



Sports Tech Innovation in the Start-up Nation

2017

Contents

Deloitte.



Foreword	3
Executive Summary	5
Introduction	8
The Global Sports Industry Everything you need to know	9
Technology Trends in the Sports Market Data Analytics Media and Broadcasting Wearables and Performance Enhancement The Stadium of the Future Fan Engagement New Sponsorship Assets eSports	13
Investment in Sports Technology Show me the money!	37
HomeRun Ventures	41
Israel's Unique Innovation System Accelerator for Sports Tech Innovation	42
Mapping Israel's Sports Tech Start-ups A glimpse into a booming ecosystem	47
Deloitte Israel Bridging the Gap for Sports Tech Innovation	52
Appendix Extended list of Israeli Start-ups Sources Contact Us	57

Foreword

The sports industry continues to grow at a remarkable pace. Professional sports are extending their global reach and engaging with fans in every part of the world, and more and more people participate in a variety of amateur sports activities more than ever, sports are connecting different people from around the world in a way that nothing else is capable of. There are increasingly more stakeholders in the sports industry driving this growth and creating a broad ecosystem: from the federations, leagues, teams and clubs, through the media and various sponsors and partners to apparel and electronics manufacturers.

The sports industry has always been a front runner in innovation. In a field where a split second could be the difference between remarkable success and a colossal failure, disruption is constantly present. However, technology used to remain limited to certain aspects of sports and embraced fully only by few.

In very recent years, something has changed. Sport technology is no longer a nice-to-have role-player, but a must-have all-star player, and it is growing in an exponential rate in every aspect of sports. Everyone in this ecosystem is looking for the next innovative solution to generate more wins, more revenue and more fun.

As we look at these global trends, we identify the booming Israeli sports tech ecosystem as a leading source of innovation for top sports organizations in nearly every segment of sports tech, taking a major part in shaping the industry globally. Israeli start-ups are harnessing the firmly established "Start-up Nation" hi-tech expertise and applying it to the sports world. The growth and early success of the Israeli sports tech ecosystem did not go unnoticed, as investors and major companies and organizations – both local and global – are becoming deeply involved in the Israeli sports tech ecosystem.

The thorough research process, the results of which are presented in this report, was built on a strong platform of Deloitte's sports and tech practices. Deloitte's unique and extensive work with major sports organizations through its global and local sports business practices, as well as Deloitte's Innovation Tech Terminals (ITT) work with start-ups and multinationals looking for innovation in the Israeli ecosystem, provided us with a comprehensive point of view on sports tech. Through the above-mentioned practices, Deloitte Israel is well-positioned to continue to play a major part in the Israeli growing sports tech ecosystem.

Deloitte.



Omri Bitan

Sports Business Group Leader
Deloitte Israel
obitan@deloitte.co.il



Amit Harel

Innovation Tech Terminal Leader
Deloitte Israel
aharel@deloitte.co.il

Foreword

Sports tech has been booming in the past 24 months - from broadcasting technologies to improvement of athlete performance, all in a race to identify the next generation of technologies that would transform the way leagues, teams, athletes, broadcasters and fans consume sports today.

These stakeholders are not alone in discerning the huge potential - hundreds of start-up companies around the world are involved with different aspects of sports, fitness & wellness. In 2015 alone, investments in sports startups totaled \$2.43 billion and when 2016 numbers will unfold, they are expected to beat 2015's funding record.

Israel, known throughout the world as "The Startup Nation", is now bringing its technology excellence to the field of sports.

The number of Israeli start-ups entering the sports tech arena is overwhelming, and it's likely that we'll see more and more Israeli companies active and thriving in sports tech. There are already a growing number of Israeli success stories in this arena and it is just the beginning. The Olympic Games in Rio provided an impressive showcase of Israeli sports technology. I'm positive that in the near future we will see more exits of Israeli sports tech companies and the continuous growth of the investor community.

Israel is on track to become a world class sports tech hub, combining the forefront of technology, which we already have, with our passion for sports. This combination is an explosive opportunity for investors and is poised to turn into a global bonanza in the coming decade.

As the first VC in Israel focusing exclusively on sports tech investments, we offer wide exposure and invaluable insight into the Israeli market for all the relevant stakeholders.

More about HomeRun Ventures on page 41.

I invite you to join the players on the court and take part in shaping the future of sports!



Yossi Moldawsky

Managing Partner
HomeRun Ventures
Yossi@homerun.vc

Executive Summary

Sports industry meets technological innovation

The global sports market is witnessing continuous growth and expansion. Having come a long way from being a traditional industry, it has grown to encompass an entire ecosystem comprising multiple stakeholders and various layers of engagement. Constantly evolving and expanding through innovative and cutting-edge technologies derived from diverse industries, the so-called sports tech industry is creating new opportunities for fans, clubs, players, sponsors, investors, and innovators alike.

Seven key trends currently disrupting the sports industry

Data Analytics

Media and Broadcasting

Wearables and Performance Enhancement

The Stadium of the Future

Fan Engagement

New Sponsorship Assets

eSports

Rising investor interest in sports tech as industry expands

Sports are currently one of the most intriguing markets in venture investing. As the industry undergoes a technological transformation, investors are taking notice of the emerging business potential. Together with the growing interest on behalf of investors, numerous new startups are being created and dedicated sports tech accelerators and venture funds are being launched.

Israel – a hotbed for sports tech innovation

While the US is still at the forefront of sports tech innovation, market players are increasingly on the lookout for game-changing solutions that will enhance and advance the world of sports. The number of Israeli start-ups entering the sports tech arena has been growing rapidly, doubling in number from around 50 to around a 100 in the span of just two years. These companies are harnessing Israel's high-tech sector's vast experience, broad knowledge base and unique expertise in technological areas such as big data analytics, computer vision, interactive platforms, AI and IoT, to create and offer new solutions and applications for the global sports market.

Deloitte Israel – a one-stop shop for sports organizations, technology companies, investors and entrepreneurs

With our multi-disciplinary expertise, Deloitte Israel is uniquely positioned to connect and integrate startups and innovative hi-tech companies with key global stakeholders and organizations in the sports market.

Executive Summary

The Global sports industry -
a **US\$700 billion** business

Over **US\$5 billion** invested globally
in sports tech between '14-'16

7 KEY INDUSTRY TRENDS

Data analytics
capabilities are being applied to provide a competitive advantage, improving game performance, supporting training, recruitment, market segmentation and fan activities.

The Media
explosion of over-the-top digital video providers, social networks, user-generated content, and mobile apps, are creating new business models and revenue streams.

Wearables & Performance enhancement
technologies utilize advanced sensors to capture and track user activity, providing data and metrics for evaluating and improving performance.

Stadiums are turning to new cloud, mobile and analytics technologies to enrich and complement the fan experience, boost attendance and reinforce their value proposition.

Fan engagement
has evolved into a commodity, a wholesale growth strategy used by sports events organizations, sponsors and broadcasters for profit maximization.

Sponsorship assets
are advancing beyond traditional formats, using advanced analytics and new digital platforms to form more direct and targeted connections with their audiences.

eSports
continue to grow, creating new commercial opportunities for top gamers, companies and marketers to reach new and younger audiences around the world.

