Issue April 2021







Israel High-Tech Solutions
Impact on Future Businesses & Investment

This issue will cover

- Digital HealthCare
- Clean Technology

prepared by

MLB Asset Management

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- Israel Ministry of Economy and Industry
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Digital transformation in healthcare

According to Statista 2021, in 2019, the global digital health market was worth USD106 Bn. With an expected CAGR of 28.5% from 2020 to 2026, the digital health market will be expected to reach a 6 fold increase. By 2026, the digital health market will reach USD640 Bn. (1)

Before the pandemic, the general public is accustomed to visit doctors in person and a clinic-based treatment such as occupational therapy becoming home-based is uncommon. Now, thanks to the development of 5G applications, and affordable wearable devices, vital signs can be recorded, and doctors may even perform long-distance surgery by 5G applications. Moreover, live streaming video chats, virtual reality, artificial intelligence, telemedicine, blockchain electronic health records and big data all bode well for the development of digital healthcare.

The digital era shifts the healthcare business towards a flexible and imaginative mindset. The innovative business ideas that disrupt traditional business models will yield big results. The digital transformation will reshape how we interact with health professionals, big data usage, and treatment plans.

In a recent survey, only 7% of healthcare and pharmaceutical companies said they had gone digital, compared to 15% of companies in other industries(2).

According to the Department of Health and Human Services (HHS), healthcare spending is expected to increase 5.5% annually through 2026 and make up 19.7% of the US economy, compared with 17.9% in 2016. In total, spending in healthcare in the US is estimated to reach USD5.7 Tn in 2026, about USD2 Tn higher than this year. There is still time to get well-versed in healthcare digital tech(3).

Cleantech Market (air purifier): Trends and Opportunities

In 2016, the World Health Organization (WHO) air quality model confirms that 92% of the world's population lives in places where air quality levels exceed guidelines with respect to PM2.5, which includes pollutants such as sulphate, nitrates and black carbon, which penetrate deep into the lungs and the cardiovascular system, posing the greatest risks to human health(4).

There is now a rising awareness of indoor air quality (IAQ) airborne allergens and viruses. The global indoor air quality monitor market (IAQM) is expected to be valued at USDD4.63 Bn by 2022, growing at a CAGR of 9.22% throughout the forecast period(5).

The transmission of COVID-19 could be effectively enhanced by aerosol transmission, thus the IAQ is an increasingly vital signal. Globally, the WHO claimed that 90% + children under 15 breathe air that puts their health at serious risk. Due that their lungs are still developing and their breathing is at a faster rate than adults', they take in more pollutants relative to their body weight, while younger children were exposed to 30% more pollutants than adults. Asthma resulted as the most common ailment. Studies also found that pollution also negatively affects cognitive development and mental health. Anxiety and suicidal thoughts may become more common(6).

With all the statistics available for investors and market practitioners, we would like to identify some of the unique solutions in each sector for investors. As this is important for the further development of the industry, investors may contribute to the future development of human health while also benefit from the exponential growth of the industry, if the opportunity can be managed in a timely manner.

Foreword

Medi & HealthCare – Why Israel

In case you miss the event; this is the Message from

DIVERSITY is the backbone of Israel's Medical Device & Digital Health Industry

Diverse Companies • Diverse Technological Implementation • Diverse Medical Applications.

By the end of the 1990s, Israel was home to more than 200 life science companies. With steady growth over the last decade (some 40 new companies formed each year), Israel has introduced creativity and innovation into the field; today there are over **1500 active companies**.

In a relatively short period of time, an impressive 40 percent of these companies are already generating revenues. **Israel's entrepreneurial ecosystem** creates opportunities for start-ups to become **advanced, commercially viable and promising businesses.** As proof of the industry's development, 2018 Medical Device & Digital Health investment has surpassed $2 billion, growing steadily since 2010 while a rich pipeline of seed companies promises to perpetuate current growth.

The **Largest Sectors** are **Medical Devices** and **Digital Health** (over 65 percent of companies). In the medical devices arena, Israeli scientists and engineers have integrated advanced technologies in electronics, communications, and electro-optics to develop world-class innovations in **Digital Imaging, Medical Lasers, Telemedicine, Early Diagnostics, Smart Surgical** Equipment, and more. Over 600 medical device exporters engaged in a variety of medical applications such as **Cardiovascular** and **Peripheral Vascular, Neurology** and **Degenerative Diseases, Preparedness** and **Emergency Medicine, Intensive Care, Women's Health, Orthopedics** and **Sport Medicine, Gastrointestinal, Infection Control, Ophthalmology, Pain** and **Wound Management, Oral** and **Dental Care, Dermatology, and Aesthetics.**

The digital era opens tremendous opportunities to deliver healthcare services to patients at the comfort of their homes or wherever they are, through any web or mobile device, without requiring the presence of the healthcare provider. For millions of people that live in considerable distances from, or in scarcity of healthcare resources and services, the growing spread of smartphones creates new possibilities to improve healthcare service access and quality of life. **Telemedicine, mHealth, Wearables, Remote Monitoring, Electronic Medical Records, Big Data Analytics, Internet of Medical Things, Medical Apps** and others all can be incorporated into Digital Health or Health Information Technologies.

The Israeli Digital Health industry has its roots in a long history of using innovative communication technologies to improve healthcare delivery. With **more than 25 years of expertise** in implementing health IT, electronic medical records and **Big Data Analytics**, today, the Government keeps investing strongly in IT thus putting Israeli expertise in international demand.

We are proud of the contributions of our gifted innovators at the Israeli Medical Industry, which is a truly rewarding combination between Life Sciences and High-end Technologies starting from the design, development, advanced manufacturing integrating innovative materials, systems and techniques. This promotes the efficient work of medical staff, allowing the achievement of maximum accuracy in the testing and treatment tailored to each patient's unique profile, thus **placing the individual in the centre.**

Global Digital Health Care Market & The Rise of Israel's Position

The global digital health market is experiencing a promising double-digit growth, reaching USD200 Bn by 2022[7].

Israel became a major player in digital healthcare while the country put a great effort in innovative technology. Over 550 active digital health start-ups arose from a wide variety of digital health segments; half of them at the post-production phase.

The market is traditionally divided into four main categories:

1. Telemedicine:

During the pandemic outbreak, cities were locked down, and the public noticed the use of Telecommunication and IT in promoting healthcare services, e.g. consulting treatment and surgery could be remotely completed.

2. mHealth:

Since the technology of the smartphone, sensors, and wearable devices became more popular and affordable. The public use of mobile phones to collect data will become more widespread.

3. Electronic medical records (EMRs) & healthcare IT:

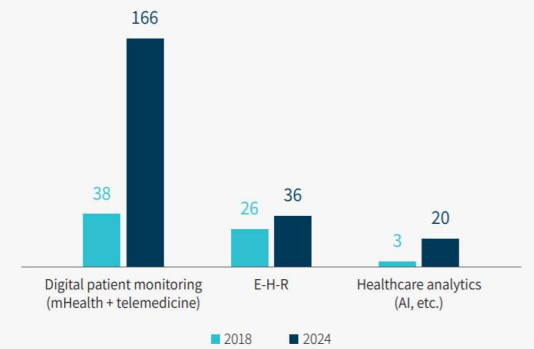
EMRs are IT systems which provide more efficient and easily accessible storable of patient health information in a digital format.

