is one small part of the wider digital transformation of the property industry. It describes a movement driving a mentality change within the real estate industry and its consumers regarding technology-driven innovation in data assembly, transaction, and the design of buildings and cities.
PROPTech

SEGMENTATION - A MANY DIFFERENT THINGS

Land
- Digitisation of land records, GIS mapping

Interior Design Services

Shared Economy

Construction Technology
- Building information modelling (BIM), 3D Printing

Sales & Marketing
- Digital listing platforms, online marketing

Property Management
- Home and building automation, digital property management services

Furniture Rentals

Source: Housing Research
TECHNOLOGY ENABLERS IN REAL ESTATE

- Drones
- 3D Printing
- Virtual Reality
- Block Chain
- Big Data, IoT & AI
- Software as a Service

Source: Housing Research
On-going

1980 - 2007

- Launch of companies providing technology-based services for marketing, computer-aided design and data analytics driven by use of personal computers

2008 - 2019

- Use of technologies such as cloud computing, big data, smartphones and mobile internet in real estate sector with consumer experience taking centrestage

On-going

- Digital acceleration in real estate sector to multiply with necessitated use of technology in the current COVID-19 pandemic scenario

Source: Housing Research
PROPTECH GLOBAL RECALL
USD $31.6 BN

Record high investment in 2019
PROPTECH GLOBAL RECALL

PROPTECH – THE SUNRISE SECTOR

Global Investment Trend in PropTech

USD 31.6 BN
Record high investment in 2019

4,053
PropTech startups globally as of 2019

Source: Tracxn, CREtech End Year Report, 2019
<table>
<thead>
<tr>
<th>Country</th>
<th>PropTech Startups</th>
<th>Internet Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>864</td>
<td>287 million</td>
</tr>
<tr>
<td>Germany</td>
<td>106</td>
<td>74 million</td>
</tr>
<tr>
<td>France</td>
<td>133</td>
<td>54 million</td>
</tr>
<tr>
<td>China</td>
<td>322</td>
<td>504 million</td>
</tr>
<tr>
<td>Japan</td>
<td>17</td>
<td>108 million</td>
</tr>
<tr>
<td>Singapore</td>
<td>62</td>
<td>5 million</td>
</tr>
<tr>
<td>India</td>
<td>137</td>
<td>22 million</td>
</tr>
<tr>
<td>Australia</td>
<td>137</td>
<td>137 million</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>329</td>
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<td>137</td>
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</tr>
</tbody>
</table>
PROPTECH IN INDIA
DRIVERS FOR DIGITAL TRANSFORMATION IN INDIA

INTERNET BOOM
- 2nd largest internet user base in the world
- 40% internet penetration
- 500 million smartphone users by 2020
- 71% internet users aged between 20 - 49 years

RAPID URBANISATION
- 416 million more urban dwellers to be added by 2050

PRO BUSINESS
- 63rd rank Ease of doing business

GOVERNMENT INITIATIVES
- Digital India (2015)
- Smart Cities Mission (2015)
- Foreign Direct Investment Policy

Source: IAMA, 2019, International Telecommunication Union, United Nations, World Bank, Google with BCG Group, Housing Research
TECHNOLOGY PENETRATION ACROSS SECTORS

Sector

Banking, financial services and insurance
Retail
IT Services & products
Other*

Real Estate**
Telecom services
Healthcare
Travel and transport
Entertainment
Education
Hotel & tourism
Infrastructure
Advertisement and marketing

Digital Investment Score

Rank low to high

Source: Venture Intelligence, Housing Research

*Others include Manufacturing, Energy, Shipping and Logistics and other services ** Real estate includes deals and investments in real estate asset, PropTech and other real estate companies
***Digital Investment Score is calculated through weights on number of deals, total investment and investment in the digital space in the particular sector.
The investments tracked include private equity, venture capital, debt, PIPE (Private investment in public entity), project level investments, pre-IPO private equity deals, at the early, growth and late stage
Investment (2015 - 2020)

- USD 239 BN
- 18% Decadal CAGR (2010 - 2020)

REAL ESTATE

- USD 36 BN
- 10%
Investment (2015 - 2020)
USD 36 BN
Decadal CAGR (2010 - 2020)
10%

PROPTECH (2010 - 2020)
USD 2.1 BN
Decadal CAGR (2010 - 2020)
57%
PROPTECH MILESTONES IN INDIA

BEFORE

Real estate sector dependent on traditional ways

2000 - 2010

Emergence of online marketplaces
• Online classified portals like Magicbricks, 99 acres enter the market

