

# Takaro Tech Business Plan

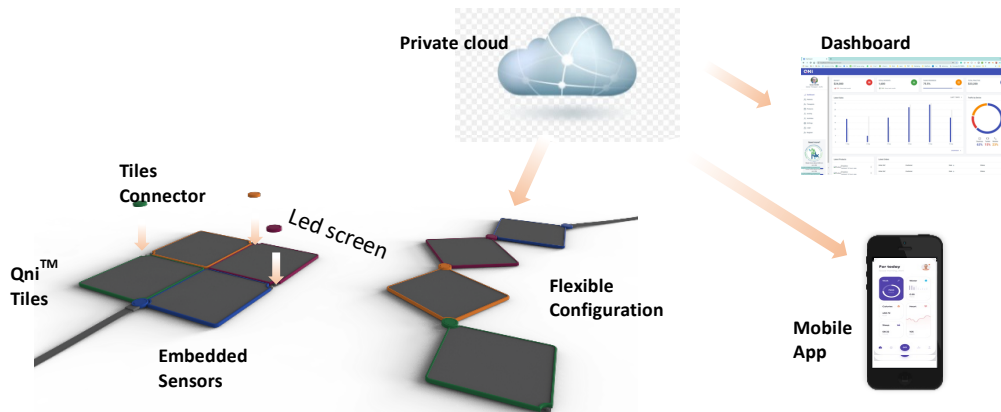
## Our Vision

To overcome physical, cognitive and Social challenges  
 using our affordable fun training activity and game platform for a healthier and happier life  
**Rehabilitation...Recreation...Training... Games**

### About Takaro Tech (“Takaro”)

Imagine a huge “Tablet-like” (i.e. i-Pad) tiles, combinable in any configuration, that one can step and jump on: the floor, the table or hung on the wall. This is what we have created.

Takaro Tech offers the QNI™ system, an end-to-end innovative open platform technology that consists of interactive connectable tiles equipped with innovative multi touch sensors, Machine learning AI management tools for caregivers and a growing repertoire of adaptive activities and games which together revolutionize rehabilitation, training and the gaming markets.



Tile size: 50 by 50 cm

Takaro’s tiles are equipped with high sample-rate multi-touch and proximity sensors together with directional sensors for tile configuration detection and smart adjustment to exergame activities.

The system is versatile and modular (surface size, configuration, placed on a floor, a table or a wall). Platform size varies from 2 tiles up to 9 tiles (1.5 meter squared) or even the combination of several platforms to cover any floor size.

The QNI™ is an open platform that supports a popular game development framework. We provide an SDK and a simulator for the developers’ community, enabling the rapid development of activities and games.

Takaro applied for 30 patents (that are in different registration stages) protecting our innovative knowhow.



The Israel Innovation Authority (IIA) examined Takaro and approved funding by one of the leading incubators under the IIA incubator program.

The Israel Export Institute invited Takaro to present the Qni™ in the Israeli pavilion at the 2020 CES conference in Las-Vegas.

After the CES successful exposure, Amazon decided to invite Takaro to their prestige Amazon Launchpad program for startups.

## The market Opportunity

### 1) Elderly home market - Phase 1

According to the UN the number of elderly people is expected to reach 1.41 billion in 2030, and the number of people aged 80 or more will increase to 425 million.

The number of elderly homes is fast growing, as well as the market for assistive devices supporting the elderly wellbeing and health. [https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017\\_Highlights.pdf](https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017_Highlights.pdf)  
<https://medium.com/redpoint-ventures/the-740-billion-senior-care-market-is-ripe-for-disruption-but-full-of-challenges-a13e3b53548>

According to the US Centers for Disease Control and Prevention (CDC) the number of nursing homes in the US alone reached 15,600 in 2016 and the number of residential care communities reached 28,900. <https://www.cdc.gov/nchs/fastats/nursing-home-care.htm> <https://www.cdc.gov/nchs/fastats/residential-care-communities.htm>

Research data demonstrates that seniors exhibit growing openness to technology, and their willingness to leverage technology to manage their own health and wellness <https://medium.com/redpoint-ventures/the-740-billion-senior-care-market-is-ripe-for-disruption-but-full-of-challenges-a13e3b53548>

Takaro offers a unique opportunity for cognitive and physical care for the elderly, both in elderly homes as well as at home.