4. Health analytics, cognitive computing and artificial intelligence:

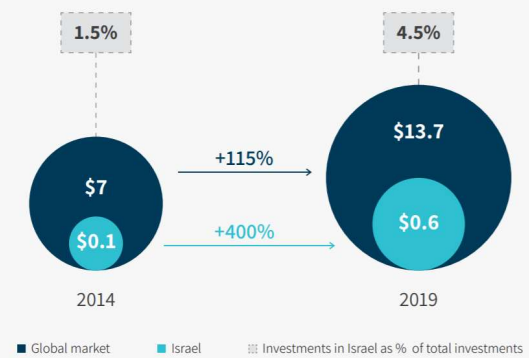
Health related big data provided the base of AI technologies and applications by using cognitive computing.

The Global market value predictions (in **USD Bn; Total of USD22 Bn in 2024)**

Digital patient monitoring and Health Analytics segments are expected to enjoy the most significant growth.



Global investment in digital health grew by 20% CAGR between 2014 and 2019, and reached USD14 Bn in 2019. Israel has been attracting a significant share of these investments, doubling its share of global investments, growing from 1.5% in 2014 to 4.5% in 2019 representing a 40% CAGR.[8]



We have spoken to 2 of the healthcare pioneers in the market and the following are their insights of their respective expertise.

The first company in the healthcare section is Elminda. Their caption "Imagine we could clearly "see" brain recovery" is so tempting, especially for those who have beloved suffering from brain injury.

Brain - Our very limited knowledge of the brain has been explored by using statistical analysis of the fMRI BOLD signal, EEG, PET, and MEG thus far. Scientists discovered that cognitive tasks are performed not by individual brain regions working in isolation, but by networks consisting of several discrete brain regions which are described as large-scale brain networks[9].

Disruption in activity in various networks have been implicated in neuropsychiatric disorders such as depression, Alzheimer's, autism spectrum disorder, schizophrenia, and bipolar disorder. Thus, the knowledge of the connectivity of such various regions bode well for pharmaceutical companies, universities and laboratories which engage in R&D, drugs manufacturing and effective therapy.

To perform the brain monitoring, we need devices and platforms for demonstrating results of the analysis to therapists and patients. This means there will be a huge potential in both hardware and software platforms with respect to the brain monitoring market.

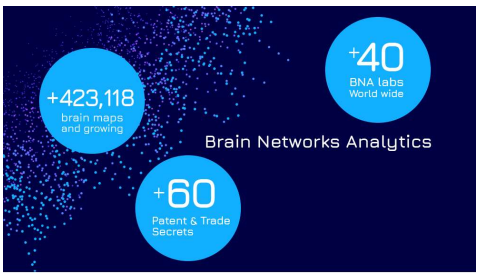
Brain Devices Market - According to the "Brain Monitoring Devices Global Market", the global brain monitoring devices market is expected to grow at mid-single digit CAGR from 2019 to 2026 to US$8,855.9 Mn by 2026 [10]. The increasing awareness of neurodegenerative disorders gives rise to growing healthcare spending in brain monitoring driving market growth. There will be a potential to impact an estimated 2 billion people worldwide living with neurological and psychiatric disorders. Preventive measures can be taken in order to mitigate the enormous medical expenditure.

Elminda - Pioneer in Brain Network Activation monitoring

Elminda, an Israel startup, was founded in 2006.

The company's vision is to bring a paradigm change to the management of brain disorders and injuries, by implementing state-of-the-art neuroscience into bed-side clinical practice. The company harnesses the power of brain mapping (EEG) and big data to lead the revolution on how healthcare systems see, treat, and manage brain health.

The company developed a patented FDA approved [11] BNA™ (Brain Network Activity) technology which provides detailed knowledge of brain functions over time. Healthcare providers can assess patients' brain network activity for comparison.



Why do we need Elminda's BNA™ solution

THE CHALLENGE

There is an **acute need to provide better outcomes** for people suffering from mental health disorders

Clinicians/payors are looking for technologies that **improve diagnostic accuracy and efficacy**, and speed to **optimal treatment pathway** for patients

Patients seek clear feedback that prescribed treatment is effective, confidence to continue with therapy, and that **remission is possible**.

THE SOLUTION

The BNA Platform – a software tool supporting clinicians in diagnosing cognitive disorders and monitoring and quantifying improvement.

Proprietary AI algorithms take EEG data and produces simplified, concise, visual reporting and **comparison to a normative age matched data set.**

Engages patients by **tracking progress over time and providing objective reassurance.**

Sources: ElMindA

How it works -

Imagine the brain as a network of city streets. Traditional MRIs demonstrate the roadways, but not the traffic[12]. Elminda's devices can be used to observe the effect of billions of neurons that fire when human think, speak, and breathe which is similar to the vehicles travelling on the roads.

The state-of-the-art BNA™ platform shows high resolution visualization and evaluation of the complex neuro-physiological interconnections of the human brain at work, capturing information on the composition, connectivity, synchronization, and operation of brain networks.

Users wear the "Hairnet" which uses up to 256 electrodes and sits on the head like a hairnet. Elminda devices measure the electrical field on top of the candidate's skull and analyze it with algorithms in order to infer what's going on inside the brain. Users wear the sensor net to measure brain activity as they hit a button during a reaction test, then the system uploads results into a web portal where findings are available between the users and medical professionals.

BNA™ Platform – How does it Work?

1. Measure
   - Record brain activity with standard EEG system at rest and while evoking specific brain processes (ERP) during 40-min test
2. Analyze BNA™
   - AI-based analytics: Data is validated and cleaned, and referenced to world' s largest normative age range matched cohort (2,200 patients; approx. 200k data points)
3. Act
   - APP based report used to support and expedite accurate diagnosis and optimal disease management
4. Grow Elminda Data Platform
   - Clinical & EEG details added to database platform for future biomarker and product development (currently > 540k datasets and growing)

Sources: ElMindA

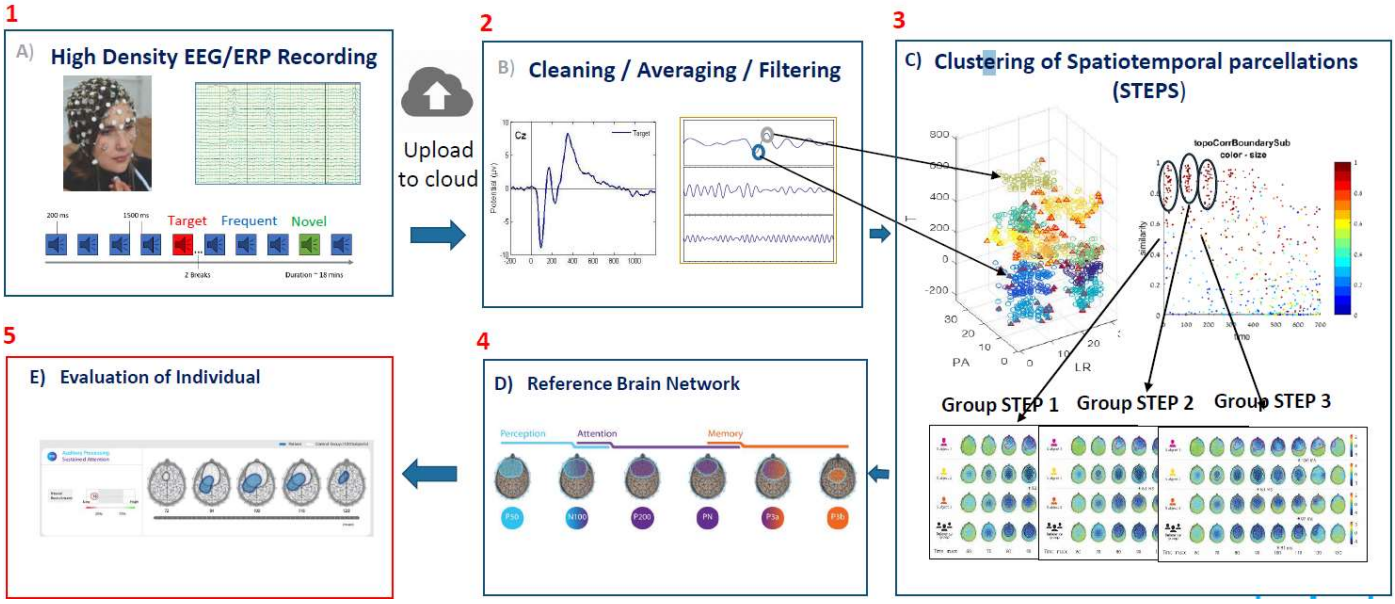
Business Model

The revenue model adopts a recurring fee per use model, where multiple reports are generated for each patient's visit over the course of treatment.

