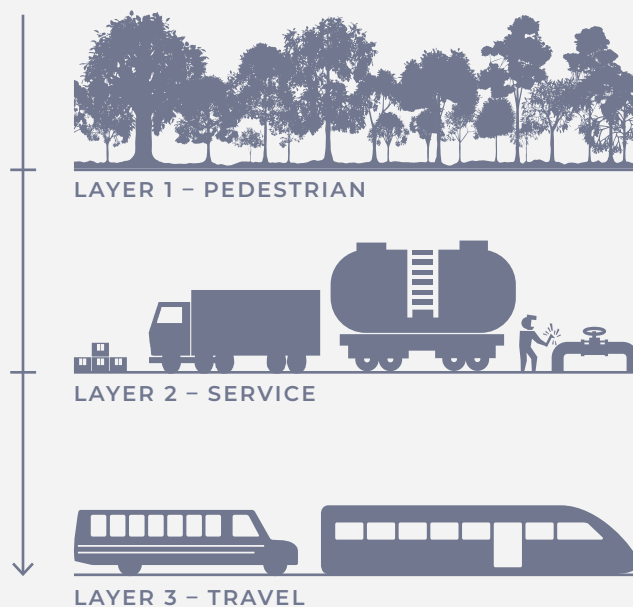
# THE NEOM ECOSYSTEM

## A SUSTAINABLE WAY TO DEVELOP



### THE LINE

A “15-minute” linear city, the 3-layer design will enable it to be a zero carbon city that houses 9 million people.



### SNAPSHOT: NEOM'S QUADRANT



#### THE LINE

170km long linear city  
380,000 jobs  
Zero cars



#### SINDALAH

Luxury resort  
2,400 visitors daily  
86-berth marina



#### TROJENA

Outdoor skiing  
2,600m altitude  
2029 Winter Games



#### OXAGON

Industrial port  
90,000 population  
5m CO2 saved



# MAKING SMART CITIES, SMARTER

## SPOTLIGHT ON KEY USE CASES

### DESIGN + CONSTRUCTION

The plans to implement a zero-waste construction sector are ambitious, but given the strategic focus, timing and scale, these should be attainable targets.

Approximately one-third of NEOM will be constructed using modular technology. 3D printing and modular construction methods are of interest globally, but require scalable projects to reap the full benefits. NEOM has the potential to be the epitome of tech-enabled design and construction. NEOM will also leverage TONOMUS (and its incubator) to develop automated health and safety systems for workers whilst also implementing these new construction methods.

### GOALS + OBJECTIVES

1. Apply the concepts of a circular economy.
2. Integrate the latest advancements in modern methods of construction (MMC).
3. Institute pioneering labor rights and enhance the quality of life for workers.
4. Formulate cutting-edge design and construction regulations.

### DATA + CONNECTIVITY

NEOM will leverage the TONOMUS technology to create a cognitive city. Based on predictive connectivity, data sharing and data trust – this proactive capability will usurp real time data as the benchmark for data quality and analysis.

TONOMUS will be at the forefront of AI, ML and big data and will use the cognitive technology it develops to deliver hyper-connected asset management and a curated living experience for residents and visitors to NEOM.

The \$80bn NEOM Investment Fund will support TONOMUS's ecosystem build and partnerships expansion.

### GOALS + OBJECTIVES

1. TONOMUS's primary goal is to create a seamless society through AI-driven cognitive technology.
2. Identify, target, and partner with business leaders and visionaries who have innovative and disruptive ideas.
3. Revolutionary cognitive technology built on trust and consent-driven data collection.