2011 - 2019

Entry of tech-based startups across segments
• Startups in segments such as shared economy, interior design services, furniture rentals, etc.
• At USD 530 million, investments in PropTech cross the USD 500-million mark in 2018

NOW

Acceleration in adoption of technology due to current pandemic

• PropTech industry in India clocked record high investment of USD 551 million in 2020 despite the economic uncertainty, surpassing the USD 549 million investments in 2019

Source: Housing Research
PRIVATE MARKETS CONTINUE INVESTMENT MOMENTUM

PropTech investment trend in India

Source: Venture Intelligence, Housing Research

The investments tracked include private equity, venture capital, debt, PIPE (Private investment in public entity), project level investments, pre-IPO private equity deals, at the early, growth and late stage
LUCRATIVE SEGMENTS

Segment-wise share of flow in PropTech in India (2015-2020)

- Shared Economy: 48%
- Sales & Marketing: 18%
- Interior Design Services: 17%
- Furniture Rentals: 9%
- Construction Technology: 4%
- Property Management: 1%
- Virtual Reality: 2%
- Drones: 1%

Total PropTech Investments (2015 - 2020): USD 2.1 billion

Source: Venture Intelligence, Housing Research
### BUSINESS PLATFORMS - THE BLUECHIP SEGMENT

<table>
<thead>
<tr>
<th>Private Equity Investments (USD Million)</th>
<th>CAGR 2015-2019 (Percentage)</th>
<th>Average Deal Size (USD Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales &amp; Marketing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>26</td>
<td>2015</td>
</tr>
<tr>
<td>2020</td>
<td>70</td>
<td>2019</td>
</tr>
<tr>
<td><strong>Shared Economy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>198</td>
<td>2015</td>
</tr>
<tr>
<td>2019</td>
<td>27%</td>
<td>2019</td>
</tr>
<tr>
<td>2019</td>
<td>7</td>
<td>33</td>
</tr>
</tbody>
</table>

Source: Venture Intelligence, Housing Research
Online Marketing

> 500 million internet users; ~1 billion by 2025

Possible

Data can be measured for future decisions

Cost of reach - INR 0.2 - 0.7/person

Interactive consumer experience

Reach

Targeted Marketing

425 million newspaper subscribers

Not possible as no control on circulation

No measurement matrix

Cost of reach - INR 0.2 - 1/person

Not interactive for consumers

Offline Marketing

Targeted and cost-effective consumer outreach

Cost

Quantification

Engagement

Source: Housing Research
IS INDIA READY TO BUY HOME ONLINE?
VIRTUAL RESIDENTIAL DEMAND INDEX SHOWS UPTICK POST LOCKDOWN

Virtual Residential Demand Index

Source: Housing Research

*Virtual Residential Demand Index is a barometer to gauge online consumer interest for residential properties for buying within a given period in the top eight cities. Base: Q1 2020
INDIA READY TO BUY HOME ONLINE

60%
People willing to explore buy / rent options online

37%
Homebuyers willing to close deal virtually after one site visit

87%
Prefer smartphones to explore digital platforms

58%
Potential homebuyers online willing to explore other digital residential services

MAGNETS TO ONLINE PLATFORMS

Developer’s credibility
Virtual reality
End-to-end assistance
Discount and freebies

Rank low to high

Source: Housing Research
Mumbai most ready to buy homes online

*Score for readiness meter for each city is calculated through weights on number of respondents wanting to close the deal completely online or after one site visit, number of internet users and population in each city.

Source: Census of India (2011), IAMAI 2019, Housing Research
PropTech sector **globally** clocked ~**USD 70 billion** (2014 – 2019)

Private market investment in PropTech in India clocked **USD 551 million** in 2020 - the highest ever, compared to USD 549 million in 2019

Sectors such as IT products and services, banking and financial services (BFSI), retail, real estate, and telecom services rank highest on Housing.com's Digital Investment Score for sector attractiveness for investments in the digital space.

**USD 2.4 billion** invested in PropTech in **India** between 2009 – 2020

PropTech investments in India have grown by CAGR (2010 – 2020) of **57%**, compared to a **10%** growth in the overall real estate sector.
• Average deal size of investments in **business platforms** grew to **USD 70 million** in 2020, **overshadowing shared economy**, which had a deal size of USD 33 billion during the same period.

• **Virtual Residential Demand Index** touched 166 in CY Q4 2020 compared to 123 in the preceding quarter.

• **37%** people ready to buy / rent home **entirely online** or after one site visit.

• **Mumbai** most ready to buy a home online amongst top metros.

• COVID-19 pandemic **accelerates** the use of technology across sectors.
THE FUTURE OF REAL ESTATE IN INDIA

For more research insights contact research@housing.com