The BNA platform is to be used with established testing tools, and by qualified medical professionals for event related potentials (ERP).

Two Processes:

A. Creating a reference brain network (normative) **B. Evaluating the brain network of an individual**



Sources: ElMindA

Game Changer

BNA™ platform (Medical grade FDA(510k) approved)[13] as the clinical game changers in the following aspects:

1. **Comparison to age-matched normative data**
- World largest database of normalized EEG scans
- Hard to duplicate -> 540k dataset acquired over years
2. **Dementia**
- Succinct composite memory score for screening and early detection
- Actionable reporting for QoL and intervention
3. **Mental Health**
- Low-cost, non-invasive, fast test for treatment optimization
- Optimized treatment path to faster remission
- Demonstrated therapy progress drives patient compliance
4. **Disease & condition expansion**
- Scalable subscription platform to support expansion into adjacent disease with minimal cost
- Corporate partnership & research opportunities, companion diagnostics for new therapies
- General practitioner and telehealth models of care
5. **Software as a Medical Device (SAMD)[14]**
- *Report*: cloud-based computing, signal processing, machine learning and big data analysis for patient
- *Evaluate*: comparison of age-range matched reference group during brain activity
- *Manage*: interpretation of brain functions and measure therapeutic effect

Disrupted solution

While most brain monitoring systems require an invasive insertion of a sensor inside the brain, BNA combines non-invasive, multi-channel EEG technology[15] with patented BNA signal processing and analysis algorithms to measure patterns of brain networks activated during specific brain processes and deliver both quantitative and qualitative insights into brain functionality.

International recognition

Elminda's cutting-edge technology is recognized as broadly acceptable and useful. Not only was CE Mark approved in Europe for brain function assessment but also FDA approval was acquired[16].

Elminda is a frequent visitor of large-scale international exhibitions, which promotes startups and new technologies to media / investors. The company has introduced the state-of-the-art technologies to the (former) Japanese Prime Minister Abe, Israeli PM Netanyahu, (former) President Peres, and (former) US President Obama.

BNA ™ Unique Clinical Value

Initial product provides immediate value to existing EEG modality

Key Differentiator	Customer Benefit
End-to-End Solution	Installation, Technical Training, Support, Preprocessing, Analyses & Reporting
Automatic Processes	Cloud-based reporting following assessment
Rigorous Report Standards	FDA Approved software for post-hoc statistical analysis of EEG
Large, Standardized, Medical-grade, Normative Database	Contextualized results to normal, validated population across life-span
Serial Patient Test Reporting	Monitor disease progression and/or treatment efficacy over time
Comprehensive EEG Testing (3-1 testing: Resting QEEG, 2X ERP, Behavioral Report)	No more switching of systems or platforms to accomplish multiple tests
Intuitive and Data-Quality-Verified Reports	No time-consuming and tedious EEG analysis required
Home-based Clinical Info Collection (HIPAA compliant)	Reduced clinic resources & time- Practitioner can add customized patient questionnaires prior to assessment (e.g. PHQ9)
Advanced Extras	ERP and QEEG Clinical Atlas for literature-based report navigation & interpretation

Sources: ElMindA

During the Israeli visit of US President Barack Obama in March 2013, he visited Elminda as a finalist for million-dollar Global B.R.A.I.N. (Breakthrough Research And Innovation in Neurotechnology) Prize, an international R&D award for breakthroughs in the field of brain technology.[17]

ElMindA presents to PM Abe and PM Netanyahu – 2014[18]

EEG Testing- Competitive Overview

Company	Condition/ Approach	Clinician Target	Key Benefits	Key Limitations	elminda Advantage
elminda	Cognitive Disorders; Comprehensive EEG with simplified reporting against normative database	Neurologists, Psychiatrists	Comprehensive EEG reporting including 2 ERP protocols, Resting QEEG with high fidelity signals. Normative comparison to age-matched database. Cloud-based reporting with AI. Serial patient visit tracking for condition monitoring.	Magstim EGI system (at present) with 64 net electrode. 45 minute test. Report is not produced immediately at same patient visit.	n/a
Cognision	Cognitive Disorders; Simplified EEG	Psychiatrists, Neurologists	Simplified electrode net. Immediate report following patient test. Leverages existing EEQ codes.	Limited qEEG and ERP experience. No resting EEG. Standalone results-no comparative database. FDA approval is only for hardware.	Normative comparison. Rich technical data, including more ERP tests and resting EEG. Broader report capabilities.
Evoke Neuroscience	Dementia & Alzheimers; Simplified EEG	General Practitioners, Neurologists.	Ultra simplified setup- basic net and setup. Leverages existing EEQ codes.	Purpose-specific equipment and testing setup. Standalone results. No biomarker indication- FDA approval is for hardware.	High fidelity EEG signal. Distilled reporting across more parameters. Normative comparison. Resting EEG functionality.
BrainScope	Concussion (TBI) & Brain Bleed; Simple QEEG analysis for concussion	ER, General Practitioners	Disposable, one-time use electrodes. FDA cleared biomarker with publications.	Limited reimbursement- global hospital billing (ER triage) or patient pay.	Broader clinical information beyond TBI, multiple patient visit capabilities & trending. Comparison to normal function.
Telemynd	Depression & Mental Health drug prescriptions; QEEG analysis with large drug registry.	General Practitioners, Psychiatrists	Large database including drugs. Potential to improve probability of therapy.	Need to schedule EEG tech. with resulting rigid workflow. Limited clinician financial incentive.	Use and application beyond drug selection. No normative comparison with EEG. No patient monitoring or management capabilities.

Sources: ElMindA

MLB Commentary

Elminda's cutting-edge technology provides novel and integrated analysis for therapists and patients with respect to brain assessment.

Brain disorders incur huge medical expenses and burden patients. Elminda's BNA™ provides therapist and patients comprehensive analysis, which is in favor to shorten and lower the cost of treatments.

With reference to the beginning of our introduction, big data has provided the base of AI technologies and applications by using cognitive computing. Elimida's solution is something which we think has set a good reference for this example, and the technology offers more than just a hope to understand the diseases which have been haunting many victims for years.

Another company is highlighted where we believe its commercialization will help more brain injury patients in their rehabilitation as soon as they are discharged from hospital. Libra@Home is the company using VR technology with substantial scientific context at affordable cost.

Virtual Reality Background

According to Grand View Research, global Virtual Reality (VR) market size was valued USD15.8 Bn in 2020 and is expected to grow at a compounded annual growth rate (CAGR) of 18.0% from 2021 to 2028[19]. VR is a digitally-created experience where a 3D environment is simulated with the real-world. The further development of head-mounted devices (HMD), glasses, gloves, and bodysuits contribute to the tailor-made application in different fields.

