



### Introduction

We are pleased to introduce the seventh annual edition of our international Real Estate Innovations Overview (REIO). Innovation in Real Estate and Construction has been receiving attention for a couple of years, but has accelerated further. This is mainly attributable to (digital) developments and sustainability targets, that are changing consumer (and societies') demands. Moreover, rising inflation, interest and cost of materials, coupled with the new 'post' COVID reality and pressure on ESG agendas require the sector to strongly leverage innovation. Hence, we see that innovators start connecting with traditional businesses to understand these important business needs – that apply to global and local markets – and thus, act more focused. With this publication, KPMG aims to provide insights into the innovations that are shaping the Real Estate and Construction industry, now and in the future.

In particular, this year's edition of the REIO highlights the rise of innovative opportunities in commercial real estate, around key themes of Future of Work, ESG/Net zero and digital transformation (i.e. smart cities and buildings). It also discusses the use cases/application of included innovations, to present the applicability of the innovation in day-to-day lives. Please refer to the section A. Innovation Trends for more information.

The publication has been co-created as a result of a true international collaboration initiative, as illustrated by twenty-one KPMG member firms performing research and incorporating 783 innovations from 45 countries/territories spread around the globe.

The aim of this document is to provide its readers insights into the current innovative developments in the Real Estate and Construction industry: what is going on in the world of innovation, what trends are driving change and how can innovation be of real added value to business. In the first section of this overview, we elaborate on the key success factors for leveraging innovation and the way in which KPMG firms can support Real Estate and Construction companies and society in doing so. Subsequently, we show the most important innovative trends in the Real Estate and Construction sector and showcase various practical examples of innovative solutions. The central part of this publication is our structured list of innovations, including key company info and characteristics such as the respective field of expertise of a company and its position in the Real Estate value chain. In the final section, we provide insights into several PropTech Ecosystems around the globe that contributed to the realization of this publication.

Please note that this overview can never be complete due to the nature of its existence, as new innovations continue to change the sector every day. In our attempt to keep up with market developments and trends, please feel encouraged to reach out and inform us about new innovations or additional information about the listed companies. Please find our contact details on the right bottom corner.

We sincerely hope that this overview will help you in setting a new perspective and concrete roadmap for adopting Real Estate innovations into your future!

On behalf of our international team, Sander Grünewald KPMG Netherlands – Global Head of Real Estate Advisory

Disclaimer: KPMG has no business interests in the innovations and start-ups that are included in this document and is not liable for the actions of these companies. KPMG did not assess their (financial) continuity, quality and credibility. The fact that they are included in this document does not imply recommendation by KPMG. This document is based on publicly available information only and as a result not exhaustive. All companies included in this publication have been requested for permission.

If you would like to add or update a listed innovation, please send an email to NL-FMKPMGRealEstateAdvisory@kpmg.nl



### **Executive Summary**

With the continued international support, this year's publication has further enhanced the scope of innovations. This edition features a broad scope of innovations, including companies from **45 Countries/Territories**. The record amount of incorporated innovations (783) has resulted in an international overview, including a larger presence of the European nations.

To provide better insides into the specifics of all innovations, **40 Fields of Expertise (FoE)** have been included. These help to describe a company's core competence. Next to the FoE, the innovations' position in the **Real Estate Value Chain** has been included as well, consisting of six key positions: Sourcing, Design & Planning, Construction, Property and Facility Management, Transaction and Leasing and Investing and Financing.

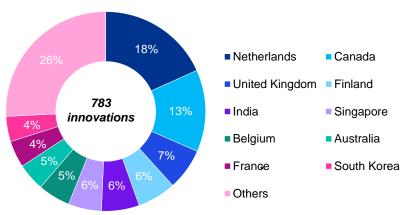
The goal of the Real Estate Innovations Overview is not only to showcase the various innovations in the Real Estate sector across the world, but also to inform professionals on the latest trends in local and international markets.

The main insights for this year's publication:

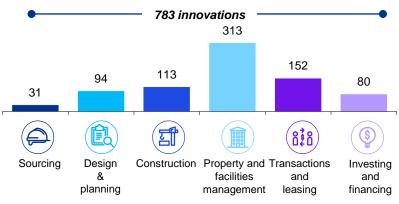
- Innovation as a kickstarter for achieving ESG ambitions and in parallel resolve regulatory issues by supervisory teams;
- Substantial attention to sustainable innovations, such as new construction materials, energy efficient solutions and pre-fabricated components which support the development of environment friendly infrastructure;
- Momentum gained on flexible working innovations and indoor navigation due to hybrid working trend;
- Increase in amount of innovations that focus on mobility and parking management solutions to ease out remote working for employees; and
- Strong focus on building management systems for property managers.

All in all, innovation in real estate is gaining accelerated traction, and KPMG tends to conclude that the industry is transforming for the good and innovation plays a key role to support and accelerate change in any way necessary.

### Distribution of innovations per country/ territory



### Distribution of innovations per value chain



\*Note: Other countries/territories include Turkey, Vietnam, Mainland China, Germany, Japan, Israel, Hungary, United Arab Emirates, Hong Kong (SAR), China, Brazil, Sweden, Switzerland, Italy, Luxembourg, Cyprus, Czech Republic, New Zealand, Estonia, Ireland, Nigeria, Norway, Spain, Austria, Egypt, South Africa, Argentina, Chile, Costa Rica, Denmark, Latvia, Lithuania, Mexico, Portugal, Slovakia and Uruguay For this year's edition KPMG did not actively perform research on the Real Estate and Construction market in the United States of America (USA). Therefore, the publication does not contain innovations that originated in the USA



### Introduction to innovation categories

To classify the innovations, we have used nine categories:

- The first category, **digitizing processes** consists of innovations that digitize traditional processes. This enables the processes to streamline company operations, analyze data and be accessible in real-time, to make the operations more efficient and user friendly.
- Flexible workspaces entails innovations that create the opportunity for Real Estate to be flexible in time, location and environment. Workplaces can be allocated 'anywhere' and 'anytime'.
- Innovations in healthy workplace and living focus on the physical working environment, ranging from air purity and energy saving solutions, to enhanced lighting sources, optimizing employee satisfaction, health or productivity.
- Innovative constructions contribute to new ways of constructing Real Estate. This may
  include architectural benefits or enhancements in construction materials and processes (e.g.
  3D printing, modular building and wooden skyscrapers).
- Internet of Things (IoT) applies to innovations that connect multiple devices, systems
  and/or buildings with the aim of making Real Estate more efficient, sustainable and userfriendly.
- New ways of funding are innovations that aim for making funding less complicated, more
  accessible and/or increase liquidity for both the demand and supply side.
- Platforms to connect allow users to connect and interact with stakeholders (e.g. buyers/sellers, owners/tenants, or construction parties and maintenance). These could essentially result in optimized communication, collaboration and knowledge-sharing.
- Sustainable innovations focus on aspects such as ESG, energy savings, water-efficiency
  and circular economy in order to sustain our natural resources. Drivers may be regulatory
  changes, sustainability agendas or cost reductions.
- Virtual reality and 3D mapping replicates an environment using computer and/or drone technology or allows users to create an alternative reality (e.g. BIM) and digital twins of the premise/facility, to provide real-time experience to clients/customers



Skip to page #34 to discover practical examples of innovations for each category. Explore the real value add of innovation for companies in the industry!

### Distribution of innovations per category

- Digitizing processes
- Flexible workspace
- Healthy workplace and Living
- Innovative construction
- Internet of Things
- New ways of funding
- Platforms to connect
- Sustainable innovations
- VR & 3D mapping





Wheel of logos

#### Value chain cascade





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### In 2021, PropTech investments witnessed significant growth. Further, sustainability criteria continued to gain traction



In 2021, global venture capital investments in PropTechs totaled1

€24bln

+28% y-o-y

Among overall VC investments, construction and commercial sectors accounted for

In the 2021–2028

predicted to garner

market size is

a revenue of

27% of global funding<sup>2</sup>



Global Real Estate Sustainability Benchmark (GRESB) 2021 covered

1,520

+24% y-o-y

with overall assets under management worth

€5.4 trn

+19% v-o-v

€8.3 mln timeframe the global space as a service +4.2% as y-o-y,



of global investors have adopted ESG criteria as part of their investment strategy



Per KPMG Net Zero Readiness Index3

**70%** 

of countries (23 of the 32) have implemented mandatory building energy certification, of which

of countries already have included a Net Zero

political pledge or policy document

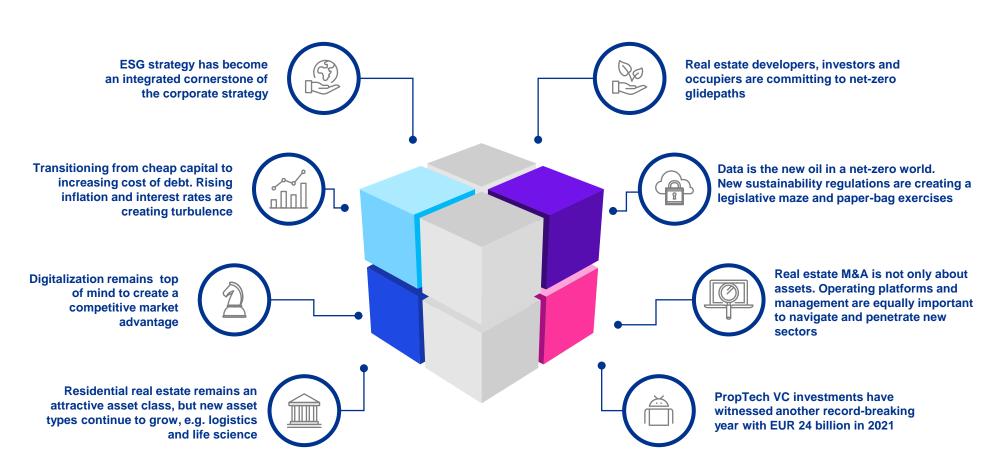
Note: 1. Based on the dollar to euro exchange rate on 18/7/2022. 2. Construction sector PropTech funding accounts for 19% of global VC funding, while Commercial sector accounts for 8%. 3. Net Zero Readiness Index is a tool that compares the progress of 32 countries in reducing the greenhouse gas emissions and assesses their preparedness and ability to achieve Net Zero emissions of these gases by

Source: KPMG Real Estate, Global Real Estate Sustainability Benchmark, Statista, CBRE, JLL, Knight Frank, Research Dive



# As COVID-19 wanes, the Real Estate industry is set to accelerate the sustainable and digital transformation...

KPMG real estate professionals have identified a set of 8 key trends for 2022/2023, driving the importance of innovation within the industry



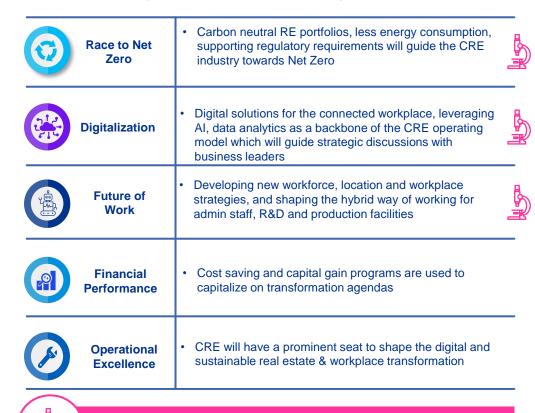


### ... while at the same time Corporate Real Estate is serving as a key cornerstone of a company's operating model

Corporate real estate ("CRE") represents the leasehold and freehold real estate assets of non-real estate businesses and serves as a key cornerstone of a company's operating model. It can comprise of various asset types such as office, logistics, manufacturing, retail, data centre, laboratory and land. As COVID-19 gradually diminishes businesses are entering a new era in which business transformation is no longer a choice, it is the new reality. Corporate real estate management is a key function to drive business transformation aligned to the 5 key corporate strategy drivers.



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Source: KPMG report A game changer



Deep dive on these topics on the next pages!

# The Race to Net Zero is not a choice anymore for a sustainable future of the planet and individual corporations ...

One of the major challenges within the built environment in the coming decades is the contribution to the transformation towards a sustainable future. Innovation will be key in the ability to make this change happen



### **Short introduction ESG/Net Zero**

The built environment is said to be responsible for approximately 40% of worldwide carbon emissions. The real estate & construction industry will have to play a key role in decarbonizing new property development as well as transformation of existing properties towards net zero carbon. Not just within the EU, but on a worldwide scale countries have committed to carbon reduction goals in 2030 and net zero carbon goals in 2050.

ESG (environmental, social, governance) however has a wider scope than carbon neutral transformation. Several topics can be identified which are increasingly being recognized as being crucial for a sustainable future, including biodiversity, circularity and human rights.



### Challenges and risks for companies regarding ESG/Net Zero

For innovations and PropTech solutions to make real impact in the transition towards a sustainable future, scaling up in order to mass implementation is crucial.

Another challenge for the industry is that standardization of solutions may be key for the industry to make the change as efficiently and effectively as possible. Standards for dealing with sustainability data, reporting and insights help peers to learn from each other.



### Opportunities for companies regarding ESG/Net Zero

Regulatory requirements such as the EU CSRD (Corporate Sustainability Reporting Directive) or EU SFDR (Sustainable Finance Disclosure Regulation) are often seen as a challenge for the industry. However, for PropTech and innovation these may be an opportunity considering the importance that data and insights have in order to adhere to the regulations.

#### Carbon neutral innovation

A major focus of the real estate and construction industry currently lies with direct carbon emissions, which is related to the use of property.

To be innovative, one needs to look further ahead. This means a gradual shift of attention towards scope 2 and scope 3 emissions. In short, these are indirect emissions including emissions throughout the building's entire lifecycle.

Focusing on the broader picture shows that innovations reducing carbon emissions by means of more efficient construction, assembly or transport may come to play a huge role in achieving carbon neutral targets worldwide.

It may imply that companies which are able to produce prefab housing, laminated timber construction material or innovative ways of streamlining the value chain from start to finish become increasingly important.





# ... and can be addressed with solution in the space of energy consumption, circularity, off-site construction and mobility

Sustainability and innovation are becoming increasingly intertwined. Throughout the real estate value chain, innovations are providing the answer that real estate investors, designers, real estate development companies, construction companies, users and property managers are looking for:

Practical examples of approaches to combat the ESG challenges of today, which are all to be found in this issue of the REIO.

Energy and water management

Real-time energy performance monitoring tools

Smart building sensors supporting optimization of building performance

Intelligent sun- and daylight control for office and utility buildings

Insights in thermal data of buildings, visualizing energy escaping through the buildings

Real-time water leak management technology

Prefabricated and modular building design

Modular building system and furniture solutions

Customized architectural precast concrete and fibre-based façade systems

Al-driven architectural design service

Prefabricated building development and interior wall/ millwork systems

Prefabricated interior decoration solutions

Sustainable mobility/ transport

Shared transport systems, to reduce the need for personal vehicles and parking infrastructure

Parking and mobility management solutions for checking/ booking vacated storage and parking spaces

Smart parking barrier systems to remotely reserve parking spaces (Sustainable) data structuring and reporting

Energy consumption and emission analytics solutions

Automated energy usage reporting systems

Carbon risk calculation and retrofit scenario analytics solutions

Indoor environmental monitoring solutions

ESG performance reporting platforms to compare the results against industry peers and international standards





# The Future of Work is one of the key challenges and opportunities for Corporate Real Estate in the near future

Many factors are changing the way we live and work, such as digital habits. Eventually, COVID has facilitated and accelerated the shift in how and where we work considerably. All of these changes in location, technology, culture, company policies and more are covered by 'the future of work'.

The big question is: what innovations / technologies will stay and possibly advance further to shape the future of work?



### **Short introduction Future of Work**

Our world is more digitally connected than ever, and we operate more and more from home, I.e. Hybrid working. People want to work with the freedom of digital, but with the interaction of physical. The future of work relates to the (digital) shift in the way we work, and the associated applications that make this as seamless as possible. For instance, applications make it possible to create virtual meetings rooms where people from the office and people from home simultaneously can step into.



### Challenges and risks for companies regarding Future of Work

Adoption by office employees of digital initiatives such as virtual reality tools needs full attention and may be a challenge. They will seem difficult to imagine or feel like a video game in the beginning. It is a challenge to understand what they will bring to the table. Hence, this will require transformation and change management support. These virtual tools also go hand in hand with data and data privacy issues. Also, these applications have a price tag: acquisition and licensing. Note however, that the price of virtually renovating a building will be lower than actually renovating a real building. Lastly, bare in mind that your office will be used less frequently.



### Opportunities for companies regarding Future of Work

Adapting to these new 'styles' of working and/or adopting emerging technologies to improve the employee journey / employee satisfaction, may be a key differentiator in the so-called 'war for talent', to attract creative minds and improve staff retention. Also, to give an example, hybrid working applications may provide the flexibility of creating new spaces without the associated upfront investment in the physical office space. Moreover, without saying, implemented in the right way, for international companies, it may give opportunities to work efficient and effective around the world.

#### Interactive workplaces

Today it seems unnoticed, but there have been several technological paradigm shifts in the past. I.e. mobile phone connectivity, e-mail accessible to the public, and more recently: virtual conferencing (video calls).

With all development around us, it is difficult to judge what is here to stay. However, hybrid working is one of them.

One the one hand, digital is accelerated due to COVID and the desire of employees to have a more routine work life and need for physical sessions – albeit lower – is returning. This is the perfect mix for new future of work concepts.

Virtual meetings that have the look and feel of a physical meeting may be the future. Especially considering workforce developments, wherein, work is an activity and not a place for many new generation 'talents'.





# Together, this may further accelerate the move towards true smart buildings and smart cities of the future

Smart buildings and smart cities are the terms being used to describe the properties and cities of the future. They are 'ahead of time' by using innovative developments and technologies to connect with each other. Smart Cities are resilient cities that harness data and integrate the physical and digital environments. Successful re-imagination of our cities will keep the needs of the end users in mind. As a result, smart buildings an smart cities help to increase quality of life, improve (social) safety, limit maintenance works and costs and reduce energy usage, among others.



### Short introduction Digitalization: Smart buildings/cities

Digital transformation is going to transform the whole real estate sector. Whereas in the past everything was done with Excel spreadsheets, or worse, with pen and paper, this new era ensures large-scale Real Estate developments in the field of Big Data, IoT, GIS, AR/VR, AI and Machine learning, etc.. These new technologies ensure that better decisions can be made regarding individual properties and portfolios. As buildings and cities get smarter, they become more efficient and livable for its residents. The use of 5g, open networks and connectivity in buildings and cities will enhance better decision making and thus increase the quality of life.



### Challenges and risks for companies regarding Digitalization: Smart buildings/cities

Digital transformation automatically means more attention must be paid to privacy concerns. Security measures will have to be taken to prevent the increased risk of cyber-attacks. Besides, the whole concept is dependent on networks and connectivity. As soon as the connection is lost, or worse the network fails, cities might be lost into darkness. Social and organizational risks should not be disregarded either. Not all demographic layers of our society and/or regions are ready for this significant development.



### Opportunities for companies regarding Digitalization: Smart buildings/cities

By embracing the digital transformation in the real estate sector, buildings and cities will not only become more sustainable and smarter, but will also have better quality and be more efficient. Above all, they will meet the needs of the end users for the next generations to come. Therefore, smart buildings and cities will encounter a better property/city value, both financially and socially.

### Digitalization

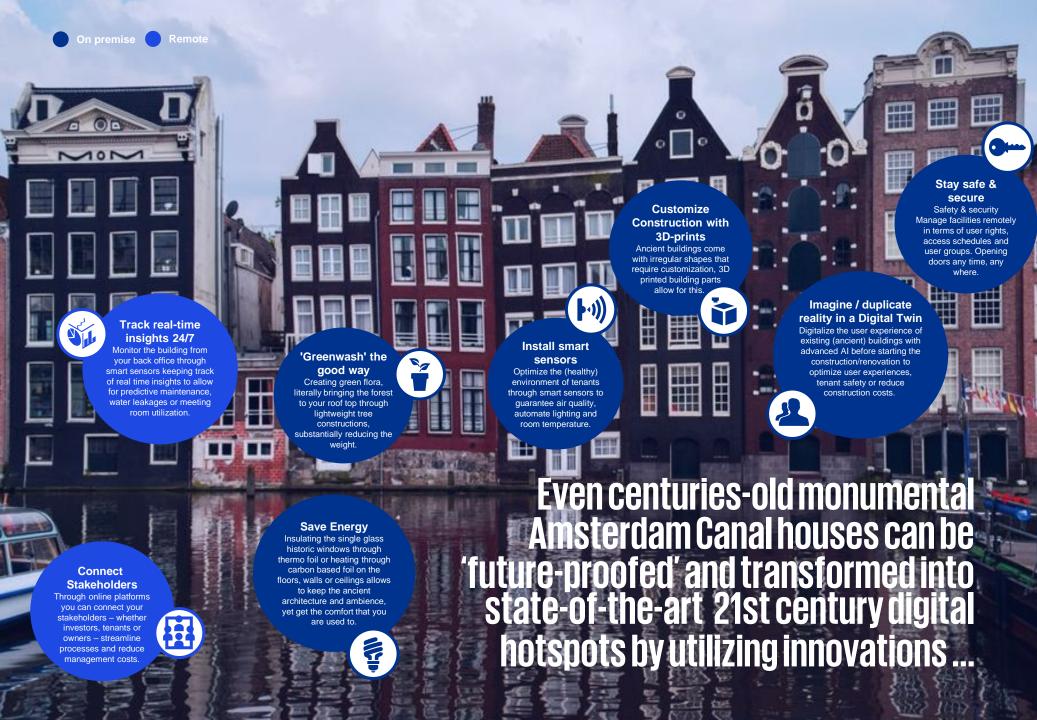
As in many other sectors, an important transformation will take place in the real estate area. New technologies such as IoT, Big Data, GIS, AR/VR, AI and Machine Learning help ensure that the end users will have more insights and influence when acquiring, developing and maintaining a property.

These developments can also make cities and buildings much more future-proof. This will not only affect the profit and quality in this sector, but above all will have an impact on the quality of life of the residents living in the buildings and cities.

Furthermore these technologies go hand in hand with the future sustainability objectives that we must achieve together. Without a good digital basis, we can never monitor, evaluate, and steer towards the goals that we must realize the upcoming years in order to make sure that future generations have the ability to meet their own needs.









### **Open Infrastructure**

Enabling an ecosystem through an open platform, safely sharing data and testing solutions of IoT, Smart City and Digital Twin solutions, and scaling them towards the city.



### **Grid Balancing**

Reusing of old electric vehicle batteries for peak shaving in the energy grid of the complete neighbourhood and in a venue itself.



### **Customer Journeys**

Enabling businesses to experiment with building a long-term relationship with their customers, testing for example safety, security, mobility, engagement and personalization of their services.



Boosting the physical and mental wellbeing of visitors, employees and citizens and scaling the lessons learned to schools, work and other urban environments. For example with the use of smart sensor.



### **Cyber Security**

Testing solutions to ensure safe and healthy public gatherings.



### Real time insights

Monitor the building from the back office through smart sensors keeping track of real time insights to allow for predictive maintenance, water leakages or meeting room utilization.



### 5G

Offering a pilot location for startups to test their applications on a 5G frequency.



# KPMG firms can support companies in their digital transformation to accelerate and making twice the impact

Connected Enterprise is KPMG's approach to digital transformation. Connected Enterprise delivers the capabilities which connect data, processes, people and technology of a business to meet customer expectations and maximize value in a digital world



### Change is everywhere

Key signals of change that have emerged in recent years and must be acted upon ...

#### Customer

Seamless digital experiences based on relevant data and insights are the 'new normal'. Trust has become multi-dimensional with environmental and corporate behaviors being under the magnifying glass.

#### Competition

Globalization has led to increased competition, especially from abroad. PropTech companies are operating with greater agility, personalized experiences and seamless interactions may yield the benefits thereof.

#### Economy (geo-politics)

Recent (global) geo-political events may cause instability and disruptions in an ever connected and dependent post-pandemic world aiming for recovery.

#### Regulation

Regulators are likely to continue an interventionist approach — also in the real estate sector — to foster competition, drive greater enterprise resilience, increase cyber security, protect data, ensure the integration of ESG-factors — EU Taxonomy, SFDR & CSRD — and to support vulnerable citizens.

#### Technology

Technology forces many sectors to innovate continuously. With a digitally enabled technology architecture as foundation, promises like personalization, experience centricity and insight-driven strategies and actions are beckoning.





### Change is an opportunity



... by developing 8 capabilities to Connect the business, both internally and externally, for a successful digital transformation

#### Insight-driven strategies and actions

Harness data, advanced analytics and actionable insights with a realtime understanding of the tenant and the business, to shape integrated business decisions.

#### Innovative products and services

Develop compelling value propositions on price, products and services to engage the most attractive tenants and drive profitable growth.

#### Experience-centricity by design

Design seamless, intentional experiences for tenants, employees and partners, supporting the customer value propositions and delivering business objectives.

#### Responsive operations and supply chain

Operate the business with efficiency and agility to fulfil the customer promise in a consistent and profitable way.

#### Integrated relationship ecosystem

Engage, integrate and manage third parties to increase speed to market, reduce costs, mitigate risk and close capability gaps to deliver the customer promise.

#### Digitally-enabled technology architecture

Create intelligent and agile services, technologies and platforms, enabling the tenant agenda with solutions that are secure, scalable and cost-effective.

#### Aligned and empowered workforce

An agile organizational structure ready for anything, where teams embrace change and support the company in recruiting and attracting the right people at the right time.

#### Seamless interactions and commerce

Interact and transact with customers and prospects across marketing, sales and service and achieve measurable results.

\*Note: Base: 1,299 professionals involved with customer-centric strategy decisions Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, September 2018





### PropTech is essential to accelerate this Digital Transformation (1/2)



### Insight-driven strategies and actions

Data is the key to success for any digital transformation. Make sure that data is collected and gathered at all times, that processes and architecture are able to track and store the data and that systems are able to handle and calculate the data into broad-ranging KPI's to set course for new strategies and business models. This could entail:

- BIM-models, which are digital representations of an existing or planned construction with information linked to each element.
- Performance analyses tools can help process the bulk of data, especially useful for investment and performance insights.
- Material passports will become more and more relevant to track the footprint on the planet and adjust the course of actions.



#### Innovative products and services

Due to the world ever more connecting and the emergence (and success) of start/scale-ups, the status quo might not be enough

- . With the increasing focus on ESG, investment funds will have to be innovative in their pursuits. Innovative ways to track ESG in the value chain will most likely be rewarded.
- Regulations push for less carbon and less nitrogen. New materials or prefab buildings are developed every day to reduce the emission of these gases, e.g. concrete alternatives.
- One of the examples of the implementation of blockchain for real estate is that blockchain allows a property to be divided into smaller investments and hence, better accessible for smaller investors.



### **Experience-centricity by design**

Customers are less income-driven and tend to be more focused on the experience – also for business-purposes. This can be enhanced by aiming to miximize digital experiences for tenants or other users:

- More automation, less clicks.
- Customized digital journeys tailored to the needs of the user, like an application to track the performance of your portfolio real-time or communicate with tenants about any issues in the building.
- Data tracking to enhance the experience by only showing relevant information. This may include energy consumption information and suggestions to improve.



### Responsive operations and supply chain

Digital tools can help become more agile and adaptive to changes

- Digital twins will help to find problems in a digital world, before significant capital expenditures have to be made.
- Prefab can play a role in improving responsive operations and supply chain, which make construction more efficient and effective especially with the crucial need for housing.
- In commercial real estate location tracking can help understand usage, thereby it could support optimizing design choices.



### PropTech is essential to accelerate this Digital Transformation (2/2)



#### Integrated relationship ecosystem

It is a must-do nowadays to experiment and potentially invest in an innovation or team up in an ecosystem of partners, including PropTechs. This may be facilitated by a chief innovation officer who discusses any partnerships or alliances to:

- 1. Identify new trends, opportunities and threats (ahead of the rest),
- 2. Drive the other capabilities that are required to reap the benefits of an innovative culture, and
- 3. Eventually form alliances or contribute to ecosystems with PropTechs or other organizations and become an innovation hub for talent.

This openness to innovation may be overarching, and in doing so this may be elevating the ceiling of your organization.



### Digitally-enabled technology architecture

The back-end of your business has to be supportive for your strategic ambitions, for any player within Real Estate. Therefore, facilitate an architecture that is able to support:

- Large data storage for all information that will be required for digital twins and ESG-related metrics.
- · Assure compatibility of different source systems to merge and analyse internal and external data.



### Aligned and empowered workforce

Connecting people to this digital journey is essential. However, note that the focus should not solely be on clients. Employees are important users to be considered as well.

- Digitize processes and user experiences with clear designs and analysis dashboards.
- Build an innovative culture and recruit staff members that are open to change, innovation and partnering.
- · Automation is key here too. More meaningful tasks can elevate the morale and this helps retain high potential staff and improve business outcomes.



#### Seamless interactions and commerce

Platforms to connect have been developed for multiple interactions of players within a transaction, or the Real Estate Value Chain. Think about:

- · Real-time performance information of your investment.
- · Digitally enabled interactions between key stakeholders.
- · Virtual tours of properties that became relevant in COVID.
- · Energy-usage for tenants to track carbon footprint and report on them.
- Chatbots supported by AI for questions will likely be the norm.





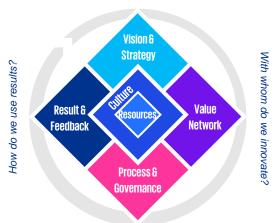


### What steps can you take to create value out of innovation?

### Prepare your organization for efficient and effective adoption of novel innovations

- Define an uniform Innovation Strategy, including finding the 'Innovation Sweet-spot' for your organization.
- Scan the Innovation Maturity of your organization by assessing the six key pillars for effective innovation: Vision & Strategy, Value Network, Process & Governance, Results & Feedback, Resources, and Innovation Culture.
- Prepare a tailored and step-by-step innovation blueprint and stagegate model to develop innovations into reality effectively.
- Start small and facilitate the development of a handful of initial solutions (e.g. from this REIO) and learn and improve on-the-job.
- Offer pro-active support to stimulate efficient idea development from a central innovation team.

### Why do we innovate?



How do we innovate?

### Find (and be found by) innovative approaches from outside your organization to tackle your challenges

- Define pressing innovation challenges in line with your organizations' innovation strategy.
- Prepare an online innovation platform to facilitate ideation, idea enrichment, idea selection and online community management.
- Kickstart your challenge by inviting specific startup approaches to participate (e.g. from this REIO), accompanied by an extensive marketing campaign on social media.
- Facilitate your online ecosystem of enthusiasts, corporates and/or knowledge centers, to support the growth of novel methodologies and cherry-pick the best fitting technology solution for your organization.
- Prepare a tailored follow-up program to accelerate the winning approach towards actual implementation.

Interested to discuss potential next steps with our Innovation Experts? Get in touch!





### Scan or click the QR-code!

### **Check our environmental-friendly reads...**



2021 KPMG China Leading PropTech 50 Highlights Report

Part of KPMG China's signature "Future 50" ranking series, the 2021 China Leading PropTech 50 identifies leading and emerging enterprises in China's burgeoning PropTech sector, as well as KPMG's analysis of eight key trends that are shaping China's PropTech sector in 2022 and beyond.





A game changer: How corporate strategy drivers are elevating the strategic importance of corporate real estate

The commercial real estate function is elevating its strategic importance — from a quasi "estate agent model" to a strategic business partner — to support their organization's future around digitalization, the environment and the future of work.





The Decarbonization Journey Five pillars to achieving net zero

Organizations on the net-zero journey need to gather and analyze data that give a clear picture of there emission footprints. To achieve this, companies should look beyond simple reporting tools and consider a broader technology framework to manage the entire process, infusing trust along every step.





Real Estate + Real Innovation

This report recounts observations in the real estate industry that discusses the industry's current standing and where it's headed.

Real estate companies can benefit from innovative technologies that make them more efficient and effective.







### Scan or click the QR-code / headset!

### ... or listen to one of our podcasts or webcasts!



#### Back from 2040

The podcast explores a broad range of topics, from what the cities may look like and what will be the future place of work, how will citizens consume information and what will be the definition of sustainable in 2040.





### **Global Asset Management Perspectives**

Global Asset Management (AM)
Perspectives brings together KPMG
leaders and major market players from
around the world to provide insights
into the ever-evolving asset
management, real estate and private
equity landscape.





#### **Global Real Estate Outlook**

Rising interest rates and their effect on property values, ever increasing ESG demands in the real estate industry, China's real estate crisis and the potential economic fallout, the future of office towers in our new normal times – 2022 could be another especially interesting and challenging year for the real estate sector.







### Part of Blogpost

# Real Estate + Real Innovation highlights areas for action to focus digitization journeys on ...

Blog by KPMG's European Lead Digital Real Estate

The real estate industry is often characterized as hesitant and cautiously waitand-see when it comes to digitalization. Yet numerous innovations have been developed in recent years by young PropTechs and established companies. Unfortunately the digitalization of the real estate industry has started slowly and is far away from the finish line.

Digitalization in our industry is taking place on several design levels, where we see areas for action in the upcoming years:

#### **Smart Infrastructure**

An efficient building infrastructure is increasingly becoming a value driver for real estate. With innovative (onsite-) technologies Real Estate and Infrastructure can get more flexible and more energy-efficient snf enable smart decision making. From our point if view we have increase the smart use of core technologies like Internet of Things, data analytics and artificial intelligence.

### **Smart Enterprise**

Although we experience a new IT-design area with an increased use of specialized real este-related systems we see that ERP systems will continue to be the mainstay of IT and enterprise architecture in the future.

But Cloud and blockchain are changing the way we store data and support real estate companies to manage data and content with increased quality and quantity. Process mining and intelligent automation might turn real estate companies into self-learning organizations.

### **Employee Enablement & Cyber Security**

With the digitalization of real estate companies and buildings, the risk of cyber attacks is growing and we have to take care of data our customers provide to us. To manage these risks we need the empowerment of employees for digital processes and technologies and raise awareness for new digital threats. In fact, a professional, digital organization is needed to defend against cyber risks.

As a food for thought we have assembled 10 Key Facts for the Future of Digital Real Estate. We are looking forward to discussing these and the Innovations included in the Real Estate Innovation Overview with you.

#### Robert Betz

Director, Head of Digital Real Estate







# Smart Infrastructure

# ... concluding with 10 key (technological) trends for the future of Digital Real Estate



### Blog by KPMG's European Lead Digital Real Estate

### **Housing + Open Platforms**

The variety of standards and systems for Smart Homes will continue to increase but also generate innovative use cases for commercial buildings

### Infrastructure + Connectivity

High-performance infrastructures are a critical success factor for the marketability of buildings and the fulfilment of increasing usage requirements

### **Buildings + Data**

Buildings equipped with IoT only become truly smart through the use of on-site artificial intelligence and data analytics

#### Cities + Connected Services

Smart cities will further automate the management of public infrastructure (utilities, traffic and transport) and offer an expanded range of e-services

### **ERP + Digital Ecosystems**

Modernized ERP systems form the backbone of company-wide data management and integrate the digital eco-system of specialized real estate management solutions

### Sustainability + Blockchain

Sustainable business management requires verified data – this is driving blockchain usage and PropTechs can support with combined data and platform services

### **Business Development + Automation**

The deep integration of robotic process automation, artificial intelligence and process mining technologies is becoming a key efficiency driver

### **Data + Cloud Computing**

On-premise data lakes are replaced by multi-cloud environments and fully mobile IT landscapes

### **Employee Enablement + Cyber Security**

Smart Enterprise

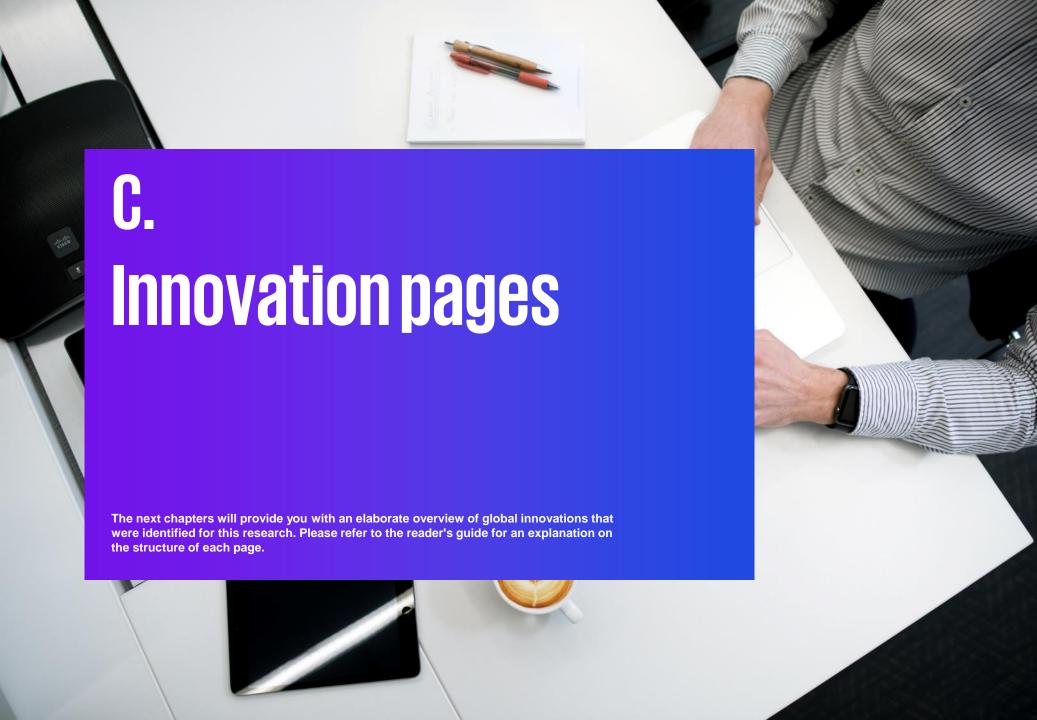
### **Digital Transformation + Employees**

Digital enablement and guided cultural change are crucial for the speed of digitalization and the realization of unique selling propositions

### Cybersecurity + Data Protection

The increasing relevance of cyber security and data protection leads to new, more professional management roles





### Reader's guide for this overview

Since our overview is an extensive guide of Real Estate Innovations worldwide, the below overviews provide you with some information on the overall structure as well as some background on key statistics which are *new* in this year's edition.

#### Structure of overview

- First, the overview is structured along nine familiar categories (a chapter for each category);
- Within these chapters, innovations are classified per region from West to East. I.e. (i) Americas; (ii) EMEA; and (iii) Asia Pacific;
- Finally, alphabetical order is followed for (i) Founding Country / Territory; and (ii) Name of Innovation.

### **Key statistics**



Field of Expertise (FoE) – Describes the core competency in a few key words and provides more in-depth insights into the market focus.