Therefore, Qni™ will become part of the leisure routine for social interaction and individual activity, and will provide the elderly with the option to play with their friends and with young family members.

### 2) Rehabilitation and Treatment – Phase 2

According to the WHO both the prevalence of disabling conditions and the number of associated years lived with disability have increased dramatically over the last decade, and is expected to further increase in the upcoming years. <https://www.who.int/disabilities/care/Need-to-scale-up-rehab-July2018.pdf>

Accordingly, the physical therapy rehabilitation centers and equipment markets are expected to grow significantly, as well as the home rehabilitation treatment market that is estimated to reach US\$146.8 Billion by the Year 2027 <https://www.globenewswire.com/news-release/2020/09/19/2096150/0/en/Global-Home-Rehabilitation-Products-and-Services-Industry.html>

As of today, In the US alone there are more than 18,000 physical therapy clinics. Around half of these clinics are privately held and their average estimated net profit margin is about 15%. <https://healthcareappraisers.com/2020-outlook-physical-therapy-clinics-centers/>

For the rehabilitation markets, the QNI™ system offers a first-of-its-kind solution. Qni™ is the only solution that fully addresses the needs of both caregivers as well as the patients.

Most common practice in rehabilitation centers today includes throwing and catching a ball, walking on a beam, jumping into a hoop, and other low-tech and low-motivating activities.

Motivation and perseverance are the biggest difficulties for those undergoing rehabilitation processes, challenges that have tremendous effect on the patient's progress. Qni™ provides, for the first time, a rehabilitation process that is also fun, exciting and engaging, and even addictive. In addition, the patients can continue training at home, enjoying mutual exergames (an exercise combined with a game) with their friends and family.

The current low-tech exercises are highly limiting the treatment progress while Qni™ represents a revolutionary solution, by providing for the first time:

- ✓ Quantifiable precise accumulating data over time
- ✓ Automatic measurement and monitoring of progress
- ✓ Real time adoption to patient's condition
- ✓ Personalized treatment
- ✓ Long term caregiving, including information sharing with other caregiving professionals.
- ✓ Versatile treatments (for various physical & cognitive impairments)
- ✓ Easy intuitive use with very short setup time for each patient treatment session
- ✓ Management tools
- ✓ Big data for rehabilitation program design recommendations and for researchers.

### 3) Commercial B2B markets – Phase 3

In recent years malls and retailers experience a continues decline in foot traffic and sales. The covid-19 pandemic outbreak has accelerated this trend.

Different retention strategies are currently deployed, including engaging experiences and dedicated fun activity zones. Retailers, mall operators amusement parks, sport centers, museums and event producers are in a constant search for new innovation engaging solutions.

Qni™ offers these operators an opportunity that will excite and attract audience:

- ✓ Highly motivating & Engaging for consumers (and their children.)
- ✓ Innovative. "high tech" touch.
- ✓ Advertising & promotion platform
- ✓ Branding platform
- ✓ Events as well as Continuing activities
- ✓ Post visit communication
- ✓ B2B2C opportunity

### 4) Consumer market (B2C) – Phase 4:

Parents and kids are in constant search for digital games and exercise platforms that offers fun and engaging movement-based games, while serving the family members at all ages. Research shows that kids spend hours in front of screens (mobile phones, iPads, computers and television, etc.) resulting in

overweight, low self-esteem and poor social skills (<https://habyts.com/kids-and-screen-time-five-facts/>). The US video games segments for kids age 6 to 14 generate revenues of 23.5 billion USD in 2016 with massive penetration rate into US homes.

