



COLOSSEUM

Sports Tech Report

H1 – 2019

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Global Sports Tech Overview

The sports technology market continued its booming growth in 2018 and 2019, and it has substantial projected year-over-year growth. Valued at \$8.9 billion in 2018, **the industry is expected to triple in value in the next five years** thanks to key verticals.

eSports is one of the fastest growing sports tech verticals. Earlier this year, Epic Games hosted the first Fortnite World Cup at Arthur Ashe Stadium. With over 40 million applicants, the event was the highlight of Epic Games' plan to give away \$100 million worth of prizes in 2019.

Beyond eSports, fan engagement is another key, growing sports tech vertical. The fan experience is a major factor driving sports tech revenues. Digital platforms such as MLS Digital Labs are engaging fans in unique ways and providing new monetization opportunities for sponsors.

Furthermore, virtual and augmented reality technologies, like the recently released NBA VR, provide a new layer of immersion in the game. VR and AR give fans a stadium experience from the comfort of their homes. As the sports industry evolves, the role of technology increases, designing new experiences, and boosting both performance and monetization. With fan engagement platforms, online streaming, smart stadiums, game technologies, and more, **the opportunity within sports tech is at an all-time high.**



"Technology is changing the world; it's changing our sport. It's changing the way people are following the NBA."

NBA Commissioner Adam Silver

Worldwide today

~4000

Sports Startups

100+

Innovation Hubs

In the next five years

20.63%

CAGR Growth

\$31B

Sports Tech Market Value₃

Sports Tech at Major Events

New innovations in sports tech are being introduced at premiere sports events.

Experiences which, even recently, seemed purely theoretical, have been made accessible worldwide. The

progression of augmented reality (AR) and virtual reality (VR) is one of the most exciting trends within the sports tech industry. The integration of AR and VR with live sports grants fans unprecedented access to competitions, athletes, and action off the field. Other technologies involved in broadcasting and fan engagement are being introduced with each passing season.



- The most high-tech American Football game ever
- Use of AR for the broadcast (NCAM)
- 4,000 miles of network fiber at the stadium



- Video Assisted Referees (VAR), first live event to ever be broadcast in HDR to mobile device



- IBM and American Express partnered with Andy Murray to allow fans to practice alongside the athlete on Wimbledon's Centre Court using a VR headset

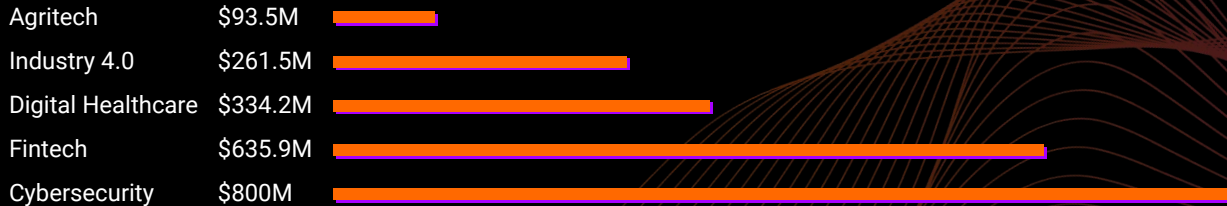


Startup Nation

Israel's reputation as a "Startup Nation" was formed by Israel's unique circumstances. Israel has always needed to innovate in order to survive its harsh environmental conditions. **The country was built on, "high risk, high reward," and there exists a mentality that the next step always needs to be taken.**

"Do now, ask later," is an important idea, because historically there has not been time to wait around for approval. **Failure is encouraged, so long as it breeds progress.** Israeli culture promotes the fearless ambition required to break the status quo, which breeds innovation, and a transformation of the tech landscape.

Israeli tech fundraising in 2019



Landscape



8300+ Startups
370+ Hubs & accelerators
2100+ Investors
360+ Multinationals

Exits



\$14.48B in 66 deals
in the first half of 2019

Over double the
\$6.49B in 73 deals in 2018

Investments



\$3.9B
Capital Raised in 2019

Deals

During 2019:
60 M&A
4 IPOs



Mellanox Technologies -
acquired by Nvidia for \$6.9B



Fiverr - IPO \$650M

Sports Tech Nation

Israel's culture of facilitating innovation, coupled with the creativity and technical understanding of Israeli entrepreneurs, promotes the development of disruptive startups. The sports tech community has benefited and there are now over 200 active startups in the field. Israel's tech infrastructure, including computer and software engineering, AI, big data, and IoT, has enabled **dozens of new startups to emerge every year in sports alone.**

These startups cover all aspects of the sports industry: game and performance tech, management and operations, media and fan engagement, eSports, and betting.

As of 2019, Colosseum collected data on 200+ startups operating in sports tech, which have raised more than \$700 million and exited for more than \$1 billion over the last decade.



