

# Israel High-Tech Solutions

## This issue will cover

- Water Technology
- PropTech

prepared by

## **MLB Asset Management**

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## Foreword



### Israel's achievements have sustained world impact on water tech

Israel is the country with its border extended along by the Red Sea and the Mediterranean Sea, is home to the freshwater Sea of Galilee and also contrarily, the saltiest sea on earth, the Dead Sea. For centuries, rivers and springs have run through the country. Despite all this water, Israel has been battling a severe shortage of potable water since its inception in 1948. To survive, government and policy incentives have contributed to the creation of a new and flourishing industry of water technologies.

For decades, the world has been facing decreased rainfall, depletion and degradation of groundwater, water contamination, and continued wastage which are the major reasons for the water crisis. According to the National Intelligence Council, the world will face a severe crisis if no measures are taken.

As there is no single reason causing the world's water problems, it is actually caused by multiple simultaneous factors: None of these causes are going away by themselves. Solutions will come only from changing the way we find and use water.



Sources: http://www.thetower.org/article/how-israel-is-solving-the-global-water-crisis/

Israel, the Start-up Nation, has incubated numerous water technologies in battling the water crisis, from drip irrigation, reclamation, desalination, reclaimed water, etc. The water crisis is veritably a global crisis, as many countries all over the world face the same problem. Israel's expertise and industry expertise are coming into the picture to help improve the crises.

We want to give you something more exotic as we are interviewing one of the top Israeli water tech start-up companies which provides an abundant, renewable source of fresh and clean drinking water by extracting it directly from the air.

### Israeli WaterTech investment scenarios

Israeli water technologies are displaying innovations in almost all spectrums of techniques including desalination, wastewater treatment, round-the-clock control and warning systems, water quality systems, and more.

In 2012, Water Technologies exports reached USD2 Bn rising 170% over 6 years, according to the Export Institute. There were 280 water tech companies, 150 of which were exporters, while 20 of the largest companies contributed USD1 Bn in exports in 2012. <sup>(1)</sup>

The global water market reached USD700 Bn, while construction and infrastructure contributed most of the investment across the world.

**OurCrowd, US Waterfund to set up joint water-tech investment portfolio.** "The lack of private capital has held back the Jerusalem-based VC firm OurCrowd, and US firm Waterfund said they will work jointly to set up an investment portfolio of 15 "leading" water and agricultural technology companies as per the Mar 21 news from The Times of Israel.<sup>(2)</sup> To promote clean technologies and water technologies, blue bonds has been established by certain related financial entities. Blue bonds are a new oceanfinancing instrument whereby funds raised are earmarked exclusively for projects deemed ocean-friendly.

Water innovation has experienced a lack of private capital, and thus is without any major breakthrough. In view of this, it is important to solve these challenges by offering equity investments in innovative tech companies, and debt financing to carefully selected projects and water-saving technologies.

Water scarcity is a global issue, especially in the Middle East, and the United Arab Emirates has invested USD10 Bn for the launch of a strategic Israel Investment fund.

"Through this fund, the UAE will invest in and alongside Israel across sectors including energy, manufacturing, water, space, healthcare, and agri-tech. The investment fund will support development initiatives to promote regional economic cooperation between the two countries. Fund allocations will derive from government and private sector institutions." according to the news.

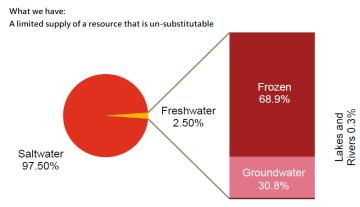
## **Creating Drinking Water from Air**

Watergen's patented technology creates high quality drinking water out of air for people everywhere

## **Watergen**

As mentioned earlier, we would like to introduce a watertech company which is considered as exotic, and this Israeli watertech solution is producing clean water from nowhere.

Though much of the earth's surface is covered by water, over 99% is either saltwater or is locked in glaciers (UNEP2008)<sup>(3)</sup>, while the remaining 1% is given the great mission by nature to serve all our human needs. Many countries are still struggling to deal with stable water supply at low cost, as dwindling water supplies affect



Source: UNEP Vital Water Graphics 2008.

More than 40% of people are affected by water scarcity. Of the 2.2Bn people who do not have safely managed water, 844 Mn do not have even a basic drinking water service. <sup>(4)</sup> By 2050, it is projected that at least one in four people will suffer recurring water shortages<sup>(5)</sup>. According to the United Nations, one in three people do not have access to safe drinking water, two out of five people worldwide do not have a basic hand-washing facility. <sup>(6) (7)</sup> What happened to the water supply?

#### **Climate Change**

Rising sea levels and temperature are part of the reasons that lead to contamination of freshwater sources. The changes in rainfall patterns and river flows, increased demand and wastage of water consumption also worsen the situation with increased frequency and severity of droughts. Approximately 74% of natural disasters between 2001 and 2018 were water related, including drought and floods. Climate change will increase the frequency and intensity of the situation, and thus destroy and contaminate the water and sanitation infrastructure<sup>(3)</sup>. One of the most recent examples from Taiwan in 2021 remind us why the world should be paying more serious attention <sup>(8)</sup> to the imminent problem, as not only the farms and semiconductor industry suffered, but all sapiens were affected. It is not a regional problem but a global catastrophe.