(Geo)Location analytics	Data-driven pricing & valuation tools	Plumbing	Smart buildings
3D printing	Drones	Predictive maintenance	Smart cities and infrastructure
Agent matching	Energy efficiency	Property information platforms	Supply chain management
Air quality	Fire protection	Property portfolio management tools	Tech-enabled brokers
BIM and Digital Twin	HVAC	Real estate investment platforms	Technical planning
Building automation	Indoor mapping	Recycling solutions	Tenant services
Building design	Mobility	Remote monitoring	Virtual viewing
Collaboration software	New materials	Rental and sales platforms	Transaction administration
Co-living spaces	Off-site construction	Robotics & automation	Water efficiency
Co-working spaces	Online direct lenders	Safety & security	Other



Value Chain Segment (VCS) - Describes the position of the innovation within the Real Estate value chain and hence, gives insight into the strategic activities of the innovation. For say, innovations in the value chain segment of Transaction and leasing segment can be active in the rental and sales platforms Field of Expertise

















# O1 Digitizing processes

In our everyday life, more and more tasks get digitized. Most of us embrace the opportunity to manage certain tasks digitally by having all relevant information at hand within seconds. While the underlying processes are getting increasingly more efficient and user friendly, the digitization of processes also allows for an increasing amount of data collection, storage and analysis. Consequently, this results in higher quality, costs savings and improved customer satisfaction, applicable in all parts of the Real Estate industry.





















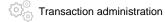








Transactions and leasing





**Constru**market

101-200

Property and facilities management

Alude's technology developed a platform capable of automating the rental process. The software is responsible for background checks, document collection, online signature, and insurance purchases.

https://www.alude.com.br/

E-Construmarket offers online solutions for the construction industry. It provides several solutions like a digital platform to connect supply and demand for construction projects, a market intelligence solution which enables access to market information and maintenance software to improve

project planning and management.

Technical planning





construmarket.com.br/







Construction

201-500





Transaction administration





Ambar Tech offers digital products and services that use data, technology, and intelligence to increase productivity and reduce cost of construction and the amount of labor required. Its software integrates the states of construction, from the architectural project, through the purchase of building materials to management of the actual construction itself.

https://www.ambartechnologies.co <u>m/</u>



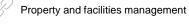


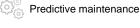














RIO Analytics uses data generated by equipment sensors to predict and prevent failures, reduce equipment downtime and increase operational efficiency through Artificial Intelligence. RIO analyzes sensor data in real time using Machine Learning to improve the insights and predictions it generates.

www.rioanalytics.com.br

Document Classification: KPMG Public





Brazil































Property and facilities management



Property portfolio management tools





1VALET is focused on creating a unified experience between users, residents and their property managers. By developing a comprehensive building management platform, 1VALET has created a solution that consolidates otherwise independent building components into one simplified, userfriendly platform.

https://www.1valet.com/



Anow is a real estate appraisal software provider which streamlines a wide range of everyday appraisal processes while offering business insights to help appraisers compete in today's digital











Investing and financing



Data-driven pricing & valuation tools

















Investing and financing



Property information platforms





Altrio has built a deal management platform which automatically extracts deal information from various sources and makes is accessible into one comprehensive overview.











Transactions and leasing











Arextech is a real estate technology platform in the field of business software which conceptualizes, designs and develops easy-to-use and visual solutions in the global cloud. Making complex processes and systems automated and agile.

https://arex.technology/



































Property portfolio management tools





billie is a transformative digital workplace software that utilizes people to help streamline and simplify the hybrid office. It operates through a mobile app that seeks to "gamify" workplaces, incentivize employees to work towards corporate challenges (e.g. going Paperless for a week). The app also allows users to report workplace issues, locate available space and produce analytics for metrics such as occupancy and utilization.



www.billieapp.io













Investing and financing

Tech-enabled brokers (e.g. mortgage search and comparison)





Breezeful is an online mortgage broker that gets customers the best mortgage, fast. The company leverages mortgage experts powered by technology to provide the best mortgage experience



www.breezeful.com

#### SBRED









**■** Canada



Investing and financing

Transaction administration





BRED Token offers a platform that streamlines the onboarding of investors by providing KYC, AML and investment suitability automation. It also onboards assets as well, and has an indicative portfolio of luxury apartments and hotels in Ontario, Canada and the USA.



www.bredtoken.com/















Property portfolio management tools





Building Stack is a property management software that focuses on ease of use and increased efficiency. By automating repetitive tasks and providing a fully integrated hub for communications, payments and listings, the Building Stack platform helps property owners get the most out of their investment while keeping their tenants happy.



https://www.buildingstack.com/





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21-50 **Canada** 



Collaboration software





BuiltSpace has built a facility maintenance platform which puts facilities services securely online in the cloud, connects assets through among others, QR code activated mobile application and, people & processes across the facilities supply chain.

https://www1.builtspace.com/

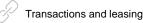








Canada





Transaction administration





Dwello is a technology company that provides a platform for landlords and tenants to connect, pay rent electronically, and improve their credit. On top of automated payments and notifications, Dwello provides a full suite of reports that you can use for your tax

https://www.dwello.com/





Construction

Technical planning







**■**■ Canada

Civalgo has created an Operational Project Management Platform that links schedule to daily logs to provide an optimal workflow, and past cost data and simplifies the administration process of upcoming, ongoing and completed projects.

https://www.civalgo.com/











■ Canada



Property and facilities management

Property portfolio management tools



Enso Connect is an automated communication software that allows control of the home by leveraging smart home devices and AI systems. Designed for existing property managers, Enso Connect gives full control to such customers by everything from pre-boarding, checking in, checking up, checking out, and getting the cleaning team, in a streamlined manner.

https://ensoconnect.com/

































Property information platforms





eProp is a cloud-powered software for managing commercial real estate, while focuses on digitizing property management industry. The platform includes the following functionalities: tenant experience portal, maintenance and work orders modules, property inspections, compliance management, risk management, bid management, purchase orders, vendor management, project management, advanced data analytics and more. eProp aims on changing the way commercial real estate is managed offering a complete platform.



www.goeprop.com









Canada



Construction



Technical planning





Harbr develops construction management artificial intelligence software for organizing and managing data to keep projects on schedule. It offers construction super schedule, such as free, protects user and construction site with daily logs; pro, connects all team members on the job site; and enterprise, connects all the job sites and teams.



https://www.harbr.com/







51-100







Construction



Technical planning





Giatec has combined wireless concrete sensors and mobile apps to develop smart IoT-based technologies for realtime monitoring of concrete properties such as temperature, humidity and strength. This provides critical information to contractors so they can make efficient and informed decisions on the jobsite, ultimately saving time and money.



https://www.giatecscientific.com/















Transactions and leasing



Data-driven pricing & valuation tools





HonestDoor combines real estate data with data science to produce estimated values of houses and condos. In addition to the estimated HonestDoor price, it contains property taxes, transaction data, permit data, and neighborhood growth rates for over 4M properties in Canada. By creating a comprehensive source of commercial and residential real estate information in Canada, it empowers existing and potential home owners to make more informed decisions.



https://www.honestdoor.com/



















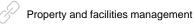
















iLobby is an innovative SaaS-based visitor management platform that optimizes a company's front desk by streamlining the management of visitors and contractors with a convenient selfserve checkpoint.

https://ilobby.com/













Property and facilities management

Indoor mapping





InnerSpace is a platform delivering GPS for the indoors - instantly and in real-time. The platform empowers businesses in commercial real estate, manufacturing, logistics, healthcare and retail, to streamline operational costs, quickly create new lines of revenue, and leverage existing physical assets and buildings to improve their bottom

https://innerspace.io/















Property and facilities management





Instanet Solutions is a provider of paperless technologies in real estate. The company offers several solutions: transaction management software and an app version thereof, an e-signature service, an online form system, an online file review and compliance system, document digitization.

https://www.instanetsolutions.com /page/2/











■ Canada

Property and facilities management Tenant services (e.g. wellbeing



solutions)



iRestify is a tech-based solution offering property managers an all-in-one platform that enables them to efficiently run their cleaning and maintenance operations remotely, simplifying tasks while elevating the experiences of staff and tenants.

https://irestify.com/





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JOIST'

11-20

technology

Agent matching

Sourcing: materials, products and



Canada



























Transactions and leasing





IXACT Contact® is an easy-to-use web-based real estate CRM and marketing solution. IXACT Contact includes robust real estate contact management, powerful email marketing, and mobile friendly agent websites. They help real estate agents generate leads that convert into clients, keep in touch with past clients, hot prospects, and important referral sources, and stay organized and in control as their business grows.

https://www.ixactcontact.com/

MoveSnap is an online concierge















Property and facilities management







https://movesnap.com/

service that helps your clients complete their moving-related tasks in a snap, saving them time, money and stress.

## 21-50







operto

Property and facilities management



Remote monitoring



Joist develops and offers a mobile app on iOS and Android platforms for industrial contractors to make estimates of costs and invoices.

www.joist.com/

Operto Guest Technologies offers a platform for managing short-term vacation rentals, hotels, and other types of guest accommodation. The platform utilizes data from smart home devices to offer property managers real-time visibility and control over their units. The platform's functionalities include integrated keyless entry, energy savings, noise and occupancy monitoring and personalized in-suite technology.

www.operto.com/





























Canada



Technical planning



Probuild has been devoted to helping small contracting businesses harness the power of mobile technology, and manage projects, estimates, invoices, timesheets, and communications through one app.

https://probuild.app/













Transactions and leasing

Transaction administration



Propdocs is a cloud-based solution for CRE leasing and investment professionals. Combining document generation, redlining, real-time negotiation and eSigning, Propdocs eliminates paperwork and streamlines the entire transaction end-to-end. Propdocs empowers landlords, transaction managers and brokers to cut time and cost by accelerating timeto-close on one secure online platform.



www.propdocs.com











■ Canada



Property and facilities management



Property portfolio management tools





Property Vista is a property management software solution that aims to transform how property managers manage their properties and build tenant relationships to grow their business. Property Vista integrates all of the necessary tools for property managers to efficiently manage their properties and improve the tenant experience - from prospective tenant applications to move-out inspections and everything in between, Property Vista's intuitive cloud-based platform helps property managers create a meaningful and modern tenant



https://www.propertyvista.com/













Property and facilities management

Tenant services (e.g. wellbeing solutions)



PropertyApps is a cloud-based property management toolbox designed for residential real estate which features service requests management, payment collection, tenant communication services and building operation management.

https://propertyapps.com/























21-50 Canada

Design & planning

(Geo)Location analytics





Ratio.City develops and delivers datadriven tools for urban transformation. From locating land parcels to modelling buildings, they put all the data and tools a real estate professional needs in one easy-to-use platform so they can focus on creating solutions and advancing your projects.

https://www.ratio.city/







Sourcing: materials, products and technology

Supply chain management



RenoRun is an efficient way of getting last minute construction materials delivered to construction jobsites within 2 hours. The app maximizes productivity, saving contractors time. Their trained RenoRunners will collect and deliver the desired materials to the jobsite of choice.

https://renorun.ca/en

#### **RENTMOOLA**









Transactions and leasing

Transaction administration



RentMoola is an online rent payment platform. They make collecting rent and property-related fees simple and efficient. Property Managers can go paperless and give tenants the flexibility of choosing their preferred payment method, while remaining in control with the intuitive management dashboards.

https://rentmoola.com/







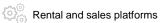














RentPerks is a tech and data enabled property management platform that combines proprietary technology with a full-service in-field operating model. RentPerks provides a loyalty program to renters, aiming to reduce payment risks for Landlords.

www.rentperks.com

























21-50 **Canada** 

Canada

Property and facilities management

Property portfolio management tools



simpLease

Rethink Solutions is a developer of property tax and real estate expense management software. They are dedicated to building software solutions that help owners and occupiers of real estate portfolios manage their multijurisdictional and global property tax processes.

http://www.rethinksolutions.com

SimpleLease streamlines the commercial leasing process for landlords, property managers, brokers and tenants. SimpleLease dramatically cuts down on paperwork, legal fees, and most importantly, the time it takes for a business to secure a commercial



Transactions and leasing

Transaction administration



https://simplease.in/

#### Setter







Property and facilities management

☼ Other



Setter provides a home service for residential housing, offering home check-ups for home maintenance and repairs, covering health and safety checks, providing personalized recommendations, and proactive home care suggestions.

https://setter.com/index.html











■ Canada



Property and facilities management

Smart cities and infrastructure





SmartONE Solutions has created a technology for multi-dwelling developments that hardwires hundreds or thousands of smart homes together over a common network to create a Smart Community. The SmartONE solution transforms a building into a living community by acting as the central nervous system which coordinates all the services needed or desired by the community.

https://smart-one.ca/





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Canada





Rental and sales platforms



Spacelist brings all of Canada's and the US's commercial real estate listings together in one place, making it easier than ever to find great space for a business. It provides an online marketplace for list and search of commercial real estate in Canada. Through its platform, users can connect with third party real estate professionals, such as tenants, landlords, and brokers to find and list properties.



www.spacelist.co







Cruest.



101-200 **Canada** 



Property and facilities management



Property portfolio management tools





Traction Guest is a developer of cloudbased visitor management systems (VMS) which make hosting visitors effortless, memorable, and safe. The highly customizable Traction Guest platform enables global enterprises to leverage visitor data, shape their brand experience, and strengthen security. Its central administration and integrations with strategic business systems like Salesforce, make this SaaS solution attractive to large, multi-location organizations.

https://tractionguest.com/















Transactions and leasing



Data-driven pricing & valuation tools



SquareFeet.ai is designed to reinvent the way real estate developers and brokers work on launching a new condo or rental project, aiming to ensure the highest revenue given the current demand in the market. Their product offer a new way to monitor how residential projects are sold and rented by providing 3 services in one product, (1) real time market analysis (2) sophisticated initial price list generation and (3) real time revenue optimization.



www.squarefeet.ai

#### zoocasa



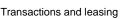


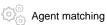














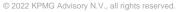


Zoocasa is a provider of online real estate brokerage services. The company operates a real estate website where the user has the ability to search for home or rental listings across the MLS database by neighborhood or on an updated map. The user can search for housing with the help of an in-house real estate agent.



www.zoocasa.com/





























Construction

Technical planning



IPSUM has created an online productivity management platform for the construction industry called ProPlanner. It is a collaborative and integrated ecosystem that helps to plan and manage engineering and construction projects as per the Lean Construction and BIM methodologies. Their services are available for both residential and commercial projects.

https://www.ipsumapp.co/













Property and facilities management

Indoor mapping



Indoo.rs is a technology development company that creates indoor mapping, localization, and routing technology, as well as SDK for application developers and device manufacturers. The company's solutions are developed by signal processing and navigation experts to offer accuracy and availability for both iOS and Android.



www.indoo.rs/













Construction



Technical planning



PlanRadar offers a cloudbased SaaS solution for construction documentation and defect management in real estate projects and tries to minimize the average 1-2 defects per 10m<sup>2</sup> in real estate projects. The company's solution with web access and native apps for smartphones and tablets supports the user in recording, documentation, communication and tracking of tasks and defects.

www.planradar.com/

## Chapps®









Belgium



Property and facilities management



Property information platforms



Chapps offers an app that can be used for locational descriptions and/or rental inspections on a tablet. Due to the optimization of workflows and the simple user-interface, production is increased.

www.chapps.com























Belgium

Property and facilities management

Property information platforms





Codata offers decision support services and tools for retail and commercial real estate professionals. A database of commercial real estate, commercial sites, commercial locations, town centers, shopping centers, business zones (ZAC), retail parks and outlet centers.

www.codata.eu









Belgium



Design & planning

BIM and Digital Twin





hsbcad is a 3D CAD/CAM software solution provider for the offsite construction industry. The company develops applications for Autodesk's AutoCAD® and Revit® platforms, enabling a smooth transition from design to

production. hsbcad's products offer architects, engineers and manufacturers the ability to create a scalable 3D manufacturing model with full quantity take off. The flexible software can be adapted to individual requirements, and it interfaces with the industry's CNC machines.

www.hsbcad.com/





101-200





Construction



Technical planning





LetsBuild is a construction management software that collects real time key project data and storing it in one place. Providing a clear overview which allows project managers to track changes, improved decision making, and link all task updates to the main planning. The construction management software aims to improve time-management, productivity, and profitability.

https://www.letsbuild.com/











Belgium

Transactions and leasing

Virtual viewing



Nodalview is a mobile-based photography solution that leverages smartphone technology, AI and cloud computing to produce instantly available high-quality visuals for real estate properties. Nodalview's all-in-one digital solution enables real estate agencies to easily create perfectly exposed HDR photos, 360° immersive virtual tours and full HD videos.

www.nodalview.com























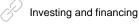












Data-driven pricing & valuation tools



smartbeam

Rock.estate is a data science startup founded in 2017 in Brussels. We specialize in the remote and real-time evaluation of buildings on a countrywide scale to help companies understand their customers' homes. Through a combination of open geodata and AI, Rock.estate extracts and calculates relevant building information such as accurate 3D models, building characteristics and market value. We help our customers save time and make better decisions.



www.rockestate.be

Smartbeam is a budget management SaaS that helps construction teams increase project efficiency, team collaboration and manage budgets seamlessly with reliable data drawn from the field. Every site stakeholders can collaborate on one single platform to track expenses against budget in real time, manage progress billings, BOQ, change orders, payment certificate and invoices with a clear approval workflow.



www.smartbeam.co















Transactions and leasing

Technical planning



Setle's goal is to make the buying of property easier and more transparent for every stakeholder involved, by creating a renovation tool for the support in the pre-purchase phase. With a clear overview of costs in a userfriendly interface, the search for the ideal home for both brokers and prospective buyers becomes more efficient and transparent.

www.setle.be





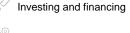
















SmartBlock uses Big Data and Artificial Intelligence to collect and analyze market data, as well as administrative and demographic data to help real estate professionals invest, develop or operate their real estate assets.

www.smartblock.be



Construction

Collaboration software



Belgium

















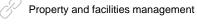


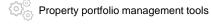






Belgium









Smovin is a company that aims to ease property portfolio management. The company delivers a property management tool on which documents can be managed, rent payments can be followed up and expiring contracts can be managed.



www.smovin.be













Property and facilities management



Energy efficiency





Trinergy provides 3 services: Contract management: It analyzes, optimizes and manages energy contracts of commercial and residential players. Energy Business Intelligence: energy and multifluid data cloud platform to bring clarity in complex and multiple data sources. The processed data can then be converted into actionable insights in order to achieve sustainability goals. Process Digitalization: automated invoice data capturing and processing.



www.trinergy.io

#### SWEEP Ö BRIGHT















Robotics & automation





SweepBright aims to help save time and costs by reducing manual data input and by making the entire sales process manageable on the go. It's product was designed from the onset with mobile usage in mind and integrates with third-party applications. This enables agencies to transform their sales flow into a fully digital journey and to deliver better customer experiences and increase efficiency.



www.sweepbright.com

## zapfloor























Zapfloor offers workspace management platforms that are tailored to your organization's needs but without the hassle of long development tracks. By combining a smart modular approach with deep involvement, advice, and expertise, Zapfloor delivers a customized solution that makes corporate workplaces, as well as coworking spaces and serviced offices more performant.



www.zapfloor.com











Egypt



















Property and facilities management



Energy efficiency



FLOWBOX is an autonomous energy management and optimization platform



to save energy, make more efficient operations, and to reduce carbon footprint. The platform can actively and autonomously manage, optimize operational technologies, and is able to provide demand flexibility for the smart grid. The robust hierarchical architecture utilizes edge computing. The platform can be used as a tool to support energy management certification, energy efficiency legislation compliance and GHG emission accounting.





Nozal offers customer relationship management software that contains a set of tools that aims to allow users to achieve optimal performance in selling, managing and marketing real estate assets. Data is gathered from various sources and analyzed through a set of performance dashboards regarding the sales pipeline and KPIs.

www.nozol.com/en









Estonia



Transactions and leasing



Property portfolio management tools



Bidrento offers property management software, in addition to typical property management automation functionalities such as property, tenants, agreements, reports, invoices, tasks, maintenance/ service requests management and different integrations with banks, accounting software and 3rd party solutions, on top of all that Bidrento offers automated tenants onboarding functionality, self-service environment for tenants, including service providers environment. While using Bidrento, rental property owners not only reduce their operational costs but also maximize their profits while tenants' satisfactory increases.









Construction



21-50

Tech-enabled brokers (e.g. mortgage

Transactions and leasing





☼ Other



Aiforsite offers an all-in-one solution for moving from closed construction projects to a fully transparent industrial process production model. This is achieved by digitizing the construction with the use of cameras and AI, to be able to see progress in real-time remotely.

https://aiforsite.com/en/

































Property portfolio management tools





Assetti develops and markets a collaboration tool for property asset managers and investors, allowing them to develop portfolio strategy, control property financials, and secure rent rolls, all in one application.

https://assetti.pro/













Property and facilities management



Property information platforms





Avaa.io is a collaboration platform for real estate communities. It includes comprehensive toolset for property managers and building users. Stakeholder collaboration, data management, reporting, task management, document archives, communication, digital signing are must have tools for all modern property managers.

https://avaa.io/en/













Property and facilities management



Safety & security



KPMG



Bitwards access platform anables access with digital keys from the mobile app. The flexible cloud solution for managing access to desired spaces and assets — doors and other — costefficiently and securely.



https://www.bitwards.fi/















Transactions and leasing

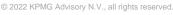
Tech-enabled brokers (e.g. mortgage search and comparison)





Blok offers a service where homeowners manage viewings themselves, while Blok takes care of the other processes involved in selling a real estate property, such as paperwork, photographs, classifieds, marketing, and managing the tendering process, for which it takes a 0.95% commission (instead of the average 4.3% in Finland). By automating these processes, Blok's brokers are able to sell more properties than conventional brokers.

https://blok.ai/



























Finland



Construction



Collaboration software



Builderhead offers a smart software solution that brings construction project management, CRM and procurement in one system. With the software general contractors and builders are able to gather all the project information, people and tasks in one place and keep everyone informed of the status of the project.

https://www.builderhead.io/en/hom

### **CHAOS**













Investing and financing

Property portfolio management tools





CHAOS is an urban forecasting company for real estate investors and city developers. Their Al platform processes urban data and crowd insights to forecast investment and development opportunities for creating livable cities.

https://www.chaosarchitects.com/

### Cloudpermit Output Description:





21-50





Construction





Cloudpermit is an all-in-one and cloudbased e-permitting software (automatically saves and updates, hosted in the cloud, and is managed by Cloudpermit). It enables local government building departments to work digitally, remotely, and collaboratively - this helps future-proof processes and create opportunities for local governments to thrive.

https://cloudpermit.com/







Construction





Finland

☼ Other



Easoft offers a software for installation and project management in the construction industry, which covers sales, customer acquisition, tendering, construction sites/projects, margin calculations, reporting, and monitoring of working hours.

https://easoft.fi/

















Gravicon provides IT software and













Investing and financing



Data-driven pricing & valuation tools





Exquance provide automated financial modelling solutions for property professionals with two platforms. ModelTree is an all-in-one financial modelling and reporting platform for investment management and property valuation and Fundy is the power steering for fund management, offering easy and robust interface to manage investments, payment and reports.

<u>https://www.exquance.com/</u>









Design & planning

BIM and Digital Twin



Finland



**Building Information Modeling services** to the building industry as an IT developer and external consultant. Services include project management support, software solutions to optimize repetitive tasks, and trainings.

http://gravicon.fi/

### **iii** kodit.io









Transactions and leasing



Rental and sales platforms





Kodit.io offers a direct purchase model (i.e. iBuyer), where the company buys the property from homeowners with instant cash offers based on their proprietary data-based market price, renovates it and resells it on their marketplace, reducing the time and expense homeowners normally allocate to switching homes. They also offer home sellers the opportunity to lease back their old home in order to avoid temporary housing arrangements.

https://kodit.io/







Construction





Finland



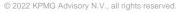
Collaboration software



Homerunbynet is a company that offers software for building developers to manage interior selections, project portfolios, tenant communications. Including the warranty processes and communication after the construction project.

https://homerun.net/

















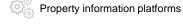








Property and facilities management





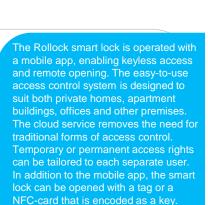


III Finland

Hyperin offers an integrated tool for shopping malls to administrate all tenant and consumer information and communication, as well as reporting, contracts, marketing, and footfall in one place. The software also enables the selling of advertising and promotional space online through the same platform.

https://www.hyperin.com/







ROLL.OCK

YOUR SMARTER ACCESS

Property and facilities management

11-20

https://www.rollock.fi/

#### **Qυυρρα**







Finland



Sourcing: materials, products and technology

Indoor mapping





Quuppa manufactures and markets technology for location based services and applications. Its unique Direction Finding methodology and positioning algorithms enable real-time tracking of Bluetooth® Low Energy tags and devices, with centimeter level accuracy. The Quuppa Intelligent Locating System is a reliable, versatile, highly customizable, fully scalable, and cost effective Real Time Locating System solution for all industries.

https://quuppa.com/







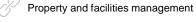


















Safetum offers fire and safety measurements, monitoring, planning, communications, and prevention as a service.

https://safetum.fi/



Safety & security















Simplebim is a building information

model data management software

Simplebim software addresses the

process and technology aspects of

using BIM in real construction projects

developed by Datacubist.

and maintenance phase.















Property and facilities management



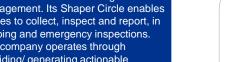
Safety & security





Sharper Shape offers utility inspection automation for asset and vegetation management. Its Shaper Circle enables utilities to collect, inspect and report, in ongoing and emergency inspections. The company operates through providing/ generating actionable reports.

https://sharpershape.com/



simplebim<sup>®</sup>







Design & planning

BIM and Digital Twin



Finland



The company additionally provides consulting on building information models.





https://simplebim.com/













Investing and financing



Data-driven pricing & valuation tools



SkenarioLabs offers automated, Albased property valuation and technical risk assessments for both residential and commercial real estate.

https://skenariolabs.com/













France



Transactions and leasing



Agent matching





Flatsy aims at making property viewing easy for real estate professionals and their clients. They help save time and live a seamless viewing experience thanks to their three-in-one platform: an appointment scheduling software, a team of FlatGuides available anytime and an application file collection tool.

www.flatsy.fr





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**X HXPERIENCE** 

Property and facilities management

21-50



Virtual viewing





Habiteo offers a collaborative platform that simultaneously manages sales and marketing activities to build a tailored customer relationship through their 3D solutions and CRM system. Habiteo does so by building a link between 3D visualizations of properties, customer relationships, and sales.



www.habiteo.com/



Hxperience is a real estate startup that has developed SMATI: a platform for (smart) buildings, based on predictive analysis and connected objects in order to make all this data usable. The goal is to optimize the operation of buildings, examples of this are: predicting the occupation of the rooms, adjust the temperature accordingly, and observe unnecessary expenses.



Smart buildings





www.hxperience.com/















Transactions and leasing



Transaction administration





Happywait helps to increase efficiency and optimize time-consuming processes while increasing the quality of service for its clients' buyers. Property developers can digitalize their sales processes and boost customer experience with Happywait's solutions.



www.happywait.com/





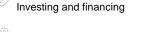














Data-driven pricing & valuation tools

KiccK allows professionals to bring a new and additional advice to their customers, namely, where to invest in a real estate capital gain perspective. The only solution capable of projecting a capital gain or loss in the real estate market where a property is located, in the medium term (7 years), in relation to an IRIS\* zone (500 inhabitants).



www.kicck.ai





France

























Property portfolio management tools





MYRE brings efficiency to real-estate management through its integrated solution that empowers real estate players to make smart, data-driven decisions. Its asset monitoring app collects, checks, analyses and forecasts operational, financial and legal data for real estate players. The collaborative solution offers a clear and reliable overview of each property in real time by bringing all real estate information under one roof. With the technology, real estate professionals can take control over their data, optimize property management, make reliable and fast decisions, monitor risk and maximize their return.

https://www.getmyre.com













Construction

Property information platforms



SCOPLAN is a web space that builders or architects make available to individuals to follow their work from their smartphone. They bring this assurance of visibility that the professional will give. In fact, a reassured and informed client is less tense: which reduces the risk of conflict.



https://www.scoplan.com/















Property and facilities management

Collaboration software





Urbest provides collaborative software for facilities, maintenance and services. Urbest's collaborative job tracking platform allows organisations to seamlessly capture, organize, track and take actions in workloads between issuers, managers and workers.

urbest.io











Germany



Investing and financing



Data-driven pricing & valuation tools





21st Real Estate offers comprehensive raw data for various asset classes, with its Al-supported market analysis and location analysis tool, RELAS. Scores and ratings derived from the raw data help to analyze this data validly in a specific context and to identify suitable locations with the relevant indicators for different projects in the shortest possible time. In addition, expansion strategies and inventory checks can be performed. Machine learning prices and comparables also provide support for well-founded price appraisals.

www.21re.de





























Germany



Construction



Collaboration software



Alasco's web-based software solution digitizes the financial management of construction projects by combining modern workflows and digital networking of all project participants. The software shows the current project status including all necessary data and information. By automating work processes and making all financial data available in a central information source, the productivity of project managers, project developers and all project participants is increased. Errors are avoided, comprehensive transparency is established and decisions are made faster.



















Property and facilities management



Energy efficiency





DABBEL AI is a software add-on that replaces the manual control of the existing Building Management System (BMS) with Artificial Intelligence, which operates the energy systems autonomously and in real time. Without any hardware or upfront costs, the Al can save up to 40% of HVAC energy usage in commercial buildings.



www.dabbel.eu











Germany



Construction



Technical planning





Capmo is a cloud-based SaaS solution for the construction industry. It equips construction workers with digital tools automating repetitive and error-prone tasks to construct buildings at an improved pace. Digital construction plans on mobile devices are the base of Capmo to innovate processes such as auto-construction documentation. punch listing or sheet comparisons. Capmo is used across Europe.



www.capmo.de











Germany



Property and facilities management



Transaction administration





Eucon digitalizes the invoice workflow for real estate companies. The solution uses Artificial Intelligence and reads, recognizes and classifies invoices and records them into the respective ERP system ready for account assignment. Historical data from individual objects or service providers is incorporated into the process, enabling the system to learn with every run.



www.eucon.com











Germany





















Germany



Property and facilities management



Property information platforms



EVANA AG is a growing property technology company that has pioneered an artificial intelligence (AI) application estate asset and investment managers.



www.evana.ai







KIWI is the keyless entry system for apartment buildings that enables property managers to centrally manage all access rights in real time via the KIWI Portal. KIWI wants to spare property managers unnecessary trips and the worry about keys. Over 150,000 residential units in Germany and Switzerland are connected to the KIWI infrastructure.















Germany



Design & planning



Property information platforms





Korasoft aims at operating real estate with maximum efficiency. Korasoft offers the complete implementation of the relevant processes with SAP 3D Visual Enterprise for the Real Estate Management. This gives their customers product support by supporting the new SAP standard and by integrating it firmly into their established solutions.



www.korasoft.net







Construction







Germany











Molteo is a digital tool, using cloud software to help construction companies have real-time data, statistics and analyses of the building process. This is helpful to optimize the usage of resources and manage daily working processes faster, while reducing paperwork.

www.molteo.de/























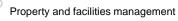














Property portfolio management tools



The NeoTwin cloud-platform is an open platform which integrates best in class products such as MS-Office solutions, MS-SharePoint, MS-Teams, MS-Project, Power-BI and Autodesk BIM 360 for the management of building models.



www.neotwin.com















Property and facilities management



Smart buildings





Reos provides digital property management for residential living. By using smart building components. cloud-based processes and real time data the company sustainably secures the value of assets and make digitalization profitable. From leasing and marketing to operational property management with real-time data reporting supporting ESG strategies, they manage portfolios in a very effective way. In a nutshell: Reos increases efficiency by covering the rental cycle 100 % digitally.



www.reos-software.com/en/















Design & planning



Property information platforms





Octoscreen is a SaaS solution specializing in automated site and area monitoring. By monitoring over 20.000+ online sources, Octoscreen can identify early changes in planning & building laws, activities of competitors, changes in political decisions or potential expansion opportunities. The real-time monitoring can reduce the time required to search for and analyze relevant information by up to 90%, while being five times safer compared to manual work.



www.octoscreen.de











Hungary



Construction



Property information platforms





BauApp apps create an ecosystem for the construction projects' participants e.g. real estate developers, general contractors and subcontractors. Result: less time spent with administration, less delays, higher cost-effectiveness. Blueprints, documents are available on mobiles and issues/tasks can be recorded on them. Document management with approvals. Automatic reports. BI Dashboard. Material warehouse solution (DTLS). BauApp is used on more than 500 major construction projects. 30 out of Top 100 Polish, Hungarian construction companies use BauApp.



www.bauapp.com





























Hungary



Collaboration software



Lokcheck accelerates the digitalization of construction implementation. The company does this by enabling construction workers to document and communicate progress and blockers in a quick and understandable way.



Parkl is a digital platform which integrates parking and e-mobility services in a single system. They install state of the art parking solution, which can be easily integrated with existing parking systems. Using Parkl app, motorists can manage parking and EV charging related processes conveniently and in a cashless way. Parkl also offers a solution for office buildings, which optimizes the management and utilization of their parking capacities.













Hungary



Property and facilities management



BIM and digital twin





OrthoGraph provides digital twins of buildings for facility and maintenance management. Its mobile technology controls the data quality with strict workflows and live graphic feedback. A fast learning curve, simplicity and the used rugged tools let BIM become part of the everyday operations, workflows and third-party systems.





PARKL







Hungary



Property and facilities management







www.parkl.net



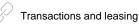


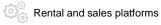














Realmonitor Kft (Arminimum) crawls and processes property advertisements on the web on an hourly basis, analyses the mass of ads, and recognizes which advertisements advertise the same properties. Arminimum shows the best offer for a given property and shows available information. Moreover, Arminimum provides a supply index showing how the supply changes on daily, weekly, monthly basis, as well as a demand index showing how long it takes to sell a property.



www.arminimum.hu







































Buildots is an innovative construction tech start-up creating the equivalent of a mission control room for construction sites. Bringing together AI and wearable hardware, Buildots technology creates seamless construction process visibility and fully digitized construction workflows with the aim of optimizing processes, minimizing delays and avoiding budget overruns. Easy integration, fast access and userfriendly interface make Buildots the perfect solution for any team looking to streamline its construction processes.





#### **PlaceSense**





11-20





Property and facilities management



(Geo)location analytics





PlaceSense operates through providing machine learning algorithm. By analyzing billions of smartphone signals from multiple locations, its machine learning algorithm is able to provide a customized recommendation of where to open a store or how to optimize it. Its proprietary privacy algorithm modifies data records, so it becomes practically impossible to conclude anything on individuals, while statistical insights remain accurate at scale.



www.placesense.ai

### SiteAware











Construction







SiteAware's Digital Construction Verification platform closes the gap between plans and construction in real time, ensuring consistent quality and preventing rework. The SiteAware DCV platform generates in-process actionable insights through complete verification of core, shell and interiors installation, enabling industry leaders to reduce costs and risk, prevent errors in real time and harness data to improve construction performance across projects and portfolios.



www.siteaware.com







Construction







Collaboration software





Vplans is a powerful but still, an easyto-use platform that helps the clients' teams collaborate plans, tasks, manage meeting summaries, and share ideas. All-in-one software for construction project management Vplans enables construction companies to manage their projects and advisors online.



www.vplans.com

































Transactions and leasing



☼ Other



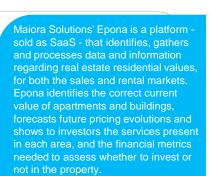


Casavo is a European Home Platform offering a 360° experience to all the people who want to sell or buy a house. Combining proprietary technology and human intelligence, Casavo makes it simple, fast and safe to find the right home every time life changes.



www.casavo.com







Investing and financing

epona 🔁





www.epona.maiorasolutions.com

#### kaaja













Transactions and leasing



Rental and sales platforms





Kaaja understands the pain and challenges in selling and buying a home, and has developed platforms and processes to simplify the purchase/sale of a home. It provides an online assistance in various processes. including all property documentation, booking visits, making offer, signing a proposal, registering the preliminary contract.



www.kaaja.com

#### **AER**()NES





















Aerones operates through its robotic Wind Turbine Generator (WTG) maintenance system. It is a method of delivering various tools to the blade for inspection, cleaning and maintenance of wind mills. WTG maintenance uses robotic technology to reduce downtime and increase annual energy production (AEP). In addition, this robotic blade care system is similar to drones and ensures safety and efficiency.

www.aerones.com/

























Nigeria

Transactions and leasing

Property information platforms





Estate Intel is a real estate and construction information portal aiming to aid industry professionals in finding leads for their product sales, secure new tenants for their properties and understand trends, rents or sale prices to help them make decisions. EstateIntel seeks to have a strong profile in data analytics and organizational performance monitoring.

www.estateintel.com/









Transactions and leasing

Tech-enabled brokers (e.g. mortgage search and comparison)





Propertyfox offers proprietary software and systems that help to coordinate the tasks of marketing and selling property as quickly as possible while saving sellers on transaction fees. A special feature of the company's business model is that all the information is actively shared with the seller and Propertyfox handles all the logistics, scheduling and security vetting.



www.propertyfox.co.za/











Design & planning

Building design





laiout automates the tedious design phase of creating architectural floorplans. Laiout empowers developers- and augments architects in developing high quality architectural floorplans within a few clicks instead of several months. This allows them to make more data-driven decisions and spend more time on other design phases.

(laiout.co



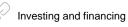












Real estate investment platforms (e.g. crowdfunding)





ChromaWay is a blockchain software company that builds decentralized solutions for financial services, supply chain, real estate, gaming, and other vertical industries. Overall our technology is aimed at providing the ability for enterprises to share data such as digital assets securely across boundaries using distributed ledger, smart contracts, and other components of a distributed architecture (e.g., wallets, block explorers, etc.). We refer to our technology as the "Relational Blockchain" as our solutions are rooted in highly scalable relational database technology.

https://chromaway.com/





























Sweden



Transactions and leasing

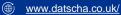


Property information platforms





Datscha is a company that offers several web-based solutions offering access to data of registered commercial properties, as well as analytics. The company buys and collects data that is property-related from information providers. The company then structures, matches and aggregates the data, to make it available in their interface afterwards. An additional feature is that clients can upload their own data in Datscha, enabling new analyses, insights, and business opportunities.