Executive Summary

Israel's sports tech ecosystem



>US\$ 380 million

Total investment in Israeli sports tech startups



41 start-ups



Active VCs

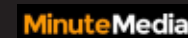
Plus Ventures, First Time Fund, Pitango, Battery Ventures, D5 Capital, The Time, iAngels OurCrowd, Deutsche Telekom, Samsung Ventures, Blumberg Capital, Baidu, Canaan Partners, Greylock Israel, Carmel Ventures, Lightspeed, Opus Capital, Plenus, Trinity Capital, Intel Capital

Investments in Israeli sports tech start-ups are among the top global sports tech investments

Start-ups targeting the sports market exclusively:



Raised >\$35M, acquired by Intel for ~\$170B



Raised >\$50M, last round closed in Feb 17'

Start-ups with a significant sports market use-case:



Raised >\$50M



Raised >\$45M



Active Accelerators & Incubators

Explore, The bridge (Coca Cola), Microsoft, EISP 8200, Tech4Good, The Junction, Nielsen Innovate, Vertical Engine, A3i, SOSA, StartupEast, hub:raum, The Hive, Inno-Negev, Startupbootcamp.

Introduction

The world of sports is much more than games and fun. Sports influence our lives in numerous ways, culturally, socially, nationally and now more than ever, also economically and financially.

The world of sports has come a long way from merely being a popular leisure or pastime activity, it has grown to encompass an entire ecosystem comprising multiple stakeholders and various layers of engagement. It is a world that is continuously evolving and expanding through innovative and cutting-edge technologies, often derived from diverse industries. These advancements are transforming the way sports are played and experienced in previously unimaginable ways and as in any evolving industry, these changes present a plethora of opportunities for both businesses and investors.

Although still in its early stages, the sports tech market is developing at a rapid pace, giving rise to a steadily increasing number of start-ups and creating a growing momentum propelling the industry forward. When examining the current sports tech landscape, the U.S. clearly emerges as the industry leader, in terms of both scale and technology pervasiveness. Nevertheless, in the current report we wish to explore how Israel, the start-up nation, is responding to these trends. Israel which has garnered a reputation as a hotbed for tech innovation in general, also 'sports' an active and dynamic sport-tech scene. We believe this new ecosystem, comprising numerous start-ups with cutting edge technologies, is poised to make a significant impact on the global sports tech market.

In this report, we begin by introducing the global sports market, highlighting seven key areas currently disrupting and shaping the industry. This is followed by a review of the current global sports tech venture capital environment. We then shift our focus to Israel, providing a general overview of the country's hi-tech ecosystem and focusing in particular on the state of its sports tech industry. To conclude this segment, we have compiled an extensive list of Israel's current sports tech start-ups, providing a brief profile of their activity and the segment in which they operate. In addition, we chose to showcase a selected group of prominent companies. The final section of the report presents an overview of Deloitte's unique capabilities, leading sports tech innovation in Israel and around the world. With its various practices offering diverse services to players throughout the value chain, Deloitte Israel has gained a reputation as the partner of choice and a one-stop-shop, catering to the needs of sports related entities, technology companies, investors and entrepreneurs alike.

The Global Sports Industry

**US\$700
billion**

in revenue in 2015
equaling about

**1% Global
of GDP**



The Global Sports Industry

Market overview

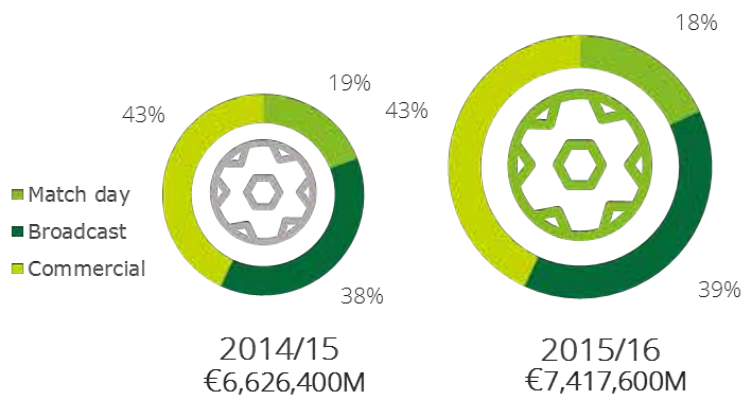
The global sports market is a highly lucrative industry witnessing continuous growth and expansion.

According to market estimates, the global sports industry as a whole including areas such as sporting goods and licensed products as well as health and fitness clubs, generates about US\$700 billion in revenues annually, equal approximately to 1% of global GDP.

On a sport-by-sport basis, growth has occurred across nearly all segments, although football clearly leads the way, as evidenced by the record levels of interest in the 2014 World Cup and the rising attendance numbers in many European leagues. Further indication of its prominence can be found in the recently issued 'Deloitte 2017 Football Money League Report', which finds that the top 20 clubs recorded a combined revenue exceeding €7 billion (incl. match day, broadcast and commercial revenues).

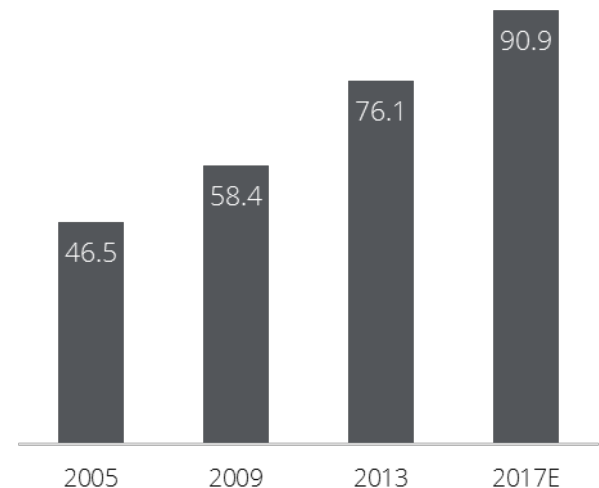
Within the overall industry, the sports events market which includes tickets sales, media rights and sponsorship, is a good indicator for the general growth. It has been estimated to reach US\$90 billion by 2017, driven by football's continued growth, especially in the Asia Pacific region.