VR technology will be very popular in the next decade, and VR tech has gained recognition as a useful tool for cognitive research, evaluation, and rehabilitation. In view of huge opportunities, Facebook's Zuckerberg[20] and the Apple iphone [21] developers will focus on VR technology developments by increasing investment and wearable devices production, which imply a high exposure to Facebook and iphone users. We believe Digital healthcare through VR tech will bring along unlimited opportunities, where research suggests that low-cost, immersive VR tech was proven to be effective for either clinical and/or home-based use.

Sources: Libra@home

Affordable device

The development of Head mounted device (HMD) allows VR tech to be more accessible, portable, affordable, and usable for certain neurological sickness intervention and home-based treatment, which exert a great impact on the well-being of patients.

Application of VR

Applications of VR involved are extensive. We focus on the VR medical market, which is mainly driven by surgical simulations, patient care management, diagnostic imaging, and rehabilitation. Thus far, rehabilitation is a relatively new and less explored area which provide patients cognitive training and interactive treatment. Patients can overcome fear and phobia during the therapy. Meanwhile therapists make use of the data for a better therapeutic stimulation to patients.

Effectiveness of VR treatment

Findings have demonstrated a promising potential for neuro-rehabilitation, including treatment of Dementia, Multiple Sclerosis, Parkinson, Stroke, Spinal Cord Injury and Phantom Upper Limb Pain. The outcomes have illustrated that VR tech can be a feasible solution for improvement of a neurological treatment.

Population	Symptoms	Sources
69 million Americans adults aged 40+	Vestibular disorders	https://pubmed.ncbi.nlm.nih.gov/19468085/
1Mn American	Parkinson's disease and balance impairment	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4517533/
8 Mn American	Chronic problem w/ balance	https://vestibular.org/article/what-is-vestibular/about-vestibular-disorders/
2.4Mn American	Chronic problem w/ dizziness	https://vestibular.org/article/what-is-vestibular/about-vestibular-disorders/
2.5 to 6.5 Mn American	TBI-related disabilities	https://pubmed.ncbi.nlm.nih.gov/30980755/
2.3 Mn worldwide	Multiple Sclerosis	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4162299/
36 Mn American	Migraine Related Vertigo	https://americanmigrainefoundation.org/resource-library/migraine-where-we-are-and-where-we-are-going/

Vestibular deficit

According to John Hopkins, 35% of Americans over the age of 40 (approx. 69Mn People) suffer from vestibular dysfunction (inner ear balance disorder)[22] followed by problems with balance, dizziness, and feelings of instability. In addition, due to the natural aging processes in the elderly, millions of individuals suffer from stroke and brain injury, such as Parkinson's disease.

Sources: Libra@home

About Libra@home

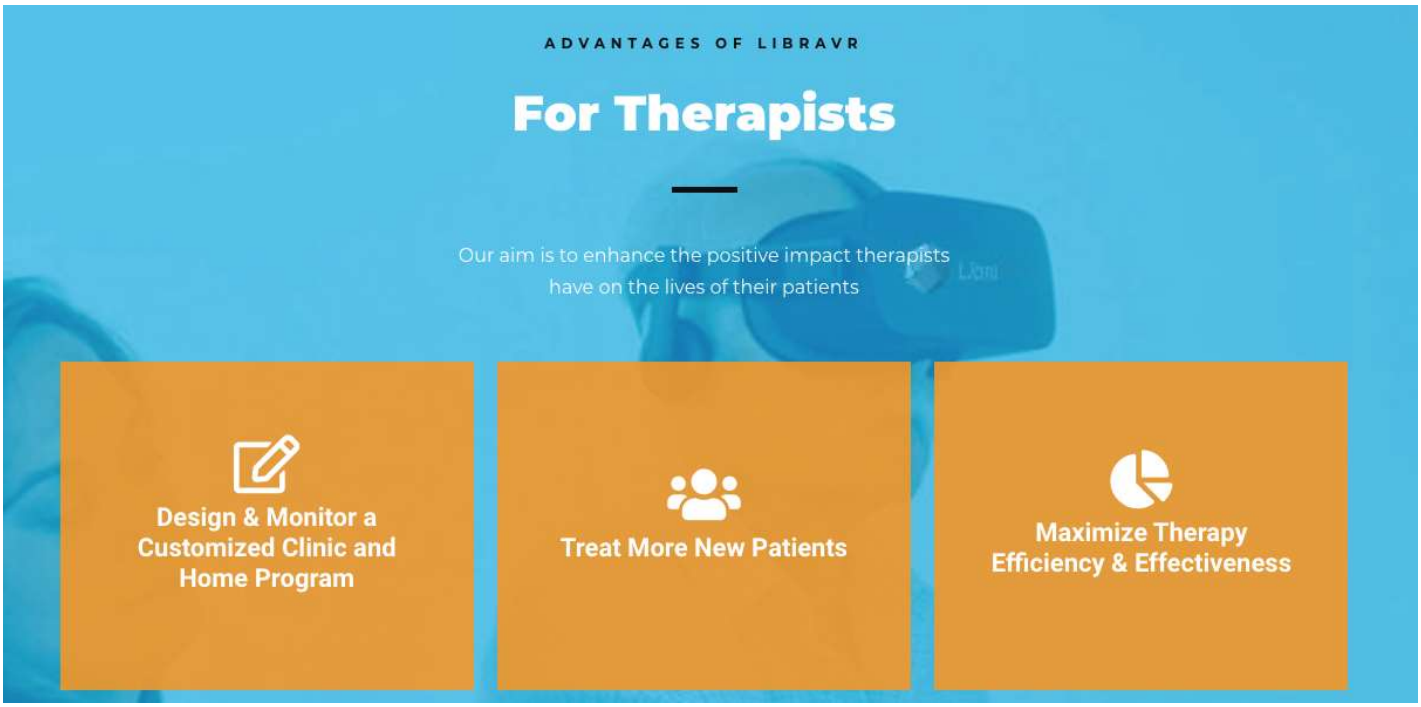
Founded in 2015, Libra@Home is a neurorehabilitation company developing tools to improve the quality and delivery of treatment for patients with neurological impairments, particularly balance, oculomotor, and vestibular disorders. By combining a clinical and home approach, Libra@Home improves rehabilitation outcomes, diminishes patient non-compliance, and speeds-up recovery time.

How does it work?

The company provides a solution for home-based rehabilitation using VR using the smartphone to record information on the performance of the exercise (e.g., Smooth Pursuit, Saccades, VOR) and allowing real-time adjustments without requiring the need for full-time therapists.

By combining with optional force platform (fig.1) which sense the movement of patients, the Libra@home system can accurately measure the patient status for effective rehabilitation treatment.

Sources: Libra@home



Sources: Libra@home

Disrupted game changer
Patients are required to perform much of the rehabilitation process at home. However, there are hardly any tools 1.) to deliver the exercises and stimulations and 2.) to track how the patient is performing with the affordable facilities.

Libra@home provides solutions for patients to increase the amount of therapy, allowing for tracking and measuring the performance and allows changes remotely. Patients do not need to spend long travelling time between home and clinic. The elderly are major target clients whom are not suitable for long travelling times.

Collaboration
To broaden the market, Libra@home collaborated with centers in the US and Uruguay and is a portfolio company of Alyn Children's rehabilitation hospital in Israel.