Property and facilities management

lime



Property portfolio management tools





Lime Technologies is a CRM supplier. With Lime Technologies, get a comprehensive view of tenants, rental objects, properties and contacts. Gather work orders in one shared, easy-to-use flow. Publish vacant objects online, directly from Lime CRM. One of the largest challenges is that Tenants have high service expectations. Real estate systems solve quite a bit but are often not enough to efficiently handle all customer relationship cases and interactions. This is where Lime CRM steps in.

www.lime-technologies.com



Property and facilities management





Sweden

Other





EstateLogs tries to optimize property maintenance by capturing all activities in and around the property and analyze the data to identify and reduce inefficiencies and reducing cost.

https://www.estatelogs.com/













Design & planning



Property information platforms





Archilyse makes the quality of architecture digitally and objectively measurable, thus making it comparable and understandable; all using their unique proprietary Al-based workflow. Archilyse's B2B customers use Archilyse to generate digital twins for sustainability metrics, to optimize architectural layouts and to increase the accuracy of their Automated Valuation Models.

https://www.archilyse.com/































Design & planning



BIM and Digital Twin





Nomoko is aiming to unlock the power of Digital Twins one industry at a time and they're starting with real estate. The first solution, Nomoko Praedia is a web app that harnesses the power of location intelligence, spatial data and 3D visualization to supercharge investor and developer real estate projects.



https://nomoko.world/









Investing and financing



Data-driven pricing & valuation tools





PriceHubble is a B2B proptech company offering real estate insights and solutions for the real estate industry based on property valuations and market insights. Leveraging big data, cutting-edge analytics and great visualization, PriceHubble's product suite brings transparency in the market, enabling its customers to make real estate and investment decisions based on data-driven insights and enhance the dialogue with end consumers.



www.pricehubble.com

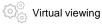
















3DUniversum offers 3D scanning, recognition and analysis solutions for the real estate industry by using consumer level mobile devices. The solution is powered by artificial intelligence and deep learning technology. It provides users a platform to create, share and interact with the content, including 360 panoramas, virtual tours, measurement reports, videos, VR and high quality images of the property. The aim is to simplify and digitize the listing process and make room for flexibility.



www.3duniversum.com/

## bloxs











Property and facilities management



Property portfolio management tools





Bloxs supplies innovative All-in-One Property Management Software for Real Estate Investment and Property Management Organizations.



www.bloxs.com







**BRIXX**online®

Property and facilities management



Netherlands

























Property and facilities management



Property information platforms





BRES offers a data and information platform which creates a clear overview of relevant information for a company's or person's real estate portfolio, combining business data with external and open data from different perspectives. Moreover, it provides information of similar real estate assets in the neighborhood and tracks performance based on KPI's.

https://bres.io/



BRIXXonline offers real estate management software. With its solution, the company organizes and manages the administration of the clients' commercial real estate.

www.brixxonline.nl

#### **CALCASA®**









Investing and financing

Offsite construction (e.g. prefabricated components)



Calcasa is an independent technology company providing an automated valuation model (AVM). Calcasa's AVM provides an estimation of the current open market and foreclosure value of a given residential property based on comparable sales and advanced modelling techniques. Valuations of homes and portfolios are accessible via a variety of sources. Additionally, Calcasa has developed tools for real estate analytics, supporting real estate professionals in reviews and decision



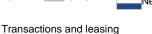


















DatHuis is a marketing automation platform connected to a marketplace for residential real estate information and services. It provides the tools needed for real estate professionals to guide consumers through their housing journey.



<u>dathuis.nl</u>



































Property portfolio management tools





Dutchview caters to commercial real



www.dutchview.com















Transactions and leasing



Transaction administration





Fillthedoc is a tool, which is easy to integrate and enables organizations to create digital documents in their (legacy) systems to support tenant services. The company offers its solution to property and facility managers.



www.fillthedoc.com

















BIM and Digital Twin





Fimble focuses on facilitating building information throughout the entire life cycle of a building based on BIM and works exclusively with open data, which means that communication with thirdparty software is always possible.













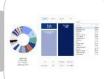


Investing and financing



Offsite construction (e.g. prefabricated components)



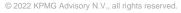


FundStar offers insights into real estate returns through performance reporting for investors and allows for internal and external benchmarking of returns, including pre-set budgets to pinpoint expectations. Performance data can be visualized through interactive graphs that include key industry KPIs. Next to the software, the company offers the possibility to run scenario testing.



www.fundstar.nl/































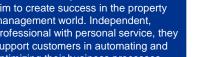
Offsite construction (e.g. prefabricated components)





GateSoft develops Cloud solutions that aim to create success in the property management world. Independent, professional with personal service, they support customers in automating and optimizing their business processes.

https://gatesoftware.nl













Investing and financing

Offsite construction (e.g. prefabricated components)





Geophy sources, links, and cleanses traditional and unconventional data. then applies algorithms (supervised machine learning) to provide a unique perspective on commercial property values. This approach enables Geophy to provide objective property valuations and tools that enable users to develop a deeper understanding of the factors influencing property values.



www.geophy.com

# gary.®









Property and facilities management

Offsite construction (e.g. prefabricated components)





Go Gary offers a way to present your assets and real estate portfolios. The company creates digital brochures for clients, which can then be uploaded into their own app or website, entirely in the client's own branding or corporate identity. Each object is given its own (.com) domain and finished assets are available to the larger public and are automatically linked to Google Maps for



www.gogary.com/













Property and facilities management

Offsite construction (e.g. prefabricated components)





Hero Balancer offers solutions to optimize heating systems by connecting their software system to the heating systems of schools, offices and houses. Hero Balancer's software balances the water levels in radiators to ensure an optimal division of heat throughout a property. This results in more comfort for the users of the building and lower electricity bills.

www.herobalancer.com/



















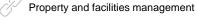












Offsite construction (e.g. prefabricated components)





homeDNA offers an online software system for new construction and renovation projects. The company offers a digital solution as an integral package from preparation up to and including the service phase for customer contact and build quality. An as-built home file with the details per property/customer and a personal housing file for the buyer/occupant are the system's core. Furthermore, the company is developing BIM integration.



www.homedna.nl/











Property and facilities management

Offsite construction (e.g. prefabricated components)





Jumba offers home owners a central place to find information about their property and what relates to it; the neighborhood, the pricing development, the bigger market. The company gathers information from various online resources and combines it into one central place. Through their solutions, home owners are supported in decisions about their property like selling, buying or redesigning.













Property and facilities management

Offsite construction (e.g. prefabricated components)





Ingy develops innovative lighting control solution which provides a high-end lighting control system which optimizes energy consumption. The smart lighting sensors form together a mesh throughout the whole building, enabling applications such as asset tracking, indoor navigation and occupancy analytics. The mesh can be used by many software platforms to gather data.



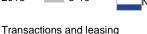


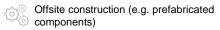
















KATE Innovations provides advisors with digital solutions which organize the whole valuation process of commercial real estate. In this way, the property market is able to structure data. optimize work processes and develop new and future proof business models. In addition, KATE offers IT solutions that enhance the collaborating of advisors, banks, and real estate owners within the eco-system of the commercial real estate sector.



www.kateinnovations.com/





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Offsite construction (e.g. prefabricated components)





KYP FLOW offers software that gives people the possibility to optimally participate in a process. This is achieved by having information digital and up-to-date on mobile devices for stakeholders. KYP Facilitates LEAN planning on the construction site and communicates about the progress of projects.



Mapig provides a smart office platform that enables full and flexible use of workspaces, and aims to offer employees a more collaborative, efficient, and frictionless workday. Mapig offers user-centric hard-andsoftware that combines technical expertise and integrations with clean, functional design. The platform matches users with spaces, facilities and other colleagues.











Netherlands



Property and facilities management

Offsite construction (e.g. prefabricated components)







www.mapiq.com













Property and facilities management



Property portfolio management tools





LOEK! has developed a platform to digitally connect assets and people. The platform includes the Self Managing Toolkit offering solutions to more efficiently and effectively organize property management, specifically by involving and connecting parties such as real estate agents, owners, tenants, and banks.



https://loekonline.nl













Transactions and leasing

Offsite construction (e.g. prefabricated components)



Matrixian Group is a data technology company that specializes in Housing Intelligence. Every day they are committed to helping industry experts excel within the real estate domain. With model-based home valuations and advanced technology, they help real estate professionals to seize opportunities and make data-driven decisions that maximize the return out of their real estate and client portfolio. This is realized through the powerful combination of data, technology and expertise.



www.matrixiangroup.com/







**OmgevingsAlert** 



























Property and facilities management

Offsite construction (e.g. prefabricated components)





Movin's technology allows users to navigate through buildings or find assets (via apps). The technology allows users to highlight important Points of Interest, show nearest bathrooms, check out the restaurant's daily special, search through destinations and more. This indoor technology makes it possible to create smart buildings. These smart buildings feature optimized processes, reduced costs and increased safety.

https://www.movin.io/en/



Netherlands Property and facilities management Offsite construction (e.g. prefabricated components)

OmgevingsAlert Pro aims to make the environment management processes for the owners of Real Estate portfolios more efficient and Real Estate management more effective. Users have insights into what is happening near their properties, such as building permits, zoning plans or other government announcements that could affect the value of properties. OmgevingsAlert Pro is meant for property managers, asset managers. appraisers and professionals in development, risk analysis and government functions.

www.omgevingsalert.nl/











Design & planning



Building design



OMRT has two main systems: Olysis is an integral building physics engineering tool that can compute design both parametrically and fast. Aiming to optimize every project on sustainability, comfort and quality. Ostate is a generative design tool that can design a full building in a single day, including building physics analysis, costs and benefits analysis, and even materials and building elements. Ostate aims to streamline the design to creation processes.















Investing and financing



Offsite construction (e.g. prefabricated components)





Perfect Place analyses data to determine the attractiveness of locations for different target groups. It offers up-to-date and nationwide data on one platform. The company's product enables companies to make better investments by reducing risk and increasing (social) return. Perfect Place serves companies involved in the development of residential and commercial Real Estate.



www.perfectplace.nl





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Netherlands



Design & planning



Building design





Planalogic is a radical new approach to designing better cities and buildings. The services provide investors, developers and property owners with an objective and exhaustive evaluation of millions of scenarios powered by artificial intelligence.

www.planalogic.com



Planon offers software for streamlining business processes surrounding real estate, people and the workplace. The company's product called Accelerator provides pre-configured processes, including workflows, catalogues, reports, dashboards, templates, roles, authorizations, data import facilities and configuration descriptions.

www.planonsoftware.com













Transactions and leasing

Offsite construction (e.g. prefabricated components)





Provadie is a real estate assessment app that uses smart algorithms and many external data sources. This makes assessments faster and more accurate. Provadie started for appraisers, they save an average of one hour per assessment and their clients experience higher quality. Due to the high degree of flexibility, the app can be used for any type of real estate.

www.provadie.nl















Transactions and leasing



Offsite construction (e.g. prefabricated components)





Qii offers multiple services to brokers to respond to the needs of tenants and landlords. It does so through knowledge and advice provision, practical services and an online application that automates rental processes.



www.qii.nl





















## qlinker







Transactions and leasing



Rental and sales platforms





Qlinker developed an app to digitize and automate rental activities. Covering the search for housing, application for a rental contract, signing a rental contract, payments, and appointments for repairements. Aiming to simplify the rental application process in order to improve the customer experience, while simultaneously reducing operating costs.



https://www.qlinker.nl/





Readar provides datasets and maps from aerial imagery and LiDAR data containing detailed information about Real Estate. Information is given about solar panels, volumes, roof type, changes and more. To do so, remote sensing and machine learning are utilized.



www.readar.com

# realtech







Netherlands



Property and facilities management

Offsite construction (e.g. prefabricated components)





Realtech focusses on reducing risks, optimizing margins and increasing efficiency for property developers. The company does so by forecasting demand per lot number prior to sales opening, which allows pricing to be adjusted based on demand. After sales open Realtech offers solutions that digitalize the real estate sales. Wwft and financials are checked, and assignments of lot numbers are

https://www.realtech.com/?lang=e

### S1MOME



















S1MONE is a unique communication tool for efficient management of malfunction reports and repair requests, whereby the entire chain is kept informed of the status and all involved people and companies are in contact with each other.

https://www.s1monegroup.com/































Property and facilities management



Predictive maintenance





Semiotic Labs developed a software SAM4 that aims to reduce downtime of equipment, due to failing AC motors and failing rotating equipment, and can predict 9 out of 10 failures up to 5 months in advance. SAM4 does so by using sensors that continuously analyze the sine wave of equipment and identify whether there is a disturbance due to mechanical and electrical failures.



https://www.samotics.com/









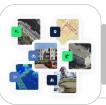




Property and facilities management



Property portfolio management tools





Spotr.ai is an asset management platform that analyses the conditions of your buildings in detail using public information and data like satellite pictures and street view photos. It combines this information into one platform to ensure a quick and easy overview of an entire portfolio.

Spotr.ai

#### StrateGis | Groep











Design & planning



Property portfolio management tools





StrateGis develops the tools for managing the information of spatial project in real estate and area development. With the tools, the users gain insight into every phase of the project and can react immediately to changing circumstances. It has worked on a number of coordinated software products to support area development. Central to this is always the relationship between spatial design and calculation model. It mainly deals with municipalities, provinces, developers and corporations.



www.strategisgroep.nl













Property and facilities management



Safety & security





TBQ provides software tools and services for inspection of, advice regarding, and maintenance of the real estate portfolio. Aiming to create safer and more efficient buildings, and demonstrate compliance of rules regarding fire safety and building evacuation.



https://tbq.nl/





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### Vastgoeddata<sup>®</sup>









Transactions and leasing



Property information platforms





Vastgoeddata is a commercial real estate research agency that supports the real estate professional in his or her day-to-day work.

The in-house research department develops the most complete and accurate data set in the Netherlands. This data is structured so that users can quickly perform tailor-made analyzes themselves, for example to determine the value of real estate assets.

In addition to processing its own data, Vastgoeddata links the information from various sources into one integrated system.



www.vastgoeddata.nl











Investing and financing



Data-driven pricing & valuation tools





Vellum is an acquisition platform that helps property developers make accurate and informed decisions. It disrupts the traditional process by using generative algorithms that enable property developers to carry out faster and more accurate feasibility studies which can then be tested and analyzed in real time.



www.vellum.ink?lang=nl

## Veneficus







Netherlands



Transactions and leasing



Data-driven pricing & valuation tools





Veneficus turns numbers into visuals, abstraction into ideas and code into business plans. Through combining data about assets, the market, demographics, the neighborhood and benchmark objects the company's software helps estimating current and future valuations of real estate and future cash flows, all modeled automatically.



www.veneficus.nl/en/













Design & planning



Building design





Verifi3D offers a Software as a Service (SaaS) solution that enables users to validate data, visualize models and report flaws in real-time in the late design and pre-construction stage.

verifi3d.xinaps.com/





























Property and facilities management



Property information platforms





Volgjewoning.nl offers buyers and tenants a personal building file. This contains important documents and information such as offers, quotations and order confirmations. The software is linked to multiple platforms. Users of the software are automatically alerted to upcoming deadlines and updates regarding their projects. Consequently, the supervisor of the project can track progress and involved parties are aware of relevant information.



https://volgjewoning.nl/











Property and facilities management

WUNDERBRICKS



Property portfolio management tools



We offer a B2B SaaS platform for property management. It is built on the Salesforce.com (OEM partner) platform which provides corporate grade security, a great level of customization and an open architecture allowing clients to connect any 3rd party application. Besides property managers the platform is used by property owners to gain 360 degree insights in their portfolio.



www.wunderbricks.com

#### **IN PACKHUNT.io**





Netherlands



Design & planning

Offsite construction (e.g. prefabricated components)





White Lioness technologies' online parametric platform Packhunt.io enables real estate and construction companies to digitize and automate processes ranging from design, engineering and sales to construction and manufacturing. From start-ups to multinational market leaders; Packhunt.io makes it easy to reach customers and provide product configuration, personalization and customization options.



www.packhunt.io

## apsiyon













Property and facilities management

Property portfolio management tools





Apsiyon is a cloud-based online platform that serves as a digital assistant for property managers servicing residential and commercial buildings, gated communities and mixed-use developments. The firm enables personalized solutions on all their platforms spanning the whole property management business cycle, from finance to CRM. Apsiyon has been developing solution since 2009 and aims to unite people and technology to simplify property management activities.



www.apsiyon.com/en







endeksa



Turkey























Property and facilities management



Indoor mapping



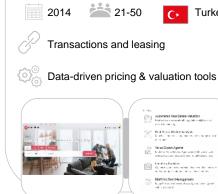


Boni Global is a location based platform for mobile devices to interact with the navigation, analytics and engagement for publicly available buildings to improve indoor wayfinding and accessibility solutions for people who need more assistance and independence allowing them to easily navigate inside complex buildings.



www.boniglobal.com/







Endeksa is a predictive real estate data analytics and insights platform offering automated property valuation, appraise marketplace, asset management, and location optimization services. Data collected by Endeksa field experts is combined with data from various resources; then by Endeksa's machine learning technology enhanced real estate and location analytics data is produced. Endeksa enables companies shape their strategies by the power of real estate and location data.

https://www.endeksa.com/en/

### **modoora**















Indoora provides high-accuracy positioning service for smartphones within indoor spaces where GPS does not work. Its patent pending positioning technology helps users find their way in complex buildings such as shopping malls, airports and exhibition centers. Indoora also offers navigation, locationbased information/advertisement services via push notifications, and customer behavior analytics. The technology is available as a SDK and can be easily integrated to 3rd party



www.indoora.com











Turkey



Property and facilities management



Indoor mapping

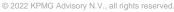




inMapper is an indoor maps, navigation and search platform for large buildings such as malls, museums, airports. With real-time indoor positioning, navigation and location-based services, clients can enhance your customers' experience inside their venue.

www.inmapper.com/tr/





















## keyyazılım









Transactions and leasing



Data-driven pricing & valuation tools





Key Yazılım, is a software company that provides real estate valuation services and develops "Web Based Software". Among his projects, respectively; General Information Management System Software (INFOREX) designed for Chambers of Turkish Engineers and Architects, Real Estate Valuation Information System Software (INVEX) for Investment Banks and Real Estate Companies, iştid Registry System Software (DEEDEX), Asset Management System Software (PROPEX) and E-Signature System Software (SIGNEX).



www.keyyazilim.com



Turkey

Property and facilities management

Indoor mapping





PoiLabs is founded to increase social life and mobility of visually impaired and blind people by creating accessible venues.

PoiLabs provides easy, safe indoor navigation for people living with some form of vision impairment. It is committed to helping users find their way around indoors in increasingly large and complex indoor spaces such as malls, university campuses, hospital, airports and other large complex buildings.



www.poilabs.com

### **UDENTIFY**







Turkev



Property and facilities management



Smart buildings



Udentify is a business intelligence solution that enables collecting all the data that can be collected in the electronic environment, in a physical environment. This includes facial recognition and image processing techniques, offering a set of solutions to be used in actions such as user scenarios, promotion campaigns, and shop designs. Ultimately it helps companies optimize customer experience and increase profits by providing information such as square meter efficiency, product conversion rate and staff performance.







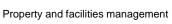














Smart buildings





V-Count provides visitor analytics solutions. They offer global organizations the latest in people counting, heatmap, queue management, staff exclusion and business intelligence platforms. Solutions are backed by a secure cloud-based business intelligence platform that leverages AI and machine learning tools to analyze collected data. Moreover, they provide clients with actionable reports and software-based recommendations on how customers behave in their physical locations.



www.v-count.com/























United Arab Emirates

Property and facilities management

Property portfolio management tools





Masterkey is a SaaS-provider for the For over twelve years, they create specialized software for real estate management and CRM, as well as provide tailored consultancy services for regional businesses.

https://masterkeyglobal.com/cgisys/suspendedpage.cgi

real estate industry in the Middle East. marketing, listing syndication, property



#### overwrite.ai

United **Emirates** 

Transactions and leasing

Tech-enabled brokers (e.g. mortgage search and comparison)

Why OVERWRITE?

OVERWRITE uses AI to instantly create property marketing content. They employ a user-friendly web-app where Al is applied, creating content that real estate agents, landlords and copywriters can use, and thus save time to focus on other activities.

www.overwrite.ai





Agent matching

21-50



United Arab Emirates







ProTenders is a platform for construction companies. Developers using ProTenders potentially increase their efficiency by streamlining their tendering activities such as shortlisting bidders, centralizing all tender documents, managing RFIs and receiving and comparing bids online. Architects, Engineers, Contractors and Suppliers can use the platform to generate more business by building their online profiles and get detailed updates of ongoing projects. ProTender is available to over 29,000 businesses of all sizes from 105 countries.





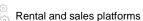












Transactions and leasing





Urban is an app-based solution that makes renting easy, honest and empowering by bringing the entire rental journey online. With GoUrban, renters can discover inspected homes, visit on their own with digital locks and pay rent online with flexible payment plans. For landlords, the company cleans and lists their property with professional photography and virtual tours, hosts live auctions, leases properties out with paperless contracts, and collects rent - all online.

www.gourban.com































Construction Collaboration software



**o** coniq

Property and facilities management

BaseStone offers a digital platform built for construction teams to access. capture, share and communicate information during the delivery of construction projects. Throughout the project, BaseStone digitizes and streamlines processes for project delivery. BaseStone is currently deployed in projects across the UK and beyond.

www.basestone.io/









51-100 United Kingdom











101-200 United Kingdom

Construction

Safety & security





Biosite Systems is a company developing biometric security and access control systems for construction sites, as well as integrating other safety and security systems such as CCTV, fire alarms, guards, and document management.

www.biositesystems.com/















Construction



Technical planning





Contilio is a UK based company that provides automated. Al-based construction progress, installation quality and predictive risks from a central platform. This enables Real Estate companies to build their assets cheaper, faster and more sustainably, while enabling better build quality, risk management and whole life efficiencies through smart digital twins.



www.contilio.com/







**Fixflo** 

Property and facilities management

21-50



United Kingdom





















United Kingdom



Transactions and leasing



Property portfolio management tools





Coyote offers a commercial real estate software platform used to track the global real estate market. Coyote aims to speed up the transaction process. making it faster to review potential acquisitions and to buy commercial assets. Consolidating data from property management systems and market data providers, creating actionable insight on assets under management, supporting remote teams to collaborate across multiple locations.



www.coyotesoftware.co.uk





Technical planning



Fixflo is a specialist repairs and maintenance management software solution that allows property management companies and operators to boost operational efficiencies, improve resident experience, drive up compliance levels, reduce costs in repairing and replacing amenities and building assets, and maximize profitability. Over 1 million residential and commercial properties are managed through Fixflo.

www.fixflo.com

## goodlord











Transactions and leasing



Transaction administration





Goodlord is a company developing an online system to simplify the house letting process. It allows the creation of tenancy agreements, collection of holding deposits and online signing of contract and streamlines these processes online for agents, landlords and tenants.



www.goodlord.co/

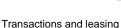
## Habito











Tech-enabled brokers (e.g. mortgage search and comparison)





Habito is a website that allows consumers to compare and apply for mortgages. The company offers several services in comparing mortgages that entail different service levels, as well as offering their own mortgage.



www.habito.com/























Property and facilities management

Tenant services (e.g. wellbeing solutions)





Houst is a company that offers property management services for short-term rental properties. Services provided include cleaning, guest communications, running the listings, supporting maintenance, advising on pricing and helping maximize occupancy.

www.houst.com/





51-100



Kingdom



Transactions and leasing



Property information platforms





LandTech has built a web-based tool that allows users to gather information on land ownership in the UK and assess risks associated with the valuation of land, such as planning





United Kingdom



Transactions and leasing



Transaction administration



Insurami provides a deposit guarantee platform for commercial Real Estate landlords. The company removes friction from the on-boarding process by allowing landlords to vet the financial health of tenants up-front, and then offers prospective tenants the opportunity to purchase a Deposit Guarantee, replacing the traditional deposit. This allows tenants to save on their traditional upfront office costs and reduces landlord's on-boarding costs, process times and default rates.



www.insurami.com

















Property information platforms







Nimbus offers the property information platform called Nimbus Maps which gives users access to a data set of property intelligence and invests in training the users on how to get the most from the information. The company offers a free to use entry level version, as well as a more advanced version aimed at the property professional and aficionado to access data and intelligence available.



www.nimbusmaps.co.uk

















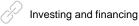


















Oxane CREST transforms the way real estate investments are screened, analyzed and managed. The platform brings all stakeholders including originators, underwriters, valuers, portfolio/risk managers, and investor relations on a unified platform, and empowers them to efficiently run the entire lifecycle of investments from origination until exit. Oxane CREST helps investment managers evaluate more opportunities faster and better manage their risks. The platform supports £200b deal flow and 5,000+ users globally.



https://oxanepartners.com/

#### PLACEMAKE.IO









United Kingdom



Investing and financing



(Geo)Location analytics





PLACEMAKE.IO is an artificialintelligence company with a focus on understanding and powering the world of location and mobility. Their Al operating system leverages AI and large amounts of heterogeneous data to drive investment management and is designed to serve as the underlying infrastructure for all location and mobility applications.



https://www.placemake.io/

### **PROPRLI**











Property and facilities management



Property portfolio management tools





Proprli is a portfolio management and procurement platform for landlords and technical managers. Proprli enables landlords to track projects and budgets and make data-driven procurement decisions. The platform provides realtime insights into all expenditure and technical management throughout your portfolio. Proprli centralizes all building related data and workflows, increasing efficiency and control for landlords and technical managers.







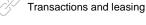














Property information platforms



REalyse uses data science to bring together and verify property datasets, and make them available to lending, investment and development professionals – whether via API or through a user-friendly web analytics platform. This includes prices, rents and vields, to ownership information, new development projects, and demographics. The platform helps real estate companies to gather the information they need to make investment and development decisions.



www.realyse.com

































Transactions and leasing



Property portfolio management tools





Rialto offers a leasing software to institutional landlords and office operators, to streamline their leasing. From sharing vacant units with the market to sourcing new tenants, Rialto provides tools to manage the leasing of commercial property portfolios and flexible office locations. Features include automated marketing of offices, transparent communication to leasing channels, organized tenant candidate profiles, a structured leasing flow and a leasing reporting suite. Rialto is available on desktop, tablet and mobile.



www.getrialto.com/















Property and facilities management



Property portfolio management tools





Travtus is a company focused on using data & machine learning to automate property management. This research is given commercial form as ADAM. ADAM is an Al property manager who can take calls, texts and respond to queries and trigger work flows without any human intervention for the domain of residential Real Estate.



www.Travtus.com

### **5** shieldpay





United Kingdom



Transactions and leasing



Rental and sales platforms





Shieldpay is a regulated payments institution providing secure payments and digital escrow solutions. Shieldpay helps professionals make the home buying and selling process more secure, transparent and stress free for their clients by collecting the funds from the buyers and lenders and making payments to sellers, land registries, tax authorities and others directly. Shieldpay will be further leveraging the opportunities that open banking brings for both identity and payments and has recently been involved in two block chain based projects.



www.shieldpay.com/















Property and facilities management



Indoor mapping





BindiMaps offers a mobile application which provides indoor navigation. The aim is to help users find their way around indoor spaces such as shopping centers, transport hubs, educational institutions, hospitals, and other large complex buildings. The application features a voice over solution for people who are blind or vision impaired.



www.bindimaps.com































Australia



Investing and financing



Data-driven pricing & valuation tools





Insight Data Solutions aims to enable governments, corporates and consumers to meet their property valuation needs. The company offers several solutions, like valuing a single property via its Automated Valuation Models ('AVMs'), or multiple parcels via its Computer Assisted Mass Appraisal ('CAMA') platform.



www.ids.io





51-100



**Australia** 



Transactions and leasing



Rental and sales platforms





MadeComfy is an Australia based short-term rental company, providing an end-to-end management solution for property owners to generate higher rental returns. This is achieved through dynamic pricing strategies, professional property marketing and the MadeComfy website booking platform. Technologies such as the MadeComfy Dashboard are streamlining the experience of property owners to control their property's calendar in real-time and track their earnings from short-term rental bookings.



www.madecomfy.com.au



#### **neighbour**lytics





Australia



Design & planning



(Geo)Location analytics





Neighborlytics technology synthesizes data from digital sources to help governments, town planners, property developers and asset managers deliver better economic and social value in communities. The company provides a standardized tool to analyze data trends and patterns, to better understand social wellbeing based on local activities and lifestyle choices.



www.neighbourlytics.com









51-100



**Australia** 



Transactions and leasing







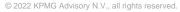


OpenAgent brings together real estate agents and vendors using personalized recommendations based on past sales expertise and customer reviews. The company aims to bring more information, better insights and an independent voice to property transactions.



www.openagent.com.au



























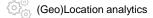
















Propella.ai is a geospatial analytics company that uses advanced analytics and artificial intelligence coupled with big data, to generate insights that inform key property decisions for Australia's leading property companies.



www.propella.ai







Hong Kong (SAR), China



Property and facilities management

Property portfolio management tools





AssetBozz is a Hong Kong PropTech startup with global aspirations and a vision to revolutionize space management with a simple and easily adoptable solution for non-technical users. Its core mission is to help simplify asset management with a single platform to streamline communication, optimize workflow and facilitate knowledge building and transfer.



www.assetbozz.com

#### REALTAIR













Transactions and leasing



Tech-enabled brokers (e.g. mortgage search and comparison)





Realtair aims to provide end-to-end technology solutions for the real estate transaction process and thereby empower agents. To this end, the company provides a digital platform and offers several solutions including an administrative system, digital document signing and a CRM dashboard.



www.realtair.com









Hong Kong (SAR), China



Property and facilities management



රාලි Mobility





Sunsea Parking is an operations service provider for Chinese parking assets, with business covering parking lot planning and design, operations and management, investment, and construction. The company has built an AIPP cloud asset management platform that integrates car park operations (SaaS) ERP, smart monitoring, car owner services and mobile control, in order to help owners reduce costs, improve efficiency and better manage their parking resources. It supports the development of smart cities and smart parking.



www.sunsea.net





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CIOCIOOCI

**\$1-100** 

Sourcing: materials, products and

Property information platforms

technology



Mainland

China





















>501

Mainland China



Property and facilities management



Property portfolio management tools





Country Garden Services Group, founded in 1992, is a provider of property management services. The company focuses on providing wholecycle services to property owners and customers. Combining 30 years of property management experience and practical experience of 3,000+ projects, it has built "Tianshi Cloud" as a digital platform for property management service, focusing on solving three pain points for the industry with respect to management efficiency, customer service quality and community's demands on value-added services.



www.bgyfw.com



Blue Wall is a technology firm that focuses on developing basic software technologies for the real estate industry. Its core product, Julius, is a new generation smart-ERP system, covering the entire real estate project lifecycle. Julius, uses a cloud-based SaaS service model, provided at low cost and does not require programming or server deployment, allowing companies to build their own digital management systems as if they were putting together





Mainland China



Property and facilities management

蓝墙互联

BLUE WALL



Property portfolio management tools



www.bluewall.com.cn

building blocks.

统经通应用场机 PA 

Doodod harnesses the power of Al and data to offer full-chain private domain traffic solutions for companies, enabling them to increase user service capabilities, provide quality services to consumers, realize intelligent and refined management of their communities, and increase user purchase-conversion rates and repurchase rates.



www.doodod.com







101-200



Mainland



Building design



Pinlan is an Al-based architectural design maker, dedicated to providing AI design services for real estate companies and design institutes. Its architectural AI design platform, AlphaDraw, leverages computer vision technology, architectural design knowledge, reinforcement learning algorithms, and generative models to help customers automate construction drawing design. The users can automatically improve their complete set of construction drawings and ensure that they conform to local design specifications by uploading architectural schematic drawings onto the platform.



www.pinlandata.com



















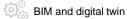






Mainland China









Sheen City is a provider of architecture XR, digital twinning and digital space technologies. Through its selfdeveloped architecture XR design platform. Its digital twin system building platform.



www.sheencity.com

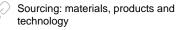




2003



Mainland China



Digital solutions





Mingyuanyun is a digital solutions provider in the real estate ecosystem. It has provided digital solutions and products for over 7,000 property development and operation companies.



www.mingyuanyun.com





>501

Mainland China



Property and facilities management



Property portfolio management tools



Idea Group, a real estate business management services provider, offers digital transformation services for property investment, development and operations companies. It has three major product entities providing solutions for digitalized business, digitalized operations and intelligent decision-making for enterprises.



www.idea-group.cn









Mainland China



Property and facilities management



BIM and digital twin



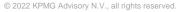


Webuild is a building space technology developing IoT technology for buildings. It specializes in digital twin technology, for scenarios such as low-carbon energy, energy management and property management. It strives to digitalize space and energy-consuming equipment, and utilize data modeling and AI to create more standard. efficient and low-carbon O&M systems for various space scenarios, providing customers with smart operation and energy-saving services that use less carbon energy.



www.webuilding.com

























Mainland China



Investing and financing



BIM and digital twin



XKool Technology provides Al applications in the building industry. XKool provides "XKool Design Cloud" for the architectural designer, with 6 major design processes (investigate, generate, edit, audit, sync, and export). to create a cloud-based design product. "KoolX Developer Al solutions" is to support real estate pre-investment decision-making and post-investment management. At present, XKool has provided intelligent products/services for c.1,000 enterprises, helping enterprises reduce costs, increase efficiency, and enhance value in the new round of challenges.



www.xkool.ai



11-20

Mainland China



Investing and financing



Data-driven pricing & valuation tools





Starhouse.ai (quantitative technology services), is pioneering the concept of Quant-as-a-Service (QaaS), which uses quantitative methods and framework to help asset managers to conduct comprehensive quantitative analysis, data-driven management and decisionmaking. Key products include quantitative asset management and investment research platform, Al-driven risk management system, and ESG data governance and evaluation framework. Its solutions apply to multiple industries including commercial real estate, non-performing asset disposal, fund management and other



www.starhouse.vip









Hong Kong (SAR), China



Property and facilities management







Parkingbnb is an Al-driven platform of smart parking, property and mobility solutions.

Parkingbnb helps property owners to maximize profit by delivering IoT datadriven management solutions.

Parkingbnb helps drivers to find the closest and cheapest parking guaranteeing availability via real-time occupancy control.

Parkingbnb helps transportation and mobility companies to automate operations and provide seamless payment methods.











Hong Kong (SAR), China



Construction



Remote monitoring





viAct is a construction management software, providing scenario-based Al vision technology to simplify monitoring process. With its offering, the company aims to improve workplace safety and increase productivity in construction industry.



wiact.ai



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Property and facilities management

Dae Build\*

Tech-enabled brokers (e.g. mortgage

21-50

Transactions and leasing

search and comparison)



Smart buildings





Blinx offers digital living solution in three segment i.e., automation, entertainment security it offers CCTV/IP cameras, bio-







Daebuild provides a centralized from voice, property portals, social media and corporate websites. The post booking processes like Auto Invoicing/Demands, 3 Tier Payment automate the core workflow. The





India

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www.daebuild.com

platform to capture and process leads Reminders and Customer Interactions platform's features include capturing leads, tracking follow ups, gaining access to a real time inventory status and blocking units.















Property and facilities management



Smart buildings





Cloud Society offers a Housing Society Management ERP app. It provides housing societies with billing, account and audit service through Saas module deployed on cloud platform. The housing society software is also suitable for residence welfare associations, apartment associations, commercial premises, information technology parks and facility management firms.



www.cloudsociety.in















Design & planning



Building design





Foyr supports and empowers real estate professionals in the design process to experience an immersive visualization. Its services range from designing, building, to presenting. Foyr's solutions are cloud-based and mobile friendly, utilizing Al-enabled visualizations to ensure that real estate professionals can design, collaborate, and present their ideas and plans to their prospects and customers.



www.foyr.com/





























Building design





Livspace is a brand for complete home interior design for homeowners. The company provides its customers with interior designers to design homes using space planning, 3D Design, Modular Solutions with all services, complete with online status updates, furniture and décor.



www.livspace.com/



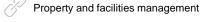














Property portfolio management tools





PropMatrix provides real estate Software as a Service (SaaS) model based customer relationship management (CRM) solutions. The CRM offers a web-based real estate business management service, coupled with an advertising solution for real estate business. The offerings support real estate agents and developers with sales, leasing, business management and marketing of real estate properties. Its key locations include Mumbai, Delhi NCR. Pune.



www.mypropmatrix.com













Property and facilities management



Smart buildings





MyGate operates through offering an app-based security and community management solution. It offers building technology solutions to simplify access at various places, such as at the gate of housing societies, the reception area of corporates, the entrance of malls. Its services include security management, community management, covid management for communities.



www.mygate.com

#### Props{AMC}













Property portfolio management tools

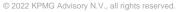


Props(AMC) offers a real estate insights and asset monitoring platform organizing the real estate portfolio through a single, integrated interface. The company offers two products: (1) Zone provides asset information like Government rates, Online listing, Registered Transactions and Title records (2) Real Estate is a real estate management suite for asset owners of multiple properties and asset managers of multiple clients' financial assets.



www.propsamc.com/



































Transactions and leasing



Property portfolio management tools





Propstack Services offers a real estate data, analytics and workflow solutions platform. Propstack provides predictive and prescriptive analytics based on deep data. The company's suite of online services enables clients to analyze, interpret and gain insight on commercial property values, market conditions and current availabilities.



www.propstack.com/















Transactions and leasing



Robotics & automation





Sell.Do provides automation technology to the real estate industry that allows for streamlining marketing campaign performances and sales team productivity. Sell.Do has two products: Sell.do Sales provides a Smart Call Center solution, managing and gaining intelligence on leads, an in-depth presales report to know the top and low performers, and automate complete pre-sales per business process. Next to that, Sell.do Marketing tracks all campaigns at one place and manages and executes marketing campaigns.















Transactions and leasing



Real estate investment platforms (e.g. crowdfunding)





REALX offers a platform to buy, hold and sell Real Estate. REALX allows people to purchase fractional ownership rights in properties sold by sellers on the platform. REALX enables its customers to buy property through smaller investment, hold as they want and sell when they want, earn rentals (or part rentals) from properties they hold, create a portfolio of various property investments – across locations, builders and property types.



www.realx.in/



















Design & planning







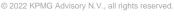


Softtech Engineers offers a building plan scrutiny and approval system. The system reads CAD drawings and maps them to the development control regulations for approval by municipal corporations and approving authorities. The software is designed to bring greater efficiency and effectiveness in compliance through collaboration between the organisation and the approving authorities.



www.softtech-engr.com/





















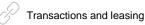








Japan



Co-living spaces





ADDress is the fixed price service helping you to find a place to live in Japan. All facility fees are included, no initial cost is required, and you can move around and live in other places as many times as you want.

https://address.love/

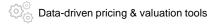


flow simulation to financial institutions.

real estate companies and investors.



Investing and financing







Japan

https://www.leeways.co.jp/







Investing and financing

101-200



Japan



Tech-enabled brokers (e.g. mortgage search and comparison)





The iYell Mortgage Platform consists of three pillars, "Media" that can be used for marketing, "Technology" to make the procedure more efficient, to provide a remote support, to forecast interest rate etc. "Professional team" which is a face-to-face consultation with the consumer and performs the examination procedure.

www.iyell.co.jp/en/

### **L** Linough

















Safety & security





Linough develops systems, applications, and hardware products for real estate management clients. The company produces Ninjalock, a smart lock device that allows users to unlock their doors via smartphone, share digital key access, lock and unlock doors automatically. This allows for remote services and monitoring of properties.

www.linough.com/





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Japan

Design & planning

Technical planning



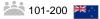
Photoruction provides an app for architects, construction teams, and landowners to take, save, and share blueprints or photos documenting the construction process. The app's selling points include its digitization of normally paper-based work, its automation of album and photo organization, and its data sharing abilities.

www.photoruction.com/

Re-Leased







Zealand



Property and facilities management



Property portfolio management tools





Re-Leased is a modern cloud-based property management solution that automates and centralizes the real estate accounting, lease management and reporting of commercial real estate portfolios. It is an intelligent and intuitive user experience that provides users and management with increased control, risk management, insight and efficiencies.