2014/15 and 2015/16 composition of total revenue splits, top 20 soccer clubs



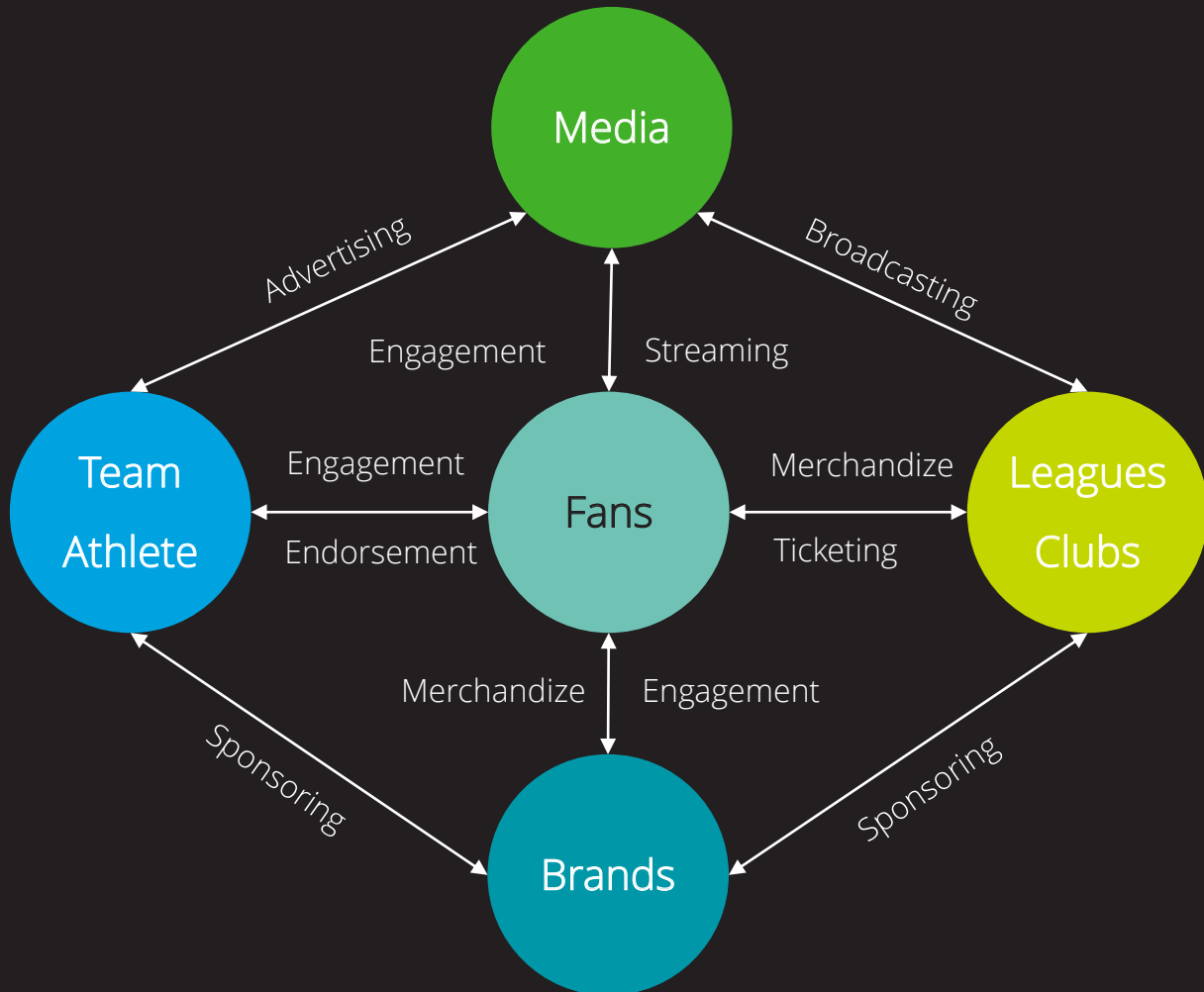
Sports Events Market Size

In US\$ billion



The Global Sports Industry

The sports ecosystem involves five main stakeholders



The Global Sports Industry

The Sports Market Ecosystem

When reviewing the sports market ecosystem five primary stakeholders can be identified that are linked through interacting interests and converging needs.

Accordingly, the new technology trends reshaping the world of sports can be viewed from several different vantage points with varying emphasis being given to its applicability in a particular field, presenting a complex and multifaceted industry.

The Fan

Fans and sport enthusiasts are ultimately the lifeline of the sports industry, without whom modern sports as we know it wouldn't exist. Of all stakeholders they hold the most prominent role in keeping the ball rolling, being the foundation upon which the entire industry subsides and its primary source of revenue.

The Athlete & Team

Athletes and teams are driven by their constant strive to improve their performance and secure their success. To support these efforts adequate financial resources must be guaranteed and accordingly they appeal to sponsors for funding. Sponsors seeking optimum exposure for their offerings, will base their decisions on the popularity and monetization opportunities afforded, which, in turn, are dependent on the level and extent of fan engagement.

The Club, League

Leagues not only provide the organizational framework for competitive sports but also play a facilitating role in the revenue flow between clubs and media right owners. Clubs generate revenue through ticketing, merchandize, sponsorships and media rights – all of which are of course depend on the team's success, the presence of star players and the loyalty and size of its fan base.

The Sponsor

Brands acting as sponsors succeed by selecting the right partner club, league, and athletes, and choosing the right type of partnership. Once a partnership is formed, sponsors need to differentiate their campaign, activate the emotional link between fans and their favorite team and players, while communicating brand values and offerings.

The Media

For networks and broadcasters, sports is a sure bet when looking for content to attract viewers in today's fragmented media market. In an era of multi-screen viewing, alternative platforms such as websites and apps can be leveraged to harness the immense rating potential of sports events and the consumer power of its passionate fans.

Technology Trends in the Sports Market

**MEDIA &
BROADCASTING**

DATA ANALYTICS

FAN ENGAGEMENT

STADIUM OF THE FUTURE

NEW SPONSORSHIP ASSETS

PERFORMANCE ENHANCEMENT

ESPORTS

Technology Trends

In brief

The sports technology industry is a diverse and wide-ranging sector comprised of companies operating throughout the value chain, with categories often overlapping and interconnected, driving and supporting various implementations.

In the following report we chose to highlight seven major trends which span across a number of verticals, presenting a cross sectional perspective of this emerging industry.

Data Analytics

The ever growing amount of data available combined with advanced computing capabilities allows the various stakeholders to utilize the power of big data to gain a competitive advantage, whether in real time during the game or to support training, recruitment, market segmentation and fan activities.

Media and Broadcasting

The formerly exclusive broadcasting content rights agreements between leagues and broadcasters are increasingly being challenged by the explosion of over-the-top digital video providers, social networks, user-generated content, and mobile content apps. This transformation offers new opportunities for market players.

Wearables and Performance Enhancement

The performance of athletes' and fitness enthusiasts' can now, through the use of advanced sensors be captured and analyzed in multiple ways. The resulting data provides the user with new means and measures for evaluating and enhancing their performance.

The Stadium of the Future

As today's sports fans are presented with multiple game viewing experiences, stadiums competing for their attention and patronage must reinvent themselves and the experience they offer. In an effort to boost attendance rates and reinforce their value proposition, organizers of major sporting events and owners of sporting venues are turning to new cloud, analytics and mobile technologies to enrich and complement the fan experience.

Fan Engagement

Fan engagement has evolved into a commodity, a wholesale growth strategy used by organizations for profit maximization. Spanning across all dimensions, emerging technologies are offering new means for bolstering this all important tenet of the sports industry.

Technology Trends

In brief (cont.)

New Sponsorship Assets

Corporate sponsors are looking beyond traditional sponsorship assets, seeking more direct means for reaching and connecting with their audiences. They desire channels which are cost effective, highly targeted, and capable of producing measurable outcomes, providing a solid basis for gaining exposure, conveying their message and growing their client base. By using advanced analytics, client segmentation and new digital platforms, they hope to gain access to the hearts and minds of sport fans, ultimately influencing their consumer presences.

eSports

As eSports continues to grow, new commercial opportunities will emerge and scale for top gamers and companies. In addition, it offers sports marketers a new channel for advertising and sponsorship to reach key younger audiences around the world.

Data Analytics

Overview

Sports fans love their statistics and as recently portrayed in the movie 'Moneyball', the potential hidden in the vast amounts of data generated by the games, their players, and even the fans can truly provide the winning edge.