Libra@home Advantages:
- Unleashes specific eye and head movements by promoting vestibular system compensation
- Captures objective data and session outcomes
- Individualized treatment
- Allows task difficulties and incorporation of stimuli

To summarize:

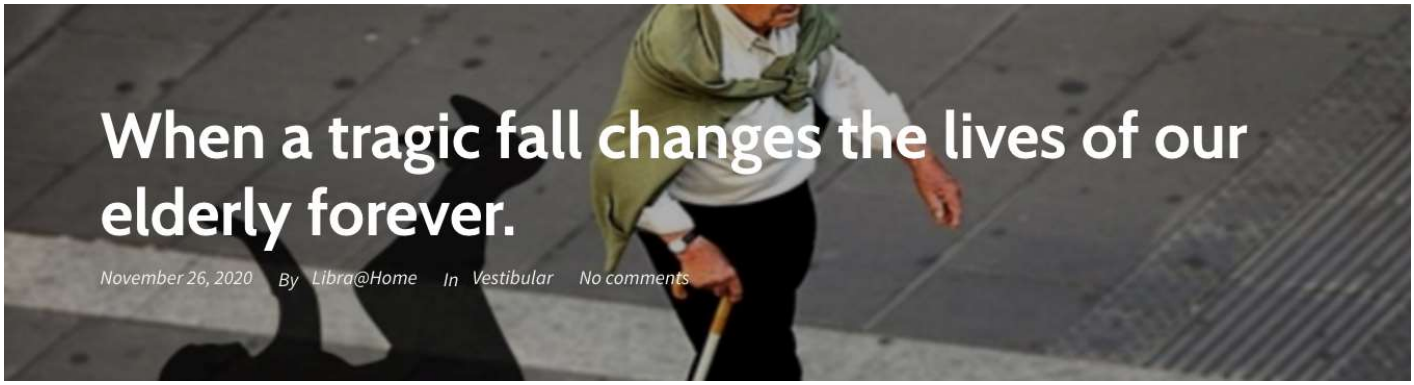
New Technology Capitalizes on Neuroplasticity
Portable virtual reality solutions for the clinic and home help therapists to consistently deliver improved therapy. The system guides patients through a series of exercises (e.g. Smooth Pursuit, Saccades, VOR)[23] which improve specific head and eye movements, training the vestibular system (inner ear) and brain to improve balance.

Greater Monitoring and Standardization for Therapists
With the LibraVR system, patients complete an objective assessment of balance parameters using an optional force platform for posturography. Therapists can then customize each patient's program to maximize individual gains while the system monitors outcomes and performance.

Engage Patients to Maximize Recovery
LibraVR Mobile is easy to use and more interesting than traditional solutions. Once the therapist shows the patient how to insert the smartphone into the VR viewer, patients are immersed in a variety of worlds and can complete their home exercises at the beach, the coliseum, or surrounded by stars all while in the comfort of their own home.

Fig.1 Optional force platform

Sources: Libra@home



Last but not least, this is a real experience from one of our best friends and it happened recently to his mom some 6 months ago. She passed away just before Easter:

It can happen to a senior at any time and without notice. Many times this tragic moment changes these people's lives forever.

A fall can result in aftereffects ranging from a traumatic event to the beginning of a deterioration that can lead to premature death in adults and the elderly. Broken hips and difficulties in moving around independently are tragic news for these people.

According to a note published in Time Magazine, 25% of older Americans who suffer hip fractures do not live past six months.

Why do people fall?

In a study conducted at Johns Hopkins, researchers found that approximately 35% of Americans over the age of 40 (approximately 69 million people) suffer from vestibular dysfunction, or as it is more commonly known an inner ear balance disorder. At age 60 or older, data showed that inner ear imbalances affect more than half of all Americans.

The vestibular system, also called the vestibular apparatus, is related to balance and the way we perceive the space around us. Located in the inner ear, this is the system responsible for detecting movements, turns, or accelerations of the head, and therefore helps to maintain balance.

When this signalling process of the inner ear is affected, problems with balance, dizziness, and feelings of instability begin. In some cases, these problems can give "early warnings" such as sensations of vertigo or sporadic dizziness, but many people carry this problem in a totally "asymptomatic" way, that is, without manifestations or symptoms.

In these cases that constitute a high percentage of the population, the fall will be the first alert. An alert that has come too late.

Sources: Libra@home

VR for Neuro-rehabilitation with promising potential

The medical use of AR/VR is of huge commercial opportunities, especially in delivering quality treatment for patients with neurological and balance disorders. Studies revealed positive results suggesting that VR is a feasible and effective tool in the treatment of neurological disorders.

MLB Commentary

Libra@home capitalises VR tech allowing patients to experience an affordable, easily accessible, and professional medical treatment which are proven to be effective for clinical rehabilitation and home-based settings. The full potential VR applications in healthcare are still to be fully explored.

Due to the strength and dedication on R&D Libra@home have themselves devoted to developing more fully-immersive VR systems in the future.

Since the revenue is based on sales of the clinical version of the system to therapists, clinics, hospitals and rehab centers, and a subscription-based model for home therapy, and since we have a huge market in Asia for the elderly, it is a reasonable expectation that their solutions will soon be a popular one in the market .

Clean tech trends and what's ahead

"Investors in the cleantech industry are not just funding the development of environmentally conscious business", argues Paul Corren. "While the technology is developed to do that, it is also focused on reducing costs and improving efficiency."

IPE Magazine April 2021

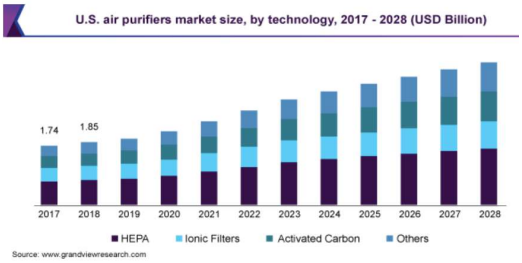
There are some misunderstandings that cleantech only refers to climate change and it is all about renewable energy. This is partly true, but the narrow narrative on cleantech will not create a better future of its development. Cleantech covers a multitude of different technologies and products, whether these are related to recycling, renewable electricity, or sustainable building. The term can be applied to any facet of industry which wants to improve performance, and more crucially, reduce costs.

For most of the cleantech firms and start-ups, it is important that the environmental benefits of any technology should only be emphasised once strong commercial fundamentals and market potential are established.

Moreover, Cleantech isn't about dealing with new problems. What's new is government legislation that forces us to solve these problems in a clean and efficient way. What cleantech needs is for government and industry to come together and agree on a long-term policy. Government has an important role in setting standards, policy, and objectives.

As well as cleantech covering many different areas of industry, there are different kinds of cleantech. Better combustion engines could represent a 5-10% reduction in emissions, where there is a clear and valuable improvement. The move to electric vehicles powered by hydrogen fuel cells would furthermore represent cleanest-tech, reducing emissions by 80-90%. These all consist cleantech, and we will be covering an innovative air purifier start-up this time.

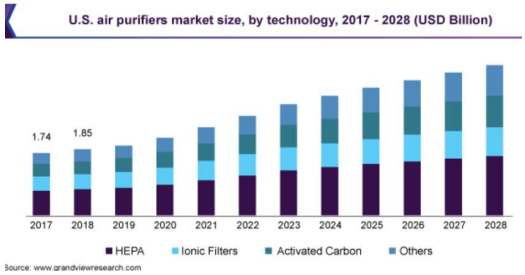
The global air purifier market size was valued at USD10.7 Bn in 2020, and is expected to expand at a compound annual growth (CAGR) of 10.0% from 2021 to 2028. This is mainly due to the rising awareness for a healthy lifestyle.[24]



The growing urban population, increasing incidence of respiratory disease, and especially the pandemic outbreak support the substantial growth of the air purifier market, as a cleantech industry.

The highlights of Air Purifier market

HEPA filter is recognised as the most effective in removing airborne particles as compared to other technologies. This is the most effective technology for trapping harmful airborne particles. A breakthrough of the filter which is useful for minimizing the aerosol transmission, is important, especially in hospitals, universities, government facilities, and public transportation amidst the COVID-19 pandemic.