200+

Active Sports
Tech startups

\$700M+

Sports Tech
fundraising

\$1B+

Sports Tech
related startups
Exits

Israeli Sports Tech Landscape

Fan Engagement



Other



Gaming & eSports



Athlete Development



Media & Broadcasting

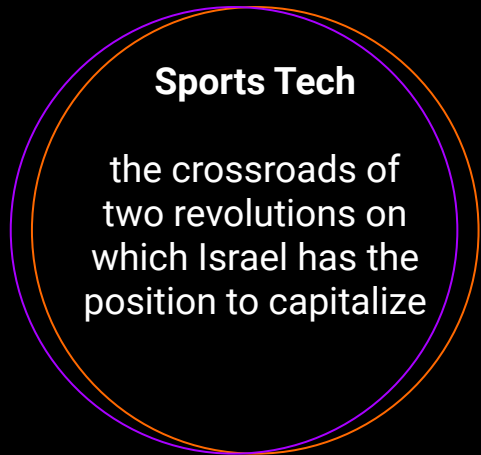
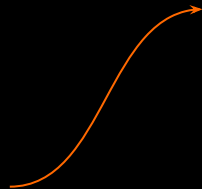
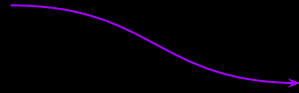


Smart Stadium



Health & Fitness





The Data Revolution

It has been 15 years since Moneyball rocked the sports world with the introduction of analytics, and the race for data supremacy has continued to intensify. Sports organizations are increasingly using data to make key decisions, in terms of business operations, and team performance. As a result, **sports technology is being developed across all verticals to collect, analyze, interpret, and monetize data**, altogether helping the key players in the industry gain a competitive advantage.

Key Technologies



Artificial Intelligence
Computer Vision
Machine Learning
Sensor Technology
Life Science

Data Collection Means



Wearables
On-field Sensors
Video Analysis
Social Media
CRM Systems

Data Applications



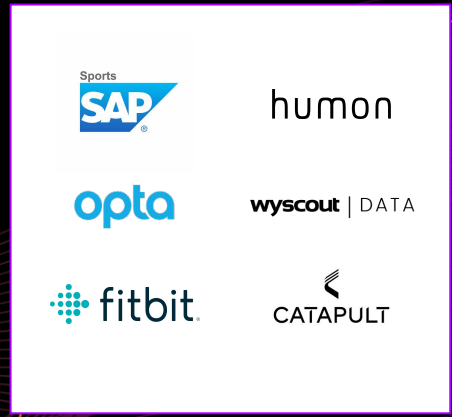
Roster Building
Athlete Improvement
Injury Prevention
Ticketing
Marketing & Promotion

Global Examples



Humon Hex wearable
Catapult sensors
Opta sports data tracking systems
Wyscout scouting data

```
3 require File.expand_path("../config/application.rb", __FILE__)
4 # Prevent database truncation if the environment is production
5 abort("The Rails environment is running in production")
6 require 'spec_helper'
7 require 'rspec/rails'
8
9 require 'capybara/rspec'
10 require 'capybara/rails'
11
12 Capybara.javascript_driver = :webkit
13 Category.delete_all; Category.create
14 Shoulda::Matchers.configure do |config|
15   config.integrate do |int|
16     with.test_framework :rspec
17     with.library :rails
18   end
19 end
```



Israel's Data Leadership

Israeli technologies are well-positioned to capture the sports tech market and lead the data revolution driving it. Successful startups already exist for almost every sports-related data application, including player performance, fan engagement, and smart stadiums. Driven by proven results and vast potential, **the world's largest sports teams and organizations are turning to Israeli technology to give them a winning edge.**

Zone7

Athlete Development

Collects performance and health data to detect injury risk and modify workouts to reduce injuries



Getafe CF Partnership

Reduce team injuries



65% reduction in days out due to injury in one year



Fan Engagement

A 1:1, multi-channel platform for teams to interact with fans and promote corporate partners' offers



St. Louis Blues Partnership

Improve corporate promotions

29% click-through-rate for sponsors' offers, a drastic increase

FORTRESS

Smart Stadium

A platform to digitize the stadium experience with digital ticketing, E-cash and fan engagement opportunities



Manchester City Partnership

Improving the stadium experience for fans

System could handle 1,200 fans per minute at entrances, 85,000 fans registered for smart cards

Israel's Future Data Advantage

Israel is at the forefront of the data revolution because it has expertise in the technologies applicable to each relevant field. The Jerusalem-Tel Aviv area ranks 2nd in the world in AI and 8th in life science. With **over 1,000 active startups in both AI and life science**, there are limitless possibilities for Israel's technological expertise in the sports world.

sleeprate
RECLAIM YOUR SLEEP

Athlete Development

Uses consumer tracking devices to monitor a patient's sleep and creates a personalized sleep improvement plan

Sports Application

Create personalized sleep programs for athletes to maximize recovery and boost performance

Major Users



moovit

Smart Stadium

A real-time transportation app that provides users with the quickest route to their destination

Sports Application

Partner with clubs to provide fans with optimal directions for reaching the stadium

Major Users



nutrino

Health & Fitness

A data driven nutrition services platform that provides users with customized food plans based on their lifestyle

Sports Application

Develop individualized nutrition plans for athletes to increase performance

Major Users



The Content Revolution

The content revolution involves the use of technology to create personalized, immersive fan experiences.