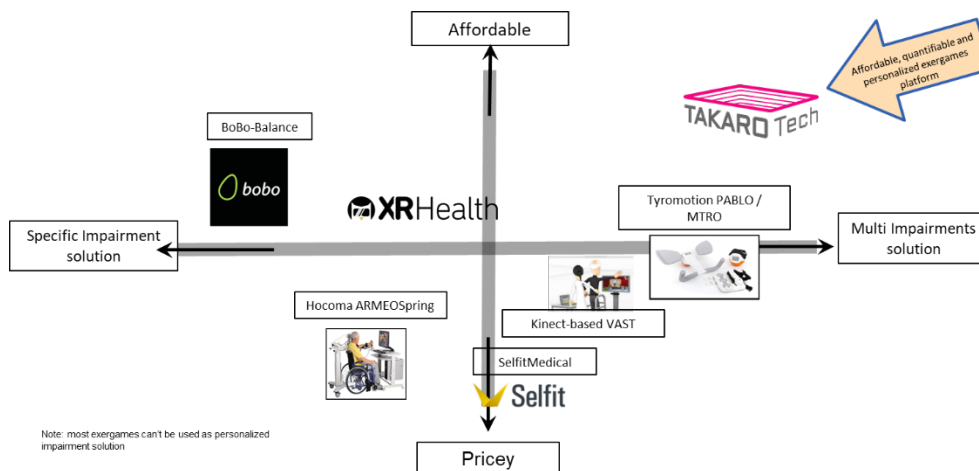
The COVID-19 pandemic has reshaped the landscape of fitness, and has led to skyrocketing of the at-home fitness industry. Home fitness has become a notable opportunity, with the boom in the online sales of home gym equipment. The home fitness equipment market size was valued at over 16 Billion USD in 2020 and is projected to grow about 2.75% a year during the forecast period (2020-2026). <https://www.mordorintelligence.com/industry-reports/home-fitness-equipment-market>

Qni™ offers a multipurpose, movement-based digital game platform for the consumer at home:

- ✓ Fun and exciting movement-based platform
- ✓ Multi-players at home or remotely
- ✓ Use by parents as a sport trainer, always-connected, platform
- ✓ Open platform with versatile and growing games and fitness activities store
- ✓ Potentially adds a new movement-base dimension to existing games (as an accessory of popular console’s video games)
- ✓ Activity store subscription model with rev-share opportunities both for games and fitness service providers

## Competitive Landscape

### 1) Rehabilitation & elderly market



Qni™ is the only rehabilitation and training system that provides a solution to multiple impairments, needs and ages, at an affordable price. Most competitors target specific need or provides multiple systems that each targets a specific need (raising the costs dramatically).

In addition, Qni™'s ease of use and ability to easily assemble and disassemble the system are crucial factors for care givers, who provide their services to a wide variety of population and needs, with a tight schedule.

The Qni™ has strong competitive advantages in other markets as well. The platform competitive advantages, the high barrier of entry based on our patent portfolio and the unique innovative hardware & software implantation make the Qni™ a highly valuable product in its target markets.

### Current Business Status

- ✓ Final stage of an Alpha product for the first batch of manufacturing and sales
- ✓ Joint project and pilot with Healthy-Aging Ltd., a leading institute that provides a comprehensive treatment for the elderly (<https://healthyaging.co.il/english/>)
- ✓ Joint project & clinical trials with world leading rehabilitation hospitals in Israel and Italy:
  - ★ ALYN – Pediatric and adolescent rehabilitation center (<https://www.alyn.org/>)
  - ★ Lowenstein hospital (<http://loewenstein-rehab.clinic/>)
  - ★ NEMO Lab. (<https://contenuti.centrocliniconemo.it/en/nemolab>)
- ✓ Marketing, distribution and sales agreements with:
  - ★ Ortopedia Castange, a leading Italian distributor
  - ★ The Bloomfield Science Museum Jerusalem
  - ★ Disk-In – Experience Conception. A global exhibition and experience company

### Major Milestones

Takaro Tech will initially target the elderly market and will start a pilot in Q2/21 with Healthy Aging reaching the elderly beta product during Q3/21 and commercial availability on Q4/21.

In parallel, Takaro will commence in a clinical trial with ALYN rehabilitation hospital on Q3/21 reaching a rehabilitation beta product on Q1/22 and commercial availability for rehabilitation institutes and clinics by Q3/22.

### Business & Financials

#### Business Model:

Takaro's unique hardware implementation enables us to approach the market with an unprecedented pricing offering. On top of the device sales, Takaro annual recurrent revenues (ARR) is based on SaaS model for the elderly, rehabilitation and B2B market, and for the consumer market it is based on subscription model for Takaro's games and activity store.

More revenues will be generated based on platform accessories, content rev-share and advertising.

Takaro Tech will initially target the elderly and the rehabilitation markets and then, via partners, will target other B2B markets.

At a second stage, Takaro Tech will commence B2C sales by year 2023.