#### Population growth and increase demand

According to UNICEF, the global water demand is projected to increase by 20 to 30% per year by 2050 attributed to population growth and higher living standards. Water quality deteriorates without proper treatment on the backs of a great amount of wastewater discharge.

#### Ways to extract Water

There are many types of water extraction technologies including atmospheric water generation (AWG), desalination, reclaimed water, groundwater extraction, rainwater harvesting, etc. Desalination is a costly strategy (estimated at between two and three times the cost of treating surface water). The main use of reclaimed water is for irrigation of agriculture and gardens, and industrial recycling. However, there is still a major psychological barrier for humans to drink such water.

#### **Atmospheric Water Generator**

Atmospheric Water Generator<sup>(9)</sup> is a device that extracts water from our ambient air. Water vapor in the air can be extracted by condensation – cooling the air below its dew point, either by desiccants or air pressurization. The rate of water production depends on the ambient temperature, humidity, volume of air passing over the coil and the heat exchanger efficiency.



#### Watergen

Watergen is an Israel-based global company that develops water-from-air solutions. The startup was founded in 2009, and was originally a startup conceived to provide easily accessible water to militaries worldwide. As many of the readers may be aware of, Israel is always good at commercializing its military technologies to civilian use.

We have an interview with their senior sales manger, Ms. Anna Cherrnyavsky who shared their corporate mission and responsibility with us. Now they are focusing on tackling water scarcity and answering the needs of civilians whom are suffering from natural disasters and surviving from the shortage of clean water supply.



Watergen is now implemented in more than 65 countries across Asia, Middle East, Latin America, Africa, and the USA, implying that the AWG technology can be commonly used, and can operate in a diverse range of air qualities in the toughest terrains.

#### Core technology

Watergen's globally patented "GENuis" system for water extraction is the first heat exchanger ever to be composed by food-grade polymers in order to produce the best drinking water from air.

#### Cost

The cost of generating the water is fair and affordable. Watergen's products produce up to 1 liter of fresh drinking water by water extraction using 350Wh. The company's technology also facilitates significant water production in climates with humidity as low as 20%.

#### Quality

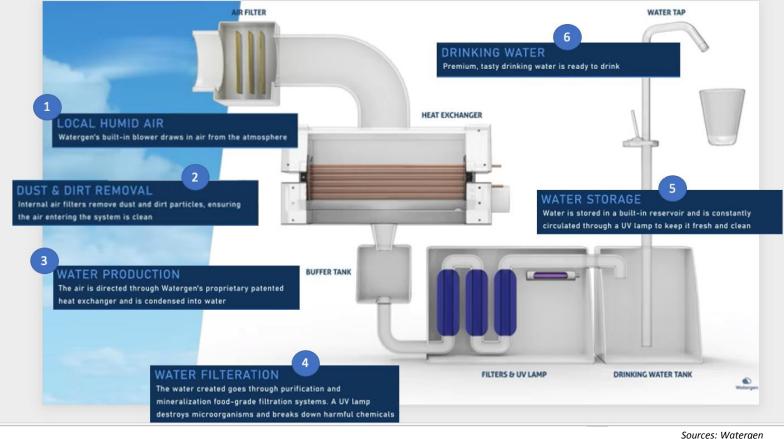
Watergen's water quality division has developed a stateof-the-art water treatment system, including UV and mineralization filters. All Watergen's products comply with EPA, NSF61, and the Federal Drinking Water Standards, ASSE LEC 2004.

Watergen's technology, products, and water quality are developed by field-experts and innovators from all relevant disciplines: engineering, design, microbiology, chemistry, and physics. Watergen's in-house lab is equipped with the latest technology.

Let's look a bit deeper at how Watergen's technology is a game-changing innovation, and how it can contribute to the world by supplying humankind with clean drinking water. We will also see how this should attract more cooperation between partners and investors.



Sources: Watergen



#### How does it works?

By converting the water inside air, Watergen leverages on their patented GENuis technology. Watergen's globally patented "GENius" system for water extraction is the first heat exchanger ever to be composed by food-grade polymers in order to produce the best drinking water from air. The patented heat-exchange technology will allow water in the air to be captured and condensed as it passes through the efficient heat exchange system. The water is then collected under the dew point temperature by controlling the pressure, algorithms, and patented advance technologies.



Watergen's technology extracts water from the air by enabling the air to move fast into the patented Genius system in a significantly short time, ensuring greater efficiency, and thus using less energy.

**Unique, energy-efficient heat exchange module**, using condensation as a means of producing fresh water. One liter of water costs 7-15 cents, which depends on local electricity costs.

Sources. Watergen

**Highly scalable and customizable drinking water solutions** for a wide range of daily quantities, configured to any production size. By using this technology, Watergen can supply fresh, clean drinking water to an entire town or village, or it can be scaleddown to supply enough premium drinking water for private homes or offices.