Organizations must develop new content to keep their fans engaged amid the endless variety of distractions on mobile devices. As innovation in sectors like AI, machine learning and AR/VR grows, companies and sports organizations will have the ability to deliver unique, customizable content to their fans and customers.

Key Technologies

Artificial Intelligence
Machine Learning
AR/VR
Location services

Content Benefits

Personalization
Augmentation
Promotion of Sponsors
More Knowledgeable Fans

Content Applications

Automated Highlights
Customized News Feed
Second Screens
Streaming
Advanced Data

Global Examples

IBM and The Masters
NFL Next Gen Stats
NBA League Pass VR
DAZN
Peloton



Israel's Content Leadership

Israel has major sports tech companies attacking almost every aspect of the content revolution. With factors like AI-integrated video and audio production, and increased reach for the promotion of corporate sponsors, **Israeli startups have solutions for every stakeholder connected to the content revolution.** Their innovation has been rewarded, as several Israeli companies have already partnered with major sports teams and organizations.

playsight

Athlete Development

A video and analytics platform used to record practice, analyze it to find insights and share highlights on social media



Golden State Warriors

Improve team performance



"PlaySight has been a valuable tool for our coaches and basketball operations staff"

- Warriors GM Bob Myers



Media & Broadcasting

An automated video editing platform that analyzes live sports broadcasts and creates customized highlight packages



NBA Partnership

Improve Corporate Promotions



Increased instantly shareable highlight clips from 100 a week to over 10,000



Automated Production

Patented technology streamlines the production by deploying an unmanned multi-camera system in a single fixed rig



Liga MX Partnership

Produce high-quality sports videos



Increased app engagement by 85% in first week

Israel's Future Content Advantage

Israel is positioned to dominate the content revolution because its innovation skill matches the requirements for next-gen content. There are over 100 AR startups in Israel. **Major corporations like Apple and Microsoft run AR research and development centers in Israel.** In addition, the Startup Genome 2019 Startup Report named AI, big data, and analytics as sub-sector strengths for both Jerusalem and Tel Aviv.

minute.

Fan Engagement

A video optimization software to increase click-through rate and maximize user engagement

Sports Application

Create video previews for highlight packages to entice users to watch

Major Users



Magisto

Media & Broadcasting

An end-to-end video platform with an AI powered video editor and a cross-channel distribution network

Sports Application

Create workout videos for a broad audience or training videos for individual athletes

Major Users



INFINITY

Augmented Reality

An AR and smart glasses platform for developers to integrate AR into their mobile apps

Sports Application

Tailor smart glasses to athletes for training purposes or for fans for enhanced interaction

Major Users



The Israeli Challenge: Global sports influence

While famous for being the “Startup Nation”, Israel is not known for being a global leader in the sports industry. As a consequence, few Israeli entrepreneurs have experience dealing with the international sports industry prior to founding a startup in the sports tech field. This has the potential to lead to a lack of understanding of the global sports industry practices, and nuances.

This inexperience will not prevent Israel from leading the global sports tech industry, though.

Similarly to how Israel was never an automotive leader, and became one of the top tech suppliers in the automotive industry, Israel can become leader in sports tech without being a leader in sports. **Israeli entrepreneurs require greater support to better achieve their commercialization goals abroad.** The reach of Israeli technology has the potential to be grander. Israeli sports tech startups are already invading the global sports market, and the country can expand its technological influence.

Cricket

\$2.5B fans
\$5B+ market worth

No Israeli startup is yet attacking this market...



The European football leagues



LaLiga



Premier League



BUNDESLIGA



LIGUE DE FOOTBALL PROFESSIONNEL



SERIE A



A great business opportunity and a complex market to approach

About Colosseum

Colosseum is an international sports tech innovation group, headquartered in Tel Aviv.

Our mission is to empower the sports industry with disruptive technologies and innovation.

We provide sports organizations, startups, and corporates with business opportunities to improve their performance, gain international exposure, and establish a position at the forefront of innovation.

Learn

Social gatherings & educational programs to share our sports tech know-how with an engaged audience of sports and tech professionals



Grow

Dedicated programs to accelerate the best of the Sports Tech startups in Israel and abroad, at all stages of their development



Innovate

Customized end-to-end solutions to provide the best sports tech innovations to the leading sports organizations and corporates



Meet the Future of Sports

November, 24-25th, 2019

Colosseum Sports Tech Tel Aviv Summit 2019



20+ Countries



30+ Speakers



500+ Attendees



<https://www.colosseumsport.com/summit-2019/>

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