



COLOSSEUM

SPORTS TECH

NEW DECADE

NEW ERA

ECOSYSTEM REPORT

3rd edition



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# Foreword

2010 feels more like 10 days ago rather than 10 years ago. A decade has passed and with that, the world of sports has changed dramatically. 10 years ago, while I was setting up the first entrepreneurship center at Tel Aviv University, I was in my former life as a professional soccer referee in the Israeli Premier League. At the time, fans couldn't watch live games on their BlackBerrys, players couldn't track their performance via wearables, and I was left with no video replay to make decisive calls.

Here we are though, 2020, on the eve of a new era that will bring even more disruptive changes powered by technologies within the world of sports. Industry leaders are tasked with having to constantly adapt to the ever-changing nature of the game, of fans, and to a very competitive environment. Sure, over 100 million people in the U.S. tuned in to watch Superbowl LIV between the Chiefs and 49ers. But, many of those viewers may not have been NFL fans at all, rather they were tuning in for the spectacle of culture that was displayed during the halftime show headlined by Shakira.

With sports becoming synonymous with entertainment comes more technological advancements within the world of sports than we have ever known. At Colosseum, we are at the geographic forefront of this technological revolution in sports, in the heart of the Startup Nation: Israel. With close to \$10 billion in exits and a lucrative \$8.5 billion in investment in 2019 alone, we find there to be no signs of slowing down in this decade!

In this report, we detail many of the highlights within the sports tech scene that occurred in 2019. Our research team has underlined various sectors to focus on that will inevitably be on the rise for 2020. We are very happy to share this report to further provide a glimpse of this upcoming sports tech era. Final tip: all the companies logos appearing in this report are clickable and you will find more about them on **CPro**, our partner for this report.

Enjoy the read,



**Oren Simanian**  
Colosseum Founder  
& General Partner



# CPro

Sports innovation made easy.

CPro is the exclusive partner of this report.

As the first global sports tech platform, CPro provides free access to unique data about the sports innovation ecosystem. It fosters collaboration between the industry leaders and empower them to build the future of sports.

2000+

Startups

450+

Investors

50+

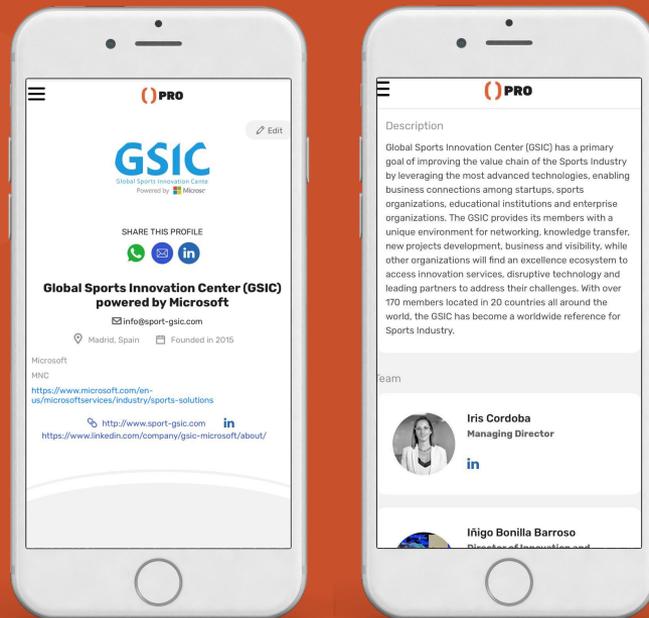
Communities

50+

Events



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# Global Overview

## Sports Tech

2019 was the year of confirmation for the Sports Tech world. Confirmation that new technologies that have been quietly transforming the world of sports, are continuing to spur in the industry, while disrupting traditional business models. Technologies remodel how athletes train and how fans experience and engage with sports content. With an exciting year ahead marked by the 2020 Tokyo Olympics, Sports Tech is set to grow exponentially, surpassing more than \$30 billion by 2024!

At this point in time, Industry leaders understand the need to dive into this new world of opportunities and many are tasked with reinventing their fan engagement strategies. On the other end, sports tech solutions rise in numbers but are also reaching maturity, helped by a thriving interest of the Venture Capital world (\$12B raised over the last five years). Overall, as Colosseum Managing Director, **Timothee Deschamps**, put it: **“The new decade marks a great momentum for the sports tech world: it is definitely shaping more than ever the future of the whole industry.”**

2000+

Sports tech companies  
on CPro

\$12B+

Funding raised 2014-2019

25%

CAGR Growth 2014-2019

\$31B

Sports Tech Market Projected  
Value by 2024

# Major Events:

## Rugby World Cup - #2019

**The Rugby World Cup 2019 was held for a first time in history in a Asian country: Japan.**

Key topics regarding the sports tech community were derived from the 2019 Rugby World Cup. Primarily consisted of: preventing concussions, wearables and offside analysis. OPRO, for example, developed a mouthguard device to measure the player's impact and give real-time feedback, in order to prevent bigger injuries.