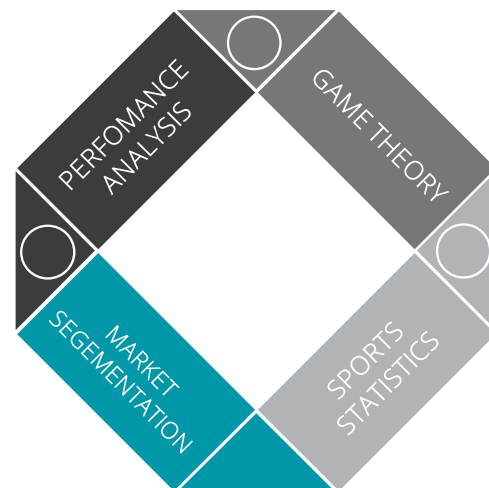
The data mined from numerous resources is being used across many industry verticals from driving ticket sales through draft picks to optimizing player performance and preventing injury. Data from cameras and sensors can capture every movement a player makes, relaying this data back to coaches and trainers for assessment and evaluation. Programs can now monitor thousands of games being played across the globe, with automated algorithms analyzing every interaction and every play. Through this analysis, patterns, correlations and trends can be identified, providing insights previously unattainable.

Dedicated analysts have now become the norm, with teams investing millions of dollars in creating their own analytics departments. The advancement in technology has granted sport professionals the ability to make highly informed decisions at a faster pace than ever. Fans as well are enjoying their fair share of this data revolution, with analytics driving increasingly popular fantasy sports and betting.

THE ANALYTICS CYCLE



SPORTS ANALYTICS BY TYPE



Data Analytics

Market figures

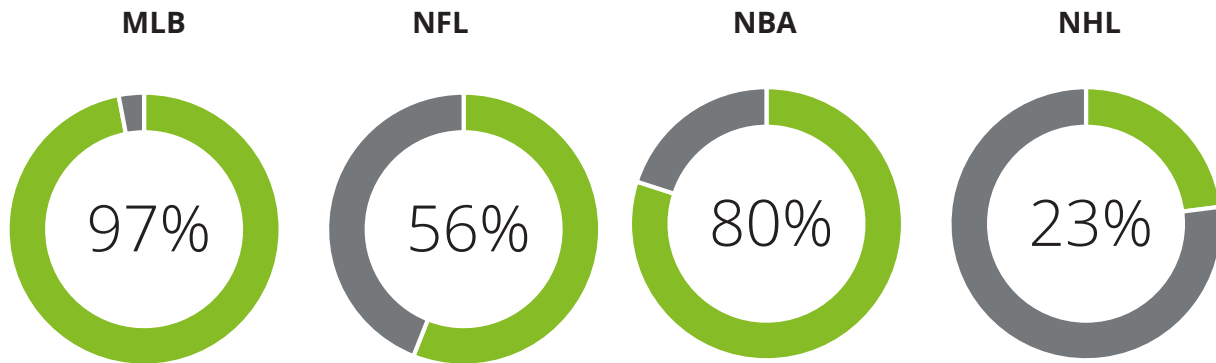
According to recent data, the total global market for sports analytics will be worth over US\$120 million by the end of 2016 and is expected to reach about US\$615 million by 2021.

The largest market for sports analytics in 2016 will likely be North America, with a projected CAGR of about 38% through 2021, followed by Europe and APAC.

North America's lead in incorporating sports analytics solutions can be attributed to its dynamic sports market and high technological adoption rates. Countries in the Asia Pacific (APAC) region such as Australia, India, China, and Japan, although still lagging behind, are expected to adopt sports analytics solutions by 2021. Driven by growing digitization trends and sport's pervasiveness in these countries, the Asia Pacific region is set to emerge as the fastest growing market.

Analytics Adoption in US Sports

Percentage of teams employing analytics and professional consultants



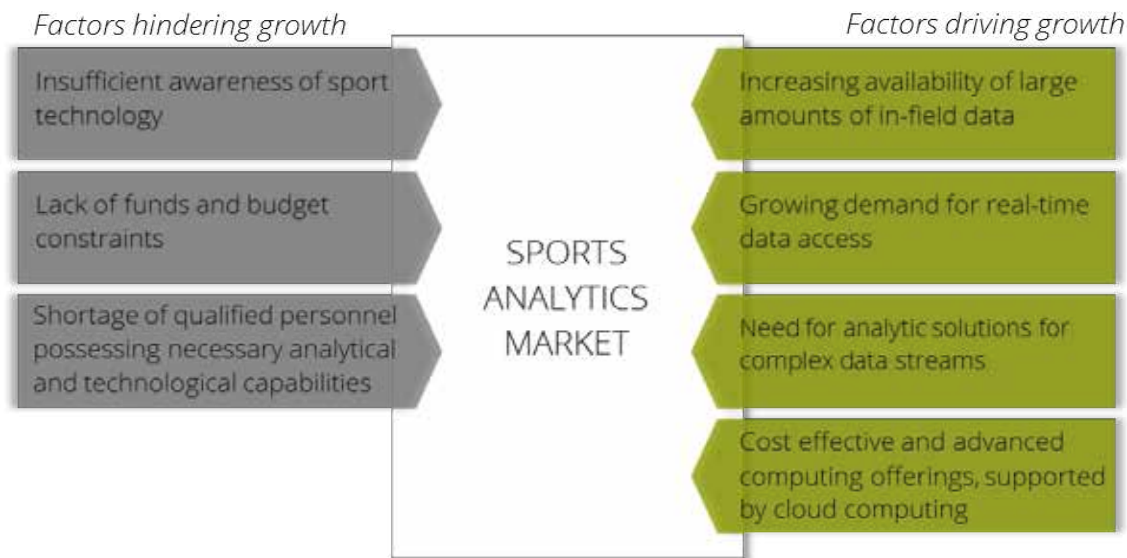
In the US, data analytics are being adopted in varying rates across the industry. Major league baseball (MLB) is leading the way, while the National Hockey league has yet a way to go, nonetheless overall adoption rates are expected to grow significantly in coming years.

Data Analytics

Trends and applications

The new era of big data, ushered in by technological advancements, such as multicore processors, high-performance databases and data compression technology, is paving the way for new dedicated technologies for sport analytics. Future challenges include developing multiple player and predictive analysis tools, with player analysis and team performance applications expected to have the highest adoption rates in coming years. Extending beyond sports performance analysis, clubs, leagues, media companies, and sponsors alike are utilizing analytics to study fans preferences and behaviors, seeking to expand their reach and market penetration.

Leading companies in the analytics sector include: IBM, SAP, SAS, Tableau Software, and Oracle.



MAIN APPLICATION AREAS

- Dedicated websites presenting statistical breakdowns and performance indicators for fans to follow
- Collection and analysis of player motion data
- Analysis of fan preferences in order to predict attendance rates and optimal game scheduling
- Ball tracking technology providing exact metrics of trajectory and speed
- Analysis historical and actual game data and patterns to predict game outcomes

Media & Broadcasting

Overview

The story of modern sports cannot be told without the medium through which it reaches the far corners of the earth bringing the thrill and excitement experienced by live spectators to fans a world away. However, as the classic viewing model is being transformed by new digital offerings, viewers have come to expect novel and advanced experiences and multi-platform access.