	<b>B2B - Rehabilitation/ Elderly / other</b>	<b>B2C</b>
Offering	9 or 4 Tiles AI data services management dashboard Activities App Accessories	2 to 9 Tiles Activities & Games App Accessories
Pricing Model	Platform purchase Price SaaS / subscription per number of users PR/ Advertisement Rev-share	Platform purchase Price Games and activities Subscription
Sales Channel	Distributors, Partners	Partners (B2B2C), Distributors- Retailers and e-commerce

Key financial indicators (forecast):

Takaro’s business model is conservative. A possible “hype” scenario is not presented here. We expect an extensive product cost reduction for the mass production B2C phase, based on quantities and on the trend of led and other components pricing. The plan calls for aggressive marketing and business development spending in order to achieve fast market penetration.

<b>B2B</b>						
USD	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Total Revenue		173,491	1,152,387	7,701,319	15,479,760	27,384,099
% growth			564%	568%	101%	77%
Total Cost of goods		64,290	396,617	2,475,142	4,756,287	7,107,622
Gross Profit		109,201	755,770	5,226,177	10,723,473	20,276,477
Gross Profit %		62.9%	65.6%	67.9%	69.3%	74.0%
Total expenses	960,776	1,454,485	1,917,554	2,731,064	4,186,971	5,531,836
Profit / Loss	-960,776	-1,345,284	-1,161,784	2,495,113	6,536,502	14,744,641
%	0.0%	-775%	-101%	32%	42%	54%

<b>B2C</b>						
USD	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Total Takaro B2C Net Revenue		0	322,800	3,535,077	13,151,207	25,901,555
% growth				995%	272%	97%
Total Cost of goods		0	213,958	2,025,873	8,215,179	13,683,557
Gross Profit		0	108,842	1,509,204	4,936,027	12,217,998
Gross Profit %			33.7%	42.7%	37.5%	47.2%
Profit / Loss		0	-1,960,594	-1,378,265	896,947	7,953,060
P&L %			-607%	-39%	7%	31%

<b>Combined (B2B+B2C)</b>						
USD	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Total Revenue	-	173,491	1,475,187	11,236,396	28,630,967	53,285,654
% growth			750%	662%	155%	86%
Gross Profit	-	109,201	864,612	6,735,381	15,659,500	32,494,475
Gross Profit %		62.9%	58.6%	59.9%	54.7%	61.0%
Total expenses	960,776	1,454,485	3,986,990	5,617,265	8,213,556	9,747,554
Profit / Loss	-960,776	-1,345,284	-3,122,378	1,118,116	7,445,945	22,746,921

The plan assumes a slow growth of sales in 2021 & 2022 and moderate install base, and high expenses on product commercialization, mass production efforts and investment in marketing and business development. In 2023 we foresee a rapid growth both in the B2B market and the B2C market that yields a moderate profit in 2024 and a 8 million dollars profit in 2025.

## Takaros' Team

### Shai Beilis - Chairman, Co-Founder

Shai is the CEO of Formula Ventures. Former CEO of Yael Software Ltd., DecSys Ltd., Clal Computers and Technology Ltd. Shai has served as chairman or director of more than 70 high-tech companies. Beilis holds a Bachelor's degree in mathematics and statistics (cum laude) from the Hebrew University and a Master's degree in computer science from the Weizmann institute. Shai has extensive experience in software development, strong connections in the high-tech industry and venture capital in the country with extensive experience in investments that have led to successful exits. Mr. Beilis serves as chairman of the Enosh Friends (volunteer).

### Ofer Atir - CEO and co-founder

Ofer Atir brings a decade of experience in leading large scale projects and operations across a variety of markets, products and technologies.

Atir served as head of software at Tadiran Electronic Systems, was later VP R&D at the MMS's division at Comverse with annual sales of \$ 30M. Former CTO & COO at ICQ (as an AOL employee) with 35 million daily users and Millions of dollars sales. In recent years Ofer led start-up companies in various fields and technologies. A Maram IDF program graduate, holds a bachelor's degree in computer science, a Master's degree in Business Administration and a bachelor's degree in art and education. He also serves as chairman of the Artist-Run Alliance (volunteer).