#### Watergen Parts Characteristics

#### Stage 1 Particulate removal

Two sequential air filters eliminate particulate matter that is smaller than 2.5 microns (<PM2.5).



#### Stage 2

#### Water creation

Water generated from air using GENuis technology is produced cleaner than water taken from the earth. GENuis is made entirely of material which is approved for the direct production of drinking water, complete with hydrophilic polymer coating. Thus, during the water production process, no substances prohibited for drinking are released.





#### Stage 3

#### Water Filtration & Mineralization

#### Removal of organic/inorganic substances + Microorganism •

High-tech 0.8um carbon filter increase filter performance by trapping inorganic / organic molecules, parasites, toxins, etc.

**Ultrafine filtration** ٠

> Blocks particles larger than 0.1um, removes microplastics and reduces total organic carbon, bacteria, molds, yeasts, spores, viruses, etc.

Mineralization

Stabilizes the water pH between 6.5-8.5, enriches the water with essential ions such as Ca, Mg for improving water's taste and mouth-feel

#### Stage 4

#### Water safety

Powerful germicidal lamp eliminates potential presence of bio-related contamination in the AWG water system

#### Stage 5

#### Water Maintenances

The cooling system keeps the storage tank below 5°C and circulated with UV lamp throughout the day to prevent bacteria build-up in water

#### Stage 6

#### Certifications

Highest quality of water, the devices, raw materials and parts comply with NSF 61/ 42/53 <sup>(10)(11)</sup> materials and safe requirement standards.







#### **Global Recognition**



Watergen hosted the Ambassador of United Arab Emirates





HRH Prince Charles introduced to Watergen technology during visit to Israel



Watergen's President at Davos 21 Jan. 2020 The Social Innovation and Global Ethics



Meeting Germany's Chancellor Angela Merkal at the World Jewish Congress 28 Oct. 2019

Ca + M 3 1 2

Sources: Watergen





## Watergen's product range cover the most

Watergen is considered as one of the most successful models because of its commercialization capability. Their product range is wide and cover most of the drinking water scenarios that support a good range of drinking water solutions for home & office, commercial, industrial, emergency, and mobility purposes.

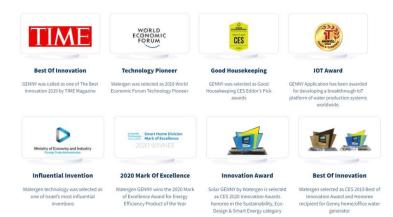
#### Gen-M Applications



#### App as an add-on feature for GENNY model

The 22litre /day water generation generator can be linked with apps, by controlling working mode, noise level, data collection including ambient temperature and humidity, operation data in the past 24 hours and replacement reminder.

### **Awards**



#### **MLB** Commentary

It is always a good reminder when people are interested in investing in high tech start-up solutions. Utilization and application together with the capabilities of commercialization are the most important. Watergen obviously has fulfilled this requirement, and this is also the reason why they already have raised sufficient funding for expansion and now they can focus on something beyond \$\$.

Sources: Watergen



Water scarcity is getting very serious in recent years, as the extreme climate affects rain patterns, damages the infrastructure incurring contamination of drinkable water, which is most likely to happen in the extreme weather regions.

We should not be ignorant to the recent drought which happened in Taiwan, especially since this happened in a well-developed country. That implies the same situation can happen in places where you live, and no country can be exempted from it.

Watergen is looking for more local distributors or agents to share their vision worldwide and we encourage you to be a participant and become one of the pioneers to change your attitude using water.

### Foreword continue...

### ISRAEL STARTUP INVESTMENTS

### Israel PropTech: Outlook

In 2019, a new Israeli-American fund is raising \$50 million to invest in startand companies developing ups property and real estate technologies with a "kosher" bet. This signals that the Israel proptech (property technology) market picking up its speed for growth in recent years where the number of local companies in this field has doubled in the last seven years; over a hundred of them in various stages of growth are currently active in Israel. It was just a few years back where the major realestate companies or developers started to realize the importance of proptech (also includes ConTech) and its inherent potential. One of the typical examples went to the collaboration emerging between WeWork and the property company Canada-Israel. where WeWork's model was questioned, and its sustainability was not guaranteed.

Nevertheless, let's take a look at some of the numbers in  $2019^{(12)}$ 

- over 100 start-ups operating within the proptech scope.
- From 2015 to 2019, the number of startup grew from 25 to 61.
- In terms of investments, the Israeli PropTech industry increased from less than \$30M to over \$900M during 2015 to 2019, representing a growth of 3,000%!

#### The Israel proptech development

The property industry is considered left behind the digital transformation era which is of no coincidence. Property, as the brick and mortar industry that it is; traditional and conservative, is characterized by complexity, a multi-level labour system, and with extensive regulation; a far cry from the habitual modes of thought and action at the typical startup.

PropTech lags behind Fintech despite its recognition of the importance and involvement of many people in our daily lives. However, this process is still in its earliest stages. There were improvements in trends since COVID19.