Broadcasters strive to meet these needs by developing and offering various complementing technologies. New media platforms are bridging the gap between the physical and digital experience, allowing fans immediate and round the clock access to their favorite sporting events.

Thanks to technological advancements, globalization and better infrastructure, the breadth and quality of the broadcasted content is constantly improving, offering new perspectives, better commentary, detailed analysis and 24-hour sports channels. These offerings have been further augmented with new viewing experiences such as 3D technology and 4K resolution.

At the same time, a growing segment of viewers is supplementing their viewer experience by accessing their favorite content through multiple channels. Mobile and tablet devices are spearheading this change in viewing habits, serving as the primary conduits for accessing content through direct online streaming and participating in interactive activity.

Media & Broadcasting

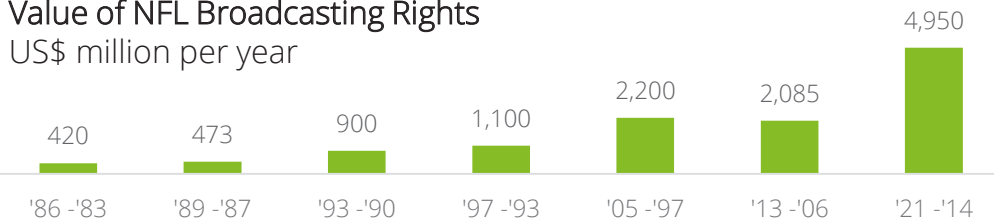
Market figures

Media rights and sponsorship together accounted for about 70% of sports events revenues. FIFA earned around US\$4 billion on TV rights and marketing deals for the 2014 World Cup, and the NFL makes about US\$5 billion annually from its TV deals with four networks.

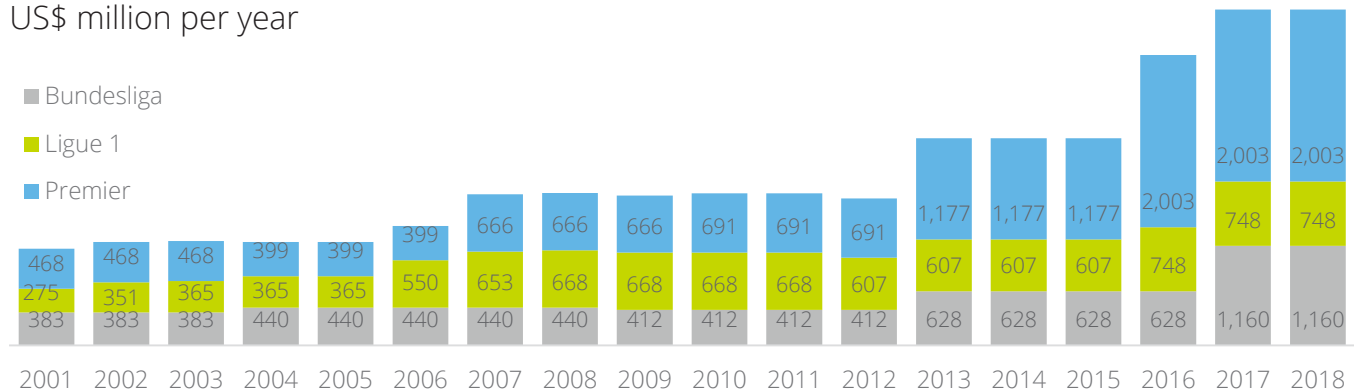
Globally, 127,000 hours of sports programs are available on TV (up 160% since 2005) and more than 30 billion hours are spent viewing sports annually. In 2015, 93 of the 100 most viewed live programs were sports events

Thus, for networks, sports has become a safe bet for guaranteeing viewers in today's fragmented media market. Throughout the world sports provide a captive audience, clearly illustrated by data from past events. In 2014 more than 3 billion people watched at least one minute of the world Cup, with media rights being worth as much as US\$1.7 billion in total. This global appeal is further exemplified by the fact that 30 million Chinese tuned in to watch the Germany-Argentina final despite being broadcasted at 03:00 AM and 90% of Netherlands households watched the semifinal game against Argentina.

Value of NFL Broadcasting Rights
US\$ million per year



Value of European Football Rights
US\$ million per year

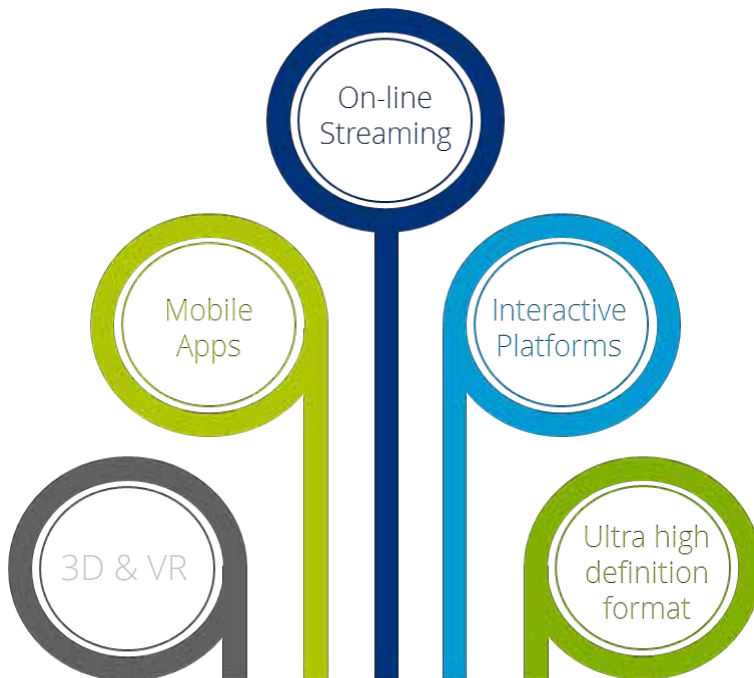


Media & Broadcasting

Trends and applications

Networks and broadcasters facing the challenges presented by multi-screen viewing, illegal streaming and rising competition, are striving to upgrade and differentiate their product portfolio. They now offer devoted fans complementary and alternative sources for sports programs delivered through various platforms, such as websites and apps, aiming to provide them with access whenever and wherever they so choose.

NEW MEDIA & BROADCASTING BY TYPE



Over **65%** of devoted* fans in the US go online at least once a day for sports content



Over **1B** hours, spent on sports sites via smartphones in 2015



Over **50%** of devoted fans in the US access sports-related content while watching sports on TV via mobile device



About **50%** of all Twitter TV conversations are sports event related

MLB's
At Bat

Over **8B** minutes of baseball content streamed in 2015

Wearables and Performance Enhancement

Overview

Never before have we been able to tap into the full potential and breadth of human body's capabilities as we can today by utilizing Wearables and Performance enhancement technology. These products are revolutionizing athlete training and performance, delivering quantifiable and significant results.

Wearables consist of small electronic devices incorporated into items that can be either worn or attached to various body parts. Comprising one or more sensors and possessing computational capabilities, they enable the users to track and collect data on various performance metrics.