But, perhaps the most remarkable technological add-on was the spider cam, a camera technology allowing the capture of aerial images of plays on the field. This has changed the way millions of spectators watched the Rugby World Cup 2019.



*The spidercam capturing the famous All Blacks' Haka*

# Major Events:

## Japan at the forefront of Sports Tech - #2020



With the 2020 Summer Olympics and Paralympics Game only six months ahead, **Japan will be at the center of the sports world, delivering what will be the most innovative games to date.** Japanese conglomerate Toyota is notably involved, developing electric vehicles transportation to be used by athletes, but also created assistive robots to greet athletes and guests at the venues.

Intel's 5G technologies and infrastructure platforms will deliver more immersive viewership experiences, exclusive apps and advanced broadcasting services. For example, the 3D athlete tracking (3DAT) system will use four cameras to film athletes in the 100-meter and other sprinting events. Algorithms will then analyze the biomechanics of the athletes' movements and broadcast those as visual overlays available during replays.



*"This is a really good opportunity for us to showcase a lot of our work in software, in algorithms and broadcast enhancing experience,"*

**Rick Echevarria**, General Manager of Intel's Olympic Program

# SPORTS TECH TRENDS

2019 Highlights, **Plays for 2020**

# DATA DRIVEN PERFOR MANCE

Since the introduction of sabermetrics rocked the sports world with analytics, data is the key driver of performance analysis and enhancement solutions. Breakthroughs in artificial intelligence coupled with advance in human performance science open **new perspectives for athlete development** at all levels of sports.

# #2019 Highlights

# #PlaysFor2020

## Wearables

standardization & democratization

Collecting data to track performance activity using wearable devices has become a commodity in almost all levels of sports.



*Whoop's strap & subscription spreads wearables use among ambitious amateurs athletes*

*Huddle's acquisition of Wyscout forms a video analysis & data giant*



## Athlete development through Video

Video is utilized to extract valuable insights from on-field performance. Deep analytics allow coaches & staff to make data-driven decisions.

## Non-Invasive

technologies on the rise

Progress in tracking capabilities is made possible by artificial intelligence and computer vision advances. Solutions integrating seamlessly in the game environment will gain momentum.



*Australian company Vald designs full stack athletes testing systems*

## New Channels

of examination that enhance athletes performance

Companies who bridge the gap from sport performance to health care and military solutions are boosting breakthrough in pushing the limits of human performance.



*Zebra, seamless official on-field player tracking provider of the NFL*





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# TRACK160

# playermaker

# Zone7

## Team sports analytics

Track160 is quantifying performance and tactics metrics in team sports. The company is using Artificial Intelligence, and more concretely, deep learning techniques, to track and identify the players throughout the match as well as track the ball's trajectories from a single viewpoint video.

 \$5M+ raised



## Football performance insight

PlayerMaker is a complete football coaching tool. It tracks and analyzes metrics for physical, technical, tactical and biomechanical data. PlayerMaker's motion sensors on a player's boot provides a significantly larger dataset, detecting every ball touch without affecting performance.

 \$10M+ raised



*"PlayerMaker provides the most accurate data and is the least disruptive to the players' game."*

**Arsène Wenger**

## Injury prevention

Zone7, is an AI-powered injury-prediction solution for athletes. Zone7 creates personalized athlete profiles in order to predict injuries and recommend optimal training drills and performance levels. Zone7 collects data from wearable devices, medical profiles, and other physiological and screening products to ensure high levels of accuracy and trust.

 \$1M+ raised

**75%**  
Reduction in injury rates



# THE **STREAMING** REVO LUTION

At the surface, streaming embodies nothing of a revolution. The traditional method that consists of transmitting or receiving data over a computer network has been there in place for years. However, the technology has now reached such maturity that it is completely disrupting the way we practice, produce, and engage with sports.

**This, we call it a revolution.**

# #2019 Highlights

## eSports

the confirmation of a giant

The eSports industry continues its impressive growth rate thanks to leading streaming platforms & increasingly popular engagement features. Messaging app Discord is for example used by more than 250 million gamers.



*In 2019, the number of average concurrent eSports viewers on Twitch has reached 1.28 million (x2 from 2016).*

*New York-based Mirror is taking interactive fitness to another level, replacing traditional studio classes.*



## Interactive Fitness

at an all-time high

Despite or because of the controversial Peloton exit which still raised \$1.2B for its IPO, interactive fitness offers tremendous ability to attract many demographics and leverage streaming capabilities.