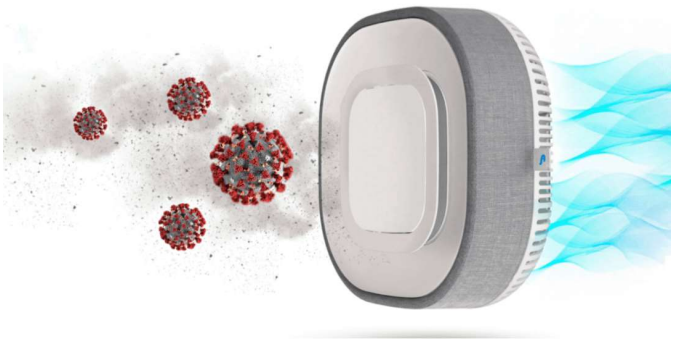
Airborne transmission that cause COVID-19

People have been emphasizing poor outdoor air quality, however, with the pandemic, airborne transmission became the spotlight of the universe. People are increasing the awareness of air quality and capitalize on artificial intelligence technology to manage and purify indoor air quality.

The pandemic outbreak in major cities are more serious than rural areas, where governments advocated “stay home, stay safe” campaigns. Thus staying indoors means the air quality must be monitored and treated.

According to an interview write-up conducted by NoCamels this Jan 2021[25], the potential risk for airborne transmission of SARS-CoV-2, the virus that causes COVID-19, has put the need for safer indoor environments in the spotlight. This need has put a small Israeli company with an artificial intelligence technology solution to purify and manage indoor air quality, at the heart of the battle on how to keep public indoor spaces open and safe.

“What COVID-19 did for our company is, fast forward, the awareness of the importance of indoor environments,” Aviad Shnaiderman, co-founder and CEO of Aura Air, tells NoCamels. “You can see the haze and and you can see the smog, so, people know about outdoor air quality. But no one was really paying enough attention to the indoor environment.”

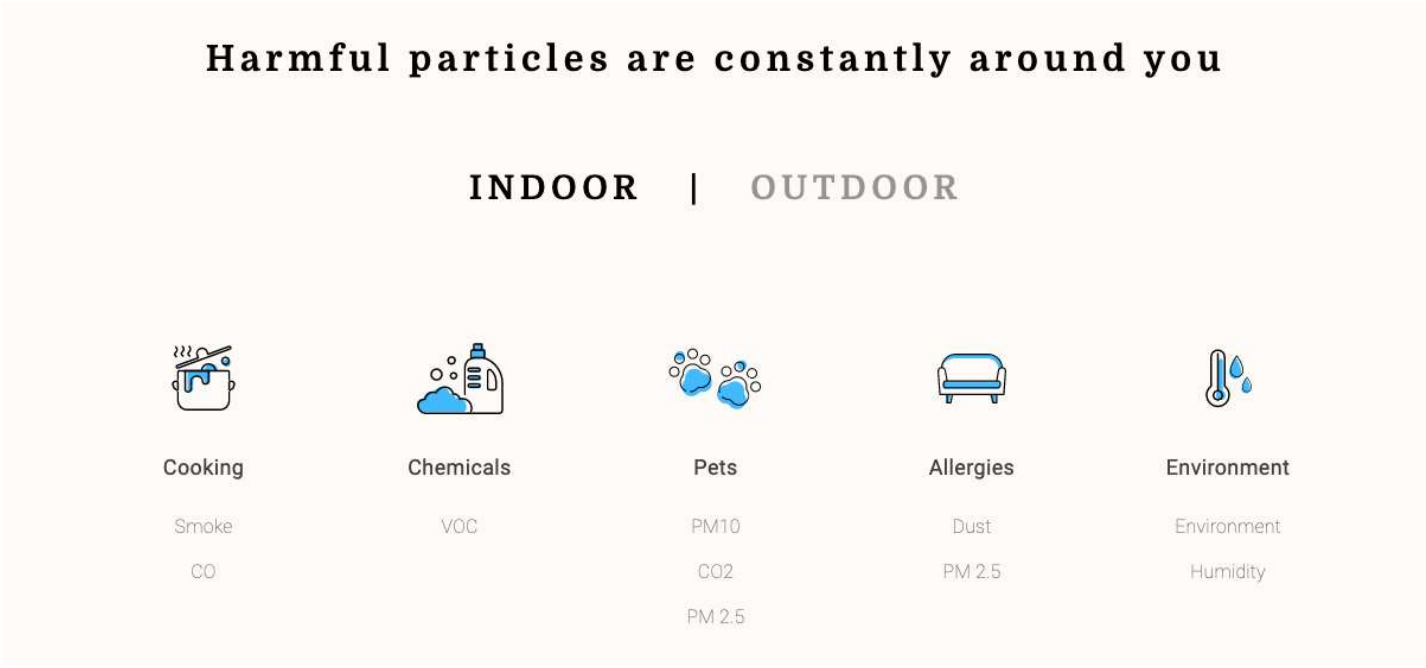


Sources: Aura Air

A solution is provided by an Israeli company, and we have the opportunity to cover their story with the assistance from the Israel Trade Commissioner HK. The company is now operating in 50 countries.

In Aug 2019, Aura Smart Air performed a trial in collaboration with The Department of General and Oncological Surgery at The Chaim Sheba Medical Center in the installation of air purifiers for the purpose of disinfecting and purifying the air from various pollutants.

In May 2020, the company began a clinical experiment to test the effectiveness of Aura Air’s disinfection capabilities on the Coronavirus. The aim of the trial was to quantify the properties of the Aura Smart Air device to purify air contaminated by a Coronavirus similar in size with the SARS-CoV 2. According to their results, the tested components of the Aura Air Device was able to significantly reduce the viral load as measured by RT-PCR assay. [26]



Sources: Aura Air

Aura Air

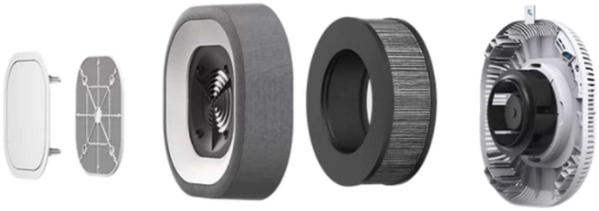
The company was founded in 2018, company vision was to provide an all-in-one indoor air purification and quality intelligence system to customers. With the founders' solid HVAC experience, they were very aware of the need for uncontaminated indoor air as Indoor air is up to 5 times more polluted than the air outside. The company produced a flagship product Aura Air, a 3-in1 air quality device which can detect indoor and outdoor air quality, and provide solutions for disinfection and purification based on user's settings.

How it works?

This Israel startup manages air quality in three stages: 1. monitoring, 2. analysis, and 3. air purification. Their sensors tracks the presence of airborne particles and gases in real time and then purifies the molds or bacteria using patented filter technology.

Products

The product can be wall, ceiling, shelf, or desktop-mounted. To manage the air quality, Aura air uses patented and EPA-approved Sterionizer, Ray Filter, as well as UVC LEDs to target and disinfect the indoor air from bacteria, viruses, fungus, mold and odors. The patented filters meet the recommended 6 air changes per hour for Hospital Wards, and 2.5 air changes for homes and offices. [27]



Pre-Filter **Ray-Filter™** **UVC LED** **Sterionizer**

Sources: Aura Air

Pre-filter

Catch dust, pollen, insects, large particles

Ray filter™

HEPA - 99.5% filter of 0.3 microns particle

Carbon Layer – absorb VOCs, odor

Smart copper fabric – consist of copper ions for blasting pathogens and preventing cell respiration by punching holes in the cell membrane / viral coating thereby destroying DNA / RNA inside a bacteria / virus.