Performance enhancement technology extends beyond wearables and includes additional systems, such as remote cameras and sensors arrays placed around the playing field. These technologies offer a wealth of opportunities, allowing to record and analyze numerous types of data streams and metrics, including movement, speed, heart rate, respiration and even brain waves. Whether used by professional athletes or fitness enthusiasts, they offer the power to optimize and enhance user performance, providing feedback and data analysis capabilities previously unavailable.

Future advancements are likely to be achieved through cooperation between companies possessing specialized expertise in relevant areas such as mobile application software development, sensor accuracy and power management solutions. The next generation of wearables or "wearables 2.0", are expected to progress from standalone devices to entire systems that incorporate multiple connected devices and cloud services, as part of the overall technological transition to IoT.

Wearables and Performance Enhancement

Market figures

The sports and fitness segment is just part of a larger wearable devices market that is expected to generate over US\$28 billion in revenue by the end of 2016. With technology maturity, price points will decline rapidly and affordability will further drive market growth. About 110 million wearable devices were estimated to be shipped in 2016, representing a 38% increase from the previous year.

According to market reports, the global sports and fitness performance wearable market is projected to reach almost US\$15 billion by 2021. One segment in particular expected to show rapid growth is the Sports coaching platform technology, estimated to hit US\$864M in 2021.

Wearables and Performance Enhancement

Trends and applications

The rapid advances in wearable technology and the powerful capabilities afforded by big data processing are opening the door to a new realm of possibilities. Wearable product developers are moving beyond the more conventional devices, such as bands and smart-watches and are now embedding sensors directly into clothing and equipment such as shirts, shoes and balls.

Current product innovation in wearable and performance technology can be broadly assigned to five main categories:



Applications include player safety assessment, workout injury prevention, physical conditioning and performance monitoring. The data collected can be further utilized to enrich fan experience by providing real-time access to performance statistics and visualization of movement tracking data.

Sport leagues have come to recognize the potential of such devices and are embracing this growing trend. The NFL, for instance, is already utilizing sensors inserted into the players shoulder pads to collect information regarding location, speed and distance traveled. The accumulated data is both shared with the teams to their benefit as well as monetized by selling it to broadcasters.

More recently, the league has begun to experiment with 'smart' footballs, capable of capturing information such as velocity, acceleration and distance, sending the data back to computers within half a second. FIFA has also taken notice of the growing impact of these technologies. The organization is working towards establishing a global wearables standard, aiming to have all teams employ the same data-tracking technology for training purposes.

Sports brands are playing an increasingly growing role in wearable and performance technology. **Adidas** which has been active in the field since 2009, offers a host of products centered around its miCoach platform. These include a watch, soccer ball, heart rate monitor and speed cells that clip on to your shoes. The data collected by the devices is accessible through mobile apps or the miCoach website. **Nike** is another sportswear giant actively pursuing this market. The company's first venture dates back to 2006, when it launched together with Apple the Nike+iPod Sport Kit, linking Nike+ footwear to Apple's iPod. More recently the companies teamed up again, launching the Apple Watch Nike+, a running tool that pairs the Nike Sports band with the Apple Watch Series 2. **Under Armour** a relatively new player, is hot on the heels of its rivals. Investing heavily in wearable and performance technology and collaborating with technology companies like HTC to develop its products. The company has bundled together three of its products under its HealthBox line, which includes a heart-rate strap, fitness tracker and smart scale.

The Stadium of the Future

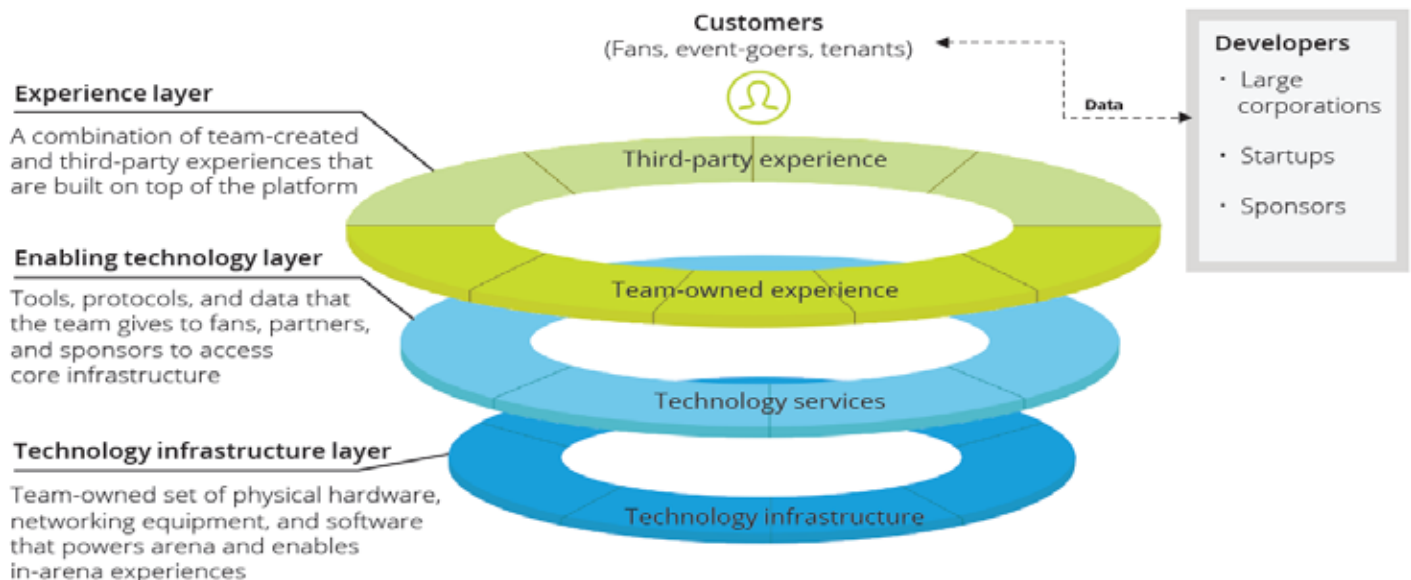
Overview

Stadiums and arenas, once considered to be the pinnacle of the true game experience are losing ground, as fans preferences are shifting and a growing number are opting for alternative viewing experiences.

As the home spectator's viewing experience constantly evolves and improves, stadiums must reinvent themselves and create a unique selling proposition able to lure back the 'couch fan' and maintain their status as the providers of the ultimate game experience.

Stadiums and arenas are being refitted and remodeled to support improved services, providing new purchase options and venues. From upgrading in-venue Wi-Fi to expanding mobile concession and retail purchasing, clubs are investing heavily in their technological infrastructure, wishing to enhance fan engagement. The vision is to create a unique experience that will accompany the fans throughout the year, providing them with a one of a kind sensation only attainable at a live event.

When analyzing the stadiums various components three primary "layers" can be identified, comprising infrastructure, resources, and activities that, working together, enable stadium operators and teams to create new value for all participants.