There are around 25 Israeli proptech companies in the city — a vast increase from a total of 60 Israeli startups in the city from 2014 across all industries. Today, there are a total of around 350 Israeli startups in the city.  $^{(13)}$ 

Some of the prominent startups is now valued at multi billion USD, in different aspects of proptech. The rapid pace of development in the Israeli ecosystem has given opportunities to the property companies as well as developers to pay attention to future trends and catch-up with the transformative opportunities found in the tech market.

CB Insights states that investment in PropTech startups soared from USD20 Mn in 2008 to a whopping USD4 Bn in 2018 and the growth is sustainable<sup>(14)</sup>.

Proptech is not essential to use an edge-cutting technology, but it improves the way we rent, sell, design, and construct both commercial and residential property.

We are inviting the Asia PropTech Association to address the need for the Asian market and will take a look at some of the proptech start-ups in this chapter, and analyse insight on how they can help the real estate companies and property developers in Asia to further develop the business and prepare for the future.

### PropTech Message by Asia Proptech Association

We are happy to have Mr. Leo Lo – founder of Asia PropTech to share with us his view on the development of proptech in the Asia market.

Mr. Lo: Property Technology have become increasingly popular, though real estate market is considered a familyoriented traditional. business. conservative, least innovative and sometimes complacent As a matter of fact, proptech development in Hong Kong is just at the very beginning stage, thus as we believe no one can stop the trend, there will be tremendous development in the coming future.

Recently, many real estate developers realized the importance to invest / collaborate with proptech start-ups, in order to stay in the edge of the evermost changing market, of them considered digital and tech innovation as an opportunity for future substantial development. Integrated with technologies including big data, AR/VR, AI and IoT, our workplaces and living areas have thus been improved.

According to Crunchbase, the investment of Global PropTech start-ups was amounted to US\$ 962m during 1Q2021.

Proptech consists of many aspects, including construction technology (ConTech), sales & marketing, property management etc. Recently HK real estate agents introduce augmented reality (AR)/ virtual reality (VR) for properties sales. After the pandemic, it is believed the demand for this kind of marketing strategy and tools will be increased and more popularity will be gained.

Regardless of the awareness and realization of the importance of proptech, many of them are still barred by the stakeholder's conservation.

Beyond funding, big data and information are crucial for sustainable development of the start-ups, thus analysis of the big data, trend and customer behaviour is essential for different parties deploying specific business model.

Most of the listed property developers focused on profit by traditional business models. However, deployment of proptech may highly uplift their brand names and thus enhance the customer loyalty.

#### **Digital Navigation**

From the perspective of developers, proptech represents better efficiency, safety, and a lower cost of building methods which can improve the profit margin of business. Developers thus are eager to establish the incubator, invest in proptech start-ups to suit their business operations.

With the support of the Israel Trade Commission HK, we look forward to the success of the collaboration with MLB Financial Group and Jakore to introduce the Israel proptech solutions to the property stakeholders in Asia and beyond. We hope this will deliver a better result for all participants and make win-win scenarios for the development of the future proptech.

> Leo M. Y. Lo Asia PropTech Founder MRICS MHKIS RPS(GP) MEcon



## MISSION

## INDOOR POSITIONING, WITHOUT THE HASSLE

We're building a truly scalable, worldwide, **zero-infrastructure Indoor Positioning System,** and offering it in a SaaS model

#### Sources: Oriient

Oriient

#### **Digital Navigation**

When we are talking about navigation, we normally refer to the Global Positioning system (GPS) which surely ranks on top of the list as one of the most used technology application in our lives. Based on the free Global Position System (GPS) broadcast by satellite, Google, Apple, and Nokia developed the online maps which are the most widely used thus far. What the users need is the internet connected smartphones or devices. By activating the GPS function, the location, direction, nearby information, and even the navigation function can be acquired.

The GPS works by on board ultra-accurate atomic clocks in the satellites, allowing a receiver to calculate the location by comparing and intersecting the signals from other satellites.<sup>(15)</sup>

However, these functions are distorted by the indoor environment such as the roof, nearby buildings, or even plants which can block the satellite signals.

#### Indoor Positioning<sup>(16)</sup>

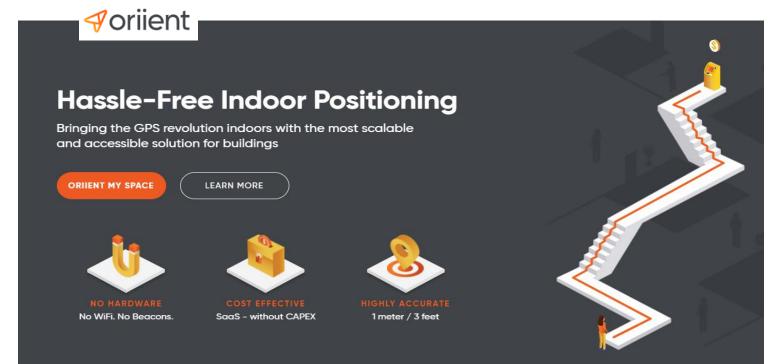
Wi-Fi-based-positioning, Ultra Wide Band (UWB), Bluetooth Low Energy (BLE) and Beacon are the widely-used indoor positioning technologies. What users do is to connect their smartphones and the signal transceivers.