UVC LED

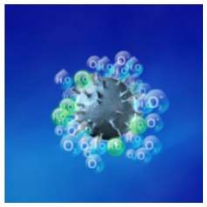
Inactivates the micro organism by destroying nucleic acids and disrupting DNA. UV light with a wavelength of 200-280 nm is the most effective and germicidal.

Sterionizer ™

This sterionizer sends positive and negative ions in the air. Oxidants break down the protein structure of viruses and bacteria, rendering them harmless. Traditional ionisers produce dangerous levels of ozone which can damage the lungs.

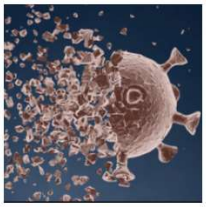
Filter	Coronavirus Reduction Ration (%)
HEPA	99.72%
SCF	99.97%
Sterionizer™ LP	99.96%
Sterionizer™ HP	99.94%
UVC LED	99.96%

Sources: The Surgical Oncology Laboratory, Department of General & Oncological Surgery-Surgery C, The Chaim Sheba Medical Center, Tel Hashomer, Ramat Gan, Israel



The Patented Sterionizer

The patented Sterionizer sends positive and negative ions into the air producing . Oxidants break down the protein structure of viruses and bacteria, rendering them harmless. Traditional Ionisers produce Ozone which can damage the lungs.



Patented Copper laced HEPA Filter

Copper Ions blast the pathogen preventing cell respiration and punch holes in the cell membrane/viral coating. They seek and destroy the DNA and RNA inside a bacteria or virus, preventing the mutations that create drug-resistant superbugs.

UV-C Light

UV-C light is well proven to inactivate micro organisms by destroying nucleic acids and disrupting their DNA with its short wavelength. UV light with a wavelength of 200-280nm is the most germicidal and effective.

Visualization

Aura Air accurately measures and analyzes users and the concentration of volatile organic compounds (VOC), PM2.5 & PM10 size particulates in the air, humidity levels, CO, and CO2 levels. These are monitored and recorded by 7 sensors specifically every 10 seconds.

Aura Air has a business version of Apps called the "Dashboard" which is compatible with Alexa, Google Home and IFTTT. Users are notified of the air quality status based on the personalized air quality insights, locations, and health necessities by providing solutions, such as catching the particles.

"Dashboard" provides real-time detailed monitoring, record historical data for analysis, and sends warning messages to users with personal settings. It produces a real-time calculation of the industry-accepted summary index of Air Quality - The AQI

THE REAL-TIME PRECISION SENSORS BUILT INTO THE FILTER

Aura Air - Integrated Sensors - Monitoring Accuracy

Measured parameter	Range of measurement	Accuracy/Resolution
tVOC	0-2008 ppb 2008-11110 ppb 11110-60000 ppb	1 ppb 6 ppb 32 ppb
Equivalent CO_2	400-1479 ppm 1479-5144 ppm 5144-17597 ppm 17597-60000 ppm	1 ppm 3 ppm 9 ppm 31 ppm
Dust	0-500 µg/m^3	Min particle diameter 1 µM
CO (carbon monoxide)	0-500 ppb	0.1 ppb
Temperature	-40◦C to +125◦C -40 ◦F to 257 ◦F	±0.2 ◦C/ ±32.36◦F
Humidity	0-100 % RH	±2%

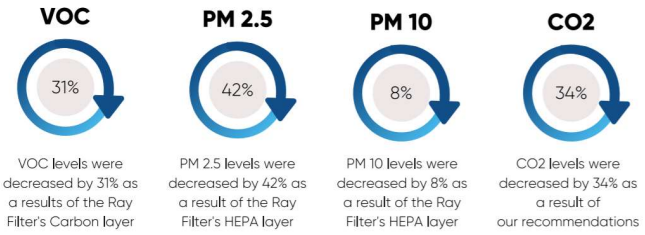
Sources: Aura Air

According to Daniel Tannenbaum from Medicompare[28], Aura Air – the world's smartest, industrial strength, hang on the wall, "6-stage" air purification system, eradicates 99.98% of airborne particulates down to 0.3µm and up to 99% of viruses, mold, and bacteria. Its integrated sensors and supporting iOS and Android apps provide real-time, indoor versus outdoor monitoring of CO, smoke, and fire as well as PM10, PM2.5, humidity, CO2, VOC, SO2, NO2 and O3 levels, and unhealthy pollution levels outside of the building.

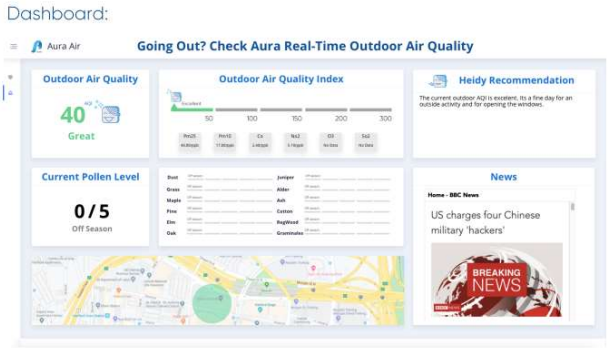
Case Study[29]

Hilton Hotel Connecticut was selected to conduct a case study with Aura Air in 2020. The objective of the study is to testify how Aura Air clean air technology can significantly improve the air quality and verify their products' performance.

In weeks 2-3, Aura operated in a hotel guest room with their devices, and it proved that the technology could disinfect and purify the air, significantly reducing the harmful particles and parameters in the room shown below:



Sources: Aura Air



Sources: Aura Air

A similar case study was conducted with the Sheba Medical Center targeting the health of hospital staff and patients during the sensitive times at the peak of Covid 19. The test was executed and performed through an interactive data-based experience providing reports and insights.

Sources: Aura Air

The table below shows the results of the test where the Sterionizer decreased amounts of bacteria for at least 1 order of magnitude (more than 90%) for all the strains tested. It also decreased the amounts of fungus at least 36%, and the amounts of mold, spores, and virus for at least 89% for all the tested strains. (30)

The efficiency of the Sterionizer in removing different types of pollutants is presented in Table 2.

Table 2- Sterionizer efficiency tests

Substance	Substance name	Removal
Bacteria	Escherichia Coli	99%
	Escherichia Coli ATCC	91%
	Staphylococcus aureus	91%
	Pseudomonas aeruginosa	99%
	Staphylococcus aureus (MRSA)	99%
Fungus	Aspergillus Niger	97%
	Candida albicans	36%
	Dichobotrys abundans	90%
	Penicillium	95%
Mold	Cladosporium cladosporioides	97%
Spores	Bacillus subtilis var Niger	89%
Viruses	Influenza H1N1	99%
	Influenza H5N1	99%

According to the overview conducted by the Technion's Division of Continuing Education and External Studies in 2019, by comparing competitors, no other product was found to rely on a copper filter, while the combining of carbon / HEPA components significantly magnifies the filtering capacity. (31)

Aura Air provides the solution of tracking and monitoring outdoor air quality detection which extends capacity, while consumers can take into account the outdoor environment by adjusting indoor filters accordingly.

Aura Air's technology uses multiple sensors, smart algorithms, and unique air purification methods. The systems are manufactured by AY Electronics in Israel. According to the Tech Time news in 2020 October, they also gained confidence from the King of Spain and has installed the air purification system in the King's reception hall.(32)

Sources: Aura Air

Aura Air seems to understand the principle that the company must "earn the right" to have customers adopt their product or service. This "earn it" mindset proved to be a powerful tool in establishing a company culture that emphasized hard work, integrity, accountability and results. By December 2020, the company was operating in over 50 countries.