## Automatic Production

the new commodity

The time where only professional teams could afford the production & distribution of their content to fans is now behind us. At all levels of sport, AI-powered automatic production makes streaming available to all sports properties, increasing the reach to new fans segments.



*In 2019, ESPN embraced automated production for coverage on digital platforms, using Pixellot systems.*

# #PlaysFor2020

*Broadcaster Fox Sports has deployed AR experiences around the 2019 FIFA Women's World Cup.*



## immersive & augmented Experiences

Virtual & Augmented Reality technologies have long raised concerns over their concrete capabilities and applications. But the growing demand from fans coupled with the industry leader's awareness, makes 2020 an incredibly exciting year ahead.



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**Pixellot**  
AUTOMATIC PRODUCTION

**blink**

**playsight**  
CONNECTING THE NEXT GENERATION OF ATHLETES

## Automatic production

Pixellot offers AI-automated sports production solutions that provide affordable alternatives to traditional video capture, production, and distribution systems for professional and semi-professional sports events.

## eSports & gaming

Blink offers a platform designed to enhance the social experience for gamers and streamers by automatically detecting defining moments in a game, saving them, and then programmatically transforming them into engaging and shareable stories.

## Automatic production

PlaySight provides a cloud-based platform that integrates SmartCourts across the world from all sports. The all in one system features includes an AI based automatic production with auto tracking and scoreboard recognition, OTT platform, VAR, coaching tools, and advanced analytics.

 **\$42M**  
raised



 **\$3M**  
raised





NEW FAN,  
NEW EXPERIENCE,  
NEW  
ENGAGEMENT

Fans have always been at the center of the game: **they are the game and the key to the industry growth**. In an era where the competition for attention is at an all-time high, new forms of fans and engagement appear. This redistributes the card and forces the industry leaders to adapt, fortunately leveraging tech-fueled innovative solutions.

# #2019 Highlights

## Fan-First content

Fans engage with sports primarily through consuming content. To best engage with content, it has to be found where the fans are, and customized to its preferences. This year has seen many sports organizations rethink their content, a change supported by more efficient distribution technologies.



*With four acquisitions by now, Minute Media definitely positioned itself as the leading global platform for fan-driven content.*

*US-based MVP index typically works with leading franchises to activate their audiences and better value sponsorships.*



## Fan-Knowledge activation, and monetization

With compelling sports content, engaging the fans is not the challenge, rather getting the fans to ultimately drive revenues streams is. Monetization solutions are spreading and as is income from mva-driven sponsorship.

## Fan-Owned sports experiences

Applying the lessons of the eSports boom where fans take an integral part in the experience, sports fans increasingly want to take a stake in the game. Customization at scale will accelerate, while disruptive & tech-powered fan ownership mechanisms could gain momentum.



*On Jan 23, 2020, Malta-based sports blockchain venture Chiliz announced the launch of a cryptocurrency exchange for sports and entertainment tokens.*

# #PlaysFor2020

*AWS & NFL teamed up to develop AI-powered Next Gen Stats to expand the fan experience*



## Fan-Driven analytics

In the quest for personalization, sports rights holders will surely leverage the progress in game tracking and analytics to provide fans with a new generation of experiences based on deepened game understanding and immersion.



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## Automated sports highlights

WSC Sports Technologies provides customized automation solutions for sports media rights owners, from ingestion of live content to the distribution of automatically created short-form videos. WSC's technology analyzes sports broadcasts in real-time, identifies every component of a game, then generates and distributes customized highlights of every player, team, and moment to any digital destination.



## Fans monetization

Pico is a game-changing SaaS platform that make it possible for sports teams to create a personalized experience for each and every fan, on any channel, at any time. Pico turns engaged, anonymous fans into identifiable customer profiles.



## Fans services

SEATSERVE provides venues with the technology and infrastructure to improve the fan purchasing experience and increase margins within the Food & Beverage division. Everyone wins with SEATSERVE. Vendors increase sales, teams sell more merchandise, the stadium improves ROI and the fans enjoy every minute of the event they paid to see.



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#bonus

# Fantasy & Betting, the new playground

With the gradual removal of legal obstacles surrounding the sports gambling industry in the United States and other countries, online bookmakers will constantly be seeking new ways of edging out their competitors. More and more betting companies are going to use innovative technologies to improve their market share in the future. Fantasy & peer-to-peer entertainment should also drive more innovations in this new sports tech playground.