CREDIA (a Re-Leased product) aggregates the 60,000+ leases on the Re-Leased platform to provide live industry benchmarking.



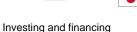
www.re-leased.com







Japan



Data-driven pricing & valuation tools





Ureta is a service where artificial intelligence (AI) and real estate experts accurately assess the sale price of apartment. The clients can get the assessment results within an hour by filling out 7 items in the questionnaire



www.sumutasu.co.jp











Zealand



Property and facilities management



Property information platforms





Uxtrata is a late-stage SaaS solution company targeting the real estate sector. The company's cloud-based, full featured strata management and rental management solutions enable managers and operators take complete control of every aspect of their businesses, save costs and increase efficiency especially in compliance, accounting/finance and payment.

https://web.uxtrata.com/





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#### ontbuildz.com





Singapore



Rental and sales platforms





Antbuildz has developed a construction rental platform for easy connection between equipment owner and user. They digitalized and mobilized the rental process to enable users to reach out to their target audience.

https://antbuildz.com/







Singapore



Design & planning

Energy efficiency





Qi Square's BtrLyf.com is a green assessment-as-a-service platform that helps accelerate sustainable development through digitalization. Its Al-powered building simulation engine aggregates multiple sources of data, including open source, API linked, and user entered data for performance insights and retrofit analytics. This results in reduced transaction time, sales cycles, investment risk and improved productivity of business process by up to 10x for the green building industry.

https://www.qisquare.sg/

#### Digital Matter 41





Singapore



Design & planning



Building design





DigitalMatter provides one-stop combined services across architecture, structure and MEP, including design and submissions. Costumers get plugand-play benefits from innovative BIM technologies, cross-disciplinary teams and the latest Digital Project Management (DPM).



www.digitalmatter.co











Singapore



Property and facilities management



Smart buildings





Habitap has developed a fully integrated platform that aims to blend smart home control, smart condominium management and lifestyle offerings to provide holistic luxury smart home living. The app connects people together through physical and virtual spaces.



myhabitap.com























Singapore

Property and facilities management

Safety & security





Igloohome's smart locks and lock boxes allow home or property owners to grant access to their property remotely, via a mobile app. The company's products work offline, with no internet connection required. The company is a partner of Airbnb, HomeAway and Booking.com.



www.igloohome.co





101-200 Singapore

Construction

Technical planning





Novade offers smart field management software for the building and construction industry. Site processes including quality, safety, progress monitoring, workforce management, and maintenance are digitised and automated using mobile devices. The data captured provides insights to streamline operations and drive results. Contractors, real estate developers, owners, and operators around the world trust Novade to drive their digital transformation.



www.novade.net









Singapore





Transactions and leasing



Property portfolio management tools





Redoc.co by Real Estate Doc, is a cloud-based front-office revenue and deal management software for businesses. Redoc.co tools help sales and revenue-driven businesses to win more deals, track business pipelines, manage assets, and eliminate



https://redoc.co











Singapore



Transactions and leasing



Collaboration software





Showsuite is a property-technology company which started with the digitization of transactions of new homes in 2018. The proprietary digital booking platform offers property developers real-time inventory management capabilities, smart digital contracts for paperless signing, integrated with a booking work flow, CRM tools, payments and performance trackers. Showsuite connects the entire new homes sales eco-system comprising agents, lawyers, architects, home buyers, and banks through the unified platform delivering deal-closing, management and cost efficiency.



www.showsuite.com





























Singapore



Property and facilities management



Robotics & automation





UIB is an omnichannel Messaging Service Platform company. We provide unified AI and IoT APIs to Independent Software Vendors (ISVs), chatbot builders, and solution developers. UIB's partners use our APIs to access messaging channels and software communication platforms. With our APIs, they build solutions for transactional and A2P messaging, notifications and alerts, chatbots, virtual assistants, and other conversational user interfaces, including smart speakers, AR/VR, voice, and video.

www.uib.ai

### 아파트너











Property and facilities management

Tenant services (e.g. wellbeing solutions)





Aptner is a smart residential life platform that provides convenience services and communication channels for residents and helps building managers by automating and digitalizing unnecessary and repetitive tasks. Not only offering B2C services for residents, but also B2B service is being developed through cooperating with construction companies and local governments.



www.aptner.com

#### RichGo











Investing and financing



Data-driven pricing & valuation tools





DataKnows forecasts the future of the real estate market, including real estate prices, based on big data analysis and Al technology. It operates a subscription platform through Richgo Expert, which consists of more than 20 indicators and charts related to real estate prices, allowing users to view and judge the real estate market from various perspectives and metrics.

www.richgo.ai

### ul disco









South



Transactions and leasing



Property information platforms





Disco provides real estate investment information, including actual transaction prices, listings, auctions, land and building registers, and registered information for all real estate and property in Korea.



www.disco.re



























South Korea

Transactions and leasing



Property information platforms





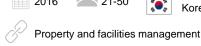
SPACEWALK

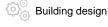
Nemo is a real estate platform that provides professional commercial and business real estate information. It helps rational decision-making by providing real estate sales information based on big data and IT technology (demographic, sociological statistics, floating population by time, major consumer groups) necessary for starting a business to anyone who is looking for a shopping mall, office or start-up space.



www.nemoapp.kr









www.spacewalk.tech















Transactions and leasing



Property information platforms



R114 is a provider of real estate information database. It is a real estate specialized portal site that focuses on providing comprehensive real estate information services based on a reliable data base for the advancement of the market. It provides information for residential and commercial markets, which helps real estate transactions and investment decisions through market analysis.



www.r114.com?type=















Transactions and leasing



Property information platforms



ValueMap is a land and building information platform service in Korea. It delivers big data analysis services including real estate price (actual transaction price, auction, property listing), market trend, development, and loan information. It has established a large real transaction price data base and collect and analyze unstructured data for the country's land market. Additionally, offering data services such as IBK corporate real estate and Value Map Campus.



www.valuemap.com





South

Korea







United

**Emirates** 

Arab













21-50



South Korea

Transactions and leasing

Data-driven pricing & valuation tools





bigger than the biggest

ValueShopping offers domestic 'automatic real estate price calculation system', which immediately provides the market price of 50 million real estate nationwide, along with actual transaction prices and auction examples. It provides an infrastructure that makes it easier and more convenient for various real estate activities such as sale, lease. brokerage, loan, and investment.

www.valueshopping.land/





21-50

Data-driven pricing & valuation tools

Transactions and leasing

www.biggee.vn

Ibtikaroom has developed a centralized ecosystem of Multifamily Real Estate Digital Twins with the ability to link them **Ibtikaroom** with other participants in the real estate market.

Design & planning

BIM and Digital Twin



11-20

ibtikaroom.com











Vietnam



Property and facilities management



Data-driven pricing & valuation tools





Citics provides technology-based valuation service through big data analysis and sophisticated algorithms, combined with real-world surveying. Citics Valuation estimates real estate value, planning details based on online valuation tools and provides valuation certificated report accepted by Vietnamese banks, Moreover, Citics help users connect with banks for suitable financial packages with supportive interest and lesser time consuming.



www.Citics.vn





Vietnam

















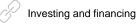


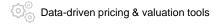






Vietnam









Dinhgiadat.vn provides online real estate valuation to know value of the real estate. It is based on a real-time online software. Dinhgiadat.vn also provides online master plan for users to view on planning and sizes of projects. It allows comparison between details, facilities among real estate projects as well as provide latest information related to real estate news, regulations, feng shui through high-edge data storage system.



www.dinhgianhadat.vn













Design & planning



Technical planning





Landsoft provides real estate software solutions including business operation and smart building control system through an open process design. Business Operation solutions can be used to digitize business operation procedures with inventory management, agency management, payment management, full customer journey management (booking, deposit, purchase, handover) to CRM, accounting and mobile app. Smart **Building Control software supports** handover, client management, contract management, service and maintenance control for various project types residential, office, coworking, industrial.



www.landsoft.com.vn









Vietnam



Investing and financing

Real estate investment platforms (e.g. crowdfunding)





Finso is a real estate fintech platform connecting developers with investors through tokenization with financial leverage of P2P lending. Finso provides services in a wide range of real estate projects including, shophouses, apartments, land, and others. Finso also offers lending services with attractive packages secured by investing token.



www.finso.com.vn











Vietnam

Transactions and leasing (Geo)location analytics





Meey Map is a real estate search map platform with planning information as a digital map used by users with real estate trading demands. With urban planning data updated regularly based on government sources, combined with Big Data, Al technology, Meey Map provides services on master plan search, land map access and real estate news search. It is a form of digital map, used specifically for users with real estate transaction needs.



www.meeymap.com

























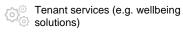
>501



Vietnam



Property and facilities management







VNPT BMIS system provides operational management system in the form of mobile applications for everyone living at a real estate establishment. Residents at these locations can interact, pay or register for services with the Management, Owners, organizations or individuals operating these facilities. In addition, the software is a center to allow real estate owner manage the service fee, accounting and residential interaction.



www.vnpt.com.vn































Belgium

















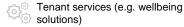


11-20 Canada





Property and facilities management







GoSpaces offers a Mobile App that seeks to "gamify" workplaces, incentivizing employees to work towards corporate challenges (e.g. going Paperless for a week). The app also allows users to report workplace issues, locate available space and produce analytics for metrics such as occupancy and utilization.



https://www.gospace.com/





Property and facilities management

Tenant services (e.g. wellbeing solutions)





Ask Nestor is a digital building app providing practical services an assistance to businesses and residences. Offering daily service logistics, direct assistance, and on-site concierge. Visitors can be welcomed through live video communication, using the latest video and internet techniques. The concierge takes care of registration and the exchange of documents, and has an info kiosk with a pre-programmed video.



www.savviva.be









Belgium



Transactions and leasing



Co-living spaces





Cohabs is a startup that provides flexible, fully furnished accommodations through a network of sustainable & community-driven shared homes. Currently primarily active in Belgium, the company has began intercontinental expansion with locations in New York, and is aiming to bring its concept in other, cosmopolitan locations as well.



www.cohabs.com/

















Design & planning

Tenant services (e.g. wellbeing solutions)



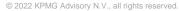


NORNORM is a subscription based furnishing company that designs, installs and maintains workspaces within a circular service. A furnishing solution that not only delivers fully realized workspace furniture solutions (adapted based on a client's individual needs and desire), but that also has an entire logistics system that minimizes waste throughout the entire service and product lifecycle. Effective design eliminates waste. Not only that, it's affordable, with only 3 euro/sqm as a monthly subscription price.



mornorm.com/



































Property and facilities management



Co-working spaces





COMET Meetings creates and operates meeting rooms by combining an inspiring environment and a service designed in every detail to enable participants to evolve in a setting that stimulates their productivity, creativity and welfare. All these locations are in the center of Paris in buildings dedicated to meetings and seminars.



www.comet-meetings.com/















Property and facilities management



Safety & security





Sofia Locks is a PropTech company operating in the real estate market, created to provide flexible and secure access control solutions for a new generation of spaces. Its aim is to help companies in giving shape to their business by providing cutting-edge solutions designed to connect users and buildings. To achieve its goals, the company has developed a cloud native access control platform that provides real estate stakeholders with flexibility, security, safety, and freedom to move.



www.sofialocks.com/en/



















Co-working spaces





Nooka Space is a technology-enabled network of smart proximity office spaces designed for people who work remotely. Its product empowers the professional communities to be more productive, focused, and creative in a dedicated, smart, and affordable office at walking distance.



www.nookaspace.com















Property and facilities management



Offsite construction (e.g. prefabricated components)





HNK is an office provider that offers different workspace ranging from flexible workspaces to full-service offices. HNK offers a multitude of workspaces and amenities, such as meeting rooms and catering for tenants of every size, from start-ups to multinationals. The concept of HNK challenges traditional long-term office rental contracts and offers tenants the flexibility to work at multiple locations across The Netherlands.



www.hnk.nl





























Netherlands



Property and facilities management



Co-working spaces





infinitSpace is a tech-enabled flexible workspace provider: the business model replaces long-term commercial real estate contracts with monthly management agreements and offers their customers flexibility and freedom in planning. As a white-label company, infinitSpace equips the premises according to the owners and tenants needs, enabling them to rent offices under their own brand name. The company's software supports attracting tenants, administration, setup and management of the premises and guarantees the highest level of IT and building security.



www.infinitspace.com













Transactions and leasing



Co-working spaces





Plekky is a sharing platform for business spaces. Plekky makes the ondemand rental of existing business spaces easier, affordable and sustainable. With Plekky, clients can open up a part of their offices to an innovative startup in order to create a creative & inspiring hub, giving a valuable interpretation to available office space.



plekky.com







Netherlands



Property and facilities management



Offsite construction (e.g. prefabricated components)





MyPup places lockers in offices, buildings or other locations where post and other delivery items can be received and stored temporarily, before a recipient can come pick it up when he/she has time to do so. In doing so, MyPup aims to provide convenience to recipients rather than having to be present at home, for instance, to receive a delivery. The company also claims that it is a sustainable solution. given this construction allowing for less couriers on the roads.



www.mypup.nl















Sourcing: materials, products and technology

Offsite construction (e.g. prefabricated components)



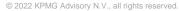


Ritswand offer - by selling (with buyback option) or leasing - flexible and free standing partition walls and cubicles. The walls or cubicles consist of frames that are joined using industrial zippers. The product aims to meet all requirements that would normally be asked from partition walls and/or cubicles in terms of acoustics, lighting, ventilation and electrification.



www.zipperwall.com

































Offsite construction (e.g. prefabricated components)





Spacebase offers a trusted platform where people around Europe can find and book unique and inspiring working spaces, online, via a mobile device or telephonically; whether it is a meeting room for an hour, a flex working space for a day or a coaching room for a fixed period of time. The locations on the Spacebase website are available in several price categories, in more than 1.500 cities in 4 countries.



www.deskbookers.com









Property and facilities management



Co-working spaces





Spaces offers flexible working, office spaces, offices, networking, meeting rooms, hot desks, conference rooms and meeting location. The company offers offices for companies of all sizes, ranging from large corporates to starting entrepreneurs. All contract terms are based on flexibility, whether a customer needs a 25 square meter office or 700 square meters for a studio. The flexible offices aim to create an atmosphere where social and creative activities are both stimulated.



www.spacesworks.com

# **SI** SUPERLOFTS













Design & planning



Building design





Superlofts combine modular design with prefabrication methods in a diverse mix of loft types and flexible programs. Offered as a trendy, sustainable and modern concept, this system also aims to cater to property managers by reducing maintenance costs and increasing the building's life span.



www.superlofts.co













Property and facilities management



Co-working spaces





Tribes offers flexible office spaces as a service. Customers are able to choose from several membership options, varying from a membership for one Tribes office to access to all Tribes. Currently, Tribes has 23 locations spread over Belgium and the Netherlands. The company is expanding to new countries, like Germany this year. Tribes offers high level material finishing, performance IT facilities, amenities which simplify tenants' lives such as dry-cleaning, shoe repair service, high level fitness and restaurants.



https://www.tribes.world/nl





108

























101-200 Turkey





Property and facilities management



Co-working spaces





eOfis provides flexible workspaces at 37 Locations worldwide. With Flexible Lease Model, members can use the meeting rooms, seminar rooms, flexible offices or work desks in shared offices at all eOfis locations with a pre-booking. Hourly, daily, weekly, monthly bookings are possible.



www.eofis.com.tr/en/

#### inohom Smart Life Solutions













Property and facilities management



Smart buildings





Inohom provides services in the smart home and building management systems sector with its inohom registered trademark. It creates flexible solutions that have a wireless communication infrastructure, which is free from infrastructure dependency, hybrid solutions, and which phase of the project. Inohom smart home systems, makes users control lighting, curtains-blinds, heating, security with special keys or via a smart phone connection, including voice control.



www.inohom.com/

#### KOLEKTIF HOUSE











Property and facilities management



Co-working spaces





Kolektif House provides space and services ideally designed for startups, corporates, freelancers and all other creators. They apply multiple memberships to their customers to be fully customizable and improve the feeling and creativity my matching the customer's needs and wants.



www.kolektifhouse.co/en/

















Property and facilities management



Co-working spaces





Work Club provides flexible workspace solutions and access to a diverse network of discerning professionals, with the intention to foster innovative thinking and encourage new ideas. Work Club aims to create a community of people, by offering a stimulating environment in which to engage in flexible working.

https://www.workclubglobal.com























21-50

Hong Kong (SAR), China



Property and facilities management



Co-living spaces





Weave Co-Living creates and manages residential communities for millennials and young professionals in major cities. The company provides residents with designed places to live at affordable, all-inclusive rents. The company also aims to cultivate a strong sense of community by creating social events for their young residents.



www.weavecoliving.com













Transactions and leasing

Co-working spaces





Amspaces is a workplace management solution for offices, coworking spaces, managed offices, and business centers worldwide.

amdigit.com/

# awfis









Property and facilities management



Co-working spaces





Awfis innovated the concept of Pro-WorkingTM that focuses on People, Proximity and Performance. Its aim is to bring workspaces closer and make them more accessible to people. They aim to create an ecosystem to facilitate community based working advantage and facilitate performance through strong operations, well defined training processes and consistent service



www.awfis.com/



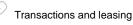














Co-working spaces





BHIVE operates a chain of coworking spaces in Bangalore. Apart from coworking spaces, it also provides flexible leasing products such as managed office and enterprise leasing solutions. The PropTech is solely focused on commercial real estate.

www.bhiveworkspace.com

































Transactions and leasing



Co-working spaces





Qdesq is a flexible workspace rental platform and offers various co-working spaces including meeting room, private office, co-working space, virtual office, training room, serviced office space. It offers rental services in 32 India cities Gurgaon, Delhi, Noida, Mumbai, Bangalore, Chennai, Hyderabad and others.



www.qdesq.com















Singapore



Property and facilities management



Co-working spaces





JustCo designs and redefines workspace experiences for communities, by way of a collaborative ecosystem where members can share insights, network, and help drive success to each other. JustCo aims to empower the workforce of the future through flexibility, opportunities and



https://www.justcoglobal.com





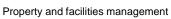














Co-working spaces





Skootr is a chain of managed offices, co-working spaces, private and custom offices. Serving a variety of customers such as freelancers or entrepreneurs, Skootr offers co-working office space to meet individual needs of a dedicated plug & play work space. Skootr provides fully-furnished and ready-tomove private offices, flexible to meet expansion needs for agencies. It also includes custom designed office Spaces in any size, with full flexibility to scale up or down as per business needs.



www.skootr.in/











Singapore



Property and facilities management



Co-working spaces





ProSpace provides smart solutions in advanced workplace analytics and space scheduling to increase workplace productivity. The various AI powered tools are designed to increase collaboration, integration and ease management within a company. ProSpace helps drive an office's design to not just be spaces, but to serve as a medium for growth.



https://prospace.io/





































Smarten Spaces is a global SaaS company that offers an end-to-end solution for workplace safety and flexibility on a single technology platform, to help businesses navigate the new hybrid workplace. The SaaS technology simplifies Desk Management with Workforce Scheduling, Digital Workplace experience and Space Management; bringing together key workforce and workplace considerations for a futureready solution.

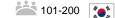


www.smartenspaces.com

# **FASTFIVE**













Property and facilities management



Co-working spaces





FastFive is a coworking space in Korea that offers its tenants flexible work spaces, and a range of office services such as IT support, healthy workspace solutions, catering and more. In addition, FastFive offer solutions to businesses to turn client's offices into fully service-flexible work spaces that suit the identity of the brand.



www.fastfive.co.kr/

## 1 MR.HOMES

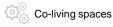








Property and facilities management







Homes Company plans a co-living service in Korea to provide housing services suitable for a new form of lifestyle. Using IT and IoT technology, it has built an application called 'Homes Family' and a rental management solution for efficient operation as well as space development and design. Through their home IoT system, they collect customer data as well as selfoperation. The company runs Homes Studio and Homes Living Lounge.



mrhomes.co.kr

















Co-living spaces



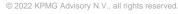


MGRV plans, develops and operates shared housing for single-person households in the city. The company is a start-up that offers customized services, combined with global scale, differentiated public space, and IT. They formed a 'co-living blind fund' with IGIS Asset Management in 2020 and opened their first Mangrove Store in Jongno, in June 2020.



http://www.mangrove.city/























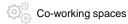






South Korea

Property and facilities management







MyWorkSpace (a shared office company) offers spaces which can meet the diverse needs of tenants, from affordable to premium offices with elegant hotel-style services. Currently, it is developing space management technology and smart office management technology using IoT devices and AI.



www.myworkspace.co.kr

#### **SPARKPLUS**





51-100







Property and facilities management



Co-working spaces





Sparkplus is a Korean co-working space that currently has 16 locations throughout the country. The company offers flexible work space to start-ups including office and business services. Sparkplus also facilitate start-up training and incubating programs to further accelerate their clients businesses.



www.sparkplus.co/





# Healthy Workplace & Living

A workplace which is cost efficient, sustainable and healthy', a description of the ideal future workplace, but this may become the standard very soon. Indoor climate of Real Estate is gaining more importance and attention by tenants and corporates when considering new Real Estate locations. With the increasing adoption of sustainable and efficient workplaces, a healthy and clean indoor climate are poised to be a prerequisite for future Real Estate. Besides health and safety reasons, smart technology innovations such as air sensors and smart lightning improve the work floor environment and employee satisfaction and productivity may rise. Real Estate owners should be aware of the opportunities a healthy (work)place can offer for their own portfolio.

























Canada



Property and facilities management



Air Quality





B-Line is an Al-powered contact tracing and facility management platform that helps building owners and employers prevent the spread of infectious disease through capacity monitoring, access controls, and the collection of highly accurate location data to identify possible chains of transmission.

https://bline.io/















Property and facilities management



Air Quality





CleanAir.Ai offers ALVI Clean Air Safety System to improve indoor air quality. The ALVI Clean Air Safety System provides homes/buildings with HEPA class air quality, reduced energy consumption, and actionable insights on indoor air quality and filter performance to any connected device. ALVI is the new standard for filtration and virtual air assistant that notifies when indoor air quality events have been detected and alerts on when the filter media should be replaced to maintain air quality and avoid costly furnace breakdowns.



www.cleanair.ai



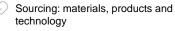


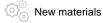






Czech Republic









SPECTRASOL is a biologically

optimized pro-cognitive lighting source that provides high-quality day light with uniquely balanced spectral composition (97% match to sunlight) influencing non visual system of the eye and consequently human circadian rhythms. It promotes performance, physical and mental health and helps human eye to regenerate in real time. It's to be used as a substitute for natural sunlight indoors.



www.spectrasol.eu/























720 Degrees offers a cloud and Al based analytics solution for monitoring the quality of indoor environments, by tracking for example air quality.

<u>https://720.io/en/</u>





Healthy workplace and Living





























Air Quality





IISY is a digital expert house specializing in indoor air and prevention of indoor air problems, this helps property owners lead the development of indoor air quality in large property portfolios with their digital Freesi indoor air service. Freesi is a SAAS and DAAS solution with a twist of civil and HVAC engineering, offers indoor air management tools and a turnkey service for indoor air analysis.

https://iisy.fi/?lang=en















Property and facilities management



Air Quality





Naava manufactures and distributes green walls for offices and learning spaces.

https://www.naava.io/



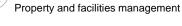














Air Quality





Atmotrack is developing a network of sensors allowing to measure the air quality in a given environment and enable decision-making accordingly. Based in Nantes, it positions itself within cities primarily and is aiming to expand geographically as well.



www.atmotrack.fr/fr/





















Aura Air is a data-driven air management system that purifies indoor air while monitoring its quality in real-time with a web platform and mobile app that enables the user to manage a fleet of air purification devices in different locations. The system's abilities have been scientifically proven to eliminate viruses, bacteria, allergens, mold, and VOCs, including 99.99% effectiveness in removing SARS-CoV-2 within 60 minutes.



www.auraair.co.il























#### SALLY R

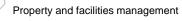


















Sally R offers a cloud-based service for commercial real estate. It provides an optimized performance for HVAC systems by allowing full control over any and all IAQ-parameters (such as temperature, CO2) of HVAC systems. It uses space technology to guarantee a healthy indoor air climate and at the same time decrease energy consumption in buildings.



www.sally-r.com











Property and facilities management

Smart buildings





Healthy Workers creates smart, healthy and sustainable buildings within every P&L's reach by providing building owners, managers and users the right tools, insights and actionable with the Building Performance Platform. They connect their platform with the core of existing building systems which is interoperable with every other relevant system available.



www.healthyworkers.com







Netherlands



Property and facilities management



Air Quality





Bio-security of indoor air and surroundings has become a valuable life property. Cleanwave aims to deliver such a security through their innovative, and high tech and sustainable systems for air and surface disinfection and thereby creating safe indoor environments.



www.cleanwave.nl













Sourcing: materials, products and technology

Air Quality





The HeliCube is a 3,4 m high multifunctional column with 3 filter cubes, actively filters the outside air in city centers, 14,500 m3 per hour for reduction of PM. NO2 & O3, offers communication on two LED screens and the basis for smart (data) sensors. All the cost (Capex and Opex) for the HeliCube are covered by the revenues from communication and data. A new dimension for advertisers (national campaigns), municipalities (traffic coordination), investors (ROI of up to 4 years) and the community (10% of net margin for pre-selected social projects).



www.heliosair.nl

































Offsite construction (e.g. prefabricated components)





The Nowi climate sensors are able to use the energy available in WiFi, 4G and GSM signals to power themselves. They are focusing on climate sensors such as temperature, humidity and light. Thousand of these are needed per building and changes the batteries of such sensors every year is simply not feasible and too expensive. Nowi aims to change the paradigm from the old 'plug and play' to something that fits better with the Internet of things, 'plug and forget'.



www.nowi-energy.com











Property and facilities management



Smart buildings





Priva developed Priva ECO, a selflearning sustainable software solution that automatically optimizes in-door climate conditions and energy usage for buildings. Through artificial intelligence and machine learning Priva ECO constantly aims to improve comfort and reduce energy costs by 10-20%, and doing so without any human intervention.



https://eco.priva.com/

# Quest Life











Property and facilities management

Offsite construction (e.g. prefabricated components)





Quest Life developed WalkingRoom, the only green park where one can walk endlessly. It contains World's largest moving meeting room. This is a 12 square meter treadmill which can handle up to 8 people to walk, work, meet, collaborate and even present to colleagues and clients. WalkingRoom is delivered with fully equipped work- and health stations, safety and sensor



https://www.walkingroom.io











United Kingdom

Property and facilities management

Air Quality





ConstructionDNA is made up of individual SaaS products such as ConcreteDNA, StructureDNA, and LogisticsDNA, which each optimize a different part of the construction process with intelligence generated from data captured by their sensors deployed on-site and off-site.



www.airlite.com



























5-10



United Kinadom



Design & planning



Tenant services (e.g. wellbeing solutions)





Centric Lab is a neuroscience lab delivering data driven solutions to urban health challenges. Using a smart cities geospatial tool the company analyses environmental and urban data through a neuroscience health lens to help real estate developers, urban planning policy makers, and third sector organisations create area specific and research driven health codes. Their neuroscience research underpins climate change related scenario modelling and targets the reduction in mental and metabolic disorders such as depression and diabetes.



www.thecentriclab.com







Hong Kong (SAR), China



Property and facilities management



Property portfolio management tools





uHoo provides indoor environmental monitoring solutions so you know exactly what to do to enhance the health and safety of your occupants, save energy, decarbonize your building, have data-driven ESG metrics and reporting, and contribute to sustainability. All the real-time data, insights and analytics can be accessed on the uHoo dashboard and mobile app anytime and anywhere. uHoo can also be integrated with any building management system to make IAQ management smarter and more unified.



www.getuhoo.com

# Raze



2018



Hong Kong (SAR). China



Sourcing: materials, products and technology



💸 Air Quality





Raze Technology is a material science company that developed a lightactivated disinfectant coating that provides continuous protection from general pollutants while improving air quality. Raze launched a consumer sanitizing spray series and a B2B coating service. The company has invented a paint integrating their nanoparticles that removes air pollution and an air purifier that does not require filter replacement.



www.nanoraze.com





















3S Technologies provides solutions around fire and safety, CCTV, access control, public addressing, integrated building management system, data security systems and identity management solutions with biometrics (including fingerprint, face recognition, hand geometry and iris scan). Further, it offers building and energy management systems.



www.3stec.co.in





Healthy workplace and Living





















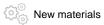






2017 51-100 Singapore









Gush is an advanced materials company dedicated to innovating and developing sustainable advanced materials that improve living environments. From air-purifying paints that combat indoor air pollution (created from personal problems of asthma and sinusitis) to new anti-thermal materials that have been proven to reduce a building's cooling energy usage by 10%.



www.gowithgush.com























# O4 Innovative Constructions

Construction technology (ConTech) has evolved in recent years and is expected to enhance even more. New building methods, 3D printing, specialized gadgets and multifunctional paints are just a few examples of new innovation being applied to construction. With these innovations, construction can become less complex and safer, while offering cost savings due to efficiency and/or sustainability reasons at the same time.















BONE Structure® is a steel

























AMATEC is a Deep Tech offering a way to increase the density of gypsum for it to become a basic building material. Not only is high-density gypsum ecofriendly as it is completely recyclable and requires low amounts of energy for production, but it also provides all the benefits of concrete (and more) at a lower cost. Its properties also allow for major increases in automation.



amatec-corp.com/









Construction

New materials









construction system aimed to produce high performance, energy efficient homes, designed and built using an integrated process inspired by the aerospace industry.





https://bonestructure.ca/en/















Construction



BIM and Digital Twin





CadMakers is a construction and manufacturing technology company that has developed a digital twin solution for virtual construction which includes parametric modelling.



https://www.cadmakers.com/















Construction



New materials





CarbiCrete is a cleantech company that develops innovative, low-cost building solutions that contribute to the reduction of greenhouse gas emissions. They offer concrete manufacturers the process, materials and support to make lower-cost, higher-quality precast concrete in a way that reduces their carbon footprint. Their technology enables the production of cement-free, carbon-negative concrete using industrial by-products and captured CO2.



http://carbicrete.com/











































DIRTT creates customizable, sustainable prefabricated interior wall and millwork systems. It supports reconfiguration, levels of customization, and distributed manufacturing. Enabled by its proprietary software platform, its solutions include various DIRTT wall solutions, along with ICE® technology, and ICEberg®, a modular vs. traditional construction cost-comparison tool. It has over 100 North American Distribution partner locations, 233 patents and 3 manufacturing plants.



www.dirtt.com

















Building design





Falkbuilt develops and builds Digital Component Construction for commercial office, healthcare and education. They combine proven interior construction methods with nextgeneration technology to highperforming and cost effective



https://falkbuilt.com/

# evercloak.







Canada



Sourcing: materials, products and technology



New materials





Evercloak is tackling global climate challenges by innovating with materials. Their technology is an economical and energy efficient manufacturing process for continuous coating of single layer nanomaterials over large areas.

https://www.evercloak.com/#

















Construction



New materials





Intelligent City is the first to offer end-toend and tested high-rise mass timber system solutions, assembled through robotics. They are vertically integrated from design to manufacturing and construction.

www.intelligent-city.com





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Innovative construction





Bao Living































Construction



☼ Other





Upbrella is an innovative construction system for high-rise buildings. It doesn't require a tower crane and uses a protective enclosure to make construction more efficient and safe. Upbrella also uses greener structures and methods that reduces urban disturbances associated with high-rise construction in dense area or complex sites. Upbrella addresses labor shortage, green construction and safety issues related to open air construction in large cities.

http://www.upbrella.com/en/home











Design & planning

Building design





Bao Living is a flexible modular furniture solution that designs and commercializes products that make residential construction more affordable and sustainable. SAM - the Smart Adaptive Module – is the first product that they conceived and developed. SAM bundles all utilities into one adaptive module. Heating, electricity, water, ventilation, kitchen, it's all in there.



www.baoliving.com

#### ABUD











Design & planning



Smart cities and infrastructure





ABUD developed Smart City Evaluation Platform and Service in cooperation with IVL Swedish Environmental Research Institute, Essigplan GmbH and DBH Project Management. SmartCEPS is an integrated smart city solution, that offers a data-driven, knowledge-based decision-support system to help small and medium sized cities go beyond experience and intuition, to become smarter, more sustainable and more attractive for investors and start-ups.





#### ception























Ception develops an Al-powered system for heavy equipment, to improve operational safety, productivity, and sustainability. The solution is based on innovative HD mapping and non-GPS precise localization technologies. using advanced computer vision and deep learning algorithms. The system provides operators with real-time alerts and guidance, while collecting data and providing job site-related insights to the site managers. The product supports various use-cases and applications: selective collision warnings, obstacle detection, safe dumping, performance monitoring, and more.



www.ception.ai/

























21-50



Construction



Robotics & automation





Easy Floor Robotics develops autonomous robotic technology that transforms the way floors are made. Its innovative technology integrates several robots for applying floors and a docking station. The EFR system creates precision flooring in half the time compared with traditional flooring methods and cuts 75 percent of the workforce that is usually required.

easyfloorrobotics.com









Construction



Robotics & automation





LightYX has developed an advanced layout robotic system, called the LightYX BeamerOne, that projects any digital construction plan onto any kind of surface, whether flat or curved, with an accurate laser down to the millimeters. This way, construction workers can easily see the blueprints to scale without having to mark the work surface themselves.



www.lightyx.com













Construction

**Building automation** 





Buildots leverages field data and AI to automate construction management to make sure projects are meeting their milestones. Buildots has developed an easy to deploy, worker engaging, location monitoring solution for labor and equipment which requires no prepreparation and maintenance. Their data is combined with common data sources to map the construction process, identify bottlenecks and streamline day-to-day operations.



www.gendatech.com







Construction









3D printing





EVOCONS is a Spanish startup in the engineering and construction sector created with the aim of leading the development and commercialization of a disruptive technology based on a gantry robot system and 3D concrete printing, which allows to automate most of the construction processes.



evocons.es/























5-10

Netherlands

Construction

New materials





The BetonBallon building technique allows vaulted structures for houses and tunnels to be made in an innovative, affordable and sustainable manner. With this technique, construction time and CO2 emission are significantly reduced. Cost savings of up to 50% and 70% can be realized for concrete and steel respectively. This is all possible thanks to form, process and materials being optimally aligned. The BetonBallon building methodology is applicable in the different construction industries, being home, infrastructure and utility construction.

www.betonballon.nl













Construction

New materials





Bio Bound produces sustainable concrete, by recycling old concrete and combining this with miscanthus, a type of grass that is highly efficient at capturing carbon emissions and thereby efficient at storing carbon emissions in concrete for longer periods of time. Moreover, Bio Bound utilizes a Take Back System, meaning the concrete is taken back at the end of its life cycle to be recycled into a new product.

https://biobound.nl/

# chess







Property and facilities management



Offsite construction (e.g. prefabricated components)





In over 20 years, Chess developed Mymesh, a network protocol that is capable of making large and complex professional locations smart. It does so by wirelessly connecting and managing an unlimited amount of devices throughout a location. Today, Mymesh is globally used by market-leaders to optimize their performances with advanced business intelligence.



https://chess.nl







Construction









🐎 3D printing





CyBe Construction is a technology company which develops software, hardware and durable materials in house for the construction industry. It aims to become a one-stop-shop for construction innovation such as concrete 3D Concrete Printing and Parametric design.



https://cybe.eu/





















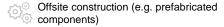














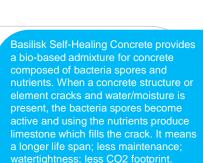


Fiction Factory offers microhomes made of layered cardboard with a long life span. The Wikkelhouse is made out of durable corrugated cardboard glued together with an eco-friendly adhesive. The cardboard is topped with a waterproof, breathable film called Miotex and finished with an open facade cladding system of pine slats. It is up to three times more sustainable than traditional construction technology. The Wikkelhouse building technology can be used for home, recreational or offices construction.



www.fictionfactory.nl



















Construction



New materials





www.basiliskconcrete.com















Construction

Offsite construction (e.g. prefabricated components)





Flexotels offers Short Stay Solutions and is an innovative manufacturing and rental company of temporary accommodation solutions. Flexotels mainly service temporarily events like music festivals and business events all over Europe through their foldable accommodations solutions. The company aims to develop a variety of flexible accommodation facilities that can be placed at any location, at any



www.flexotels.com/en/

#### Karbonik<sup>®</sup>











Construction

Offsite construction (e.g. prefabricated components)





Karbonik produces thin (<0.5mm) innovative carbon based foil that can be applied to floors, walls and ceilings to provide warmth. The infrared radiation coming from the foil heats up spaces. The foil is 100% recyclable and environmentally friendly. Furthermore, the foil can be easily placed underneath carpets or tiles. Karbonik operates on electricity and is therefore often more sustainable. The system can easily be controlled from inside a property or from a distant location.



www.karbonik.nl































New materials





Leadax is a sustainable lead replacement material, applied in construction to make roofs water repellent. In contrast to traditional materials, Leadax is not a toxic metal and therefor better for the environment, Leadax is lighter in weight, more cost efficient to procure and apply, and is a completely circular product.



https://leadax.nl/



Netherlands

Novito provides a building system that makes it possible to adapt homes to the specific needs of homeowners. This can be done in several ways, from domestics to care facilities. Novito provides buildings that can be built within one day, and it takes another two weeks to make them ready to use. Novito's buildings can be taken apart easily and rebuilt in a different location,

making them a sustainable solution.