Most of these indoor positioning technologies rely heavily on hardware installation (like BLE Beacons), or an inherently inaccurate existing infrastructure (like Wi-Fi), present problems of cost, accuracy, and scalability. Disadvantages of those indoor positioning technologies are obvious. The Wi-Fi based positioning provides only the rough positioning (approx. 10-20m)<sup>(17)</sup>. Furthermore, the iOS devices are excluded from client-based positioning, since the fingerprinting method only functions with Android device<sup>(18)</sup>. Security issue concern is raised since no login is required.

Bluetooth Low Energy (BLE) signal is emitted by installing the radio transmitters (beacon) throughout a space and locate a user's location via trilateration. It works on both iOS and Android devices. The accuracy depends on the number of beacons deployed (5m<sup>2</sup> covered per beacon) deploying in a space. However, interference occurs easily from items like shelving, furniture, and especially, human bodies. Shop owners need to take account of the maintenance expenses for replacing batteries and updating devices.

Ultra wideband (UWB) exploits transceivers and captures at very high accuracy, but is only available on iOS. The heavy installation burden incurs high maintenance cost, and monthly service fees.

Proptech companies have been working hard to overcome the inaccuracy regarding the locationbased services as many businesses are trying to offer to their customers in an indoor environment. Businesses have been eager to understand what is happening in their facilities, trying to leverage on the latest property technology for their indoor marketing, operations management, and data driven decision making.



Sources: Oriient

In 2016, Oriient's founders reached the remarkable breakthrough that enabled accurate indoor GPS using only the wonder of earth's magnetic field – Geomagnetic Field.

#### GeoMagnetic Technology

Earth's free of charge magnetic field are everywhere and provide direction and indoor positioning. The reason of IPS is based on the iron inside buildings introduce unique distortion of earth's magnetic field. Un-optimized compass chips inside smartphones can sense and record these magnetic landscape to map indoor locations.

#### Criteria of selecting the types of IPS

- Availability system require hardware installations or infrastructure, maintenance and run on most smartphones
- Accuracy how precise is the positioning (level of granularity in a space), any interference?
- 3. Cost Cost VS Return,

#### **Online to Offline (brick and Mortar shops)**

Oriient, which was founded in 2016, based in Tel Aviv, Is the company engaged in providing the Indoor Positioning System, beyond this, it aims at innovating a low cost, precise magnetic IPS technology that would be a game changer to the offline retail business models.

By leveraging the built-in magnetic sensors in the smartphones and self-developed algorithm, Oriient innovates the precise, real-time, scalable, and low-cost magnetic IPS. Users can experience in the same way they do GPS outdoors.

Geomagnetism ignore any hardware or reliance on facility infrastructure, its unparalleled accuracy of 1-meter (3 feet) as well as delivered in a Software-as-a-Service (SaaS) model – making it easy to implement and cost-effective.



To prepare the Oriient IPS services, the shop owner simply needs an untrained person to walk around every corner of each floor with a smartphone. The built-in magnetic sensors of smartphone can be used to scan and record the magnetic field. All smartphone brands can perform the same function and eliminate the need for other hardware.

Oriient developed an advanced algorithm which allows for all brands of smartphones to be compatible to the application and visualize the magnetic field which is displayed through the smartphone in the layout format.

Users just send the grocery list to Oriient, the best route will be received. The location, quantity, price of the products and the best route will be delivered through the smartphone. Retailers can send promotions messages to shoppers for marketing as well.



In what ways Oriient proptech can help the property owners and their users?

#### Navigation

The optimal path to single / multiple location(s) can be demonstrated through smartphone. The AI planned routes are optimized, which can prevent grocery pickers slowing down by 30% due to the wasted miles such as back-track or zig-zag routes. Shoppers may be helped by finding products easily and conveniently, as well as the shopping list created under an optimized route.

#### Flow and time pattern

Location (products from specific shop) that most customers want to know. Most crowded path / area / location can be recorded, property manager can analyse the factors / timing of the customers preferences, through their activities. i.e. The hottest and nobody cares items can be identified and allows them to capitalize on unused spaces and create the most productive floor plan.

#### **Decision making optimization**

Beneficial for buildings and store managers, fullvisibility into how spaces are being used give the advantage of better decision making according to optimization of space utilization. Managers promote / deploy different shop types and rent.

#### **Real Time Support**

Provide a real time / practical / no bias customer flow data.

#### Maintenance services enhancement

Enhance maintenance services by providing efficient and accurate services especially any emergency case.

#### Recovering Lost Revenues

20-40% of shoppers are unable to find the products that they intended to buy which results in retailers experiencing 3-5% loss in revenue relating to unlocatable products.<sup>(19)</sup> Searchable stores lead to recovery of lost revenues due to unfound products.

#### Marketing strategy

The combination of indoor navigation and IPS give building owners and managers the benefits of location-based marketing; a direct marketing strategy to alert the device's owner about an offer, coupons, and recipes. Shoppers experience the efficient shopping guide which enhances their loyalty, increases user satisfaction, leaves a positive impression, and strengthens brand image.