# THE FUTURE DELIVERING THE AMBITION



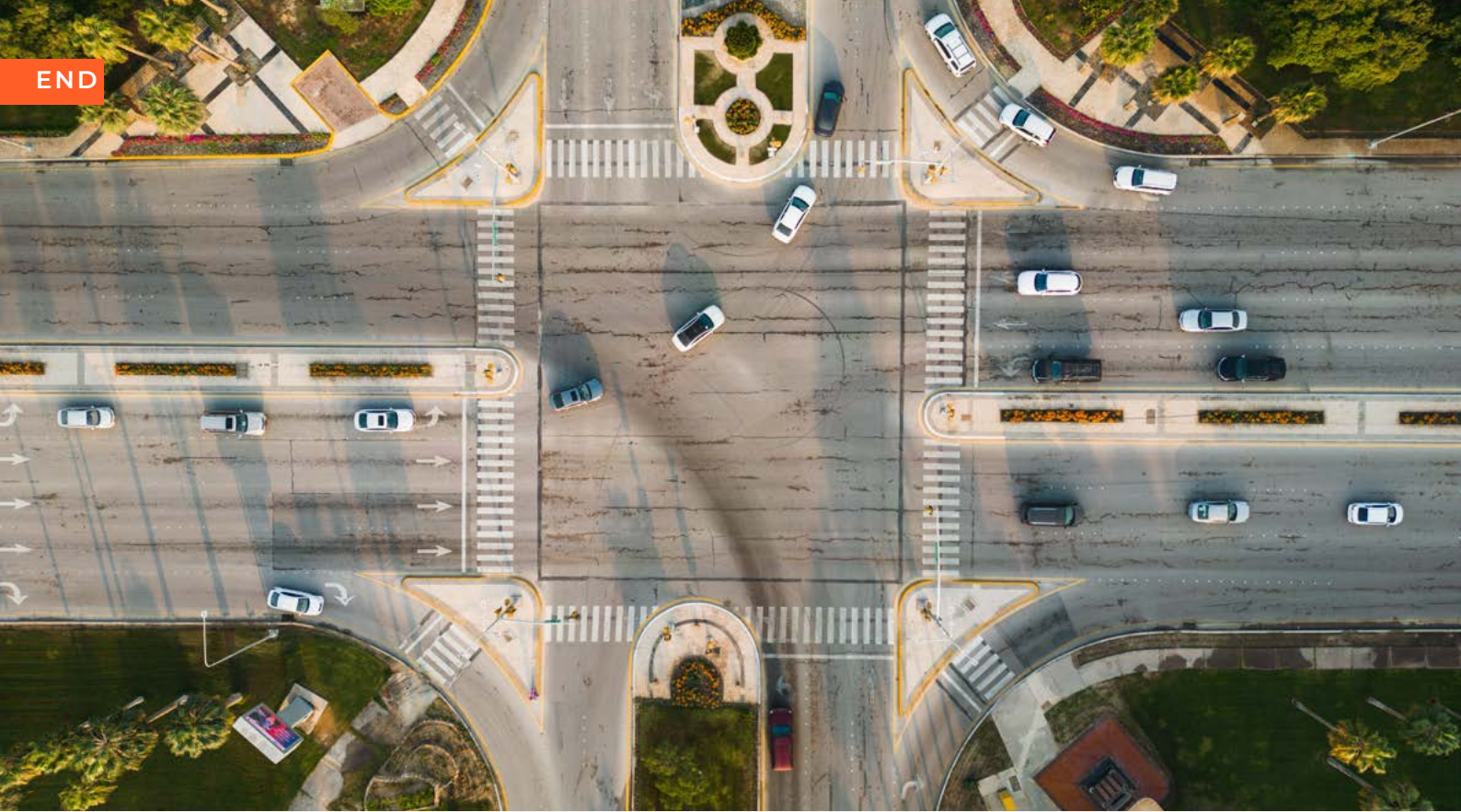
# PROPTech IS KEY TO V2030

## LIVE.WORK.CONSUME.TECH

The KSA's unique wealth and start-point present an unparalleled opportunity to showcase how technology, space and humans can interact.

The role played by PropTech in Saudi Arabia will be immense, due to the scale of transformation being undertaken. The desire to embed the use of technology in every part of life will bring material benefits to how people live, work and consume.





# PROPTech IS KEY TO V2030

## LIVE.WORK.CONSUME.TECH

Whilst much of the global real estate industry are having to convert sub-optimal spaces and older stock, the Kingdom have an in-built advantage of factoring this into current construction and design in the ambitious projects in train.

We see data capture and digitalization as central to the project's risk management in the construction phase. The intelligence gained from this real-time data will drive a higher-quality build and support a safer working environment.

By integrating data tools into the design of the giga-projects, these assets will be well positioned to optimize asset performance. The ability to control the design, build and management of assets (with generous budgets), is a significant advantage for the projects and the KSA.

These insights will also provide the information needed to adeptly manage assets to best meet the needs of the users, owners, and tenants.

The development of TONOMUS is an extension of these concepts and derived benefits. Should TONOMUS's aims be realized, NEOM will deliver a truly human-computer interactive city.

Whilst currently a net importer of the world's leading technologies, local Proptechs have an unparalleled opportunity to grow in tandem with the KSA's transformation of real estate. With opportunity across every sector, lifecycle and use case – the incentive for local entrepreneurs is clear.