Construction

Offsite construction (e.g. prefabricated components)

**Novito** 





https://novito.nl/

#### NewHorizon









Construction

Recycling solutions





New Horizon is a demolition company that aims to be circular by demolishing buildings and recycling the most amount of usable resources as possible. Salvaging reusable resources, New Horizon gives materials a second life that have demonstrable lower environmental impact, while still maintaining regulatory qualifications and standards.

https://newhorizon.nl/





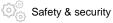
















Skelex designs, produces and markets custom exoskeleton solutions for large scale manufacturing companies. The firm's products allow workers in industries like aerospace manufacturing, shipbuilding and heavy manufacturing to be more productive while minimizing the risk of ergonomic injuries by offering upper body and neck support through their exoskeletons.

https://www.skelex.com/





Innovative construction





























Construction



Recycling solutions





Sustonable is a 100% circular and sustainable material. It is a thin and ultra-lightweight surface made with a unique combination of quartz and recycled PET plastic as the only binding agent. Repurposing plastic that has been thrown away into something useful and perdurable while protecting the environment by eliminating the need for natural stone by 80%. Sustonable turns traditional composite stone surfaces and countertops into a more ecological, affordable, and recyclable alternative for any architectural and decor projects.



www.sustonable.com















Construction



Technical planning





Qflow enables a shift in the way construction teams collect and use material and waste data on live projects. Using a combination of artificial intelligence and machine learning, Qflow automates the time consuming and error prone process of onsite data capture and analytics, enabling engineering teams to deliver quality and sustainability while minimizing project risk.

https://qualisflow.com/









Australia





Construction

Offsite construction (e.g. prefabricated components)





Spacecube's modular building system provides architects, designers and creatives a solution for any temporary or transitional infrastructure projects or developments. Spacecube's are designed to be flat-packable. customisable, re-locatable and reusable.



www.spacecube.com

















Building design

Design & planning





uDrew is a cloud platform that utilizes custom AI to allow homeowners and Industry, without any technical skills, to design, engineer, manage & create their own custom building project, throughout the process. As projects are drawn 100% digitally, all offsets, infrastructure, environmental conditions, local and national regulations are checked in real time as the project is sketched, allowing anyone to instantly create their own autonomous & fully compliant building plans, no matter what their background.



https://www.udrew.com.au/

























Mainland China



Offsite construction (e.g. prefabricated components)





Guangdong Lesntec Prefabricated Building Technology Co., LTD. is a professional service provider for prefabricated building. It is a comprehensive enterprise that provide full chain of prefabricated building businesses, which provide technical consultation, product research and development, manufacturing, material sales, professional subcontracting, installation services.



www.lesntec.net















Design & planning



BIM and digital twin





www.bimcap.com





101-200

Mainland China



Sourcing: materials, products and technology

Offsite construction (e.g. prefabricated components)





Pinza Decoration & Tech is an advanced prefabricated decoration solution provider and high-tech enterprise in China that focuses on prefabricated interior technology R&D, parts production, and construction of digital service systems. The company provides comprehensive services, from design to execution. Pinza Decoration & Tech has five product lines: rental housing, commercial housing, hotel chains, offices and home decoration; and it holds a leading market share in the B-end commercial space and home decoration market.



www.pinza.com.cn







Construction





India



3D printing





Tvasta Manufacturing Solutions provides 3D printing solution. They use 3D printing technology in the Indian construction industry and have developed 3D printers that work with concrete, metals, polymers, and ceramics.



www.tvasta.construction





Hong Kong

(SAR),

China







Singapore

















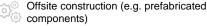








Construction



**■** BUILDIT · M

Offsite construction (e.g. prefabricated

21-50

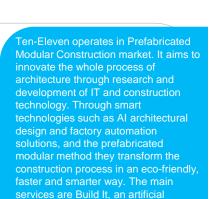




LWC is specialized in custom-order architectural precast concrete and GFRC façade systems. Aiming to provide unique concrete finishes, in their color, texture, profile and form. Achieving this through attention to detail, dedicated design process and extensive technical knowledge. Their services range from feasibility studies. design, manufacture, and installation.



(#) www.lwc.com.sg



intelligence architectural design service. and BuildIt-M, a modular architecture.



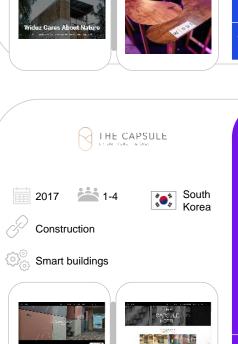
Construction

components)

Build it better **Build it smarter** BUILDITM

South Korea

www.buildit-m.com



Sourcing: materials, products and

technology

New materials

Widuz is developing a new class of renewable and sustainable construction materials called BVL (Bamboo Veneer Lumber), a high-performance structural lumber synthesized from bamboo fibers. BVL™ is up to 3 times stronger than timber, is not susceptible to any decay or degradation, and is dimensionally stable. Due to its strength-to-weight ratio and durability, BVL™ is suitable for use as structural elements (e.g. beams, columns, trusses) in construction of buildings in place of other non-renewable construction materials such as concrete, timber and steel.

TheCapsule is the first capsule hotel

space. As Korea's only capsule hotel

manufacturing the first fully assembled

sleeping capsule module in Korea. A

established in Seoul in 2019 and

started researching single-person

company, it is developing and



www.widuz.com





www.thecapsule.co.kr



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# 05 Internet of Things

With the adoption of Internet of Things (IoT) devices Real Estate is transforming from a stand-alone asset to an interconnected product which offers endless possibilities for owners of Real Estate. IoT innovations promote more efficient, sustainable and user-friendly buildings. These technologically advanced electronic products enable tenants and commercial property managers to control in-house traditional devices in an easy and centralized way.





















21-50 **Lanada** 

Property and facilities management

Smart buildings





Alert Labs builds easy-to-use smart building sensors and software that lowers utility costs and minimize property damage.

https://alertlabs.com/



# **Avidbots**



101-200 Canada



Property and facilities management

Robotics & automation





Avidbots builds indoor autonomous cleaning robotics systems which optimize cleaning processes by increasing productivity, enhancing oversight and increasing insight trough reporting.

https://www.avidbots.com/









Canada



Property and facilities management



Safety & security





Keycafe provides solutions for property access management. Keycafe has enterprise level key exchange solutions for Real Estate Agencies, Cleaning Companies, Property Management Agencies. Keycafe also has a network of locations in 42 major cities to allow forward deployment of keys near properties. Keycafe essentially digitizes existing keys and allows key owners to go online and assign access to guests.

https://www.keycafe.com/







Smart buildings





■ Canada



Property and facilities management







Relogix's flexible workspace analytics platform, data insights and domain expertise is market proven with customers who wish to continue to transform their global real estate portfolios and use this deep learning to improve user experience that ultimately impacts productivity and well-being.

www.relogix.com/about/



























Belgium

Property and facilities management

☼ Other





Facility lockers is a connected parcels locker for office and residential buildings. Together with its integrated marketplace of concierge services, the facility locker offers a unique experience to tenants.

www.facilitylockers.com

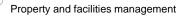












Smart buildings





Spaceti produces innovative enterprise software and IoT systems for commercial real estate. Together, it comprise an integrated turnkey solution that digitizes indoor environments, making commercial offices interactive and optimizing their efficiency and

https://www.spaceti.com







201-500 Belgium





Property and facilities management

Property information platforms





Spacewell, a Nemetschek Group company, is a technology and consulting firm, supporting its clients across the globe to improve the performance of their building portfolios. Their core purpose is to make buildings work harder for their occupants through unlocking the power of building data. By making this data actionable Spacewell provides smart solutions in the field of cleaning, technical maintenance, space efficiency, financial performance, tenant services and occupant experience.



www.spacewell.com/















Property and facilities management

Smart buildings





Cozify offers a wireless smart home hub that connects smart devices from different manufacturers into one seamlessly working entity. The hub is controlled by a mobile application.

https://en.cozify.fi/

































Smart buildings





eGate offers an IoT/SaaS service that enables wireless, transparent, and realtime measuring of conditions from structures and air during the entire life cycle of a building. Multiple reports can be generated from measurement results and the collected data can be utilized to develop processes and building quality.



https://www.e-gate.fi/en/home/















Energy efficiency





Fourdeg offers a B2B SaaS service of heating optimization for construction, energy, ESCo, property management companies and building owners. The service improves indoor comfort and saves in heating costs through lower heating energy consumption and Demand-side Management. The technology works automatically at room-level accuracy in any size of old and new buildings, including commercial, public, and residential



https://www.fourdeg.com/















Property and facilities management



Property information platforms





Enermix Oy offers software, design, professional services, and SCADA (Supervisory Control And Data Acquisition) services to control and monitor apartment, commercial, and industrial buildings. The software and professional services are mainly related to building automation, energy management, energy efficiency improvement, renewal energy, and hybrid heating systems.



https://talotohtori.fi/

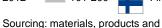












Smart buildings

technology



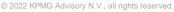


Haltian is a global IoT company. Haltian's services include the Empathic Building digital twin service for smart buildings, and Thingsee, the proven IoT technology platform that enables faster IoT launches for mass-scale deployments. Specialties include design and engineering for IoT solutions for the built environment and wireless devices with long battery life.



https://haltian.com/

























51-100 Finland

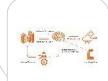




Property and facilities management



Energy efficiency





Leanheat provides a turnkey IoT solution that upgrades building HVAC systems for the digital age. Fully automated and self-learning, Leanheat's solution provides real-time optimization not only for individual buildings, but entire clusters of apartment buildings – while at the same time giving the opportunity for district heating companies to serve their customers more efficiently and with a smaller carbon footprint. In short, climate sensors are installed in apartments, that are then governed by an Al software to maintain optimal indoor climates and reduce energy waste.



https://leanheat.com/















Property and facilities management



Safety & security





Lukoton offers modern access management solutions that enable housing real estate locks to be opened via a mobile device application.

https://www.lukoton.com/



#### NUUKA









Property and facilities management



Energy efficiency





Nuuka Solutions offers a platform to centrally monitor and manage energy efficiency, indoor air quality, and HVAC processes in commercial and public buildings, visible at the entire real estate portfolio level. The Nuuka SaaS device is independent of manufacturers which helps to automate data collection directly from energy meters, building automation systems, IoT systems, and utility companies.

https://www.nuuka.com/home

#### **OptiWatti**



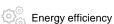
















OptiWatti offers a smart software solution that analyzes outside temperature, weather forecasts, electricity prices, how each room reacts to temperature changes, to minimize heating and cooling costs for residential houses.

https://www.optiwatti.com/

























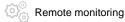
















Wiiste manufactures and distributes technology that allows the humidity and temperature of concrete to be measured remotely via IoT sensors. Monitoring moisture levels can bring holistic cost-efficiency to the site management.



















Smart buildings





360SmartConnect has developed a "connected concrete" system. In other words, a construction equipment which is capable of communicating with connected devices using NFC contactless technology. In fact, this type of material allow to include connectivity into the building. Finally, the bulding is able to keep in memory the different works, to send information according to different scenarios.



www.360sc.io/













Property and facilities management







Wirepas aims to solve large scale IoT challenges. Their product, Wirepas Mesh, is an IoT connectivity software, which provides one horizontal connectivity layer for all IoT use cases, enabling the flow of data between devices and back-end reliably. This includes collecting data from sensors to an IoT application in the cloud, controlling remotely located devices, communicating device-to-device in the network with or without cloud, and tracking the location of moving assets.



https://wirepas.com/











Germany



Property and facilities management



Virtual viewing



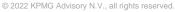


nxtBase develops an Industrial IoT platform for mobile workflows that combines augmented reality (AR), artificial intelligence, computer vision and pattern recognition. Their smart glass solution is providing digital assistance to facility manager, service technicians, as well as caretakers, and support them with voice-controlled applications on corresponding smart glasses in their tasks.



https://en.nxtbase.de/

































Remote monitoring





Simplifa is a digital service provider, focusing on elevator services. Its products enable real estate owners and facility managers to provide an all-round service for their elevator system. These also include IoT tools (for say, a special lift sensor technology which transmits live data to a central dashboard). In a fully digitized process, the elevator twin is available to all stakeholders at the push of a button or synchronization of existing ERP systems. The aim of all these measures is to sustainably increase the efficiency and trouble-free operation of elevators.



https://www.simplifa.de/













Property and facilities management



Smart buildings





OOT Technologies provides smart home solutions for home security, energy efficiency, cost saving and comfort for new and used properties. The multi frequency/protocol OOTT HUB smart home hub offers compatibility to most existing and future smart home accessories. Their system enables users to control everything with their mobile phones, installing cost efficient smart home systems without wall drilling, rewiring, or mess, compatibly with customers' already existing appliances, such as heating, climate, shutters, garage and door control.



www.oott.hu









Hungary



Property and facilities management



Smart buildings





Rollet is a new payment service that enables drive-through payments with any car. With Rollet's car recognition cameras, the vehicle becomes a payment token, therefore no manual cash or card payments and no queuing is needed in parking lots. Rollet also deals with the development of traffic management systems to control and manage vehicle traffic at industrial areas and office campuses.



mollet.hu





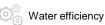
















Robeau is a start-up company offering IoT turnkey solutions for water management. It allows to measure direct water consumption in all buildings and properties, including leaks and over consumption, allowing to reduce up to 40% of water consumption.



https://www.robeau.tech/en

































Smart buildings





PointGrab developed IoT sensing solution for commercial real estate, providing accurate data about the workplace, including count and location of people, social distancing, occupancy, environmental data and more. Allowing customers to have real time data, as well as clear analytics and predictive information about the way they use their real estate.



www.pointgrab.com









Norway



Property and facilities management



Remote monitoring





Disruptive Technologies has developed a simple and secure wireless sensor solution that delivers useful insights to customers, enabling more sustainable, safe and efficient operations within substations, buildings and offices. Examples of usage include remote monitoring, predictive maintenance, smart cleaning, legionella prevention and cold monitoring using temperature, humidity, proximity and touch sensors. The sensors are tiny, have a battery life of up to 15 years and can be installed anywhere, literally.

www.disruptive-technologies.com/







101-200







Construction



Property portfolio management tools





Versatile offers AI powered construction digitalization solution, CraneView. It projects any digital construction plan onto any kind of surface, whether flat or curved, with an accurate laser down to the millimeters.



www.versatile.ai

### unloc



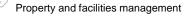














Safety & security

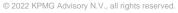




Unloc is your digital key chain. It is a mobile application which allows you to collect all your digital keys, from different hardware producers, in one place and share with whoever you want, as easy as sending a text message.

www.unloc.app







**(e)**smart

Property and facilities management



Switzerland























Portugal



Property and facilities management



Smart buildings





Infraspeak is the Intelligent quality of service, safety, legal requirements, and business goals.



https://infraspeak.com/





Smart buildings



Myesmart, eSMART offers building management system. The system manages building functions like heating. lighting, electricity or videophone systems with a touchscreen in the living room or a smartphone application. The screen also displays the current use of electricity and water in real-time, informing occupants about energy consumption.



www.myesmart.com/en/















Property and facilities management



Smart buildings





Athom has produced 'Homey', a device which connects with all your devices, and makes them approachable at one central place. Devices can subsequently be voice-controlled, controlled by smartphone, or can be programmed to automatically follow specific rules. As a result, users have a home without remote controls, that listens and does exactly what the owner wants. As a result, users can play their music and save energy from just one device. The connected devices can be a combination of different brands and















Design & planning



Smart buildings



Avelution offers IoT solutions by connecting installations and systems and allowing them to communicate. It makes buildings more sustainable, healthier and smarter. The company leverages the information to analyze and monitor the building and guarantee its performance in terms of energy, comfort and safety. With the solution, it aims to develop a smart data-driven building and future-proof building.



www.avelution.nl

































Smart buildings





bGrid is built to adapt. Open to communicate with everything in your building and connect with multiple 3rd party applications. Creating smart buildings which are user friendly, bGrid multi-sensors sense all that happens in the building, to provide control of personal comfort and enable fast accurate positioning of smart devices.



https://bgridsolutions.com/#header













Property and facilities management



Smart buildings





Lone Rooftop is a Building Intelligence Platform that provides real estate & workplace teams with aggregated utilization data and guided analytics for data-driven decision making. Lone Rooftop enables customers to reduce overall real estate spend while positively impacting employee productivity and workplace experience.



www.lonerooftop.com













Property and facilities management



Smart buildings





EDGE Next provides platform solution and related services to improve the performance of office buildings globally in the areas of sustainability, healthand wellbeing and asset usage. EDGE Next builds its solutions based on its 20+ years of expertise and experience in building smart and sustainable buildings in the world as part of EDGE Technologies.



https://edge.tech/next













Property and facilities management



Offsite construction (e.g. prefabricated components)





Niles provides, installs, and integrates home automation into the customer's daily routine. Through the installation of a computer in the house, that connects existing smart home solutions into one integrated customized pack, allowing for expansion when needed. By using this method, they make living environments more comfortable, smarter and more sustainable.



<u>hello-niles.com</u>























### **OPENR**











Property and facilities management

Offsite construction (e.g. prefabricated components)





Openr offers an intercom that wirelessly communicates with mobile devices. Openr aims to make the central reception and wiring in a building redundant. Openr provides a dashboard that gives the administrator a structured overview and the rights to add or remove digital keys.



https://get.openr.nl/











Property and facilities management



Energy efficiency





Shifft is a software developer for the new energy world. Shifft developed an IT-(data)platform able to deliver different kinds of software solutions. Varying from consumer portals for gamified energy insights to intelligent energy monitoring and billing solutions. All based on collecting data from multiple sources, like smart meters (based on their own ODA-status), multi commodity submetering or other certified metering companies. The company works for different types of clients, ranging from energy start-/scale-ups (PV-supply) to large companies in residential real-estate.



www.shifft.com















Property and facilities management



Smart buildings



Simaxx translates the data stored into building management systems into information usable for controlling maintenance, comfort and sustainability. The platform's features include 70 scripts in its Smartbridge, algorithms converting data into information and a user-friendly interface. Dashboards, reports and event lists are generated based on these analyses, making clear how the building functions. The platform aids in preventing malfunctions and complaints.



www.simaxx.com













Property and facilities management



Smart buildings





SWYCS offers a universal, interoperable and vendor-neutral Internet of Things (IoT) platform. The SWYCS technology contains hardware and software and is based on open standards that are compliant with relevant international IoT-protocols. The system is API-driven to integrate with third party software. SWYCS connects devices and installations to make buildings and home environments smart. The integrated infrastructure offers a plug&play-platform controlled by a single app or web-portal.



www.swycs.com































Turkey

Sourcing: materials, products and technology







Parxlab collects the data generated in the car parks with its own production hardware systems and optimizes personnel and parking for the enterprise. Thus, it offers insights into workload and to monitor all the data generated. It also minimizes the problem of finding a parking space by showing empty parking spots within the drivers on platforms such as mobile applications and screens.



www.parxlab.com



















IOT Plus Middle East provides Internet of Things (IoT) solutions, System Integration, Technical Support & Maintenance & Turnkey Solutions. IOT Plus solutions can be used to remotely monitor a variety of "Things" (i.e. temperature, motion, humidity, energy use, etc.), alerting users by text and by email when user-defined conditions are



www.iotplus.ae/

#### venuex





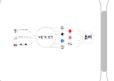


Turkey



Property and facilities management

Indoor mapping





Venuex creates detailed geo-referenced indoor maps of properties, which can be utilized through customer's apps and Apple Maps. Through a one-stop-shop solution ensuring secure API's, venues and tenants indoor maps and business details can be shared to online platforms for utilization.

https://www.venuex.io/apple-maps















Construction



Technical planning





Converge generates Al-based construction intelligence and real-time digital twins through their ConstructionDNA platform, powered by smart sensors deployed across the entire construction operation, enabling companies to build more efficiently, safely, and sustainably. ConstructionDNA is made up of individual SaaS products such as ConcreteDNA, StructureDNA, and LogisticsDNA, which each optimize a different part of the construction process with intelligence generated from data captured by their sensors deployed on-site and off-site.



www.converge.io





























United Kingdom



Property and facilities management



Remote monitoring





HoxtonAl' provides sensors for people count and occupancy monitoring. Its foot traffic technology counts people based on footsteps going past a lowlevel camera. The technology provides additional insights such as gender, occupancy and average dwell times. It can be installed both indoors and outdoors, only needing a power socket. The data is presented back to clients in a real-time cloud data platform.



(#) www.hoxton.ai















Property and facilities management

**SWITCH** 



Smart buildings





Switch Automation is a global software company that helps commercial real estate reduce operating costs, improve energy efficiency and deliver strong occupant satisfaction. Switch Automation have developed a comprehensive smart building platform that integrates with traditional building systems and Internet of Things (IoT) technologies to analyze, automate and control assets in real-time.



www.switchautomation.com









Australia



Property and facilities management



Smart buildings





Calumino have developed an A.I. computer vision enabled thermal sensor. The Calumino Thermal Sensor (CTS) extracts data from the heat signatures of humans and objects, providing unseen insights for healthcare, security, smart building, fire safety and automotive industries. If an elderly resident is to fall, the Eve Care algorithms recognize this and the care givers are alerted immediately. In addition, behavioral data analysis using the Eve Care system (e.g. sleeping patterns and activity monitoring) provides revolutionary insight into a resident's health and wellbeing.



www.calumino.com















Construction



Smart buildings





Ynomia leverages a proprietary, shortand long-range, Bluetooth-enabled IoT network to actively capture real time resource insights in order to increase productivity, visibility, safety and enable dynamic construction program management. Ynomia aims to reduce total cost of construction, and improve safety on projects by providing a realtime view of construction projects to users.



www.ynomia.io























# **BuildTrack**®









Property and facilities management



Smart buildings





BuildTrack operates in smart automation and Internet of Things (IoT) solutions for homes, enterprises, hotels,



www.buildtrack.in/about-us





Cosine Labs is an IoT company that builds hardware and software products for the rental real estate market like Coliving and Student/Dorm Living segment. The company provides the tech to transform existing/new buildings in to IoT enabled Assets To optimize operations, create seamless access controls and a sustainable-energy efficient property. Their solutions include IoT Hardware system applications like their smart digital door locks that support pin codes and real time information. In addition the firm provides smart energy meters and facial recognition with thermal sensing.



www.cosinelabs.com/















Construction



Smart cities and infrastructure





Maven Systems provides IoT operated automated lighting, smart metering, remote monitoring of construction.



www.mavensystems.com

















Smart buildings





Smartify offers solution that are embedded with IoT technology and helps builds functional home. They offer home automation consulting services and allows one to fully control/ manage its house remotely with smart IoT solutions leading to development of smart buildings that saves energy and adds more safety & security.



www.smartify.in

















































201-500 India



Design & planning







′5H⊚N

Smartron offers solution that are embedded with IoT and OEM technology. They offer personalized and intelligent solutions developed by the company powered by tronX, its own AIOT platform and ecosystem that offers its clients with smart home to smart infra products having smart innovation like use of sensors, robotics, AI, cloud and UI/UX technologies in their smart solutions. It has global presence with offices in India and the US.

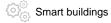


www.smartron.com













www.y5home.com

**WEGOT** 101-200 \_\_\_ India

Property and facilities management



Property portfolio management tools





WEGoT's a cleantech company, offering a platform for water, electricity and gas management. For say, its water management system (VenAqua), captures information in a multi-inlet plumbing layout and provides the end user with real time information. The information includes minute-by-minute consumption details; alerts (over-usage, leak detection, open taps and predictions) based on historical data and consumption patterns of other residents on the campus. One can also remotely shut off the supply of water.



www.wegot.in











Japan





Smart buildings





ACCEL LAB is a smart home platformer that provides SpaceCore, a service platform that makes real estate and spaces more attractive. Utilizing IoT, smart home and AI technologies, ACCEL LAB creates convenient living spaces in a smart way.

https://accel-lab.com/jp/





























Singapore



Property and facilities management



Smart buildings





Allocate Space aims to utilize technology in all spaces, thus empowering real estate owners with the ability to analyze, learn, share, and ultimately leverage on insights to maximize the usage of their space.



https://allocatespace.co













Property and facilities management



**Building automation** 





Hipla manufactures IoT based office and building automation solutions. It provides contatrack, a contact tracing and social distancing solution for offices, retail environments, and manufacturing and healthcare environments that provides AI enabled video analytics, social distance/breach reports, customized notifications to individuals, hotspot identification, and custom/intuitive dashboards and panels. The company has presence across Singapore and India (Bangalore, Kolkata, Delhi, and Mumbai).



www.hipla.io

#### **TRAKOMATIC**











Property and facilities management

Tenarii sei solutions) Tenant services (e.g. wellbeing





Trakomatic enables data driven decisions by making physical locations smarter. It tracks shopper behavior at different touch points, like image and video interaction, across the online and offline space, empowering business owners to make data driven decisions and transforming the overall shopper experience. Trakomatic enables businesses and organizations to discover the ways people interact in a physical environment using video and sensor technology. The data is transformed into actionable insights that drives optimization and improvement of clients' core business processes.













Singapore



Property and facilities management



**Building automation** 





Vital Xense offers industrial design sensor hub solutions. Through their solution, deploying a sensor or a string of wired sensors takes little time and system configuration. Their solutions are re-usable, plug and play and allow for quick modification and adaption of the sensors. This way, users benefit from customization flexibility, time and cost saving, scalability and easy adaptation of IoT.



http://www.vitalxense.com/







Traditionally, Real Estate was financed through specific funds with a substantial minimum investment. Alternative funding methods result in a more accessible financing of (inter)national Real Estate projects. Although alternative funding has been coined frequently in the context of banking, it can also be applied to Real Estate. In addition to institutional investors, individuals are now able to invest in Real Estate projects with smaller amounts of funding, thereby opening up the market to everyone.

















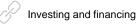






11-20 **Canada** 





Real estate investment platforms (e.g. crowdfundina)

FINEO

Real estate investment platforms (e.g.

11-20 **Canada** 





addy is an online real estate investment platform which allows investments starting from 1 dollar, giving everyone access to real estate investment opportunities.

https://www.addyinvest.com/

Finneo offers a cloud-based SaaS debt solution designed for Property owners, developers, REITS and pension plans. In a nut shell, Finneo is an End to End technology platform for CRE Debt

Placement and Management.



crowdfunding)

Investing and financing



www.finneotech.com



Investing and financing

**■** Canada

Real estate investment platforms (e.g. crowdfunding)





Coinvestion is a two-sided marketplace for anyone to invest in fractional ownership of real estate as securities using blockchain. In regulatory compliance, they allow crowdfunding and exchange of real estate shares.

https://www.coinvestion.com/



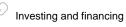








■ Canada









Liquuid provides consumers with cash to live the life they want to live. In exchange, when a consumer decides to sell their home, Liquuid receives a share of the sale proceeds. No interest and no monthly payments.

https://liquuid.com/

































Mexico

Investing and financing

Real estate investment platforms (e.g. crowdfundina)





100 Ladrillos is a digital platform where properties are divided into parts to enable investment by multiple (smaller) investors. Through the use of blockchain technology, investors can buy and sell parts of properties and receive rental income, making real estate investment possible for all types of investors.



https://www.100ladrillos.com/















Investing and financing

Real estate investment platforms (e.g. crowdfunding)





EstateGuru is a European marketplace for short-term, property-backed loans. EstateGuru offers its services to entrepreneurs in the property development business who do not fit in the standardized offers by banks and major financial institutions. The company connects diverse investors and borrowers, and offers borrowers their own terms, while investors can access pre-vetted and diversified. cross-border investment opportunities with total transparency.



www.estateguru.co/









Belgium



Investing and financing

Real estate investment platforms (e.g. crowdfunding)





BeeBonds is an alternative financing platform that can resort to public offerings and allows investors to directly finance corporate projects by subscribing to bonds issued by these companies. Beebonds aims to give people the possibility to invest in building development projects at no cost.



www.beebonds.com/















Investing and financing

Real estate investment platforms (e.g. crowdfunding)







Fundimmo offers a platform specializing in real estate crowdfunding. The company was founded in 2014 and is registered as Advisor for Participatory Investments with the Autorité des Marchés Financiers. Fundimmo allows its investors to invest from EUR 1,000 in a range of real estate projects (residential, commercial, office, development, real estate renovation. etc.), selected by an advisory committee made up of real estate professionals.



www.fundimmo.com/























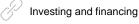
# homunity.com











Real estate investment platforms (e.g. crowdfundina)





Homunity offers a crowdfund platform that is available for private investors from 1000 Euros to invest in short-term real estate projects that last for 12 to 24 months. Homunity.com is a platform 100% online that aims on providing transparency, detailed project information and internal audited projects. Three investment solutions are available on the platform.



www.homunity.com/fr/

# **\*\***tokeny











Investing and financing

Real estate investment platforms (e.g. crowdfunding)





Tokeny provides an enterprise-grade infrastructure to allow companies and financial actors to compliantly issue. transfer, and manage assets on blockchain, enabling them to improve asset liquidity. High investment thresholds, intermediary involvement, lengthy and complex processes, and costly transfers make real estate an illiquid asset class. Tokeny provides asset issuers with a complete tokenization tool that enables them to address these issues through asset fractionalization, digitization of the entire process, and automated compliance.

www.tokeny.com

#### Click to add text

## rise.

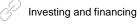








Nigeria



Real estate investment platforms (e.g. crowdfunding)





Rise Vest is an investment app that lets anyone put their money in automated safe dollar investments around the world. Rise users can invest in three asset classes - US Real Estate, US Stocks, and Fixed Income (Eurobonds). Next to being a wealth management app. Rise also includes a community that offers financial guidance.



## urbanıtae













Investing and financing

Real estate investment platforms (e.g. crowdfunding)





Urbanitae is a crowdfunding platform that specializes in big off-market real estate opportunities, allowing anyone to invest in the market with small amounts of money. The marketplace also provides a flexible source of alternative financing for real estate developers, allowing them to nurture a recurring group of investors that are eager to invest in all of their projects.



www.urbanitae.com





New ways of funding





















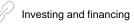


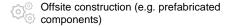
















Blandlord enables clients to take partial ownership of a real estate object. By dividing ownership, investing in properties becomes feasible for people who normally don't have the resources to invest, because of the size, risk or complexity associated with the investment. Starting from EUR 100,people can buy an ownership in an object. The economic ownership of the properties is administrated in blockchain technology to provide openness to all parties involved.



www.blandlord.com









Netherlands



Investing and financing

Offsite construction (e.g. prefabricated components)





Bloghouse provides a cloud-based, one-stop-shop funding platform that meets all the current and future needs of fund managers, investments firms. and companies (or social enterprises) looking to raise capital. By digitalizing the funding pipeline, we make raising capital simple and cost-efficient. We provide the digital backbone for effective fund management (incl. an automated KYC process) and empower investors through an extraordinary digital experience to track investments made.



www.bloghouse.com

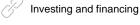
#### **BOUWAANDEEL**











Offsite construction (e.g. prefabricated components)





Bouwaandeel uses crowdfunding as a basis for financing real estate projects. The Bouwaandeel platform offers project developers and real estate investors access to funds of private investors and private companies. A key distinguishing factor of the platform compared to traditional real estate funds is that investments are possible starting from EUR 200,-. Propositions up to EUR 300.000,- can be placed on the platform and the to be financed object always serves as collateral.



www.bouwaandeel.nl













Investing and financing

Offsite construction (e.g. prefabricated components)





Brickfund offers a new method of investing in real estate. The company selects appealing properties for investments and offers a transparent platform. Investors receive personalized online access, which provides detailed information regarding investments. Users are furthermore empowered to make their own decisions and can make investments starting at EUR 5,000.



www.brickfund.com





### crowd estate



5-10





Investing and financing

Offsite construction (e.g. prefabricated components)





Crowdestate is a crowdfunding platform for real estate linking project developers and investors. Prior to a project being published, screening is performed to ensure that the quality is up to par and the project is feasible. Crowdestate offers Dutch and international projects to allow investors to build a diversified real estate portfolio. Crowdestate selects multiple projects from which its customers can choose to invest in. The customers of Crowdestate can follow the developments of their investment portfolio easily.



https://crowdestate.eu/

#### **★**Y de Windcentrale











Investing and financing

Offsite construction (e.g. prefabricated components)





De Windcentrale facilitates households and companies to become joined owners of a large wind turbine. All electricity produced by the wind turbine is deducted from the energy use of the individual owners which leads to a lower energy bill. De Windcentrale offers a simpler and cheaper alternative for solar panels. Currently 15.000 households and companies are producing their own green electricity with their own wind turbine. With De Windcentrale App users can check the production of their turbine real time.



www.windcentrale.nl















Investing and financing

Offsite construction (e.g. prefabricated components)





SamenInGeld is an online crowdfunding platform focused on mortgage-backed residential and commercial real estate in the Netherlands. For over eight years, SamenInGeld has been active in crowdfunding, pioneering the market with real estate crowdfunding in a way where investors have real mortgagebacked, risk-stratified security based on the market value of the property. This enables investors to weigh their risk appetite and choose an appropriate tranche to invest, while project owners enjoy a large crowd of investors to finance their real estate projects.



www.sameningeld.nl/









Investing and financing







Real estate investment platforms (e.g. crowdfunding)





SmartCrowd is real estate investment platform that uses a crowdfunding model. It provides the opportunity to access real estate through beneficial fractional ownership. The online platform enables the average investor to build a personalized investment property portfolio with a minimum investment of \$1.500.



www.smartcrowd.ae

























#### bricklane.com

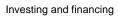


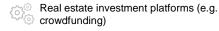
















Bricklane provides people with a way to receive the financial benefits of owning UK residential property, without the inflexibility, hassle and tax-inefficiency of direct investment. From £100, customers can invest in geographically targeted residential property portfolios, and earn returns from rental income and price changes, using an innovative take on the REIT structure. Compass, their proprietary data analytics platform, supports their expert property team in selecting properties for each of the portfolios, and shaping their overall strategy.



www.bricklane.com/

# Proportunity











Investing and financing



Online direct lenders





Proportunity is a mortgage lender that combines machine learning technology and finance to make home ownership possible for everyone. We break the barriers that come in the way of getting on the property ladder.



www.Proportunity.co











Australia



Investing and financing

Real estate investment platforms (e.g. crowdfunding)





BrickX aims to transform the notion of property ownership in Australia. The company provides an online investment platform that allows Australian's to invest in residential property with a minimum of \$50.









Hong Kong (SAR), China



Investing and financing

Real estate investment platforms (e.g. crowdfunding)





Liquefy is a proptech platform which enables the issuance and distribution of tokenised securities backed by commercial real estate. Tokenization leverages blockchain technology to enhance operational efficiencies and reduce the time and economic costs associated with trading previously illiquid assets, bringing asset owners and investors alike the benefit of unlocked liquidity.



www.liquefy.com/

























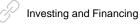




21-50







Real estate investment platforms (e.g. crowdfundina)





WealthPark Investment

Real estate investment platforms (e.g.

Assetmonk is an online platform that assists in real estate investment. It has listed the properties on its platform under various categories according to the consumers' investment objective. The investment categories include 'Growth' i.e. product for investors looking for long term value investment, 'Growth Plus' i.e. product for investors looking to invest in high-end properties at affordable price, and 'Yield' i.e. product for investors seeking regular passive income.



www.assetmonk.com





crowdfunding)

Investing and financing



www.crowd-realty.com/













Investing and Financing

Real estate investment platforms (e.g. crowdfundina)





PropReturns (YC S21) is an online platform assisting in real estate investment. The platform is backed by data and financial analysis. It makes property investing accessible and transparent right from offering an end to end solution for investors, placing an offer on an investment property to conducting the entire deal closure flow and paperwork through platform.



www.propreturns.com











Singapore



Investing and financing

Real estate investment platforms (e.g. crowdfunding)





Infina is a digital investment platform with aim to make investment accessible, easy, and engaging for the country's middle and lower classes. Infina allows users to invest in higher vield asset categories with smaller required investments - savings, term deposits, mutual funds, and fractionalized real estate.



www.infina.vn





Japan



















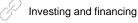




11-20



Singapore



Real estate investment platforms (e.g. crowdfundina)





Realbox is a blockchain-driven real estate platform that will innovate property investment by offering opportunities to everyone to co-invest in a fraction or share of assets. REB is built on the Binance Smart Chain platform, a utility token is to enable users to use services of the Realbox platform. Our mission is to make investments accessible, reliable and flexible to everyone.

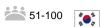


www.realbox.io



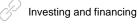








South Korea



Real estate investment platforms (e.g. crowdfunding)





Kasa aims to safely secure title deeds to commercial buildings, by placing the asset into a disposal trust with a real estate trust firm. Based on this trust agreement, the trust companies issue digital ABS, or DABS, with the entrusted property as collateral. DABS holders can take their earnings from rental income and capital gains as they buy or sell stocks.



## hf HonestFund





101-200





Investing and financing

Real estate investment platforms (e.g. crowdfunding)





HonestFund is a simple P2P financebased investment service which allows anyone to experience investment and loans online 24 hours a day. As a comprehensive P2P financial company, it handles a wide range of loan products in the P2P industry, such as real estate PF loans and small and medium-sized business mortgage loans.



www.honestfund.kr

#### LUCENTBLOCK





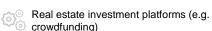


Investing and financing











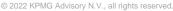


LucentBlock provides services that can be traded on Lucent Block's Exchange platform after securitizing profitable real estate, which is generally considered to have low liquidity, in small units through a trust transaction with a trust company. The company provides and operates a platform that allows people without large amount of money to easily and transparently trade part or all of the real estate.



https://www.lucentblock.com/

























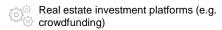
















Based on Al source technology, Tanker is a real estate venture company that operates PropTech business. Three business models they use are P2P real estate mortgage loan platform, real estate price calculation automation service and financial connection solution, and real estate brokerage and recommendation service. From the technology of accurate real estate market price prediction, it is running data-based business in the real estate service industry and finance sector.



# houze



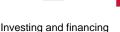








Vietnam



Real estate investment platforms (e.g. crowdfundina)





Houze is an online-to-offline platform with the combination of three distinctive models - Proptech, Fintech, Mobile Commerce. Houze offers digitalization solutions through Houze Agent (a real estate broker service platform), Houze Commerce (a multi-usage platform for residential communities) and Houze Invest (a real estate investment solution access to diverse developer, product portfolio and match investment need of individual with modest capital).



www.houze.group











Vietnam



Investing and financing

Real estate investment platforms (e.g. crowdfunding)





MoonKa is a Technology start-up in Fintech and PropTech. Our goal is to apply blockchain to Real World Assets (RWA) to split investment with simple conditions to clear idle financial flows in the market.

MoonKa aims to create more secure and flexible ownership than simply holding real assets by holding tokens that are guaranteed to grow by real assets (Real Estate) and are audited on a regular basis by prestigious organizations. Transactions are instantaneous and transparent in realtime (P2P) thanks to the combination of blockchain and decentralized finance (Defi).

From there, important actors in the











Vietnam





Real estate investment platforms (e.g.







Revex provides a trading platform which helps in creating liquidity in real estate market by breaking down the real estate project or asset into different contract units, which can be accessed by more investors, thus helps investors with limited capital can invest in real estate as well as developers in project funding and financing. Transactions are conducted and recorded in system through Smart Contract based on Blockchain technology to ensure transparency and accessibility of information.



www.revex.vn





# O7 Platforms to Connect

The rise of social media made it possible for people around the world to easily connect with each other. Thanks to multiple innovations the connectivity between stakeholders in the Real Estate industry has improved as well. Different platforms link buyers and sellers of both private and commercial Real Estate or property owners, and construction/ maintenance workforce. Furthermore, communities are connected to each other either for retail purposes or for storage rental. All these inventions lead to more digital visibility of Real Estate and speeds up transactions/interactions between tenants/ residents and owners.



