#### **Shopping behavior**

Retailers can target customers' in-store behavior, gather information about their buying products, time spent on product selection, and analyzing customer purchasing power.

#### Integration

Oriient provides a convenient and hardware-free IPS which can be integrated into existing apps developed by building owners/ stores. Thus retailers and delivery services have access to vital analytics to optimize the store layout.

#### **Customer Interaction**

With the popularity of AR/VR, customers can join the interaction with shops / buildings, more promotions / activities / games making shopping fun and exciting and increase app retention rate.





Indoor GPS has clear benefits to any building with foot traffic. Those benefits spread over various markets & verticals and go far beyond way-finding.

#### Way-Finding

Help visitors, customers, or tenants find people, products and places.

- By providing optimal routes throughout points of interest in a building, people no longer feel lost.
- Utilizing navigation decreases user abandonment related to unfound items and locations.
- Way-finding saves people time, improves mobile app retention rate and increases satisfaction.
- Route planning also offers improved operational efficiency and cost reduction.



Sources: Oriient



Sources: Oriient

#### Monitoring & Analytics

Better understand and manage how your space is being used with real-time monitoring and historical data analysis.

- Oriient provides building owners and facility managers with a wealth of information about their spaces, without having to install any sensors in the building.
- Current user positions are displayed live on a dashboard for controlling logistics and security, and assigning tasks based on proximity and optimal route planning.
- Movement patterns are recorded (at an individual level but anonymously) to supply vital information on foot traffic, space utilization and operational efficiency.

#### **Location-Based Actions**

Reach app users with messages as they enter, dwell in or exit a predetermined zone, and act contextually on their specific position.

- Oriient enables pushing location-based offers or alerts at the right time and place.
- Tag and report current positions, and control other systems in the building according to occupancy.



Sources: Oriient

	< oriient	Beacons	Wi-Fi	UWB
No hardware	~	×		×
Existing smartphone sensors	~	~	4	<i></i>
Easy to Integrate into app	~	~	1	×
Cross Platform 🧰 🥌	~	~	×	×
Accurate	~	<b>S</b>	×	~
Low cost scalability	×	×	<b>v</b>	×

Focused on Retail and Smart Buildings, Oriient provides users with highly accurate navigation on their own smartphones, and allows facilities to improve their service, space utilization, staff performance and operations.

Like GPS, but indoors, without any installation - using only the wonder of Earth's magnetic field!

#### Why Use an Indoor Positioning System?

- Visitors, who can conveniently find what they need, feel their time is valued - increasing satisfaction and customer spend
- Optimized operations and marketing, using locationbased actions, result in efficient service
- Data-driven decision-making improves space utilization, traffic management and layout performance

#### Why Use Oriient's Geomagnetic Indoor GPS?

No hardware or installation makes implementation exceptionally quick, simple and scalable

A cost-effective SaaS model solution – removes the need for CAPEX investment

Unparalleled accuracy of 1 meter (3 feet) ensures the highest quality user experience, and delivers definitive data

#### Implementation



An Oriient mapper rea

Breakthrouah alaorithm

ensor data together with the nagnetic map to determine the

se position of the use

process au

A magnetic map of the facility is created and uploaded to Oriient's cloud An Orlient Interpreter and scap building's magnetic landscap by walking around the space with a regular smartphone in



2.



ervice and buildina-o can immediately aain visibi to the use and managemen the data using an AP

Sources: Oriient

#### MLB commentary

We are at a severe intense shopping environment and not just shoppers are eager to save time finding their desired products and services, but the property owners also want to upsell and enhance customer's relationship right at the critical moment of a purchasing decision.

provides Indoor positioning revenue generation opportunities especially for the retailers; from business promotion to enhancing customer loyalty, retailer revenues can be raised. Oriient is providing tools to the property owners to analyze foot traffic and increase operational efficiency. Finally, they are fully compliant with all data privacy regulations – including GDPR.

https://www.oriient.me/comparing-indoor-positioning-technologies-whichone-is-right-for-you/

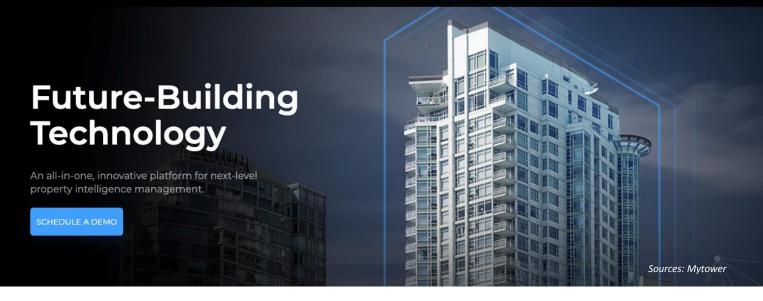


Sources: Orijent

integrated into an iOS/# mobile app (via a light-SDK with demo apps ar example code, or using







The next proptech company that we want to introduce to our readers is all about the extended concept of B-IoT (Building Internet of Things), we will use the term the company created for their new state of mind – IoB.