The Stadium of the Future

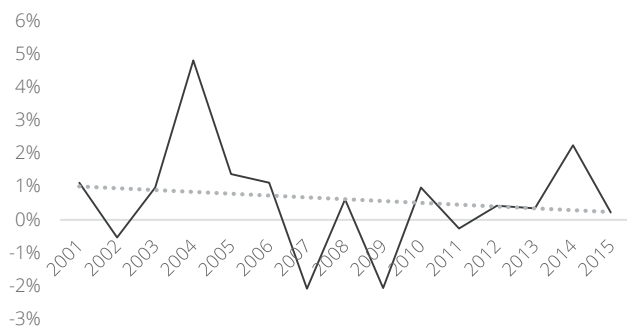
Market figures

Competing forms of sport consumption are taking their toll on the live experience. In fact, even as global sport gate revenues continue to climb, none of the four major professional US leagues, except for the NBA, have seen record-breaking attendance in the last couple of seasons. Average attendance at both the NFL and the MLB is below 2007 levels while the NHL has experienced a decline in average attendance since the 2012–13 season. A similar situation can be found in Europe with Premier League's and Bundesliga's attendance growth rates stagnating. Further support for this observation can be found in surveys showing that around 70% of sport fans in the US prefer to watch games from the comfort of their own home.

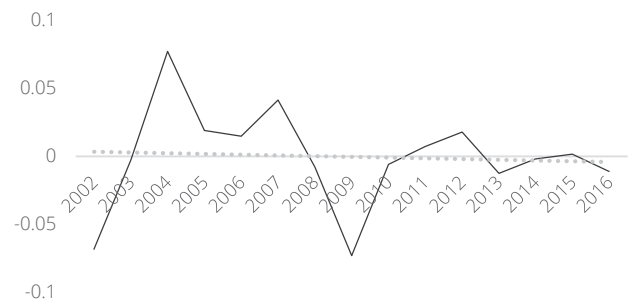
The largest decline in dedicated sports fans has been among the 12- to 17-year-olds and 18- to 34-year-olds demographics. This latter age group, coined the 'Millennials', puts a very high value on mobile connectivity and experiences, with 31% attesting to spending half their time at an event on their phones. The majority of millennials view sports as a means for socializing, expecting new experiences and exciting forms engagement. With rising ticket prices, clubs are finding it increasingly difficult to draw fans to the arena. As consumer devices become more sophisticated, new offerings need to be created to attract spectators. Accordingly the stadium of the future aims to re-engage and captivate the fan, seeking to generate new opportunities and revenue streams.

Game Attendance Growth Rates (of average per game attendance)

NBA



MLB



The Stadium of the Future

Trends and applications

Stadiums' transition to a fan-focused, technology-driven immersive environment has already begun. These changes are manifested by both technological revamping and venue expansion. Multiple aspects of the live game experience are being redefined, everything from ticket and concession sales, to security, advertising and on-field action.

Prominent technological Features:

- All-around high-speed Wi-Fi Access
- Networked hardware and beacon-based location services
- Complete Data and operation integration solutions
- Interactive, vivid and immersive mega displays
- Dedicated app based stadium functionalities

The Levi Stadium in Santa Clara, California is a prime example of how technology can be harnessed to redefine the game experience. The stadium's specs include 12,000 physical network ports, a 40-gigabit Wi-Fi network, ten 4K video cameras and 1,700 Bluetooth based beacons, helping to guide people throughout the stadium. The stadium also boasts a smartphone app which beyond its function as an online ticket, also provides users with benefits such as access to multiple-angle instant replays remote concession ordering and bathroom line tracking. The stadium even hosts a sports museum equipped with augmented reality and motion-sensing games.

This trend is continuing in full blast with the recently inaugurated **The Golden 1 Center** in Sacramento. The center's designers, fully aware of how quickly technology advances, sought to 'future proof' the stadium. This was achieved by having the stadium's functionality based predominantly on software, thus granting it the necessary flexibility to undergo updates without the need for new physical constructs. At the heart of the structure lies a 6,000-square-foot data and command center, monitoring not only typical information such as weather conditions and police and traffic updates, but also all-important social media stats. A major feature, here as well, is the stadiums designated app. The app is meant to provide fans with a personalized experience, affording them such conveniences as arranging an Uber ride to the stadium or reserving a parking spot in a nearby lot. Information from the app's users is relayed back to the command center, enabling them to follow the fan's entire experience. From the moment the fan enters the stadium, passing through the 'smart' turnstiles, and throughout his stay, the center can track the fans movements and actions. A unique feature of this particular app is an artificial intelligence messaging-bot that can answer questions about the game, the team and the arena itself. The fans benefit by receiving dedicated customer service and support, and the stadium receives a wealth of information regarding the fan's preferences and habits. Hoping to take the fan experience to the next step, the stadium plans to use virtual reality to provide fans with instant replays, affording fans, regardless of where they sit, a taste of the courtside view.

Fan Engagement

Overview

As previously mentioned, fan engagement is perhaps the most central element of the modern day sports industry, playing a key role in each of segments reviewed above. This understanding is behind the increasingly fan-centric approach, that combined with new technology applications, is revolutionizing the entire eco-system. The instant and round-the-clock accessibility provided by numerous media outlets and online platforms allows sports to permeate into fans everyday life.

Market players are experimenting with new means of engagement, seeking to forge deeper and more substantial relationships with fans. A prominent example of such efforts can be seen in attempts to leverage the use of social media platforms and fantasy sports applications towards these goals.

Fantasy sports are games in which participants act as imaginary team managers, building their own 'fantasy' teams based on the profiles of real sports players. The participants earn points according to the real-world performance statistics of the live players' as represented in their team's rosters, aiming to outscore and defeat all opponent teams.

The popularity of fantasy sports has been growing rapidly in recent years, driving the interest of big sport organizations and sponsors in this new burgeoning field. Fantasy sports fans are considered an ideal demographic for marketers and media outlets and by extension the sports leagues. Typical Fantasy players are college-educated professionals with disposable income, more likely to follow a larger number of games and watch them live, offering more opportunities for advertising and merchandize.

Social media enables fans to form virtual communities, serving as a place to voice their opinion, partake in online activities, share experiences and even interact with their favorite athletes. It is reshaping fans' relationship with teams, adding a whole new dimension to their interaction. Although TV is still the primary medium for viewing sports content, social media is used by almost 63% of fans as a central source for sports information. Through this connection fans are able to become part of the sports story, elevating their status from mere sideline viewers to active participants. The benefits to be gained from a passionate and invested fan base have not gone unnoticed and stakeholders recognizing the potential this new level of audience engagement are incorporating it as an integral part of their overall marketing strategy.

Fan Engagement

Market figures

The ongoing growth in fan engagement is reflected by the growth in television audiences, social media following, merchandise sales and particularly the explosion in fantasy sports participation. The bid to successfully commercialize sport revolves around maximizing fan engagement and understanding how consumers wish to consume sports. Accordingly, market players are constantly on the lookout for ways to strengthen their relationship with fans, seeking to bring them ever closer to the action.