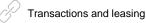


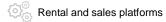






Argentina









Alquilando is an online marketplace for long-term rentals which tries to simplify the rental process and minimize risks. It combines real estate services with InsurTech and FinTech solutions (e.g. by replacing normal bank guarantees with its own guarantee system) in order to deliver a wholistic long-term rental service for landlords and tenants.

http://www.alquilando.com



## HOUSÎ













Transactions and leasing

Rental and sales platforms





Housi has created a platform where it receives, manages, and leases real estate for other owners. Properties displayed through Housi can be rented to live in for longer periods, as well as for short-term use on platforms. The startup also furbishes and prepares properties so they're ready for moving in on demand.

https://housi.com/













Brazil



Transactions and leasing



Rental and sales platforms





Kzas is a real estate transaction platform through which buyers are matched with real sellers/properties through the assistance of AI or a specialized team to increase efficiency and transparency in the process.



https://www.kzas.ai/















Property and facilities management

Tenant services (e.g. wellbeing solutions)





Angus Systems is a provider of customer driven mobile and cloudbased work orders and operations management solutions for commercial real estate.

https://www.angus-systems.com/



























Canada



Transactions and leasing

☼ Other

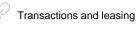


Askavenue is a live chat tool that enables you to connect and engage with buyers and sellers before your competitors.

https://askavenue.com/







Transaction administration



Avesdo created a SaaS platform specifically for pre-construction condo and home developers to manage their relationships with buyers. From marketing distribution to sales management, and first deposit to occupation, Avesdo fully digitalizes the entire process.



https://avesdo.com/











Canada



Construction

Technical planning





BenchMarx's has built a data-driven and cloud based time and material platform for construction sites which helps reduce risk and improve cost recovery of changes on the job site.

<u>https://www.benchmarx.io/</u>

















Design & planning

BIM and Digital Twin





BIM Track offers a cloud-based communication platform allowing users to centralize project coordination information and access it through various platforms. The functionalities focus on project management and include coordination automation. custom analytics, issue resolution, reporting and templates.

www.bimtrack.co/





























Canada



Property and facilities management



Property portfolio management tools



Our mission Connection Handymen & Women & Apartmant Oviner m Enable - bear to Balk ober : C their time, of an impury, of a refriending case Discussials you self with

BonAprt is an online platform offering handymen on demand and is developed for Landlords. BonAprt offer an on demand handyman service that can manage small repairs, paint jobs, apartment visit.

http://www.bonaprt.com/













Property and facilities management



Rental and sales platforms



FIND YOUR DREAM HOME.

Casalova is a real estate marketplace that algorithmically matches prospective renters to nearby agents who are live and ready to take on new clients. After a renter enters their requirements (such as price, location), the company a variety of condo, home and apartment listings.



www.casalova.com/









**■** Canada



Investing and financing

Tech-enabled brokers (e.g. mortgage search and comparison)



The future of real estate has arrived

BrokerBay is aiming to evolve the way real estate is bought and sold. BrokerBay's cloud-based ecosystem replaces multiple legacy systems in use by brokerage firms across North-America. Aiming to consolidate, automate and modernize the core functions of the traditional brokerage model. The result, an exponentially improved home buying/selling process for agents and their clients.



https://www.brokerbay.ca/







technology





■ Canada



Sourcing: materials, products and

Agent matching



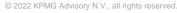


Dozr offers a platform that facilitates short- and long-term rental of heavy equipment by acting as a middleman between business owners looking to rent out heavy equipment and contractors looking to rent. Dozr offers a fleet of heavy equipment such as excavators, loaders, skid steers, tractors, vehicles, rock trucks, and lifts.



www.dozr.com/



































Transactions and leasing



Rental and sales platforms





Findspace empowers owners, managers and brokerages to expertly manage, market & lease their commercial real estate portfolio, anytime, anywhere, while tracking leads & opportunities. They do so with easilyaccessible, smart, low-touch management tools for real-time performance analytics and reporting, through seamless integration with internal processes and external marketing channels.

https://www.mrisoftware.com/prod ucts/commercial-real-estate-

# flexday









Canada



Transactions and leasing

Co-working spaces





Flexday offers a mobile platform where users get access to co-workspaces via a monthly subscription or a single use

https://www.flexday.com/















Investing and financing

Real estate investment platforms (e.g. crowdfunding)





Fundscraper is an online platform that facilitates direct investments into real estate projects sponsored by proven real estate developers and owners. Fundscraper offers investors the opportunity to co-invest and fund real estate projects alongside Fundscraper's investment community.



https://www.fundscraper.com/

















Tenant services (e.g. wellbeing solutions)

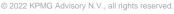




GreenApps develops building-specific resident portal applications for residential and commercial property managers. Each app is customizable to complement the needs of specific brands and features communication possibilities, smart building options and repair notification possibilities.

https://www.greenapps.com/























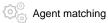






**■** Canada









Hauscall is an app that connects consumers with realtors on-demand, no strings attached. Users select a location anywhere in the world and are presented with local realtors in the area to get instant advice. Consumers swipe and select realtor profiles they want to talk to. Easily share listings, photos and videos and anonymously interact with the realtor through the app by message, phone, or video chat.

http://gethauscall.com/

# ○ HILO













Property and facilities management

Tenant services (e.g. wellbeing solutions)





The HILO Tenant Experience Network is a SaaS platform that powers building operators to attract tenants, boost revenues, and streamline operations by creating connected, engaged and informed building communities.

https://www.hiloapp.com/

## **M**homicity









Canada



Transactions and leasing

Tech-enabled brokers (e.g. mortgage search and comparison)





Homicity is a real estate marketplace where customers can find mortgages, insurance and properties. The customers can use the company's Al powered search engine to find the property which suits their needs.

















Rental and sales platforms





HostOften is a vacation rental property management company that allows owner's property to be listed as a vacation rental, executive rental and long-term rental. It also offers full service property management and online Airbnb management. All services are covered from creating a listing with professional photography to 24/7 guest communication and support to cleaning/restocking services.

www.hostoften.com/































Property and facilities management

Tenant services (e.g. wellbeing solutions)





Lane offers a platform for property owners, which focuses on digitizing and automating office portfolios. The platform's functionalities include managing employee handbooks, tenant directories, guest registration, maintenance updates, and communication, amongst others. Lane aims on changing the way people interact with the places they work and the people they work with.

www.joinlane.com/









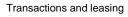














Agent matching





connecting home buyers and sellers to and simplicity to the real estate industry agent who presents the combination of services, pricing, reputation, and fit that is suited to them personally.















Transactions and leasing

Transaction administration





NexOne Agent is providing real estate agents with a software solution that automatically tracks all aspects of real estate transactions. Aiming to fully digitize transaction processes for real estate professionals in order to increase efficiency and productivity. Allowing for the utilization of secure e-signatures for any scenario, and providing detailed activity reports.



https://agent.nexone.ca/















Transactions and leasing



Rental and sales platforms





Properly had developed a product that uses machine learning to offer homeowners a market price for their home. The owner can choose to list it on their market, or sell it to Properly directly.

www.properly.ca/





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#### RoomKeyPMS



Property and facilities management

Tenant services (e.g. wellbeing solutions)





RoomKeyPMS is a cloud-powered software for hotel management, it lets users manage every aspect of their hotels. RoomKeyPMS integrates to hundreds of hospitality systems, drives revenues with no transaction fees while saving time with an easy to use system.

https://roomkeypms.com/







21-50



Canada



Property and facilities management



Property portfolio management tools





SuiteSpot offers multifamily property managers and owners an automated property operations platform which entails both communication with tenants as workflow, maintenance and documentation management.



#### **TAP**REP**P**RT











Property and facilities management



Safety & security





Tap Report streamlines inspections and reports. It can be used on any location or equipment (i.e. Fire Equipment, Mechanical, Sanitation, Health and Safety, etc.). Their solution ensures each area is visited, removes the need for paperwork, and makes compliance effortless and mitigates risk.



https://tapreport.io/home/











■ Canada



Property and facilities management

Property information platforms





Yuhu is a multi-family operations platform built for site teams and dataaggregation. Yuhu's platform enables its partners to connect and empower their site teams and residents, while driving cost savings, efficiencies and comprehensive data insights for owners. Yuhu aims to supply open, easy-to-use cloud-based software with partner support.



https://yuhu.io/



























21-50



Uruguay



Property and facilities management







At iParkings they provide intelligent guidance systems for big parking lots. Reducing gas emissions, driver frustration in finding an available place and giving important tools for the parking owner in order to make up decisions based on real time info (telemetry).

The company distributes and installs their solution in the entire Americas.

www.iparkings.com/

# Build=ye

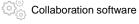






Belgium









BuildEye is a customer portal in the residential construction sector that aims to increase customer satisfaction for turnkey companies and real estate developers. Based on an easy-to-useplanning tool this customer portal is a selected view on a collaboration platform.

https://build-eye.com/en/









Belgium





Property and facilities management







BePark is a digital parking operator that aims for a better mobility experience for this and future generations. The company uses its parking network to change the mobility landscape and create value for users, owners and the community. With smart technology, BePark offers the full array of parking solutions to help individuals and enterprises solve their parking challenges.



www.bepark.eu/nl/belgie



















Mobility









Commuty is a web and mobile application, which is designed for a better parking and mobility management within companies. Through it application it is possible to determine rules for parking spots and the usage is reported and its data shared with their clients to further increase efficiency of their parking



www.commuty.net/

























5-10



Belgium





Remote monitoring





C-SITE is a platform to visualize developments engineering, real estate and infrastructure projects through a plug & play camera system that automatically create images, livestreams and time-lapse videos. The cameras that are used by customers are linked to the company's cloud based online C-SITE platform that ensure a secure and 24/7 connection that allow even for life monitoring of progress.



(#) www.c-site.eu





5-10









Transactions and leasing



Co-living spaces





Koab is a start-up specialized in developing co-living projects in Belgium. Koab helps landlords in leveraging a rental yield through coliving projects while providing young professionals comfortable accommodation and flexible lease terms. From locating the right property to rental management, IKOAB will take care of every aspect of the project: research and analysis of assets adapted to co-living, renovation, design of the property and property













Belgium



Property and facilities management

Smart cities and infrastructure







Hoplr is a private social network for neighborhoods in Belgium and the Netherlands. The platform focuses on social interaction between residents and neighborhood engagement.



www.hoplr.com















Investing and financing



Agent matching





IMMO IQ sets up a network of freelance experts who take care of inspections, estimates and photography. The company also takes care of the sales process, promotion and digital marketing for the sale of real estate.



www.immoiq.be/























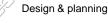














BIM and Digital Twin





Neanex wants to make the built environment more sustainable through data driven asset insights. Their cloudbased Digital Asset Register works as a single source of truth. They combine, enrich and handover information from different sources, throughout the complete asset life cycle, to give owners insights and control over their assets. Information is consistent, approachable, and re-usable. They aim to connect the worlds of requirements, design, BIM, construction and operations to be Smart Building Ready from day one.



www.neanex.com









Belgium



Construction



Rental and sales platforms





smartyard is a platform on which building material and machines can be rented or put up for rent. The Company's platform connects the borrowers and lenders with each other and supports the process along the



www.yoursmartyard.com/





Belgium

Property and facilities management

Collaboration software





OpenMotics is an Open Source software & hardware platform that automates a house, building or neighborhood. The platform offers the possibility to link up all the various technologies for automation and optimization. They create one central platform for monitoring, consultation and management of all technologies.



www.openmotics.com













Belgium



Property and facilities management



Tenant services (e.g. wellbeing solutions)





Tapazz builds software and hardware that increases the sustainability and profitability of your properties while making tenants happier through better service. Our hardware and software integrations enable your tenants to book, use and pay for your building's services in an automated way.

With Tapazz, sharing appliances, spaces and personal transport has never been easier. This ensures more efficient use. less CO2 emission, more space for greenery and a higher financial balance.



www.tapazz.com





























Belgium

Property and facilities management



Smart buildings





Trigrr is a software platform that orchestrates the different systems of a building (lightning, heating, security, access, audio) and make them play together for the benefit of the tenants, owner, developer or facility manager. The ESVT technology permits to talk, communicate and interconnect with the different building systems independently of any hardware, connectivity or communication protocols.

https://trigrr.io/nl/home-2/















Transactions and leasing



Co-working spaces





Workero offers a tech-focused environment that maps out the latest start-ups and technologies, creating interactions between flex-desk workers and facilitating new business opportunities. Idle workspaces can be transformed into places where companies and workers can connect and share knowledge.



www.workero.com/en

## **⊗hizzle**













Transactions and leasing



Rental and sales platforms





Hizzle built a platform where home seekers and home sellers can communicate in a transparent and trustworthy way. Both parties are supported within the platform, which speeds up the process and the deals can be signed online.

www.thehizzle.com/















Transactions and leasing



Rental and sales platforms





M.Residence is a Cyprus-based real estate agency offering buying, renting, selling, letting, innovative marketing and in-house property valuations. Its mobile application alerts the users in real time about the nearby properties, matching with their criteria and connects them with an uber like agent.



www.mresidence.com























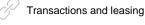


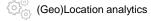






Cyprus









MResidence Now developed an ondemand app that uses geolocation technology to alert users in real time on nearby properties, which match with customized criteria. The app instantly connects users with an uber like agent, allowing to book viewings and make offers.

https://mresidencenow.com/













Transactions and leasing

Tech-enabled brokers (e.g. mortgage search and comparison)





Qobrix was built to assist property developers and agents capture more opportunities for growth and profitability by focusing on customer acquisition and service. With a robust, multifeatured CRM System and truly innovative portals, the company provides the platform for increasing operational efficiencies and maximizing customer exposure through a variety of digital channels.



#### **SPACENT**











Property and facilities management



Co-working spaces





Spacent App allows you to search, find and book desks and meeting rooms all around the city, with only one membership fee. In addition, an existing company headquarters can be added as a workplace location for the company's employees to book.

https://www.spacent.com/

























Venuu makes it easy to find a perfect space for parties, weddings, seminars, meetings, and other events. To venue owners the platform provides a costeffective sales and marketing channel to find customers.

https://venuu.fi/en































Property and facilities management



Property information platforms





Bazimo reinvents the traditional asset



www.bazimo.fr/







Construction

Safety & security





CAD.42 solution functions like a software-based platform for Production Operations Management. CAD.42 Production Execution System (PES) offers a service to manage people, processes and resources of production operations at a plant. CAD.42 PES product offering is a global solution to manage production, safety, quality, maintenance and labour tracking processes across all locations.



www.cad42.com/

#### **Checkmyguest**



21-50



France



Investing and financing



Tech-enabled brokers (e.g. mortgage search and comparison)





Checkmyguest is a company specialized in turning commercial premises into short term rentals. Checkmyguest enables real estate owners to maximize profitability for short term rentals with an optimized listing of these properties on platforms like Airbnb, Booking.com, Expedia, Abritel or HomeAway. It is a complete solution integrating all the skills required to manage property rentals, from feasibility study to running operation.



## habx















Design & planning



Virtual viewing







place of life according to their displacements, his work, his hobbies. Price offers clients to configure their home, from the interior design to the exhibition or places shared with neighbors, measures the related financial impact. Optimize allows the production of plans considering inhabitants' desires.

HABX offers a crowd building solution

that relies on three digital tools: localize,

price and optimize. Localize is an

recommendation, offering clients a

algorithm of geographical



www.habx.fr/































Construction



Rental and sales platforms





Hemea assists and advises individuals who want to renovate their apartment or house by offering services from reliable companies and in doing so simplify and offer secure relationships. The startup is positioned as a trusted third party to rebalance the relationship between the individual and professionals. It certifies its companies by checking their solvency and their insurance, and questions their previous customers before their integration.



www.hemea.com/









France



Property and facilities management



Smart cities and infrastructure





Operator of the smart city and smart building, Idealys offers a service app for residents, employees, businesses and property managers. Idealys services revolve around the creation of social cohesion, incidents statement, energy, access control, home automation, mobility, intelligent parking and the relationship with building stakeholders.



www.idealys.fr/









France



Property and facilities management

Tenant services (e.g. wellbeing solutions)





Hostnfly provides Airbnb rental management. The owner can choose the dates, receive an income proposal and the website takes care of the logistics related to seasonal hiring. Other services as cleaning, reception and maintenance is taken care of.

www.hostnfly.com/















Property and facilities management







Immodvisor assists real estate professionals in the management of their e-reputation. The company offers a community platform to provide controlled customer opinions on real estate and housing professionals as well as advice, testimonials and tips. The company aims on creating transparency in the real estate sector and has integrated Block technology to authenticate the reviews.

www.immodvisor.com/

































Property and facilities management







Mobypark's system opens up unoccupied spots for travelers to rent through its online reservation platform, generating additional revenue for the building owners and solving parking problems in city centers. Additionally, Mobypark offers parking technology, that provides a solution for parking issues by registering all users, providing real-time availability of parking spots, and allowing different automated means of access.



www.mobypark.com

MyNotary is a collaborative platform for

real estate professionals (notaries.

developers, real estate agents, social



11-20



France



Property and facilities management

Tenant services (e.g. wellbeing solutions)





MonBuilding is an app for improving communications and creating one entry point for all services available to tenants. It allows managers to gather their services, communicate easily with their tenants and providers, and allows customization based on the customers needs.

https://witco.io/en/











Transactions and leasing



Collaboration software

- commercialization of its programs, until Cenerate and electronically sign a reservation.
- his notary and merkecen
- Offer to its customers is a dedicated space to understand the ocurse and set up its financial. M SON STORE
- Collaborates effectively with all the professionals of the file (notary, syndic, banker, broker L)

The real estate agent O Centralize and share quickly all the parts and

information of the file

contracts, on alte or remotely

France

housing owners, real estate agents) that allows them to digitize the transaction path and save time while increasing customer satisfaction.

















Tenant services (e.g. wellbeing solutions)





Smille allows people to efficiently share resources (events, skills, services, equipment, recommendations, antiwaste) through local & collaborative neighborhood networks.

Inclusive and already used by half a million users, you can access to Smille from a wide range of devices: iPhone/android, desktop, tablet and tv.

Great impact for the planet, good on the wallet, and an urgent necessity for our society.

In term of business models. Smille is a "all in one" platform and already available for cities, enterprises and professionals from the housing & building industries.

www.smiile.com/



















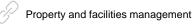












Tenant services (e.g. wellbeing solutions)





Syment is a digital hub for residential property managers to connect stakeholders. Syment aggregates real estate data to help residential property managers to manage their portfolio. Moreover, by involving users they create the opportunity to communicate with all real estate departments, which in turn increases the ability to rent.



www.syment.com

# take a desk











Transactions and leasing

Co-working spaces





Take a desk rethinks and revives vacant spaces while creating an accessible, consistent and comprehensive hosting offering for talented young businesses. It offers innovative co-working and office spaces or desks across France.



www.takeadesk.com/

#### I∎ unlatch











Transactions and leasing



Rental and sales platforms





Unlatch takes care of time-consuming tasks revolving around the sale of new build properties. It offers simple, userfriendly design suitable for all devices. Their property software digitize your transactions. Services and options include CRM, digitized contract and documentation (e-signature and eIDAS electronic registered delivery, automation of processes (alerts and reminders) and customer portal. The stakeholders - developer, buyer, solicitor -benefit from a collaborative tool that streamlines and simplifies the entire process.



www.getunlatch.com















Construction

Rental and sales platforms





WeMaintain is a platform that connects technicians and customers. The customer gets responsiveness and quality of service thanks to a dedicated technician, empowered and motivated financially. Digital brings the necessary transparency on operations and visibility on prices.



www.wemaintain.com/





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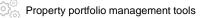


51-100



Germany









BuildingMinds supports institutional and corporate real estate businesses on their journey towards a profitable, lowcarbon future. The ESG platform with a plus makes sustainability truly actionable with consumption and emission analytics, automated reporting, carbon risk calculation and retrofit scenario analytics.



www.buildingminds.com

















Transactions and leasing

Real estate investment platforms (e.g. crowdfunding)





www.bidx1.com/

BidX1 is a digital property company, transactions digitally.











Germany



Property and facilities management



Property portfolio management tools





casavi offers a cloud-based service and communication platform for property management companies. By connecting these companies with property owners, tenants and relevant service providers as well as automating routine tasks, casavi acts as a central hub for all key stakeholders. The company aims at increasing costeffective business processes and increasing customer satisfaction.



www.casavi.de/











Lithuania



Construction



Collaboration software



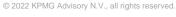


VSight is an industrial augmented reality software platform that helps enterprises transform workforce into intelligent workforce and increase productivity by integrating wearable and mobile software into the enterprise workflow. Through smart glasses they offer the expertise of others remotely. hands free and real-time. This enables construction workers to leverage on the knowledge of (external) colleagues.



https://www.vsight.io/

































Transactions and leasing



Co-living spaces





Vauban&Fort offers a room and a membership to a trusted, highly vetted community, for tenants, making sure that they live with fun, social and respectful flat mates. For owners, it focuses on a 'total care package' at no additional cost. All aspects of property management are taken care of, including higher flexibility and transparency as well as the index. It also takes care of the neighbors and guarantee the rent for years (5years+).











Luxemboura



Construction

Transaction administration





Ziggu helps property developers better manage, understand and engage with their own customers - homebuyers - by offering an online customer portal to manage the complete customer journey, from signing the initial contract, following up construction, up until final delivery. This results both in efficiency gains for the property developer and increased satisfaction rates for homebuyers.



https://ziggu.io

#### ∧ Fibre









Nigeria



Transactions and leasing



Rental and sales platforms



Fibre is building a convenient way for consumers to get a home. Whether clients are starting a career, starting a family, or buying their first home Fibre offers services to find housing options, offer flexible payment plans and lease terms. Next to this they have optimized the process of finding tenants for landlords, guarantee payments and verify tenant backgrounds.



www.fibre.ng/















Transactions and leasing



Agent matching





Reado utilizes digital technologies, Big Data, financial innovation and new business models to provide simple home selling and home buying solutions that specifically address a client's selling or buying needs. Innovation solutions are Reado Expert sell for the highest price with the bestrated agent, Reado Easy - sell within 48 hours to pre-approved cash buyers and Reado Switch - one of the first Home Trade-in solutions enabling clients to sell and buy at once.



www.reado.sk



















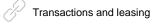


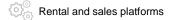










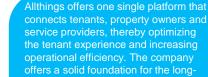






HouseME is an online platform that aims to take the hassle, cost, and risks out of managing long-term residential rentals. Located in South Africa, HouseME provides a rental process by connecting landlords and tenants alike in a free and less stressful way.

https://studystays.deakin.edu.au/



process landscapes.

term digitization strategy of operational

( Allthings













Property and facilities management

Tenant services (e.g. wellbeing solutions)





www.allthings.me/















Property and facilities management



Tenant services (e.g. wellbeing solutions)





Quota operates in real estate rental market. For each tenant-landlord pair it creates QuotaScore, to establish a trustable relationship and maintain rental contract. Landlords and real estate agents use the tools to find their ideal tenant and sign the contract. It is creating a digital platform to offer a rental deposit replacement microinsurance solution, aimed at leveraging tenant and landlord data to optimize the relationship between the parties and increase transparency.



quotarent.com



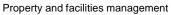














Co-living spaces





Area of People turns residential buildings into micro-villages. By using their proven community service platform, fueled by the power of selforganization among residents, they offer real estate professionals a new and sustainable operational model.

www.areaofpeople.com























Property and facilities management

Property portfolio management tools

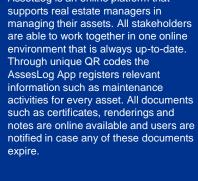




AssetLog is an online platform that



www.assetlog.nl/





Blockbax provides business experts with low code capabilities for transforming IoT data into a long lasting competitive edge.

www.blockbax.com









Netherlands



Property and facilities management



Property portfolio management tools





Chainels is an all-in-one digital solution which enables owners and operators to connect with occupiers, create a transparent dialogue, and both inform and receive feedback on diverse topics organized into workflows. Accessed with a single portal, Chainels connects internal and external departments as well as stakeholders such as security and local public officials. From Europe to Latin America, international stakeholders have chosen Chainels to transform their mixed-use destinations, shopping centers, office buildings into collaborative communities.



www.chainels.com

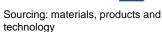












Property portfolio management tools





Facilitee connects all stakeholders related to technical property management via their software. This results in transparency, relevant insights, control and cost reduction for owners and management companies while increasing tenant satisfaction.

https://www.facilitee.com/

































Property and facilities management



Energy efficiency





hello energy is a SaaS solution that enables real estate owners to engage tenants and stakeholders to connect and create energy positive buildings. Collecting, validating, and enriching sustainability data from all kind of sources to create insights, stories, and challenges to trigger behavioral change.

hello energy can earn buyers up to 10 points on GRESB, 2 credits on BREEAM, create investor value, critical credits on WELL, help comply with legislation and make positive environmental impact.



www.hello-energy.com















Transactions and leasing



Offsite construction (e.g. prefabricated components)





Housing Anywhere is a European booking platform for student accommodation. Working closely together with over 120 universities worldwide, Housing Anywhere helps their students to easily find and securely book accommodation abroad and connects students with trusted landlords on its platform. , Housing Anywhere offers students, private landlords and commercial housing operator a platform to advertise their rooms to -- and get them booked by -- a global audience of over 3 million students annually.



www.housinganywhere.com















Transactions and leasing



Rental and sales platforms





OSRE aims to increase efficiency and profitability and to make the real estate transaction smarter everyday. By offering their clients direct results, data and insights they aim to shape the future of real estate transactions. With the OSRE Platform and Market Suite they accelerate go to market and time to deal for clients' real estate while aiming to provide candidates with a flawless user experience.



www.osre.com















Property and facilities management



Mobility





ParkBee an European tech platform for parking, making underutilized off-street parking locations digital accessible to consumers. Our solution provides consumers with a wide and dense network of off-street parking spaces. whilst helping cities to make better use of under-utilized space and offering property owners with an extra income using our smart and innovative platform.



www.parkbee.com

















Storage Share is an online marketplace

storage. Renting out vacant offices as a

which makes vacant real estate

available as a cheap form of self-

temporary self-storage solution and

transforming industrial buildings into long-term cheap self-storage spaces.















Transactions and leasing

Tenant services (e.g. wellbeing solutions)





SKEPP serves 3 products: Officelisting, Officeplanner, and Officekit. Officelisting brings supply and demand for office space together, while Officeplanner serves as a one-stopshop for your interior design. Additionally, Officekit offers various hospitality-facilities and tech-solutions for property owners.



www.skepp.com







Netherlands



Design & planning



Collaboration software





Transformcity is an online platform for collaborative urban development, aimed at growing a sustainable and inclusive local community of co-owners. This platform brings together stakeholders and the local government to directly share and discuss data, plans, ideas and resources and collaborate on local projects. Furthermore, Transformcity helps to build a local community and empower it to structurally self-organize through crowdfund capital. Transformcity is currently being implemented in two of Amsterdam's largest transformation areas.



www.transformcity.com













Transactions and leasing



Rental and sales platforms



www.storage-share.nl













Property and facilities management



Robotics & automation





Our mission is to 'Excite your guests and transform your organization by creating new experiences with social robots that continue to grow and learn...'.



welbo.eu





























Netherlands



Property and facilities management



Property portfolio management tools

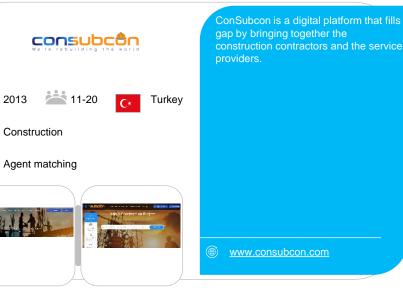


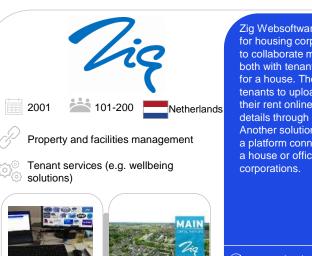


Ziezodan is a service provider and digital partner in the real estate & maintenance domain. They bring tenants, property managers and maintenance companies together on a user-friendly platform. Ziezodan increases the insight into (and the efficiency of) non-planned repair maintenance. They simplify the process and communication regarding reporting, planning and repair on an automated platform.



www.ziezodan.nl





Zig Websoftware offers a digital solution for housing corporations, allowing them to collaborate more efficiently online, both with tenants and people searching for a house. The online platform allows tenants to upload repair requests, pay their rent online or change personal details through one central system. Another solution the company offers is a platform connecting people looking for a house or office with housing



www.zig.nl

#### Freepark™

Smart Parking Solutions







Turkey

Property and facilities management



🤼 Mobility



Freepark is a hardware and software solution that creates reservable parking spaces. OKB Technology company producing smart parking barriers that allows remote authorization by smartphones, web panel or Bluetooth. Freepark Smart Parking Lock enables you to authorize anyone you want to park in your reserved parking spot by using a smartphone or a web panel, it can be integrated by using Rest API and can work together with your firm's existing software and management system.



www.freepark.co/en/home/





























Turkey

Property and facilities management

Tenant services (e.g. wellbeing solutions)





Kiraplus offers tenant scoring solutions to landlords, realtors and property managers so they can instantly identify whether tenants are financially responsible and reliable.



























www.inventally.com

tenant. Reports are conducted in Arabic for binding legal protection in cases of tenancy disputes in the UAE.









Turkey



Property and facilities management



Agent matching





Mutlubiev is a marketplace for online cleaning services. With technology and precise processes, they want to provide house cleaning services, at any time through trusted professionals Currently Mutlubiev operates in 4 different cities and 2 different countries.



www.mutlubiev.com/en















Transactions and leasing

Real estate investment platforms (e.g. crowdfunding)





Property Monitor is UAE's real estate data platform offered by RICS accredited property professionals. Their data and intelligence service is aimed at increasing transparency in the UAE marketplace - Dubai and Abu Dhabi. Agencies, developers, consultancies and banks can access real-time data and expert intelligence in order to make more informed decisions, based on actual transactions, values and trends.



www.propertymonitor.ae























2020

5-10



Collaboration software

Construction





Yovza is an affordable multi-sided subscription based organized construction marketplace bringing all the key project stakeholders under a single platform helping them manage their day to day work flow saving up to 70% of their time and cost.









101-200 United Kingdom



Transactions and leasing

Rental and sales platforms





Appear Here has developed a website for booking international short-term commercial spaces to be used for a broad diversity of business activities like promotional sales, testing new products, roadshows and many more. For landlords it forms an opportunity to rent out commercial space per week, month or quarter and increase average renting prices.

www.appearhere.co.uk/

#### **ARTHUR**



21-50



Kingdom



Property and facilities management



Property portfolio management tools





Arthur Online is a cloud-based property management solution supported by a suite of dedicated apps. It gives property managers control over their portfolios from anywhere; by bringing agents, tenants, owners and contractors together on one platform. Arthur Online gives users access to online property management tools in one integrated bundle. Through automation and systemization, Arthur Online saves time for its clients daily.









Investing and financing







Real estate investment platforms (e.g. crowdfunding)





BV Debt is a global real estate solution platform for investors and deal sponsors. With Brickvest, investors can access real estate investment & debt financing opportunities in global markets from 850+ institutional quality sponsors around the globe and build their own Real Estate portfolio.

www.brickvest.com





185

























United Kinadom

Property and facilities management

Tenant services (e.g. wellbeing solutions)







(#) www.built-id.com

Built-ID reduces the barriers to community engagement with visually engaging consultation tools, enabling the community to feel a sense of ownership and positive investment in a development scheme. They educate and guide local residents via clear timelines and digestible fact and give the community the opportunity to vote. with their input having an actionable impact on the decision-making process.





United Kingdom



Transactions and leasing

Rental and sales platforms





As a multi-sided marketplace, Canopy aims to address aligning incentives across the rental value chain through its core solution, RentPassportTM. This is an online passport to improve credit, which will lay the foundations to a data driven platform aimed at helping millions of tenants achieve their financial goals.



www.canopy.rent

#### classic folios

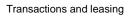














Collaboration software



Classic folios developed Spaciable, an online property platform that provides users with access to all relevant information needed to utilize a property. whether that be for purchase, sale, or rental, by combining plot-specific data with supporting features. Spaciable also provides services for users like property professionals and residents by connecting them with agents and developers.









Investing and financing









Real estate investment platforms (e.g. crowdfunding)





CrowdProperty is a profitable fintech/proptech lending innovator, matching the demand (quality property professionals undertaking quality property projects) and supply (major global financial institutions and private investors) of capital for value-creating property projects. CrowdProperty has built SME property development lender in the market with a 'property finance by property people' proposition, unlocking the potential of small and medium sized developers to build more homes and drive spend in the UK economy.



www.crowdproperty.com























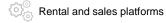






United Kingdom







technology startup solving an affordability problem for tenants. Flatfair maintains an innovative payment technology, in which landlords can offer tenants the option to pay an affordable membership fee instead of an expensive deposit and then charge them directly for any lawful claims at the end of their tenancy. After partnering with some of the largest property firms, Flatfair has become a fast-growing deposit alternative.



Flatfair is a London-based payment











United Kingdom



Transactions and leasing

Co-working spaces





HubbleHQ operates a website that lists available office space from co-working centers, serviced office providers and companies with spare space. They also provide payment and administrative services to the providers.



www.hubblehq.com/







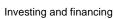


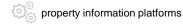
















Infabode aims to reduce the amount of time people spent trying to access key information from the real estate industry. They work with a network of content partners to provide a one-stop shop for real estate industry research and insights. Infabode provides a platform that enables their users to analyze global industry sectors, while also increasing the reach of their content providers' information to a highly targeted audience.



www.infabode.com















Investing and financing

Real estate investment platforms (e.g. crowdfunding)





IPSX operates a stock exchange dedicated to trading stakes in companies which own single commercial property assets. The company operates two markets. IPSX Prime admits to trading issuers owning underlying single commercial real estate assets or multiple assets which are, or proposed to be, securitized and traded on the Exchange. IPSX Wholesale is for professional investors and designed to provide real estate owners with a UK market capable of accepting different corporate structures.



www.ipsx.com/

















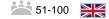




#### **JustPark**









United Kingdom



Property and facilities management







JustPark operates an online and mobile booking service through which drivers are able to book to park in empty private parking spaces.



www.justpark.com/















Investing and financing

Real estate investment platforms (e.g. crowdfunding)





Native Finance is a digital brokerage for Real Estate finance operating across the capital stack. Native finance supports clients to structure, and negotiate funding for acquisition and development. The business provides clients access to an extensive network spanning 300+ institutional funders. rigorous analysis based on proprietary data and processes, and an execution team with extensive experience.



www.nativefinance.co.uk

# **LOCALE°**







United Kingdom



Property and facilities management



Property portfolio management tools





Locale provides technology that connects buildings, and creates healthier and more efficient places to live & work. Locale's property management software facilitates successful building management by instant communication and visibility over everything, from facilities booking and building maintenance, to deliveries and signing in visitors. It also helps occupiers stay in the loop with their local community through lifestyle services, wellbeing incentives, sustainability workshops and offers & promotions that support local businesses.



www.locale.co.uk











United Kingdom



Transactions and leasing

Rental and sales platforms





Nested operates an online estate agency that specializes in minimizing the exchange time and the number of offers falling through. The company aims to give home sellers the freedom to move on their own timeline, support from trusted agents and technology that makes the industry transparent.



www.nested.com/

















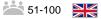














United Kingdom

Transactions and leasing

Tech-enabled brokers (e.g. mortgage search and comparison)





OneDome is a technology company that aims to change the way people search for and buy and sell their homes, by making the process straightforward, streamlined and transparent. OneDome is changing the process offering to an end to end digital property transactional platform. OneDome's technology enables customers to search for properties, connect and communicate with property professionals, and transact on a secure digital platform.

www.onedome.com











Kingdom



Transactions and leasing



Rental and sales platforms





StreetDots develops an app that allows street-food traders to book trading locations with landowners who are also signed up to the app. Currently, there are over 2,700 vetted traders active on the platform and there is a strong focus on tenant experience.

www.streetdots.co.uk/













Transactions and leasing

Tech-enabled brokers (e.g. mortgage search and comparison)





Purplebricks is a estate agent and offers customer a fairer, more transparent and convenient way to buy. sell, or let. They combine the personal touch of local property experts with cutting edge technology and a central support team that puts customers in control of their sale.



www.purplebricks.co.uk/







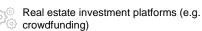


Investing and financing













StrideUp operates an online platform through which prospective homeowners can reduce the initial cost of buying a property by sharing it with selected investors. With StrideUp, customers buy the portion of the home they can afford today and when they are ready, they can buy the rest.



www.strideup.co/





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Platforms to connect



























2015 101-200 United Kingdom

Transactions and leasing



Rental and sales platforms





The Plum Guide develops a website that allows users to book holiday homes, from a selection of homes tested and approved by the company's in-house hospitality experts. Founded in 2015, the company primarily offers UKbased holiday homes, at the moment.

www.plumguide.com/









United Kingdom

Transactions and leasing

Rental and sales platforms





VenueScanner creates a simple and smart self-service for hosts and organizers. Event organizers search their venues ranging from churches and warehouses to hotels and meeting centers. Customers then enquire and book online. Venue hosts use the software to market their space to event organizers and to manage enquiries.

www.venuescanner.com

# VESTA







United Kingdom



Transactions and leasing

Tech-enabled brokers (e.g. mortgage search and comparison)





Vesta is an online marketplace for buying and selling investment property. They support sellers (individuals, developers, landlords, institutions etc) to sell properties with tenants in place to an investor audience who value income. Properties can be anything from individual units (homes, apartments) as well as blocks (broken or unbroken), House of Multiple Occupancy ("HMOs"), portfolios, purpose built student accommodation ("PBSA"), rental retirement homes and off-plan properties with a rent



www.vestaproperty.com





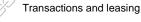












Tech-enabled brokers (e.g. mortgage search and comparison)





ActivePipe is a nurturing and conversion platform built for the Real Estate and Mortgage Broker industries. ActivePipe combines marketing automation and predictive algorithms so agents and brokers know who to call, when to call and why.

www.activepipe.com

























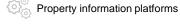






Australia

Design & planning







Archistar.ai is a world-first property technology platform for property developers, architects, home builders and real estate agents. The platform brings together property data, planning rules and regulations, and a generative design engine powered by Artificial Intelligence. As a result, property professionals can complete timeconsuming property research, feasibility assessment and building design work within minutes, and understand what they can and should build.