### Dr. Amir Ben Shalom - Chief Scientist

Dr. Ben Shalom is a graduate of the first round IDF Talpiot project and served in an elite technology unit of the intelligence forces. Over the years he has been responsible for many patents and has joined as a chief technologist for a number of companies, the best known of which is PowerMat. Dr. Ben Shalom was also a founding partner of (MagInk) and has extensive experience in developing sophisticated hardware products, screen technology and display, from concept to production. Talpiot high prestige IDF program graduate, holds a Master's degree and a PhD in Electronics Engineering from Tel Aviv University.

### Dr. Ahmi Ben-Yehudah - VP Medical Operations

Dr. Ben-Yehudah has extensive experience in combining innovative technologies in health care. As part of his work as the Director of Research Administration at the Chief Scientist Office in the Israel Ministry of Health, he was involved in processes of assimilating technologies in research. Dr. Ben-Yehudah brings with him the knowledge from both clinical and research, as well as regulatory and technological development aspects. He has advised several technology start-ups in recent years.

He holds a bachelor's degree in biology, a Master's degree in biotechnology and a PhD in the development of cancer treatment, all from the Hebrew University. Dr. Ben-Yehudah completed a postdoctoral fellowship at the University of Pittsburgh in the United States and served as the CEO of a foundation for the advancement of Healthy Living.



### [Zeev Gil-Ad – VP Engineering](#)

Zeev has over 30 years of management and hands-on experience with H/W development, board design, RF, telecom and communication equipment in a range of enterprises (like Intel) and startups. Former hardware dev leader at ComSys, Manager of Hardware group at Alvarion, and senior GNSS engineer at Intel. Zeev holds a BSc. & MSc. in EE from the Technion-Israel Institute of Technology.

### [Adi Malach – VP R&D](#)

Adi is a technical expert and an R&D senior leader; With over 20 years of experience in startups and corporates, and a proven track record of successfully leading R&D departments – delivering multidisciplinary large-scale programs. Successfully leading innovative projects in the fields of IOT, wireless connectivity, medical devices, indoor location and high-performance communication equipment. Former VP of R&D for edge devices at Nayax (IPO'd). An Academy lecturer for the fields of computer architecture, operating systems and embedded systems. Served as a senior officer in IAF intelligence unit. Holds a bachelor's degree in computer science.

### **Talia Stark-Ronen - VP Business Development**

Talia has extensive experience in managing strategic processes, leading business development and customer relations in global and local organizations and serving as a board member. Former VP BizDev & Customer relations at MotherChoice- a biotech Israeli start-up, Head of Strategy and BizDev at the Central Bottling company and at Keshet Media group. Talia is a leading member of the Friendly Angels group, a group of investors focusing on local biotech start-up's

Served in an elite unit of intelligence forces. Holds a Bachelor degree in Finance and Business management and a master's degree in business administration from the Hebrew university.

### **Samantha J. Talpir – Head of Marketing**

Samantha has extensive experience in leading marketing strategies, branding processes and product marketing and positioning in global and local organizations. Former VP Marketing at Datum - a medical device Israeli start-up, Head of Marketing at Sensoil Innovations. Samantha holds a bachelor's degree in business management.

### [Elisha Tal - Chief Industrial Designer](#)

One of the leading industrial designers in the country. Elisha teaches at Bezalel in the Department of Industrial Design and is responsible for leading the industrial design of some of the most successful and complex products in Israel. Elisha led the design of Landa Labs' nano-metric printing systems, the new Soda Stream product and the Tiny Love baby products. Elisha is a fighter pilot, holds a Bachelor's degree in physics and is a graduate of the Department of Industrial Design at Bezalel.

### [Jonathan Shem-Or - Co-Founder and Chief Creative](#)



Creator, inventor and entrepreneur. Invented, founded and led several high-tech ventures, including IM-UR, the world's first content sharing platform, the Israeli content sharing site MySay, a credit card remote purchase security system (EPCODE) purchased by American Express, and more. Mr. Shem-Ur holds a Bachelor's degree in political science from the Hebrew University.

### Value for investors

Takaro Tech addresses rapidly growing billions of dollars markets. The initial market responses show a very high interest of the elderly and rehabilitation centers as well as the general B2B market. With a protected IP portfolio, top-notch team and a solid business model based on multiple market opportunities, Takaro offers to its investors a rapid valuation growth and a clear exit strategy.