#### Internet of Building – IoB

The internet of buildings is more than a list of tools and technologies, and it is more than just one building - it's an entirely beyond the existing state of mind in terms of B-IoT. By connecting buildings through automation and AI algorithms and turning them from passive objects into engaged contributors, the solution can improve countless aspects of people's daily life and workflow.



#### Connected

Smart property is engaged and self-aware. It connects with utilities (water, gas, electricity, etc.), tenants, suppliers, and other buildings. Connected property allows synergy between online and offline solutions, and integrates centralized and decentralized networks.



#### Efficient

The IoB revolution reduces cost while boosting functionality. Optimized resource utilization helps tenants and protects the environment we all share. Smart buildings are better prepared for emergencies and non-resource situations, and can trade and share resources with other property. Their performance is easily measured and tracked.



Adaptive

Connected property can anticipate and adjust to changing circumstances such as climate, time, occupants, and more. Smart buildings become multifunctional and have modular systems that can be personalized based on user behavior and predefined needs, improving the wellbeing of people and communities.



#### Automatic

The above benefits take place smoothly and automatically. Specific needs, preferences and behaviors are all taken into account. Advanced machine learning algorithms study the property and its residents, getting better and more sophisticated at predicting needs based on user feedback and aggregated data.



MyTower is a Unified All-in-One Innovative Property and Facilities Management Platform.

Sources: Mytower

Compared to separated vertical services and solutions, which are very difficult to manage, MyTower as a real estate management tool includes a complex mix of different verticals that offers a comprehensive, horizontally-integrated end-to-end solution for the real estate industry from a user-centric point of view.

MyTower platform consists of a few major building blocks:



Sources: Mytower

**Property / Facility Management** - Smart building under one operating system. Convert into Smart Building will need to allow proactive and preventive maintenance, efficient use of resources, BI platform to anticipate needs, adapt to the changing circumstances, and more...

- BI platform to anticipate needs
- Proactive and preventive maintenance
- Unified property dashboard
- Finance and lease management
- Employee and attendance supervision
- Suppliers and contractor's management
- Platform's synergy

**Service Management** - Communication is the main CRM system to manage residents, visitors, vehicles, and deliveries. Allowing better and direct tenant communication, enabling them to easily make payments, report maintenance issues as well as to reward with loyalty programs., etc and more...

- 24/7 reporting
- Guest and entrance control
- Integrated emergency alarm
- Finance and legal management
- Facilities availability and reservation
- Mail and package delivery
- Key Management

#### **On-Demand Services**

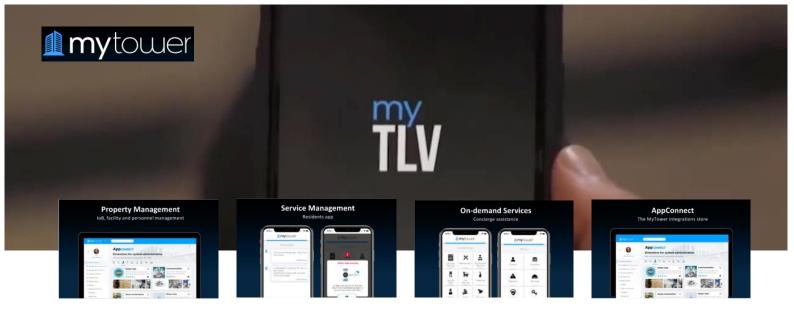
Concierge assistance connected countless service providers, such as room service, spa treatments, housekeeping, laundry, delivery, ecological car wash, and more...

- Room Service
- Spa treatments
- Housekeeping
- Laundry
- Deliveries Ecologic car wash
- Discount prices and loyalty club



Sources: Mytower

**Integration Store** - AppConnect - A world of upgrades and seamless integrations mobile facial recognition-based self-check-in, leak sensors, and proactive maintenance for shared and private areas, API integration, and other endless solutions.



MyTower platform connects and enhances property and service management, bringing the entire ecosystem under one virtual roof. Both residential, business, hospitality are suitable to match with the needs of tenants.



Sources: Youtube.com

A resident's app that allows for easy communication with tenants while providing a transparent view of tasks, jobs, and escalations.

MyTower App allows tenants to connect to their Mytower Smart building management system.

MyTower App is fully customizable by each Tower, the app provides the tenants with the ability to communicate with their tower services and facilities.

MyTower's exclusive app platform to help automate, organize and effectively manage any property from one convenient location. Facility and personnel management will gain a deeper understanding into the needs of their community.

Only for smart buildings connected to MyTower.



Sources: Youtube.com

**my**tower

2021/03/09 Joint Venture which revolutionise the Polish property management market? Joint project of Angel Poland Group and MyTower enters Poland

Working Cases - Angel Poland Group



There are applications for controlling access to buildings, there are applications for managing parking spaces in underground garages, and others for the contact between residents. MyTower brings all these elements together in a single solution. By leveraging the application, while adding Angel's experience in property management and construction, we will fill the biggest gap in the current market for "proptech", i.e. innovative technologies applicable to the development industry. It is an area in which we want to grow because we see its incredible potential. This is one reason why we have already started recruiting new specialists who will support this Joint Venture project.<sup>(20)</sup>

- says Ron Ben Shahar, CEO of Angel Poland Group.