(#) www.archistar.ai















**Building automation** 





Cognian Technologies' Syncromesh is a wireless canopy that enables building owners to quickly and cost-effectively add a range of building management solutions that improve the comfort of its occupancy, lowers a building's carbon footprint and reduce energy costs regardless of the buildings size, location or age.



www.cognian.com

#### **Bricks+Agent**







Australia

Property and facilities management

Property information platforms





Bricks + Agent offers a platform that assists property and facility managers in dealing with maintenance, inspections, smart digital locks, bots and automation. The platform connects stakeholders for maintenance and inspections to the same ecosystem to ensure tasks are handled with the principles of mobility, transparency and visibility. Users can include the property or facility manager, the contractor, as well as the owner and tenants if applicable.

www.bricksandagent.com

#### **EQUIEM**











Property and facilities management

Tenant services (e.g. wellbeing solutions)





Pioneers of tenant experience technology with 10+ years experience, Equiem is the most widely adopted platform in commercial real estate with 175.000+ users across 9.000+ companies and 5 countries.

www.getequiem.com







instarent

11-20

Transactions and leasing

Rental and sales platforms





Australia



















Australia Australia



Property and facilities management



Property portfolio management tools





FMClarity is a software provider built by Australian facilities and property management professionals that were fed up with the antiquated, clunky legacy systems. FMClarity simplifies FM and asset lifecycle workflows, streamlines organizational processes and delivers powerful insights with efficiency and transparency. The platform harnesses industry principles which become a single source of truth for transparency and engagement across all stakeholders.



www.fmclarity.com





Instarent has developed a technology solution for end to end self-managing properties by offering tools for landlords and tenants. The online/mobile platform captures, manages and facilitates the entire rental management ecosystem by offering access to tenants, landlords and tradesmen.



www.instarent.com.au













Australia



Property and facilities management







Liftango powers on-demand shared transport systems across the world. By guiding global organisations on how to plan, launch and scale their share mobility programs, Liftango reduces the spend on unnecessary parking infrastructure and help provide a path to a sustainable and climate-positive



www.liftango.com















Smart buildings







Local Measure is a platform for the hospitality, tourism, retail and entertainment industries. The software platform allows businesses to receive real-time customer intelligence whenever customers are on-premise, helping them to identify, understand and retain customers.



www.localmeasure.com



















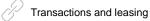


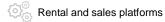






Australia









Openn Negotiation is a sales process and digital platform that combines the ease of private treaty, the transparency of auction and leading technology to ensure sales outcome for sellers and buyers, facilitated by the Agent.















Property and facilities management



Smart cities and infrastructure





PAM is providing smarter navigation for iconic venues and precincts around the globe. Their software uses real-time centralized smart navigation to transform large venues into smart precincts that become more pleasurable, productive and profitable. PAM is a cloud based platform that scales to suit the needs of any complex environment and can be accessed on any device at any time through a secure network.



#### SafetyCulture





201-500 Australia





Construction



Safety & security





SafetyCulture is a global technology company which supports businesses to do their work every day. Its adaptive, mobile-first platform helps to enhance operations and foster high performing, safer workplaces. Its flagship products, iAuditor, and EdApp enable frontline teams to perform checks, train staff, report issues, capture data and communicate fluidly. Their products integrate seamlessly to help organizations build immunity to risk.



www.safetyculture.com















Transactions and leasing



Property information platforms





Select Residential Property delivers research applications and insights focused of the prediction of future capital growth on the back of their proprietary technologies measuring the demand and supply. Offering direct consumer application and business application solutions, the company is focused on product solutions for multiple markets and targeted channels down to suburb level insights by house or unit markets.



www.selectresidentialproperty.co m.au





























Australia



Property and facilities management



Property information platforms





Sorted Services is a platform to source and manage household services. The company simplifies property management and provides ongoing analysis of rent, electricity, broadband and more in a central application. This allows for optimization of spending and have all data smart, simple and sorted.

www.sortedservices.com















Construction



Technical planning





TCPinpoint is a cloud based collaboration and management tool for the property industry. TCPinpoint simplifies the process and reduces costs for the property industry through collaboration and connection. The platform creates access to project documents and tasks to support projects and the delivery in retail and commercial property industry.



www.tcpinpoint.com













Property and facilities management



Mobility





Spacer is a web and phone based app connecting consumers to thousands of available storage and parking options across Australia and USA. As an open marketplace, the platform enables property managers and real estate owners to list unutilized storage and carparks for free, and generate incremental revenue from otherwise idle or latent assets.



www.spacer.com.au













Hustralia Australia



Property and facilities management



Mobility





The UbiPark app, launched in 2014, allows motorists to search, navigate, access & pay for parking powered by their smartphone. Combining on-street & off-street parking data, UbiPark has improved parking experience, creating a complete windows-up solution.



www.ubipark.com



























Australia



Property and facilities management



Property portfolio management tools





Yabonza keeps tenants connected to their home with transparency and communication, using their technology platform, while allowing owners to maximize the value on their asset through income, property optimization and opportunities to capitalize on the market.



www.yabonza.com













Transactions and leasing



Rental and sales platforms





GharFinder is an online real estate platform that has registered builders and agents and assists in buying, selling, renting and leasing of properties. It has presence across various Indian cities including Mumbai, Pune, Amravati, Hyderabad, Bangalore, Akola, and others.



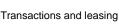
www.gharfinder.com



21-50



India



Rental and sales platforms



GetSetHome operates an online platform for managed and shared rental solutions. It provides rental and shared accommodation on rent with no brokerage solutions, mainly to bachelors. It also offers virtual tours of the property.



www.getsethome.com



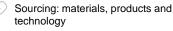












Rental and sales platforms



Hella Infra Market operates a businessto-business online procurement marketplace for construction materials. It leverages technology for changing the way how construction and real estate companies procure materials and addresses concerns regarding pricing transparency, unreliable quality, fragmented vendor base and inefficient logistics. It offers ready mix concrete, fly ash, construction chemicals, aggregate, and cement. The company owns and operates Infra.Market, an online platform to provide building services directly to the customers.



www.infra.market

























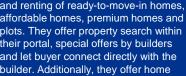
Transactions and leasing

Rental and sales platforms



HousingMan is an Al-based real estate platform that assist in buying, selling and renting of ready-to-move-in homes, affordable homes, premium homes and plots. They offer property search within their portal, special offers by builders and let buyer connect directly with the builder. Additionally, they offer home loan assistance, legal and documentation assistance.

www.housingman.com/realestate-in-bangalore















Transactions and leasing

Rental and sales platforms



Magicbricks is an Indian real estate portal for property buyers and sellers to locate properties of interest in India, and source information about all property related issues. It also has PropIndex tool which enables the buyers and investors with detailed data on the shift in prices of residential apartment and supply of properties in India+AE14.



www.magicbricks.com



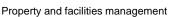












Tenant services (e.g. wellbeing solutions)





OYO is a hospitality company which supports the enabling of standardization of services, amenities and in-room experience. Through the use of its proprietary apps for the inventory management, room-service, revenue management and customer relationship



www.oyorooms.com/















Real estate investment platforms (e.g. crowdfunding)





Property Share is an online marketplace that allows users to directly own completed real estate with other like-minded owners. It provides to own a specific fraction of a property while earning returns similar to purchasing the entire property through a simple process to view curated property offerings and providing customers the option to buy and sell fractions.



www.propertyshare.in/





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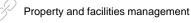


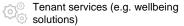














SimplyGuest is a technology-based platform that offers solution to the customers such as students, working professionals and couples with longterm and short-term fully-furnished accommodation. It takes care for all the needs of the tenants such as maid service to paying bills of the LPG, Wi-Fi and others. Additionally it offers ondemand services such as meal delivery, bicycles on rent and others.



www.simplyguest.com



Property and facilities management

Agent matching



COSOJI is a service that matches real estate management with local workers and builders and provides tools to improve the efficiency of real estate management. You can save on transportation and other expenses by requesting them directly, and all the procedures from the request to payment can be done online. In addition, requests for cleaning and the contents of reports can be checked anytime and anywhere.



www.cosoji.jp/crew/



Akippa is a parking sharing service born from the troubles of everyday life. Customers can make a reservation online and park in a vacant space such as a monthly parking lot or a private home garage, vacant lot, or commercial facility where no contract is made, and anyone can easily share the parking lot.



www.akippa.com/





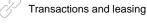








Japan



Property information platforms



Estie develops and provides commercial office information platform. Tenants can find office spaces by offers from agents, that are assisted by space recommend AI algorithm. For landlords, asset managers and brokers, they can gain access to exhaustive market data collected from numerous sources supported by rent estimation calculated via ML technology to scale their business.



www.estie.co.jp/

















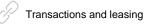


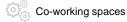






Japan









Nokisaki helps small merchants find physical spaces for pop up shops. vegetable stands and food trucks. Nokisaki connects these small merchants, who need just a little bit of space, with commercial landlords who have a little bit of free space and are looking for some additional foot traffic.

https://www.nokisaki.com/









Japan



Transactions and leasing



Rental and sales platforms





Tokumin is a new building management service developed with an emphasis on easy use by anyone. This application is a DX (digital transformation) version of condominium management, and you can easily contact and go through procedures with the condominium management company through the application.



www.rearx-find.co.jp

## **Zweispace**



11-20



Japan



Design & planning



Property information platforms





Zweispace has launched various solutions like the AutoCalc, an Al Architect for residential property developer that calculates the building plan revenue of a plot of land. Namazu is a big-data based AI Earthquake PML Measurer for property investors and home owners and an Integrated blockchain-based app utility token platform with various financial instruments for property stakeholders.

https://en.zweispace.co.jp/

#### CONQA













Collaboration software





Conga aims to simplify the process of quality assurance (QA) for construction contractors. They connect the site worker to an engaging QA process, and the entire project team to its live outputs. In doing so, the process can be streamlined as well as made more engaging for both parties involved.



www.congahq.com



























101-200 Singapore





Transactions and leasing



Rental and sales platforms

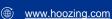




Hoozing App is an online real estate buying & selling application helps customers easily search, buy and sell real estate. Hoozing Agent App connects and trades with over 10,000 market agents. It aims to build transparent real estate market and promote easy and fast transactions by investing in technology that consolidates, verifies market information. For sellers/landlords. it advises the best price with low brokerage fees, and for buyers/tenants, it provides free-of- cost services.







## **OHUBBLE**



Construction



Singapore

Hubble accelerates the construction industry towards an autonomous selfbuilding future by digitizing, optimizing, and automating work processes across the entire building lifecycle and unifying all project stakeholders on a single integrated platform for better collaboration and data sharing.



Collaboration software





www.hubble.build

## LEAN STATION







Singapore



Construction



Technical planning





Lean Station is working towards improving the performance of construction projects through streamlining processes and in expanding capabilities of people. They approach these areas with the Integrated Lean Project Delivery (ILPD) a Lean + Digital approach for ensuring the transformation is sustainable and can be scalable across the organisation. The proprietary product suite of Lean PlanDo enables time and cost efficiencies in these capital



https://leanstation.com/











Singapore



Transactions and leasing



Rental and sales platforms





MOGUL.sg is a Property Portal that provides a smart way to search houses, using 3D Maps and keywords that fit specifics lifestyles: be it the MRT or a 24-hour Supermarket Nearby, or even units in high floors. The portal is based on an Al-backed algorithm which enables estate agents to sell properties more efficiently.



mogul.sq





















## **ôhmyhome**









Transactions and leasing



Rental and sales platforms





Ohmyhome's mission is to make housing transactions simple, fast and affordable. By constantly advancing their technology, they aim to revolutionize property transactions through simplifying and improving the user experience of clients. Home transactions are now affordable as clients can choose either DIY for free or choose to pay for only the services they need. Ohmyhome's has created a One-Stop Solution for all housing needs: DIY, Agents, Mortgage, Legal and 24/7 Platform.















Singapore



Design & planning



Property portfolio management tools





Really provides property management software that combines project management, E-tendering and a just and fair open marketplace solution. The integrated tool bridges the gap between real estate project management approaches and new technological innovation by support real estate



www.really.sg













Property and facilities management



Property portfolio management tools





Qornerstone offers a cloud-based platform for property management. The platform integrates various proptech modules like digital payments, cloudhosted databases, mobile apps, financial accounting and ERP software to comprehensively meet the needs of building owners, property managers and individual tenants and/or residents.



www.gornerstone.com













Singapore



Transactions and leasing



Rental and sales platforms





Rever provides real estate brokerage services. Comparison tools are provided based on market data analysis system, inventory tracking, interactive marketing technology, online transaction management to bring value to sellers and buyers. Moreover, Rever also provides consultants with CRM system and database to become one point of contact for all home demands.



www.rever.vn







i PARKING

>501

Property and facilities management









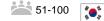
















South





Property portfolio management tools





Howbuild is a comprehensive building platform that provides matching services between the owner, designer optimal temporary design along with the



www.howbuild.com





A cloud-based smart parking solution company, Parking Cloud provides IParking service which is cloud-based online real-time parking solution to all stakeholders relating to parking. IParking Zone is operated over 2,800 domestically and offers a large vehiclemounted in-car payment service in Korea. Mobile settlement and location services using QR Code or NFC through the application service for users both drivers and parking lot managers is also operating.



http://www.parkingcloud.co.kr/en/



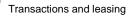


21-50











Rental and sales platforms





Peterpan helps users conduct real estate transaction safely and conveniently without burden of paying commission fees. It wants to establish P2P transaction platform for anyone who want to sell, buy, rent housing, and







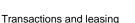


















Reware has an online warehouse database providing 190,000 trucking companies with tools such as ware house search, price, status information. With its logistics information platform encompassing 1,300 warehouse information it can search and manage warehouses via online.



reware.co.kr

































Transactions and leasing



Rental and sales platforms



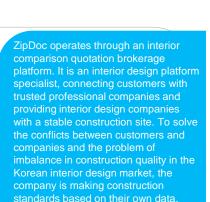


SpaceBank operates a space sharing platform that provides services for space operators (hosts) to register various types of spaces and to make reservations and payments when users (guests) need them. To connect space and people based on technology and data macroscopically, Al-driven brand 'RAIID' has been launched and is being operated, and space-related big data is collected and analyzed through the space research institute and is published around space trends.



www.spacebank.co.kr







Design & planning

**Building Design** 



101-200

www.zipdoc.co.kr

#### (sweetspot)













Transactions and leasing



Property information platforms





SweetSpot operates from short-term pop-up stores to multi brand stores through retail space platform service. Based on the pop-up store platform, the company is expanding its retail business fields such as flea markets, planning events and multi brand stores. By launching the Retail Lease Management service, the service is extended to the role of a long-term rental consulting and intermediary platform in the retail field, covering the overall area of retail business.



www.sweetspot.co.kr











Vietnam



Transactions and leasing



Rental and sales platforms





Batdongsan.com.vn is a real estate firm/property portal that mainly provides buying and selling services, along with real estate investment, development and property management services. Batdongsan.com.vn has been rated as a user friendly technology platform with a lot of technology solutions. Real estate seekers can find most of real estate listings, market news, and related information such as feng shui, architecture, useful advices from Batdongsan.com.vn.



www.batdongsan.com.vn





South

Korea























A FINA



Vietnam



Transactions and leasing



Rental and sales platforms





Cenhomes.vn is a real estate business



www.cenhomes.vn







Moreover, Fina helps to connect users

based on respective financial demands.

with suitable professionals to consult



Investing and financing

11-20



Online direct lenders





www.fina.com.vn











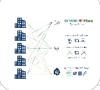


Property and facilities management



Property portfolio management tools





Cyhome provides residential property management platform that connects Apartment Management Board -Residents - Goods and Service Providers. With CyHome, residents will be the center of the ecosystem with utilities such as online payment, connection with the Management Board and resident community, shopping and using online services.



www.cyhome.vn

### **LHOBIEN**













Design & planning



Agent matching





Hobien connects contractors and customers in the field of interior design and construction and create a platform and provide information quickly and conveniently. Hobien provides solutions on construction cost (taking competitive quotations through more than 3 contractors), progress & quality control (site supervision team with regular image updates to customers), payment (provides escrow option with bank over a lot of installments) and maintenance (guarantee through tri-party contract).



www.hobien.com.vn





Vietnam

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Vietnam



Design & planning



Agent matching





Kientruc.com is the place to gather all architects, interior designers, construction engineers to create the platform for experts in property interiors share on the idea, related new concepts, and their portfolio. The website creates a connecting platform for people looking for interior solutions through choosing and working with the right experts through observing their online portfolio.



www.kientruc.com





2020



Vietnam



Transactions and leasing



Co-living spaces





Mvillage provides a co-living space. Mvillage creates a community of urbanites where life goes beyond accommodation with designed and curated events, workshops and activities that fuel the journey of the one and the connection of the ones. With many services shared between residents, and all the service and living fee collected in aggregated form, the residents will live without the worry of expense management.



www.mvillage.vn











































Property and facilities management

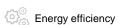














Argentum develops building management software, wireless multisensor networks, and DC (direct current) power distribution systems for smart buildings. Their technologies make spaces more comfortable for tenants, increase energy performance for buildings, and make it easier to view and control all systems on a single software platform.



















Construction



New materials





Carbon Upcycling Technologies is a clean-tech company that is changing how the world views CO2 from a costly waste to a profitable commodity. With their propriety technology that manufactures CO2-enriched nanomaterials, they are adding performance and value to industries like concrete, polymers and adhesives, energy storage, solar PV, and more.

https://www.carbonupcycling.com/















Property and facilities management



∰ HVAC





BrainBox AI utilizes self-adapting artificial intelligence technology to proactively optimize the energy consumption of buildings. Using deep learning, cloud-based computing, and their proprietary process, the solution autonomously optimizes existing Heating, Ventilation, and Air Conditioning (HVAC) control systems for maximum impact on energy consumption.



















Construction



New materials





CarbonCure manufactures a carbon dioxide (CO<sub>2</sub>) removal technology that introduces captured CO<sub>2</sub> into fresh concrete to reduce its carbon footprint. Once injected, the CO<sub>2</sub> undergoes a mineralization process and becomes permanently embedded, while improving the concrete's performance and increasing its compressive strength. This results in economic and climate benefits for concrete producers.

https://www.carboncure.com/





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Property and facilities management



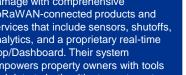
Predictive maintenance





Eddy Solutions provides Intelligent Leak Protection that reduces the risk of water damage with comprehensive LoRaWAN-connected products and services that include sensors, shutoffs, analytics, and a proprietary real-time App/Dashboard. Their system empowers property owners with tools and data to both mitigate acute water damage risks and prevent future loss events.

https://eddysolutions.com/

















Design & planning



∰ HVAC





Enersion provides a net-zero emission tri-generation that generates cooling, heating and electricity with more than 70% energy cost reduction. Their cooling technology utilizes nano-porous materials to directly convert heat into cooling without the need for electricity. Integrating their technology with solar photovoltaic-thermal panels or CHP units they can generate electricity onsite and utilize the otherwise wasted heat for cooling in the summer and heating in the winter.

https://enersion.com/















Design & planning



Energy efficiency





MyHEAT acquires thermal data for entire cities and reveals the energy escaping from every building. The MvHEAT Customer Engagement Platform informs, educates, and motivates people to act on reducing waste energy and greenhouse gas



https://myheat.ca/







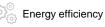
















Parity is a software for buildings that automatically manages their energy and tracks their savings. Parity installs a 'brain' in a building to adapt its energy use to the demands of its resident, and use AI to optimize building operations and provide customers with data on the state of their mechanical systems and energy use.



https://www.paritygo.com/























11-20 **Canada** 

Property and facilities management

Water efficiency





reed is a suite of connected, affordable, and scalable smart plumbing products designed for commercial properties. Their products empower building owners to save money, conserve water, and seamlessly eliminate catastrophic leaks by offering a.o. a water management platform, flood sensors and cloud connectivity.



https://www.reedwater.io/









Belgium



Property and facilities management



Smart buildings





Aug e is a platform that connects the physical building to a series of digital applications that allow building users and facility managers to optimize energy consumption and reduce carbon footprint, which will help combat climate change, to improve comfort in the workplace and to facilitate efficient



www.aug-e.io



GLOBAL





Costa Rica



Sourcing: materials, products and technology



New materials





CRDC Global is a disruptive building materials company that creates appreciating value from the world's plastic waste. CRDC Global's patented low-carbon process accepts any type of plastic waste and converts it into a range of climate-resilient concrete additives and eco-aggregates. Marketed and produced under the RESIN8™ name, these versatile construction products meet or exceed internationally accepted ASTM standards.







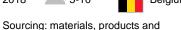


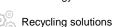












technology



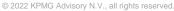


BC materials closes the loop from excavated earth of construction sites to circular building products. BC materials converts excavated earth of construction sites into clay plasters, compressed earth blocks and rammed earth. These products are CO2-neutral and help to achieve a healthy interior climate. After use, these products can be given back to Earth or remanufactured into an earth building product in an infinite circular process.



www.bcmaterials.org





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Liquisol

Wiser With Energy



Belgium

Property and facilities management

Energy efficiency



Construction

New materials



DeltaQ is a technology company with a solution that learns to predict the behavior of a building (in context of comfort and energy use) and leverages these predictions to automatically steer the energy systems. DeltaQ improves comfort while maximizing energy and CO2 savings and allows operational teams to turn their attention to added value work instead of repetitive tasks and constant finetuning.



www.deltaq.io





Belgium

www.liquisol.com/

# coatings, innovative paints to keep any

## enervalis









Belgium



Property and facilities management



Energy efficiency



Enervalis develops software that provides sustainable energy solutions for electric vehicles, buildings, and microgrids. The platform monitors available energy sources and users, and can predict future demand and supply of energy through weather forecasting, input from users, AI, and big data. Using this information it then distributes the energy.



www.enervalis.com















Property and facilities management



Energy efficiency





Noven designs, invests & operates solutions that enable reduction in the energy bills and the ecological footprint of larger buildings, and thus hereby help fight climate change by reducing the financial costs for its clients. It provides a solution for existing buildings with cogeneration units and solutions for new buildings with energy as a service.



www.noven.be























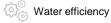






Belgium

Property and facilities management







Shayp's technology assesses water leaks in real-time and dispatches maintenance efficiently to drive down costs. Shayp is a fully integrated endto-end service that helps building managers, homeowners and insurers eliminate leaks and related damages. Shayp keeps properties safe and water bills under control.



www.shayp.com











Property and facilities management

Property portfolio management tools





BeiT offers an automated solution for management of buildings. It enables facility and property managers to improve their services while gaining efficiencies and enabling substantial savings for large scale implementations in households. Through energy savings, it significantly decreases the carbon footprint of buildings. It connects building operators with utility suppliers and tenants into one seamless ecosystem featuring IoT devices, a Saas platform and a mobile application.



www.beit.io/en







11-20



Belgium



Property and facilities management

Energy efficiency





WeSmart is a platform which helps to achieve more efficient energy management. The platform connects to sensors which collect data. Thereby, customers can get real time access to their consumption. Smart alerts and energy managers help to optimize energy usage.



www.wesmart.com/







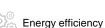








Estonia



Construction





R8 Technologies' Digital Operator is an artificially intelligent add-on software for your existing Building Automation System (BAS, BMS). R8 Digital Operator integrates remotely and securely as with all common and modern Building Automation Systems and other management platforms without any additional hardware.



https://r8tech.io/































Construction



3D printing





Hyperion transforms construction by combining large-scale 3D printing technology and low-carbon concrete. By reusing waste materials from different industrial streams, it has developed a sustainable form of concrete which, combined with the 3D printing technology, helps its construction clients build more efficiently and sustainably. The company helps its clients save up to 75% in materials, 50% in project lead times and 90% in CO2 emissions



www.hyperionrobotics.com















Property and facilities management



☼ HVAC



Kapacity cloud-based AI tool connects real estate heat pump- and AC systems as part of a smart electricity grid. The cloud-based AI tool optimizes and controls the user energy systems based on indoor air conditions, heating and cooling demand, weather forecasts and electricity prices.



https://kapacity.io/











Property and facilities management



Energy efficiency





Mount Kelvin manufactures and distributes remotely updateable cloudbased room controls for hotel rooms.



https://www.mountkelvin.com/















Design & planning



Property information platforms





The technology of Solen calculates and detects the natural luminosity and direct sunlight of a property, for each day of the year, at any time. Today, Solen supports its customers in the choice of their future housing, whether existing or



www.solen.co/





















#### **Aluinvent**



11-20

Hungary

Sourcing: materials, products and technology



New materials





Aluinvent is an R&D and production company with special focus on aluminum foaming. Using recycled raw materials Aluinvent converts them into metal foam products for architectural and lightweight applications. The extra light facade and shading panels do not only have unique appearance but are easy to install. Aluinvent developed a patented recipe in a way so that the products can easily be reused or recycled to keep their environmental footprint as low as possible.



www.aluinvent.com

## pprox THERMOWATT







Hungary



Sourcing: materials, products and technology



Water efficiency





Thermowatt provides a heating and cooling solution for large buildings, building complexes and infrastructure operators in 3 stages: filtering the wastewater, exchanging it's heat with clear water, using that clear water as a heat source for heat pumps. The capacity of the system is only limited by the amount of available wastewater, thus it's applicable scale is larger buildings as minimum.



www.thermowatt-global.com

## BioShade











Sourcing: materials, products and technology



Energy efficiency





BioShade is an autonomous and ecological shading system with hydroponic technology. The system is customized for supporting high leafarea plants that create sustainable biological shading which performs carbon capture and air quality improvement. BioShade systems are creating a significantly cooler microclimate around it, and are able to reduce the heat, energy consumption and air-conditioning expanses in buildings and urban spaces.



www.bioshade.net/















Design & planning



Building design





Structure Pal operates through providing optimization and automation software for building structure design. It offers blueprints to scale without having to mark the work surface themselves.



www.structure-pal.com























For an intelligent use of energy

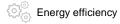








Property and facilities management







Enerbrain has developed energy retrofit solutions for large buildings that allow drastic cuts in consumption as well as a significant improvement in internal comfort. The main focus goes beyond energy by providing the best indoor air quality and educating occupants in order to generate a wider social impact thanks to engagement tools and a new way to access data across devices.



www.enerbrain.com/en/

Amber provides a service that will make eco-friendly driving attractive and easy. Amber's service uses the concept of the sharing-economy, while only utilizing 100% electric cars. The goal is to minimize unnecessary usage of parking spaces and/or unnecessary stand-still of cars. All of this is achieved by using the app to order, unlock, start and park the car. They make sure that the cars get regular maintenance as well.



Mobility



Property and facilities management

www.driveamber.com/











Property and facilities management







Foobot optimizes how building HVAC systems are controlled with artificial intelligence. Building owners and tenants get energy savings and improved climate in their office building. Once pre-trained, the AI is implemented in any building with a BMS, and it saves 15% to 25% of a building's total energy right from the first day.

foobot.io



#### **Blue Module**











Investing and financing



Property portfolio management tools





Blue Module offers an ESG software to increase the value of sustainable and healthy buildings. It is a software that provides evidence to support valuation, due diligence, certification, compliance with government regulations, tenant requirements. It is a one-stop-shop SaaS application for project management, capacity planning and budgeting, a consistent source for all health and sustainability information, property of the owner.



www.bluemodule.eu/





Netherlands























Netherlands



Tenant services (e.g. wellbeing solutions)





Chainable is a modular and circular kitchen provider for the B2B housing market through a kitchen-as-a-service model. The product is circular in nature, as all components and materials in the kitchens are directly reused or returned to the production process of the partners. Further, the kitchens are equipped with energy-efficient appliances, resulting in reduced energy consumption.



www.chainable.nl









Property and facilities management



Property portfolio management tools





Cloud Energy Optimizer is an online service which acts as building climate manager. It continuously considers the weather forecast, availability of (sustainable) energy sources, (variable) energy prices, building behavior and technical installation characteristics to provide the most pleasant and energyefficient air conditioning. It controls the climate installation with prior knowledge.



www.cloudenergyoptimizer.com











Property and facilities management



Offsite construction (e.g. prefabricated components)





Cittamap provides easy access to data and insights on the built environment for energy transition, climate risks, and urban livability for the real estate and infrastructure sector. The data platform brings together more than 135 different information points that saves time, and allows data driven decisions towards climate neutrality. Supporting the user with the right information at the right time using satellite data, and social data along with open data processed and analyzed using automated data pipelines will ensure up-to date data.



www.cittamap.com/













Property and facilities management



Energy efficiency



Through imight unvertiged 80 an abendy an presentation and or
 an abendy of 40 and as consumer or



monitor which provides real-time information and a clear overview to more efficiently manage the gas and electricity usage of households and organizations in order to reduce carbon emissions and realize monetary savings.

EARN-E offers a low budget energy

https://earn-e.com/























Netherlands

Property and facilities management

Energy efficiency



Enappgy aims to improve energy efficiency by integrating technology and a flexible and scalable software platform. The energy cost reduction can be achieved by technologies on three levels; smart lighting, smart energy, smart building.

https://www.enappgy.com/







Netherlands

Sourcing: materials, products and technology

Offsite construction (e.g. prefabricated components)





Finch Buildings envisions a world in which buildings contribute to solving the climate problem. With Finch Buildings, sustainable living should become available to everyone. Reducing the amount of CO2 in the atmosphere. thereby contributing to the restoration of the planet's balance.



www.finchbuildings.com

#### FlexSo Solutions



11-20





Construction

Offsite construction (e.g. prefabricated components)





FlexSol is a high-tech company with unique expertise in curved solar technology. The innovative technology is applied in smart & sustainable products such as roof tiles and the Soluxio solar pole products. This results in products that are not only useful and climate-friendly, but also aesthetically pleasing. These features make FlexSol innovative in the off-grid solar market.

www.flexsolsolutions.com













Construction

Offsite construction (e.g. prefabricated components)





GreenHome (formerly Bleeve) helps homeowners on a weekly basis to make their homes more sustainable. GreenHome helps customers step by step with energy saving advice, an overview of subsidies and finding a reliable construction company. GreenHome aims to build the biggest independent platform to make homes more sustainable. The company also offers warranties on top of the constructor's warranty of the constructor if the renovation is booked via GreenHome.



www.greenhome.nl/





















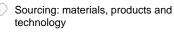






5-10











Hamwells' systems focus on reducing water and energy usage of one of the most wasteful daily routines: taking a shower! It offers High efficiency Waste Water Heat Recovery (WWHR) systems for stacked construction. Its offerings include two shower technologies, Blue (heat recovery shower) which recycles the heat by collecting the warm, used shower water from the drain and Loopz (compact circular shower) which recycles/reuses water.



www.Hamwells.com











Offsite construction (e.g. prefabricated components)





IBIS Power provides innovative renewable energy solutions. Their flagship product "PowerNEST" is their solution to generate six times more energy on the limited roof space of high-rise buildings than current solar















Property and facilities management



Water efficiency





Hydraloop collects, cleans and re-uses the water from showers, baths, washing machines, handbasins and air conditioning units. Hydraloop water is clean, clear, safe, and disinfected. It can be re-used for toilet flushing. washing machines, garden irrigation and topping up swimming pools. Hydraloop offers turn-key products and solutions for projects of any size. Hydraloop, aims to drastically reduce the world-wide water consumption, and give water a second life.

https://www.hydraloop.com













Property and facilities management



Energy efficiency





iWell has developed Cube, a battery system that stores clean energy, generated by wind or solar power, and delivers the energy when needed. Delivering the required energy with adequate speed to relieve the main energy network during peak load periods, reducing the cost of energy usage while simultaneously making it more sustainable. Multiple Cubes can be connected to increase the impact of relieve on the main energy network.



<u>https://iwell.nl/</u>













Netherlands





















Offsite construction (e.g. prefabricated components)

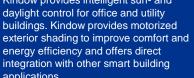




Kindow provides intelligent sun- and daylight control for office and utility buildings. Kindow provides motorized energy efficiency and offers direct integration with other smart building applications.



www.kindowblinds.com





technology

Robotics & automation



Kite Robotics aims to facilitate building owners, architects and facility managers with increasing safety, while reducing costs and effort to clean large façades. They have developed a solution: a completely autonomous robots that can clean windows and façades in dangerous places (e.g. tall buildings). These robots do a fast job of cleaning windows, without putting personnel in dangerous positions.



www.kiterobotics.com

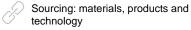












Offsite construction (e.g. prefabricated components)





Madaster is the cadastre for materials. Raw materials are scarce but limited and must therefore be well documented so that they remain unlimited. With the help of the material passport, materials get an identity, which means that they can never disappear in anonymity as waste. Madaster acts as a library and generator for material passports.



Madaster.com



Sourcing: materials, products and











Property and facilities management



Offsite construction (e.g. prefabricated components)





ParknCharge invests in the charging infrastructure for electric cars. The company places charging stations to meet the current demand. Besides investing, ParknCharge takes care of installation, management and maintenance, customer services and invoicing.



www.parkncharge.nl





218



renolution

21-50

Offsite construction (e.g. prefabricated





Netherlands























Construction

Offsite construction (e.g. prefabricated components)

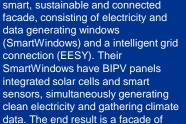




PHYSEE has created SmartSkin - a smart, sustainable and connected connected SmartWindows and facade elements, saving up to 25% energy for heating and cooling and increasing the



www.physee.eu



data. The end result is a facade of comfort experience of users.



Construction

components)



Renolution provides a method transforming existing houses into energy neutral houses by making use of roof and facade elements that will be consolidated with a light steel frame. Residents do not have to leave their home during renovations. Renolution gives advice on cost reduction and renovates houses into energy neutral houses. This method makes sustainable building easier for housing corporations, municipalities and other construction partners. Renolution's methods is applicable to all sorts of buildings.



www.renolution.nl

### s•larıx













Construction



Energy efficiency





Solarix designs, develops and supplies innovative colored solar panels for facades. By generating energy in facades, Solarix wants to accelerate the energy transition and achieve a minimum reduction of 25% in CO2 emissions or realize completely energyneutral buildings. With our unique color technology, design collections and associated mounting system, Solarix solar panels can be fully integrated into sustainable and aesthetic facade solutions. A Solarix solar design facade contributes to the development of beautiful and smart cities where buildings generate more energy than they consume.

www.solarix-solar.com











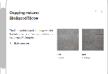


Construction



Recycling solutions





StoneCycling produces

"WastedBasedBricks" which are bricks that give a building a unique and sustainable look and feel by composing them of different waste components. Waste material is collected in a 150 kilometre radius of the factory. Combining various waste materials opens up a range of new possibilities for these bricks. The bricks can be used for the exterior and interior of buildings.



www.stonecycling.com































Property and facilities management



Energy efficiency





Sustainable Buildings provides an IoTbased energy management system. The company offers tools to its customers to help them with the transition to energy-neutral real estate. Sustainable Buildings provides multiple services: building diagnostics, consumption monitoring, production monitoring, environment monitoring, manual control and automated control. The management dashboard shows real-time information about electricity and gas consumption, occupancy rate and humidity. Moreover, it offers features such as savings planning, occupancy optimization and savings potential discovery.



www.sustainablebuildings.nl/













Design & planning



Building design





Sustainer Homes has developed a building system that allows architects and clients to design their own customized, radically sustainable home. Thanks to the circular, modular and completely digitalized design and production process, the company has made the realization of a customisable dream house easy.



www.sustainerhomes.nl











Netherlands



Construction



Energy efficiency





Airofill innovative wall insulation, in combination with other measures in the housing shell, will make a significant contribution to the 2050 target, limiting the net heat demand (electrical) and reducing CO<sub>2</sub> emissions. This will enable lower operating costs of the home ownership in the medium and long term, the materials used require little maintenance and implementation is simple.



https://www.airofill.nl/innovative-

















Smart cities and infrastructure





Lightweight and self-sustaining green innovations for placement in urban environments.

https://www.theurbanjungleproject. com/



























Netherlands



Design & planning



Energy efficiency





The Earlybirds developed the NESTmodel providing insights in the 'behavior' of a single (complex) building regarding the transition to a natural gas free situation, where the COLONYmodel provides similar insights in the 'behavior' of a neighborhood. BIM models are used to represent the household energy usage, and year-byyear changes. The models then calculate future scenarios, set up from different perspectives (stakeholders), which are illustrated by an interactive 3D model. The model seeks optimal combination of both heat technologies and investment, for improvements of the buildings' envelope.



www.theearlybirds.nl













Property and facilities management



Energy efficiency





Tieluk has developed a hydrogen generator suitable for heating the built environment and delivering process heat to the industry. The generator produces hydrogen, which is directly combined in the heating system, resulting in wide applicability and reducing the energy usage, carbon emissions, and nitrogen emissions by 20-50%.



https://tieluk.nl/











Netherlands



Property and facilities management



Energy efficiency





Triple Solar invented a PVT heat pump panel. The front of the PVT heat pump panel is similar to a solar panel and has solar cells to generate electricity. The backside is a heat exchanger that supplies the energy source for the heat pump. The heat exchanger-collector collects energy form the ambient temperature and additionally from daylight and sunlight. With this system it is possible to provide a home with heat, hot tap water and electricity in a sustainable way. Fossil free. In all seasons, 24 hours a day.















Construction



Smart cities and infrastructure





Tvilight's mission is to contribute to the creation of sustainable and connected cities. The company supports this mission by offering sensor lighting solutions that allow cutting down the energy costs and creating a livable and safe environment for urban citizens. Through a combination of physical products and control/management software, Tvilight offers end-to-end solutions for the control and management of street lighting, thereby reducing energy and maintenance costs as well as significantly reducing CO2 emissions.



www.tvilight.com

























2013



Netherlands



Sourcing: materials, products and technology



Energy efficiency





Wellsun has developed the Lumiduct, a dynamic, multi-functional solar shading system. It generates energy and improves the indoor climate of the building. In this way, the energy demand of glass architecture can be cut in half. Through the implementation of LEDs in the solar panels, the façade can also be used as a media screen.



www.wellsun.nl/













Property and facilities management



Energy efficiency





Faradai is an energy intelligence platform offering energy and sustainability intelligence solutions for enterprises. It is an end-to-end, Al powered energy management & carbon accounting platform. The company leverages machine learning algorithms and big data analytics to provide energy saving, operational efficiency, energy procurement optimization, predictive maintenance, solar energy and sustainability management for its



www.faradai.ai/











Netherlands



Design & planning



Energy efficiency





Zigzagsolar offers vertical solar facades and solar wall solutions. It is the next generation energy-harvesting architectural facade – with all the pros of both a PV-system and an architectural facade. Harvest energy in a future-proof and aesthetically pleasing design maintaining maximum freedom of design for architects.



www.zigzagsolar.com

















Energy efficiency





Reengen tracks the real time condition of energy assets, monitors energy performance of facilities and obtains data driven notifications from anywhere and anytime. With their expertise in industrial IoT, cloud technologies and big data analytics, Reengen saves energy, reduces carbon footprint and enhances operational efficiency.



www.reengen.com/





















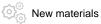








Sourcing: materials, products and technology







C-Probe Systems produce smart, low carbon alkali activated cementitious materials for the repair, protection, and management of corrosion in the built environment. LoCem is manufactured using industrial waste streams repurposed to form a cement binder. This is packaged as products for the restoration of buildings and infrastructure with smart applications for the protection against corrosion. These mortar and concrete products vertically integrate with monitoring and network tools to provide data on performance and remote control online.



www.c-probe.com

# **Fabriq**











Property and facilities management



Energy efficiency





Fabrig OS is an enterprise software-asa-service (SaaS) solution that enables a data-driven and comprehensive approach for identifying opportunities to run and use buildings in smarter, greener, and net-zero-carbon ways. The solution covers the entire continuous-improvement cycle by ingesting and organizing all buildingrelated data regardless of source and providing specialized analytical, reporting, and management tools designed to help the real estate industry comply with ESG and decarbonization standards.