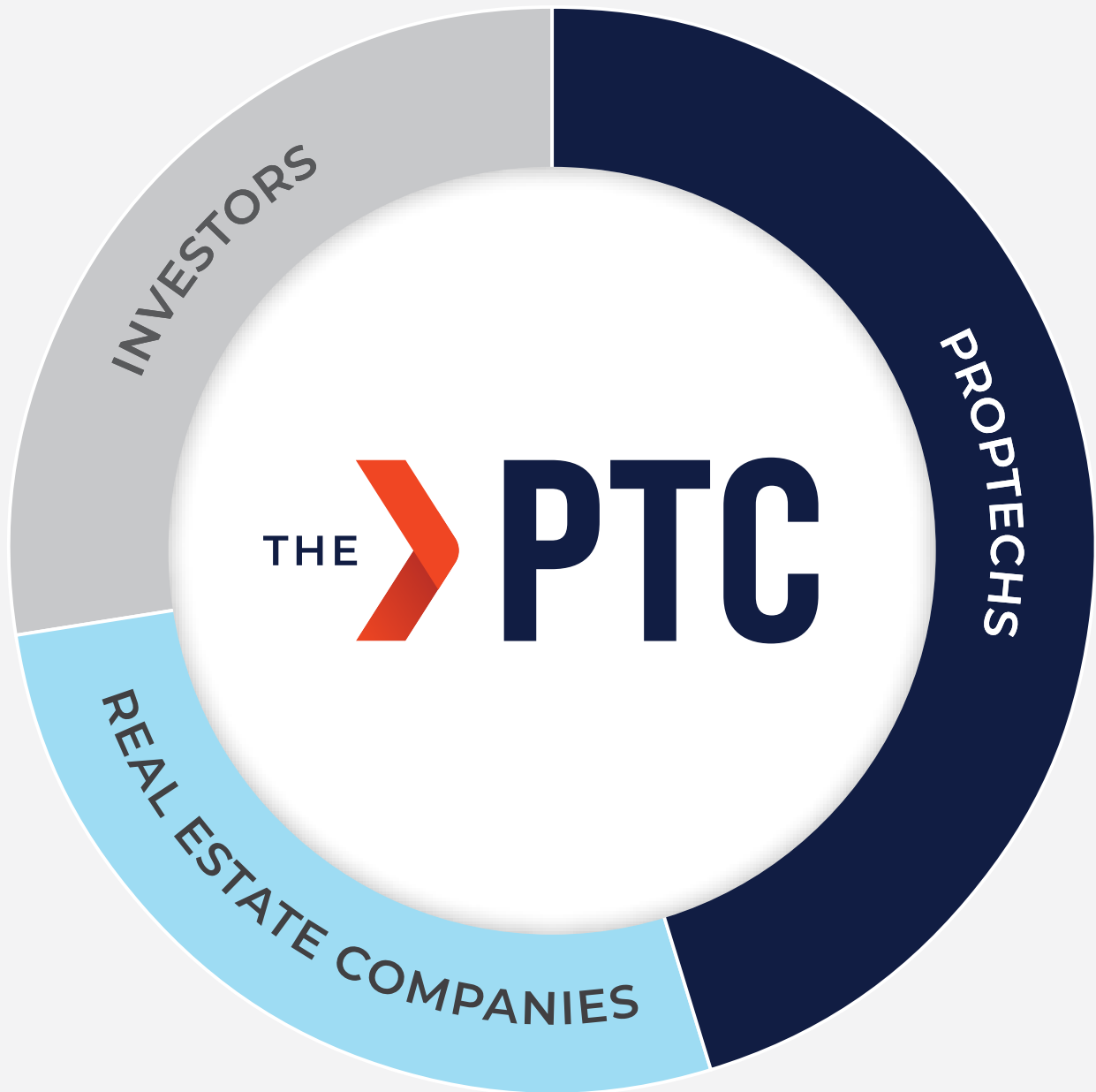
Yet given the journey to develop such advanced technologies, not all Proptech will be locally sourced. We, at The PTC, see a hybrid of the leading domestic and global Proptechs being the optimal model – with Proptech partnerships being a key stepping stone towards this steady state.

These factors and the significant investment available, makes the future of Saudi Arabian Proptech look very bright.

**WORK WITH THE PTC**  
HAVE THE GLOBAL  
LEADER BY YOUR SIDE

# FIND THE RIGHT PARTNER

## GLOBAL KNOWLEDGE, LOCAL USE



[source.execute.grow](https://source.execute.grow)

Our expertise helps clients in identifying  
and partnering with the ideal entity for  
their Proptech strategy.



FIND US  
ONLINE



BOOK A  
CONSULTATION



READ OUR  
INSIGHTS



# THE PROPTech CONNECTION

SYDNEY | CHICAGO | BANGKOK | AMSTERDAM

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