In 2021, MyTower collaborated with Angel Poland Group, (a leading Polish premium real estate), to develop investments in Krakow and Wroclaw. The group implements the MyTower platform and application for comprehensive property management.

MyTower platform offers the intelligent building management solutions and establishes relations with and between residents and service providers.

MyTower software acts similar to an Operating System for the Building, which provides the digitized process and streamlines the management of properties and services.

For Property Manager, they can

control access to the building and manage common areas,

For residents, they can

 communicate with the manager, service provider and their neighbours, and create communities between the residents of the project.

You can also find the MyTower applications in the development of Gindi TLV

Gindi TLV, a prestige development includes Ten 14storey buildings and Four 48-storey stylish innovative luxury towers, which are located in heart of Tel Aviv, while the residents can work with MyTower apps as a personal assistant, to enjoy every features from Gindi TLV. From reception, carpark, to gym facilities reservation, public utilities, delivery services, payment, appointment and act as a social network.



Sources: youtube.com



The new era of property management requires a new and original approach. Cutting-edge service management solutions that take into account the current needs of owners, residents, managers, and vendors.

MyTower's property intelligence management platform connects and enhances property and service management, bringing the entire ecosystem under one virtual roof.



Maintenance alert

Hello Andrea, Water leakage in the kitchen faucet was succefully fixed.

Have a pleasent day. 🌝

Sources: Mytower



#### Any property you can think of

Property management at scale. Manage multiple assets of all types: residential, business, hospitality, and more, and find the perfect solutions to match the needs of each property.



#### Workflow segments

MyTower's platform offers frictionless, automated innovations that connect different steps of the process without any need for human intervention. Everything just works smoothly, while lowering costs significantly and increasing efficiency.



#### **Supply and demand**

Gone are the days of wasted resources and inactive personnel. Embrace the cost-efficient ondemand culture and only provide what is really needed, when it's really needed.



#### **Other leading platforms**

Easily connect MyTower to your favorite management platforms and multiply the impact of each one.

Sources: Mytower



#### The online and offline worlds

Break down the walls and form the perfect flow between online innovations and real-world elements. Integrate advanced software and hardware tailored for each segment. Our solutions are all user-friendly and user-focused.



#### **Residents and communities**

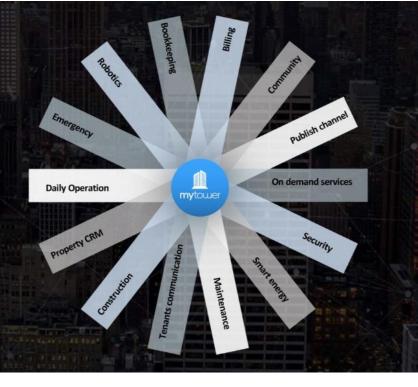
Form a real connection with people. Enjoy clear and easy communication that is instantly translated into action. Share spaces, facilities, tasks and ideas.

## The Answer: Breaking down the Walls

Comprehensive, horizontally-integrated **end-to-end solutions** for the real-estate industry from a **usercentric** point of view

Compered to separated vertical services which are difficult to manage

The next generation of property and service management is knocking at your door.



IoB can do more than just assisting in facility management efforts, it can also provide valuable insights to the use and enjoyment of the building spaces. Energy efficiency, building sustainability, and workforce management efforts will all benefit.

#### **MLB Commentary**

What does proptech mean for real estate? The concept brings new realia to the market which both make tenants' lives more comfortable and also helps real estate investors possibly make good money on returns. More and more leading VCs have been acknowledging the vast spectrum of proptech opportunities which might give attractive returns.

Nowadays, a lot of start-ups launch property-technology platforms that simplify the complicated process of buying, selling, renting, or owning a property. Venture capitals have already acknowledged the prospects of the proptech market and are willing to dip into their pockets and invest in proptech. In the U.S. market alone, investments have exceeded \$ 10 billion by 2019.

MyTower integrates most of the property management features aforementioned. Residents can use the apps to manage most of the personalized lifestyle and daily living expenditures / habits. As one of the successful Internet of Building (IoB) examples, Asian markets with a lot of those high prestige and luxury high-rises lead the innovative trend in terms of high tech services and MyTower should be the all-in-one solution that deserves more attention.



Sources: Mytower

## Israel High Tech Solutions @ Events

Event	Date
CES 2021 IS All-Digital	2021 Jan 11 - 14
Asian Financial Forum AFF	2021 Jan 18 - 19
MedinIsrael 2021 (Virtual)	2021 Apr 20 - 21
CommunicAsia Singapore	2021 June 9 - 11
MWC Barcelona	2021 June 28 – 2 July
Israel's AgriFood Week 2021	2021 Oct 24 -28
FinTech Week HK	2021 Nov 1 -5
MEDICA Germany	2021 Nov 15 - 18



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## Israel High-Tech Solutions

Impact on Future Businesses & Investment

## End of Report Thank You

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