Another reason for the success is probably because of their variety of product range that meets different sectors and demands of customers.

Sources: Aura Air

MLB Commentary

Air quality raises concern after pandemic
The general public has raised awareness towards indoor air quality, especially upon the pandemic outbreak due to the aerosol transmission which may cause infection.

With the aim of reducing the infection rate by aerosol transmission and direct contact with patients, cities locked down and implemented social distancing which may be for a short term period. For the longer term, an effective improvement of IAQ could directly reduce infection cases.

We believe the public will welcome the installation of air purifiers in public areas, and the Aura Air patented filter technology would reduce the harmful substances effectively. Furthermore, the AI-based system allows devices to be compatible under different situations. In addition, their business has been explored widely around the world including Israel, UK, US, and Asia.

Aura Air may have a significant contribution to the success of IAQ improvement in the future and reduce the probability of a pandemic outbreak.

Sources: Aura Air

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
Smart Mobility summit 2021	2021 Nov 8 - 9
MEDICA Germany	2021 Nov 15 - 18

References

1. Global digital health market size in 2019 and a forecast for 2026, 2021, https://www.statista.com/statistics/1092869/global-digital-health-market-size-forecast/

2. Digital Transformation in Healthcare in 2021: 7 Key Trends, 4Jan2021, Michael Reddy, https://www.digitalauthority.me/resources/state-of-digital-transformation-healthcare/

3. By 2026, National Health Spending Will Climb to 19.7% of Economy, Report Says, 15Feb2018, Allison Inserro, https://www.ajmc.com/view/by-2026-national-health-spending-will-climb-to-197-of-economy-report-says-

4. WHO releases country estimates on air pollution exposure and health impact, 27Sep2016, WHO, https://www.who.int/news/item/27-09-2016-who-releases-country-estimates-on-air-pollution-exposure-and-health-impact

5. Indoor Air Quality Monitor Market - Global Forecast To 2022, Nov2016, https://www.researchandmarkets.com/reports/3972636/indoor-air-quality-monitor-market-global

6. More than 90% of the world's children breathe toxic air every day, 29O2018, https://www.who.int/news/item/29-10-2018-more-than-90-of-the-worlds-children-breathe-toxic-air-every-day

7. DIGITAL HEALTH: THE ISRAELI PROMISE, MAR2020, P.10, https://investinisrael.gov.il/HowWeHelp/downloads/Digital%20Health%20-%20The%20Israeli%20Promise.pdf

8. DIGITAL HEALTH: THE ISRAELI PROMISE, MAR2020, P.7, https://investinisrael.gov.il/HowWeHelp/downloads/Digital%20Health%20-%20The%20Israeli%20Promise.pdf

9. Large-scale brain networks, https://en.wikipedia.org/wiki/Large-scale_brain_networks

10. Brain Monitoring Devices Global Market - Forecast to 2026, JUL2020, https://www.marketresearch.com/IQ4I-Research-and-Consultancy-v4023/Brain-Monitoring-Devices-Global-Forecast-13445025/

11. ElMindA receives FDA approval for brain-scanner, Aug2014, Gali Weinreb, https://en.globes.co.il/en/article-elminda-receives-fda-approval-for-brain-scanning-system-1000961242

12. The world's top 10 Most innovative Companies of 2015 in Israel, SEP2015, https://www.fastcompany.com/3041653/the-worlds-top-10-most-innovative-companies-of-2015-in-israel

13. https://www.accessdata.fda.gov/cdrh_docs/pdf20/K202588.pdf

14. Software as a Medical Device (SaMD), APR2018, https://www.fda.gov/medical-devices/digital-health-center-excellence/software-medical-device-samd

15. elminda Raises $28 Million in Series C Financing to Accelerate its BNA™ Technology Adoption, NOV2015, https://elminda.com/elminda-raises-28-million-in-series-c-financing-to-accelerate-its-bna-technology-adoption/

References

16. BNA™ (Brain Network Analytics) provides detailed knowledge of brain function over time. Potential to impact an estimated 2 billion people worldwide living with neurological, psychiatric disorders., 16 NOV2015, https://elminda.com/category/news/

17. President Obama meets ElMindA, https://www.youtube.com/watch?v=o8U7Wy2Mkr8

18. ElMindA presents to PM Abe and PM Netanyahu, https://vimeo.com/117484988

19. Virtual Reality Market Size, Share & Trends Analysis Report By Technology (Semi & Fully Immersive, Non-immersive), By Device (HMD, GTD), By Component (Hardware, Software), By Application, And Segment Forecasts, 2021 – 2028, Mar2021, https://www.grandviewresearch.com/industry-analysis/virtual-reality-vr-market

20. Mark Zuckerberg Talks the Future of AR and VR in The Information's Reality Check, 8Mar21, https://www.theinformation.com/articles/mark-zuckerberg-talks-the-future-of-ar-and-vr-in-the-informations-reality-check

21. Apple to release mixed reality headset in 2022, analyst predicts, 7Mar21, https://www.cnet.com/news/apple-to-release-mixed-reality-headset-in-2022-analyst-predicts/

22. When a tragic fall changes the lives of our elderly forever. NOV2021 , https://librahome.com/when-a-fall-changes-the-lives-of-our-elderly/

23. https://www.healthlinkholdings.com/products/virtual-reality-rehab/libravr/

24. Air Purifier Market Size, Share & Trends Analysis Report By Technology (HEPA, Activated Carbon, Ionic Filters), By Application (Commercial, Residential, Industrial), By Region, And Segment Forecasts, 2021 – 2028, Mar21, https://www.grandviewresearch.com/industry-analysis/air-purifier-market

25. Keeping COVID-19 Out: Israeli Tech to purify indoor air could be a game-changer, 04Jan2021, Viva Sarah Press, https://nocamels.com/2021/01/covid-19-out-israeli-tech-purify-indoor-aura-air/

26. Anti-Coronavirus Performance of Air Filtration System Components, July 2020, Olga Klebanov1PhD, Vera Pavlov1Msc, Eldar Shnaiderman2 , Roei Friedberg2 , Vladimir Glukhman3PhD, Aviram Nissan1MD, https://aura-smart-air-assets.s3.amazonaws.com/Coronavirus_White+Paper_To+send.pdf

27. https://www.aurasmartair.co.uk/#/

28. Aura Air Launches The Air Purification System for Dentists During Covid-19 , 13AUG2020, Daniel Tannenbaum, https://www.medicompare.co.uk/aura-air-launches-the-air-purification-system-for-dentists-during-covid-19/

29. AND YOU THOUGHT AIR CONDITIONING WAS "CLEAN" , https://www.aurasmartair.co.uk/offices_hospitality.html#/

30. CLINICAL TEST REPORTS, https://www.aurasmartair.co.uk/offices_hospitality.html#/

31. INDOOR AIR PURIFICATION SYSTEMS COMPETITORS OVERVIEW, REVITAL ARBEL, LAURA DARDIK, SHLOMIT GOLAN, HAIM NAHON, LARRY LEIBOVICH, ALMA LUBA MOROGOVSKY, guided by Einat Bentin, THE INFORMATION SPECIALISTS COURSE - THE TECHNION 'S DIVISION OF CONTINUING EDUCATION AND EXTERNAL STUDIES, Sep 2019

32. Aura Air installed an AI-based purification system at the Royal Palace in Madrid , 15OCT2020, http://techtime.news/2020/10/15/aura-air/

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