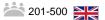
www.fabriq.space





















BIM and Digital Twin





IES technology is proven for its energy and carbon reduction capabilities and is utilized globally. Supported by integrated consulting services, IES technology is used to uncover hidden cost, energy and carbon savings that support smarter energy-efficient choices across the entire built environment. After more than 25 years facilitating the energy efficient design of individual buildings, IES is now using its Digital Twin technology to tackle the built environment at scale – from citizens up to companies, campuses, communities, cities and even whole



www.iesve.com

### PAVEGEN





















Pavegen has developed a flooring tile that converts the wasted kinetic energy from footsteps into renewable electricity. Each tile is equipped with a wireless application program interface (API) that transmits real-time movement data analytics, whilst directly producing power when and where it is needed. Pavegen is also able to connect to a range of mobile devices and building management systems. The company is shifting to become a permanent and commercial smart-flooring solution.



www.pavegen.com





















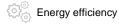




51-100

Mainland China

Sourcing: materials, products and technology







Jinmao Huichuang, has built the J-MAKER AI platform, which aims to explore carbon neutrality and the metaverse and put them both into practice.











2015



Mainland China

Sourcing: materials, products and technology

Smart cities and infrastructure





Leanloop, launched in 2017, is a Shanghai-based platform. It manages carbon peak and neutrality goals in smart cities, smart parks, smart buildings, smart offices, and effectively links carbon assets with the processes of carbon verification, carbon trading, low-carbon investment, and low-carbon operations. Leanloop's platform is built on dozens of Al algorithm models.



www.leanloop.cn



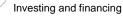














Property information platforms





(ESG) solutions for corporates. Its ESG against industry peers and international















Sourcing: materials, products and technology

New materials





Angirus is an innovative circular economy startup that makes highperformance bricks name Wricks reducing the brick work cost by up to 20%.

Its flagship product Wricks is 30% lighter in weight, 70% dampproof and 20% more stronger then the conventional clay bricks. It is being tested and validated by government accredited NABL laboratory on all the primary standard tests



angirusind.com/





Hong Kong

(SAR),

China





























Property and facilities management



Smart buildings





The IQnext cloud platform analyses and optimizes building infrastructure and operations in real time. IQnext deeply integrates and connects devices. people, and processes on a single platform by creating a digital twin. Using our future-proof technology and a platform that is simple, intuitive and scalable, IQnext provides centralized visibility and enables data-driven decisions, thus enabling in our mission to deliver long-term sustainability and operational efficiency.



www.ignext.io/









Singapore



Construction



Energy efficiency





Anvita Engineering provides energyoptimization and clean technology solutions to customers in the Asia-Pacific region, in particular related to air-conditioning, refrigeration, solar and food-waste-to-energy solutions. Having years of pan-Asia experience, they provide value-added support to customers in this fast-growing region of the world.



www.anvitaengineering.com















Design & planning



Energy efficiency





PlaySolar Systems offers solar panel systems with eco-friendly power generation source. It offers a cloud monitoring solution, CloudSol, a webbased remote monitoring, control and performance analysis tool for PlaySolar products that helps in capturing product performance, real time data helping user keep track of their daily generation.



www.playsolar.in











Singapore



Property and facilities management



Energy efficiency





BeeBryte helps commercial and industrial buildings lower energy consumption, generate savings, and reduce their CO2 emissions at no upfront cost. They have developed an Al-based energy optimization software that predictively drives existing cooling and refrigeration systems (without any equipment replacement) to generate up to 40 % savings.



www.beebryte.com/





























Singapore



Construction



New materials





Pan-United's Circular Economy model ties product and process innovation with waste management to minimize resource consumption. Pan-United does advanced research and development to create highly specialized, sustainable concrete solutions. It uses recycled materials and CO2-injection technology in its concrete to reduce embodied carbon in new buildings. By incorporating deep domain knowledge and the latest technologies in artificial intelligence and big data, Pan-United has fully digitalized and optimized the entire endto-end supply chain for ready-mix concrete.



https://www.panunited.com.sg























Virtual reality and 3D mapping replicates an environment using computer and/ or drone technology. The ultimate goal of virtual reality is to create a user experience as real as possible. In the Real Estate sector, virtual reality and 3D mapping opportunities arise in the field of brokerage for example. Designers and developers can also benefit from virtual reality and 3D mapping because it assists them with translating design into reality. Due to current restrictions on or fear of physical meetings, VR might be the perfect solution. In addition, drones can map existing Real Estate and its environment which is then translated into 3D virtual reality or into valuable data about the property.









solutions.





BIM One Inc. is a firm specialized in

implementation related to building

inc. provides BIM consulting and

strategies and custom software

project management and technologies

information modeling (BIM). Bim One

implementation services, technology











**⊡**iGUIDE®

Canada

Design & planning



BIM and digital twin





Archidata Solution is a web-based platform for space and plan management that provides accurate space data in 2D and 3D. The certified plans stored on the Archidata platform are leveraged by extracting traceable data needed for property management. For example, the Solution automatically produces surface areas and volumes, occupancy and BOMA reports, blocking and stacking plans and site plans.







Design & planning





51-100 **Canada** 

provides an intuitive and practical way to digitally navigate and explore built

https://goiguide.com/







BIM and Digital Twin

Construction



101-200 Canada



https://www.bimone.com/en











■ Canada

Building design

Design & planning





Invent Dev is a tech company that enables house builders to showcase the floor plans for the building virtually with the help of 3D picture renderings, flythrough videos 360 degree tours and virtual reality, enabling them to sell homes faster. The firm also offers those services to those looking to improve their homes through Invent Showrooms.

www.inventdev.com























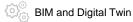
















Kavtek is an XR (extended reality) platform for residential and commercial industries. Kavtek provides solutions for project conception, design, and completion. Aiming to support clients innovating by integrating 3D & augmented reality on the XR platform.

https://www.kavtek.com/















Transactions and leasing

BIM and Digital Twin





KnoGeo helps customers tell compelling, data-driven stories that sell clients, decision makers, and stakeholders. Their easy-to-use platform requires no GIS expertise, and dynamically connects market, property, and unit information into a cloud-based 3D platform that turns data into actionable insights.

https://knogeo.com/

### N mappedin







51-100 **[ • ]** Canada



Design & planning



Indoor mapping





Mappedin is a platform for indoor spatial data management, digitizing venues, and building indoor mapping experiences. Built for scale, their flexible platform and enterprise grade tools enable us to work with leading operators and developers around the

https://www.mappedin.com/

#### SMARTPIXEL













Transactions and leasing

Virtual viewing





SmartPixel offers turnkey interactive, digital presentation tools, focused on high quality graphics and interactive strategy. The application's features include solutions for real estate like finding units based on search criteria. comparing plans, viewing simulated panoramas, capturing ambient light according to time of day, visiting and customizing interiors, and exploring common areas and the project's surroundings.



www.smartpixel.com















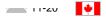














Canada



Virtual viewing





Stambol Studios offers a virtual/augmented reality (VR/AR) studio that specializes in hyper-realistic immersive experiences. The company provides architectural visualization services, allowing potential clients to judge their homes before construction.

www.stambol.com/







Virtual viewing

Property and facilities management





www.drawbotics.com













Design & planning

Building design





Yulio is a Virtual Reality Software for architecture and interior design. The company is changing the design and architectural industries by transforming flat, outdated designs into immersive visual reality experiences.

https://www.yulio.com/









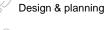














BIM and Digital Twin





Handaz aims to bridge the gap between technology and the Architecture, Engineering and Construction industry, by providing the option to transform 2D CAD drawings into 3D BIM models. Their ultimate aim is to facilitate increased productivity and quality, while reducing time and cost of the overall process.

www.handaz.com/





Belgium



























Finland



Transactions and leasing



Indoor mapping





Cubicasa offers a mobile app for scanning and branding real estate floor plans The company offers floor plans and the generated data is being used for real estate marketing, mortgage appraisals, valuation, and insurance use cases. The application works by scanning the indoor space by using the mobile device's camera.

https://www.cubi.casa/









Design & planning

BIM and Digital Twin







Finland

building data models (BIM), a visual web-based interface, and a dynamic 3D/VR/R world into a seamless whole. Together, this is a BIM powered real estate project management software with configurator, visualizations, and defect management.

GBuilder offers software to combine



<u>https://gbuilder.com/</u>

# IMMERS/L<sup>®</sup>









Property and facilities management



Virtual viewing





Immersal develops and markets a technological solution that creates AR experiences that merge digital and physical realities for consumers, industrial use, ad campaigns, and more, by mapping real-world spaces with a mobile device and augmenting them with digital content. In short, the Immersal AR Cloud SDK is a tool for programmers enabling them to develop AR in any app.

https://immersal.com/











Design & planning

Indoor mapping





IndoorAtlas enables indoor navigation, by employing technology that uses natural anomalies in the geomagnetic field to pinpoint locations indoors. Customers include developers who want to build indoor location-based applications, such as search, wayfinding, and proximity marketing.

https://www.indooratlas.com/





























Finland









Proximi.io enables software developers to kick start their location-aware application projects and helps them to deliver context-aware content to their customers. The solution combines all existing location technologies (e.g. iBeacons, Wi-Fi, IndoorAtlas, cellular, GPS, and custom IoT devices) under one user-friendly platform, making it possible for users to reach out to clients wherever they are.

https://proximi.io/



SOV/\3D





Design & planning

BIM and Digital Twin





Sova3d develops 3D map web applications for collaborative town planning, building permission handling, and construction project visualization, by combining 3D BIM information with 3D City Information.

http://sova3d.fi/index.html







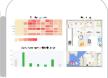




Design & planning

Indoor mapping





Steerpath offers indoor maps, navigation, and positioning technology to mobile application vendors, across industries and venue types.

https://steerpath.com/

**Tridify** 











III Finland

BIM and Digital Twin

Design & planning





Tridify provides computer software that automates the delivery of architectural 3D BIM & CAD models to Unity, by enabling users to process BIM to IFC and publish their BIM models to the web.

https://www.tridify.com/























#### umhrn







Finland



Design & planning



BIM and Digital Twin





Umbra empowers 3D graphics designers and engineers to create. optimize, share, and view their designs in real-time on virtually any device. As the established gaming industry standard in graphics optimization for more than a decade, Umbra is now redefining rapid visualization for all industry ecosystems utilizing complex 3D models.



https://www.umbra3d.com/









France



Transactions and leasing



Virtual viewing





Exalt3D is a company specializing in 3D for real estate. The company will offer solutions for virtual visits, homestaging or digital models and BIM. In short, the services of the startup will encompass all services of 3D representation that in real estate. The startup relies notably on the cloud to facilitate the transfer and sharing of documents.



# VIMAI











Property and facilities management

Indoor mapping





VimAl enables indoor augmented intelligence and visual positioning via computer vision and machine learning techniques. Services include modeling indoor environments from videos, indoor scene understanding, indoor localization and navigation, and AR. In short, computer vision based indoor positioning for navigation and wide-area



#### MODERLAB





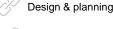














Virtual viewing





Moderlab solution offers an interactive customer's path in real time allowing to enhance, to sell and customize real estate properties. The innovation offers to potential buyers a visit of a real estate program in a close to reality environment. They can experience an immersive visit in high definition outside and inside the program. Its configurator offers the advantage to select the materials in a digital way (floors, wall colors, door handles, bath tub, toilet). It is a digital sales tool for developers.



www.moderlab.com/













budgets.





WIZZCAD supports construction

stakeholders through their digital

transformation in order to help them

safety while meeting deadlines and

build high-quality projects, in complete













France



Investing and financing



BIM and Digital Twin





Sitowie offers an SaaS that generates 3D models of assets. Aiming to better define maintenance of buildings, reduce investment budgets, increase asset profitability and lifespan through risk anticipation due to ageing.



https://sitowie.fr/









Hungary



Transactions and leasing



Virtual viewing





Beyond Visual enhances client experience by creating photo-realistic 3D contents. They deliver a presentation tool to premium property developers to showcase and sell new build properties at the pre-completion stage. Clients can explore and experience the development and its surrounding area, such as a balcony view, without having to actually go there. Moreover, database integration enables live, up-to-date searching and filtering of available units based on price, size, floor plan etc.

www.beyond-visual.com







Construction

BIM and Digital Twin







The BIM-Native WIZZCAD SaaS solution makes it possible to digitalize workflows throughout the life cycle of buildings, public works and infrastructure via a single collaborative platform to manage the design, execution and operations of construction projects, in 2D or 3D.



https://wizzcad.com/en/











Luxemboura



Property and facilities management



BIM and Digital Twin



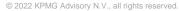


BIM-Y is a web platform to assess the quality of as-built documentation for existing buildings and during the construction phase to simplify the handover process and to manage this documentation during exploitation & maintenance and demolition phases.



www.bim-y.com



























Sweden

Design & planning

Building design





Spotscale produces high-resolution 3D models of your existing buildings so that you can inspect, analyze and work on them online with others from any location.

www.spotscale.com











Transactions and leasing

Virtual viewing





2cyourhome uses photo styling, 360 degree views, artist impressions, and virtual home presentations for marketing-end purposes. Allowing realestate agents, project developers, and investors to better convey the opportunity and value of properties, resulting in a more successful sale.

https://2cyourhome.com/

### **†** TOTALYMAGE









Property and facilities management



BIM and Digital Twin





360° Video is aiming to disrupt the way we can see the world with an immersive true-life view. TotalYmage develops its « Editable 360 video » patented technology and set of tools to enrich these 360° motion captures and immerge users in a real and interactive distant environment. Companies give their employees a remote ability to learn, teach, contribute and share any piece of information, instruction, knowledge or alert. Remote collaboration for distributed and technical work environments.



https://www.totalymage.com

### **CROZZROADS®**











Design & planning

Offsite construction (e.g. prefabricated components)





Crozzroads is specialized in virtual reality, augmented reality and mixed reality. Furthermore, they can also create 360 real photo/videos, artist's impressions, presentation tools, artistic projects, 3D projects, animations, games and online gaming. Crozzroads separates things, checks under the hood, and reassemble them in exciting new ways to build amazing new things. Crozzroads enhances your digital experience and to help you visualize your unique ideas and bring your dreams to life.



www.crozzroads.com/







Leap /

3D SOLUTIONS

Offsite construction (e.g. prefabricated

5-10

Design & planning



Netherlands



















11-20



Netherlands



Offsite construction (e.g. prefabricated components)





Innobrix is an online communication and configuration platform for the residential construction sector and consumers alike, transforming BIM designs into interactive virtual homes and allowing residential construction consumer in a newly improved digital construction process. This way, Innobrix creates an optimal 'what you see is really what you get' customer experience which reduces communication errors, failure factors, costs and constructional waste.



www.innobrix.net



components)



Leap3D captures the actual situation of objects and environments to the millimeter. Using various methods, such as 3D laser scanning, 3D (BIM) modeling, 3D visualization and 3D analysis. They are active in construction, civil, industry and maritime branch. For transformations, renovations, inspections or retrofit projects, they aim to provide qualitative results to help customers work more efficient and effective.

www.leap3d.nl









Netherlands



Property and facilities management







supRmen is specialized in collecting high-quality data from real estate. It takes photos of buildings with drones and convert them into photo-realistic 3D models, in which every detail can be seen and assessed. It extracts useful information for customers.



www.suprmen.com



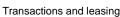














Virtual viewing





Vero Digital specializes in architectural visualization and interactive digital solutions for real estate. It operates through providing a wide range of solutions, from still images for all project stakeholders to sophisticated digital strategies designed to capture and convert wider audiences.

https://www.vero.digital/

















Overstruct is a PC software to create

architectural virtual reality walkthroughs













Turkey



Construction





Arventek offers an Al-based RemoteSite SaaS platform, which monitors the progress of construction projects. It analyzes images, geospatial data, and CAD/BIM designs captured with the Skywen drone or similarfeatured drones, eliminating errors, ensuring timelines of the activity. It provides remote site management by creating a digital twin of the construction site and automatically detects changes over time. It shows at what stage the project will be in a certain time frame, makes time and cost prediction analyzes.



www.arventek.com

#### **↓** OVERSTRUCT





Virtual viewing

Design & planning







Turkey

automatically and easily, from existing 3D project files. Overstruct uses your existing project files, configuration and exports high quality simulations working even on mobile and web platform.



www.overstruct.com/

#### FRACTURE ALITY















BIM and Digital Twin





Fracture Reality is a HoloLens focused partner providing bespoke building visualizations as well as tailored solutions with a focus on visualizing CAD data for buildings, cities, large facilities and developments. Their focus is to use expressive, collaborative tools offering live visualizations of client data. presented in aesthetically refined ways on a variety of concurrent displays (HoloLens/VR/ Phone/Tablet/Projector).



www.fracturereality.io















Transactions and leasing



Virtual viewing





Inspace is a provider of property visualization technology/services where they invision a world where people can virtually walk through any existing or conceptual space. Inspace is realizing this vision through three divisions: Stack/Studio/XR. The Inspace Stack is a platform for commercial landlords and agents to host a 3D digital twin of their building, hosting virtual inspections at scale and display real-time data. Use cases for Stack include capturing leasing enquiries, enabling asset sales and building management.



www.inspacestack.com





















### Trendspek





21-50



Australia



Property and facilities management



BIM and Digital Twin





Trendspek significantly reduces the cost and time taken to manage highvalue assets, while simultaneously minimizing an organisations exposure to safety and corporate risk. They do this by providing true-to-life 3D digital models, enabling clients to make quick yet fully-informed decisions based on data. With an exact digital twin of their asset, an organisation can work with every detail remotely, safely and economically.



www.trendspek.com











Design & planning



Virtual Viewing





Archimaze is an AR/VR & 3D visualization solution providing has created AR & VR specific content, virtual walkthroughs for the properties and has also developed mobile-based application for the virtual walkthroughs without the use of any head mounted device.



www.archimaze.com















Property and facilities management



BIM and Digital Twin





Willow is a global technology company that creates digital twins; virtual representations of built assets for the real estate and infrastructure sectors. Willow's platform WillowTwin™. aggregates spatial, static and live data into a single source of truth for built assets, to support data-driven decision making across entire real estate portfolios or infrastructure networks. Through data-led decision making, users can grow their profits, reduce their expenses and better manage risk.



https://www.willowinc.com/























Smart cities and infrastructure





ARPM Design and Research is a design technology research agency that provides consultancy services to architects and designers and helps them improve on their creative workflow with the help of extended reality (XR -AR+VR). Its innovative construction offerings help developers, engineers and start-ups build better tools, products and services for their users.



www.arpmdesignandresearch.co





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**Travvir** 

Property and facilities management

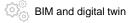






India









ComXR also known as Comart, provides interactive 3D content using XR studio and solution with the help of AR & VR technology. For the real estate clients, it helps in creation of digital twin on real time basis, monochrome model with all interactions customizations of walls, furniture and other items inside a sample flat. It also provides 360 degree virtual tour using



www.comxr.tech



Kubma now known as Travvir, builds digital clone of the real world which can be explored virtually. It works in coordination with landlords across different real estate asset classes helping them increase their asset visibility and reduce transaction time through technological tool allowing landlords to have a detailed virtual



Virtual Viewing





India

inspection in real time like a genuine physical visit. Further, it enables an online walk-through of the property for its clients.





Design & planning

Virtual Viewing



EmptyCup is an interior designing platform that assists its customer with designing their house. With cloud rendering technology, it makes consumer ideas come alive with 3D high definition and let consumers define, personalize and experience their home.



www.emptycup.in















Design & planning



Virtual Viewing





Metadome (rebranded from Adloid, in Dec 2021), is based in Gurgaon, India. The company provides metaverse and Augmented Reality (AR) builder platform solutions for creators and brands. It focuses on providing end-toend solutions to builders and brands through 3D and AR/VR technology that allows everyone to interact, collaborate, learn, play, work, create, trade, transact and buy virtual goods.



www.metadome.ai





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Transactions and leasing







PropVR, headquartered in Gurgaon, offers three key solutions including 3D visualization, digital booking management system and remote showcase through the use of VR & AR. Its offerings help customers get a complete 3D overview of the interiors, exteriors, amenities and landmarks of the project, digitalize booking process, integrate E-payments and E-signing. Further, it provides inbuilt voice and video conferencing platform to take















Construction

Drones



Skylark Drones' aims to plan and monitor infrastructure construction, by generating high resolution survey maps for accurate land acquisition analyses and detailed project reporting using 4-K videography for near real-time project monitoring. Examples of projects include large scale road infrastructure changes that require accurate planning and monitoring. Their drone solutions address this need by offering authentic real time information.

www.skylarkdrones.com/

### **5** snaptrude









India





BIM and Digital Twin





Snaptrude is an Al-enabled rapid modelling platform for real estate. Snaptrude is a solution by Skylark Technologies which solves the design problem by automating digital designing with its intelligence enabled modelling and design platform. This platform applies an architects' Building Information Modeling (BIM) approach from the concept design stage onwards. Snaptrude automatically transforms hand sketches into an accurate 2D drawing and provides the technical support for conversion of 2D drawings to a 3D model.







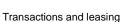




Japan













Spacely offers cloud software that allows customers to easily create, edit and manage VR web contents using photos taken with a 360 degree camera. The company's solution is frequently used within the real estate industry for advertisement purposes of sale and rental of properties.

www.spacely.co.jp/



















Airsquire build a virtual "google street

project teams cost-effectively visualize

and manage progress. The 360° site

view" of construction sites that help





### buildmedia







Zealand

Design & planning







Buildmedia's Realspace is an interactive experience-suite that significantly improves the off-plan home buying experience & speeds up the sales cycle.

Realspace was a winner in the Unreal Engine Experience Design Awards and receiver of the Epic Games Mega-Grant in 2020.

Incorporating internationally walkthroughs & centralizing all collateral, Realspace makes selling & buying offplan memorable.

Realspace allows homebuyers to explore every aspect of their future home, experiencing the real-scale and accurate views from all floor levels.

www.buildmedia.com

### **AIRS**QUIRE



Construction



Singapore

progress enables project managers to virtual fly-through and access timely site data to make smart decisions. The 360° site progress is also documented over time so project teams have objective progress documentation to resolve disputes and claim milestones

Virtual viewing





www.airsquire.ai

faster.



#### ELEMENTALS







Singapore



Design & planning



Virtual viewing





Elementals Studio has developed a Property Showroom platform to connect property buyers, sellers and designers using augmented reality and 3D. This allows for optimization in every interaction with prospective clients, with the capability to provide limitless information about property features. Accessible through any mobile device, its features include viewing of the entire real estate, augmenting the design of actual physical properties using AR and touring in 3D.



www.elementalsweb.com/











Singapore



Property and facilities management



Virtual viewing





Graffiquo offers a real 3D digital representation of physical assets on large expanses of land using photogrammetry, feature recognition (or machine learning), business applications and virtual reality engine technologies for data capture, mining and physical representation. Graffiguo's solution collects data from the internet of things (IoT) sensors, equipment, and business systems, and show them on this virtual replica in real time, providing stakeholders on-the-run easy access for visualization and analytics.



www.graffiquo.com









Singapore















Picture Perfect Productions create digital content and 360 virtual and augmented reality conceptualization. They create immersive and interactive solutions in the areas of safety, military, construction, travel and tourism.

www.pictureperfectproductions.asi



Silver Wings XR is a 3D visualization company that develops immersive and interactive experiences to benefit the business of their clients. Consulting and collaborating with their clients to offer fully customizable solutions that are platform and hardware agnostic, across Virtual Reality, Augmented Reality, Holographics, Mixed/Simulated/Spatial and Extended Realities.





www.silverwingsxr.com



21-50

Singapore

Transactions and leasing

Virtual viewing





Silversea Media is a multinational technology company specializing in providing interactive and immersive media (3D/4D/VR/AR) solutions to create the true-to-life experience and fuel out-of-the-box imagination for businesses to embark on their digital

www.silversea-media.com











Singapore



Transactions and leasing

Virtual viewing





Due to COVID Vostok VR launched special set of immersive solutions for Real Estate industry: VR experience for in-showroom showcase, AR to wow customers during face to face meeting and interactive Web version to provide easy access to property preview for customers overseas. The whole experience is connected via Multiuser platform which allows real estate agents and customers communicate and interact in a single virtual environment, thus simplifying sales amid COVID-19.



www.vostokvr.com



























11-20



Singapore

Design & planning



BIM and Digital Twin





VOUSE is a cross-technology consultancy that provides specialized services in constructing architectural digital twins for purposes such as architectural & urban rapid prototyping (design & functional validation), simulations and virtual training. With a focus in user-centric design and a full range of technical expertise from data processing to AR/VR development, Vouse supports its clients in end-to-end services for cross-device/platform interactive application design. development and deployment to aid organizational needs from marketing, facility management to process digitization.



www.vouse.co





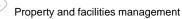




WavêScan



Singapore





BIM and Digital Twin





WaveScan is a Singapore based deeptech startup company specializing in the R&D of disruptive beamforming electromagnetics based smart scanner systems and advanced Al algorithms. The proprietary technology is capable of high-resolution 4D imaging for nondestructive testing (NDT) applications. They provide an end-to-end Al-enabled structural inspection solution. addressing the specific needs of the built environment sector. At WaveScan, they envision safer, productive & livable cities by creating a predictive maintenance ecosystem through datadriven standardization of inspection



https://www.wavescan.sg/home/











Singapore



Design & planning



BIM and Digital Twin





VRcollab enables stakeholders of all skill levels to coordinate and actively participate in BIM coordination and Technical meetings in real time from anywhere in the world.

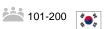


https://vrcollab.com/















Transactions and leasing



Virtual viewing



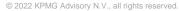


3i innovates the way the real world interacts with the digital world, helping to collaborate with content so that anyone can fully immerse themselves in the experience of the real in the digital. 'Pivo', a smart pod anyone can easily capture their own motion and produce live broadcasts and 3D tours through simple data with an app, and 'Beamo', a digital twin solution provider for missioncritical construction site and remote facility management and collaboration.



www.3i.ai



























South

Construction





CHANGSOFT | & |

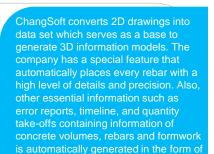
21-50

Design & planning

Technical planning

AngelSwing virtualizes construction sites using drone and provides a platform that can be effectively utilized for the management. With Reality Capture, aim to solve the productivity problem of the construction industry for digital transformation. The main services are automatic processing of drone data, 2D/3D orthogonal views and 3D viewers, drawing superimposition (.pdf, .dxf), earthwork volume calculation (basic, in dates and plan heights), and cross section topographic 3D view generation.





visuals or documents with few clicks.



www.chang-soft.com/

### ARCHISKETCH







Design & planning

Indoor mapping



Archidraw offers services based on VR and AR. The service offers usercustomized interiors that are completed constructed by AI, securing at least 90% of 3D/VR floor plans of flats, after which the 3D drawing data can be received as high-quality image rendering shots. Moreover, field measurements are made through a 3D space scanner which converts the measurements directly into 2D/3D drawings.

www.archisketch.com

# Urbanbase 🕽









South



Design & planning Indoor mapping



Urbanbase offers an AR solution for mobile devices to make virtual reality available for interior planning and design. Urbanbase owns a spatial data platform with patented technology that reproduces the floor plan of the building in 3D. The company's service is mainly used by real estate and furniture companies to provide floor plans.

www.urbanbase.com/





South

Korea

























South Korea

Transactions and leasing







Zipview offers a VR real estate marketplace that help its clients to find a home. By offering real estate VR tours including detailed information about the property like price trends, the company aims to support clients select properties for physical viewing. Thereafter the company guides clients in the process of purchasing property and takes care of transparent and quick payments, as well as post-migration defects.

https://developer.zipview.kr/













Design & planning

Virtual viewing





BlueR is a full-service, multi platform and creative driven production team, specialized in 3D/VFX, Digital Imaging, Brand Identity and Audio Production. With enhanced creativity from young talented designers, artists, producers and cinematographers, editors, BlueR provides solutions in business presentations through media technologies.

www.bluer.vn





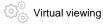




Vietnam



Property and facilities management







Holomia provides smart mobile application integrating Movies, photos, 3D provides homebuyers with essential information through connecting the homebuyers to a sharing virtual space by holo connect, and allow the customer to appraise the property product in a real time through realtime touch 360 technology to enhance the sales and marketing process of real estate businesses.



www.holomia.com











Vietnam



Design & planning

Virtual viewing





House3D provides a platform-based solution for home interior designing and ecommerce activities by leveraging 3D/VR/AR Technology. The platform enables collaboration of designers and clients to deliver designing, construction and delivery for Home and Interior Design projects. Its offerings include comprehensive solutions for interior design such as 3D/VR cloud rendering, 3D/VR/AR Marketing Platform and others . It also provides application of BIM/CAD/CAM Solution for Cloud Factory to help testing the feasibility of the property design.



www.house3d.com























# D.

# KPMG Global Real Estate Network

The KPMG Global Real Estate network has provided a vision on critical topics that should be on the Real Estate agenda by answering the following questions:

What is your key advice for the PropTech clients (in your region/country) around adopting innovation in their business models?

How significant is the role of innovation in your country/region in Corporate real estate amid hybrid working trends and increasing war for talent situation?

How do you think Future of Work-related initiatives/strategies can transform the Real Estate and Construction sector? Additionally, what are your thoughts on the role of metaverse in real estate? How can the Real Estate and Construction sector contribute to the global (and your respective country/region's) Net Zero/ESG targets?



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"Real estate is a fundamental element in the path towards Net Zero, for each and every company. Only with innovation and perseverance these paths can be realized. A great opportunity for every real estate investor and/or large tenant. So just start with your plans, strategize and don't wait until you don't have any options left."

"Future of Work initiatives are accelerating the shift to the Space as a Service model that has been underway for some time now and real estate is increasingly becoming more of a business to consumer proposition. Buildings need to provide an experience that cannot be replicated online, whilst also connecting seamlessly with the virtual world."



"The metaverse will add virtual formats to the working world of tomorrow, but ideally, people will continue to work together in the future, provided with efficient tools by digital technologies."



"Digitalization and innovation will become crucial in the real estate industry. It is not only a question of efficiency but also it will be a way to address main issues regarding sustainability and find relevant solutions."





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"The real estate industry in China is going through a transition from development era to operation era. Proptech should be committed to providing real estate companies with applications for quality improvement and cost reduction,... and business model scenarios should be more focused and practical."

"The built environment emissions are 55 per cent of the total amount in Finland (per Confederation of Finnish Construction Industries RT), partly because of the cold climate. The greatest potential lies in energy efficiency renovations of the existing built environment accompanied with smart and low-energy space solutions."



"Hybrid and remote work modes have had a significant impact on...the Real-Estate and Construction sectors...Current AR/VR technologies are being adopted and integrated in innovative real-estate and construction solutions, enabling companies to provide access to real estate spaces and construction sites anywhere in the world."



"Metaverse real estate is an interesting concept of owning parcels of land in virtual worlds. The concept will definitely evolve over time, as new players enter the market with new strategies to capitalize on these digital assets. This can open up investment and M&A opportunities between virtual worlds."





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"Covid and "Teams" has already created a kind of "metaverse 1.0."...Technology enabled us to think about working spaces more brave, flexible in time and space, than ever before. The real estate industry is challenged to cope with the changes of demands, and PropTech might help us finding the most suitable and most effective solutions in the future."

"

"The Real Estate and Construction sector plays a major role in the race to net zero. It starts with the sourcing of materials, the clear commitment to respect the principles of circular economy and environmental standards, while focusing on smart, sustainable, and tech-powered solutions to heating, cooling, water consumption."

"Analyzing IoT data gathering from each IoT devices could optimize energy efficiency of buildings. By developing such IoT solutions, the Real Estate and Construction sector could contribute to the global Net Zero/ESG targets."



"In Korea, a wave of Smart Cities are developed in order to tackle the environmental issues raised by urban development. Smart innovations and conventional real estate development should walk in tandem in order to generate more sustainable financial outcome."





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"Future of Work – related initiative/strategies would certainly transform Real Estate and Construction sector, as developers and investors will need to think of the buildings of tomorrow where future talent will be based...The focus may also shift towards maximizing the value that the real estate contributes to the organization..."

"Demand for the hybrid working model increases the pressure on property owners, they now have to investigate ways for making the office space more attractive to maintain the occupied rented areas. However, new office buildings continue to be constructed in Slovakia as there is still demand for modern office space..."

"For years the Real Estate sector has maintained its traditional business model. Nevertheless, the sector is currently undergoing a change by incorporating innovative technology into its processes. Companies that want to remain competitive in the market must be flexible to change and embrace innovation in their business."

"The pandemic accelerated adoption of digital tools...for remote working. Although flexible workplace can enable dynamic culture and enable companies to reach a more diverse talent pool, it is also depending on organization priorities, nature of works, corporate workstyle as well as culture and preferences in each country."





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"By remaining innovative, organisations can be more persuasive towards (new) employees. Being flexible in where and when to work is becoming more and more important to employees and by applying innovative ways of working, supported by the necessary tools, companies can persuade employees to join them."



"We see flexible workplace solutions and the rise in remote work as a key emergent trend post-COVID-19. With changing employee expectations, economic pressures and volatility, greater collaboration is needed between landlords and tenants. We expect tenancy and facility management solutions to create value by delivering analytics and cost-efficiencies across the tenancy life-cycle."





# **Editor's Perspective**



**Mike Strang** 

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"After compiling this overview for the fourth consecutive year, I'm pleased to see that innovation in the sector did not lose pace. New innovations keep arising everywhere around the world to solve (potential) problems of our biggest asset class: Real Estate.

It does become apparent that the innovations are getting more recognition and receive the attention they deserve. This allows them to – together with traditional companies – re-focus their efforts to the real problems of the globe and the sector, turning them increasingly from nice-to-haves to must-haves.

All in all, global trends (e.g. ESG) and local needs are driving the rate of change, adoption and customization of technological advancements within the sector."



### Alex van Poppel

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"The real estate sector is shifting towards a more technology-based industry. PropTech, which include technological innovations such as big data and data analytics, artificial intelligence, robotics and blockchain have the potential to become the new industry standard and may be key in maintaining competitive advantage.

In my opinion, one of the most important challenges is related to ESG. It has forced many to reconsider the link between environment, society, governance and profit. Therefore, it is exciting to see so many creative solutions driving towards, and contributing to, a more ESG influenced future!

The impact potential and widespread integration of innovations is increasing, and we would like to invite you, to discover how innovations can benefit your organization!"



### **Divya Chandwani**

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"Innovations in real estate and construction have gained pace across various unique categories including 3D construction, mobility and building management tools.

Per my view, the key drivers of innovation in real estate are convenience, wherein the PropTechs are focused on offering convenience to residents/corporates.

In corporate real estate, a lot of conveniencerelated tools have picked pace recently, such as indoor navigation tools and building management systems, to provide ease to employees and property managers amid remote working environment and social distancing norms.

In my opinion, the growth of PropTechs within the corporate real estate can be largely accelerated with the support of MNCs, as these are capable to drive the innovation adoption at a global level."





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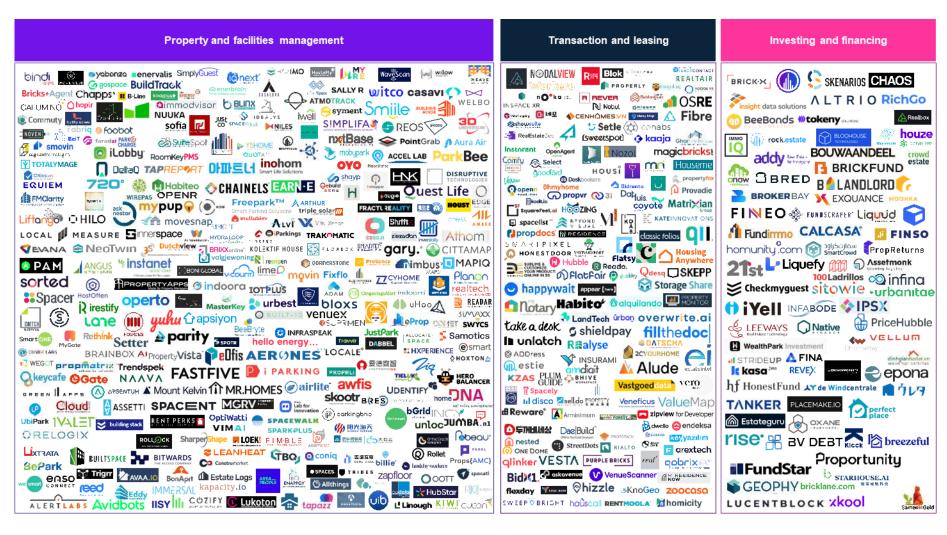


#### In collaboration with:

## REIO 2022 - Value Chain Cascade (2/2)











# PropTech Ecosystems around the globe

This overview gives an in-depth insight into relevant innovations worldwide in the Real Estate and Construction market. What should be noted however, is that there are many PropTech Ecosystems around the globe that support these innovations. These PropTech Ecosystems are valuable to the market and provide innovations a platform to thrive, connect and succeed.



Disclaimer

Please note that this selection of ecosystems, similar to the innovations in this overview, is non-exhaustive. We highly encourage you to inquire about any ecosystem in your respective region.





# Global PropTech



#### Introduction Global PropTech

Global PropTech is the first global innovation platform for Construction and Real Estate. The platform includes Global PropTech Online, Global PropTech Leaders and Global PropTech Channel. Global PropTech was founded by Wouter Truffino in 2018.

#### What does Global PropTech do?

Global PropTech brings together innovative corporate Real Estate and the very best PropTech companies on a global scale to facilitate joining forces and cooperation in creating a better built environment by embracing technology. The platform focuses on developing insights, sharing knowledge between different countries/

- Global PropTech Online: a quarterly online conference offering cutting edge PropTech innovation insights, products, and services. From behind their computer, Real Estate professionals from all over the globe can attend top keynotes and interactive round tables. PropTech thought leaders and influencers share insides and the best start-ups and scale-ups get a chance to promote their product or solution to a global market.
- Global PropTech Leaders: a highly exclusive network for corporate Real Estate leaders to share knowledge on how the Real Estate industry is being renewed through PropTech. The first Global PropTech Leaders event took place on 13 March 2019 at the MIPIM in Cannes. Since then we organized fiscal events in New York, Helsinki, Paris, Munich and Dubai.
- Global PropTech Channel: a video streaming channel aiming to inspire global Real Estate professionals through content created at Online and Leaders events such as keynotes. Go to http://bit.ly/proptechyoutube.

territories and matchmaking through three key formats:

Some of our partners and members: KPMG, MIPIM, Prologis, EDGE, Spacewell, Yardi, WeWork, VTS, UbiqiSense, RYSTA, Hige Rise Ventures, Cviker, Toolbox Group, Haltian, Cycling Score, Disruptive Technologies, Mapig, Spaceti, Physee, CubiCasa, PlanRadar, BuildingMinds, Smartpixel.tv, Smart Building Certification and EstateGuru.







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