*"We want to focus on creating new products for a new generation. The most important thing is growing the market and make an interactive gaming business that has relevance and can serve all of our fans".*

**Ted Leonsis**

CEO of Monumental Sports & Entertainment



**POINTS**BET



**FANDUEL**  
SPORTSBOOK



Fantasy sports giants FanDuel & DraftKings are intensifying their diversification into the sports betting world as legalization is spreads in the US

In a mature sports betting market in Europe, Paris-based "Mon Petit Gazon" has played the fantasy card, reaching 1.3 million users in France





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# ISRAEL

# SPORTS TECH NATION

GLOBAL SPORTS TECHNOLOGIES POWERHOUSE



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# Startup Nation

## Landscape

In 2019, Israeli tech exits reached up to \$9.9 billion, this represents not only more than 10% of the total exit amount of the last decade, but also a growth of 102% YOY, compared to 2018. Acquisitions drove this movement, companies from Brazil, Australia, United States and many more, getting eye on Israeli technologies.

To add to this amazing year, Israel also doubled its numbers of Unicorns, with 9 startups achieving >\$1B valuation by December. The country has now more unicorns than France, Germany and Australia, altogether. 2020 is looking bright for the Israeli tech scene, and the sports tech vertical should benefit from this growing global appeal of Israeli technologies.

### Landscape

8,897 Startups  
257 Hubs & accelerators  
2,857 Investors  
362 Multinationals

### Exits

\$9.9B  
in exits in 2019

### Investments

\$8.5B  
Capital Raised in 2019

### Deals

🏠 habana Acquired by Intel for \$2B

🧠 Click Acquired by Salesforce for \$1.35B  
A Salesforce Company

### Israeli tech fundraising in 2019



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# Sports Tech Nation



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## Overview

Israel's unique culture of facilitating innovation, coupled with the creativity and technical understanding of Israeli entrepreneurs, promotes the development of disruptive startups. The sports tech and sports-related industries benefit from that environment. In 2020, there are now over 220 active startups within the sports tech ecosystem, while it is estimated that around 800 core technologies companies develop products that could answer some of the challenges faced by the sports industry (notably in cybersecurity, big data, and electro optics.). This truly makes Israel special and the only Sports Tech Nation on the global stage.

### MEGA ROUNDS IN SPORTS TECH STARTUPS

 minute  
media  
raised  
\$110M

 LiveU  
raised  
\$50M

 Pixellot  
AUTOMATIC PRODUCTION  
raised  
\$42M

### THE LEADING SPORTS RELATED MNCS IN ISRAEL



nielsen



220+

Active Sports Tech startups

Intel - Replay  
The purchase of a  
3D video startup



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# Sports Tech Nation



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## Spotlight

### Collaboration



### Community

Maccabi Tel-Aviv teams up with Intel on their TrueView technology installed in the Menora Mivtachim Arena. This partnership helps establish a standard of premier sporting clubs collaborating with technology firms to better enhance in-arena experience.

Borders are becoming transcended as Israel is increasing its presence in global sport, leveraging a powerful community of human capital, products, and technologies.

### Education



The sports & entrepreneurship worlds merge with the academic environment to create the next generation of sports tech solutions.

*"The steady year-to-year growth of the Israeli Sports Tech ecosystem goes along with the increasing maturity of the tech solutions developed here. **2020 should see the massive deployment of those solutions in the global sports industry."***



**Tomer Yehudayan**

Israel Country Manager,  
Colosseum



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# Sports Tech Nation Map



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## Fan Engagement



## Media & Broadcasting



## Health & Fitness



## Athlete Development



## Smart Stadium



## Gaming & eSports



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Click on the startups' logos for more information



# ABOUT COLOSSEUM



# Sports Tech Nation

## Summit 2019

In addition to an amazing year for the sports industry, through Colosseum, international leaders of the Sports Tech ecosystem gathered in Tel Aviv to discuss the future of sports. If you missed it, here is a glimpse of what the 2019 edition of the Sports Tech Nation Summit looked like:



**Tel Aviv, Israel**

**24-26th of November**

**600+ guests**



52 speakers



30+ Startups



21 countries



35 investors



**Register now for 2020!**

*"The Sports Tech Nation Summit in Tel Aviv is a **must-attend** to get an edge on how to build the future of our industry."*



**Javier Sobrino**

Chief Strategy & Innovation  
Officer | FC Barcelona

# Sports Tech Nation Summit



## Attendees Organizations



Register now for 2020!



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# What We Do

Colosseum is an International Sports Innovation Group, headquartered in Tel Aviv (Israel), with offices in New York City (US). Our mission is to empower the sports industry with disruptive technologies and innovation.



**S**ports **E**ducation **T**echnology  
A catalogue of educational programs enabling all sports players to embrace technology & adopt an innovative mindset.



Scouting services allowing sports industry leaders & sports tech players to remain at the forefront of sports innovation.



Tailored-made growth program to help sports tech startups shine at all stages of their development.



# Get in Touch



Colosseum Sport

Linked 

website



Oren Simanian

Founder & General Partner

Linked 

email



Timothée Deschamps

Managing Director

Linked 

email

# Work Cited

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