56M Americans play fantasy sports

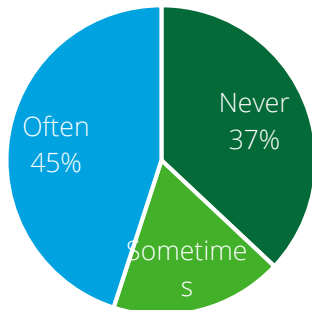


US\$26B US fantasy sports spending in 2015



US\$465 annual spend per player

Frequency social media is used to engage with sports content



Percentage of Fans Engaged Through Social Media



Fan Engagement

Trends and applications

Social media has become a major venue for fan engagement and though some might still be struggling to realize its full potential, others have successfully applied it to great effect. The medium offers numerous opportunities for activation, ranging from Twitter treasure hunts at tennis tournaments, to dynamic ticket prices for likes and followers. In the NFL, which is one of the major adopters of social media, every team has its own Facebook, Twitter and Instagram account. The teams use these platforms to connect with fans by providing them with up-to-date news, selected fan profiles and chances to win prizes such as team memorabilia. The teams have also leveraged Snapchat to share team schedules, reveal behind the scenes footage and create stories for the upcoming season. Other examples of media use include the #NBAVote initiative offering fans the chance to vote by twitter to have their favorite players take part in the all-stars game and the New Orleans Saints embedding their "Who Dat?" rallying cheer into a hashtag. The power of social media has been further demonstrated by the Boston Bruins, who as part of their promotional efforts towards their participation in the NHL's 'Winter Classic', posted 184 messages on Facebook, Twitter, and Instagram. Their posts led to more than 507 thousand likes and retweets.

Additional forms of fan engagement can be found across all verticals, examples include:

- GAME Golf which allows professionals to track their swings and share their stats with fans on social media
- NASCAR's implementation of a "digital cockpit" which allows in-race interaction between fans and drivers
- Intel announced new features for the X Games in Aspen, promising real-time data on jump heights, speeds, and in-air rotations during the games
- Foxtel's Alert Shirt enables fans to experience the sensations of their favorite athlete during a game ('feeling' a player's heart racing, and the force received from a tackle)

New Sponsorship Assets

Overview

Sponsorship has come a long way since static billboards and the classic pre-broadcast tribute “this game is brought to you by”. The dwindling opportunities offered by physical assets and the need for new revenue streams, has been driving sponsors to explore new marketing venues and platforms. Sponsors are increasingly seeking innovative and immersive mediums for promoting sales, brand awareness and loyalty.

Technological advancements offer new and more direct channels for reaching target audiences. They allow sponsors to gain a deeper understanding of their audiences, build campaigns that communicate with consumers on a personal level, effectively capturing their attention, creating a meaningful connection and positive brand association. New technologies provide additional support to the sponsor throughout the entire promotional process, enabling effective targeting, format selection and acquisition, while developing a fully encompassing layer of activation. Furthermore, it allows sponsors to reach new audiences in new markets.

Brands are searching for event-based activations which deliver multiple digital touchpoints and lasting social media impact. Marketers are demanding measurable return on investment to justify their spending and guide their future campaigns.

New Sponsorship Assets

Market figures

The sports sponsorship market has witnessed continuous growth in revenue throughout recent years. According to industry reports, total sponsorship spending in North America alone amounted to about US\$15 billion in 2015, accounting for 70 percent of the overall sponsorship market, and was estimated to grow by nearly 5% in 2016. Growth in the sector is fueled by sponsors' desire for assets that can provide customized benefits, integration with digital and social content and insights from audience data.

The BRIC countries are expected to continue to grow their sponsorship spending in order to enhance their international profile through branding and by hosting global sport events. The logos of Chinese companies are shown in the NBA as well as in each of the five major European leagues. In the Spanish La Liga, for example, no less than six different Chinese companies are active sponsors.

Consumer surveys show that across sports, those recalling sponsors through social media channels are 78% more likely to have a positive perception of sponsor brands than those recalling sponsors through other channels. Among social media platforms incorporated in sponsors campaigns, Facebook has been found to be the most popular one.

New Sponsorship Assets

Trends and applications

When assessing trends in the sports sponsorship market, the defining feature that stands out above all others is the utilization of technology and data to target a new generation of tech-savvy consumers. Brands wish to actively engage with consumers by utilizing these new tools.

As sports personalities (like Cristiano Ronaldo and LeBron James) and organizations are using social media to connect to fans and boost their popularity, the value of access to their followers is of huge commercial potential. By securing their endorsement, sponsors are provided with new data streams and channels of engagement.

Trends

- Sports media goes social: social media is increasingly integrated in sponsorship strategy and content offering. Fans are already using the web and social media to engage with each other and their favorite teams, providing a natural outlet to create unique, sponsored content.
- In-kind sponsorships with technology companies in order to boost the development of proprietary analytical services.
- New ways for real-time tailoring of the on-site experience, with technology reacting and changing according to a fan's pre-set preferences

Prominent Examples

- Bud Light's Social Media Lounge at Washington Redskins' FedEx Field features an ultra-high-definition multi-screen touch display gaming wall. The gaming wall employs Microsoft Kinect gesture technology to provide fans with the chance to experience kicking field goals, while tweets using #Redskins, #httr, #BudLight and #upforwhatever are posted in real time on the wall. Fans can also create virtual bobbleheads and images of themselves in virtual eye black and Redskins colored helmets and then post their image to social media
- UEFA Champions Festival employed RFID cards to capture audience demographic information by using various interactive activities offered by brand partners such as HTC, Playstation, Adidas and Ford. Fans were offered the chance to participate in social media check-ins, voting stations, gamification and real-time contests for top prizes.
- Mars collaborated with the Australian Football League (AFL) to launch a fantasy competition, with around 10,000 participants, producing 1.5 million page views on desktop and mobile, and engaging over 50,000 fans.

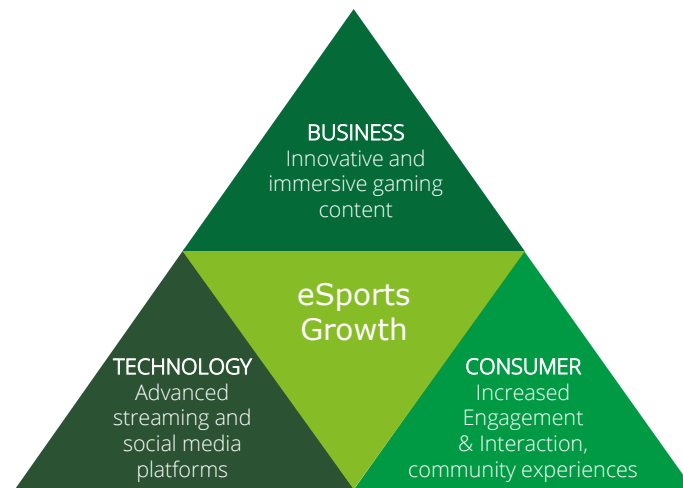
eSports

Overview

Some 20 years after the first video game tournaments, competitive online gaming - or eSports - now draws audiences in numbers comparable to the biggest traditional sporting events. Driven by the proliferation of broadband internet, the growth of eSports has been accompanied by the advent of an entire sub-industry. Businesses such as game publishers, hardware manufacturers and media companies have realigned their offerings to serve this booming field and its growing customer base. The constant flow of new and exciting content, advancements in streaming technology, the rise of social media platforms, and the shift in consumer preferences towards increased engagement and community experiences are some of the factors fueling the rapid growth of the eSports market.

As eSports continues to grow, new commercial opportunities are emerging. eSports offers brands and marketers new venues for advertising as well as direct access to young audiences around the world. Major brands such as Coca Cola, Red Bull, Logitech and Nissan have already invested in eSports events and additional brands are expected to follow, as recognition of the industry's potential continues to grow.

Factors Fueling the Growth of eSports



eSports

Market figures

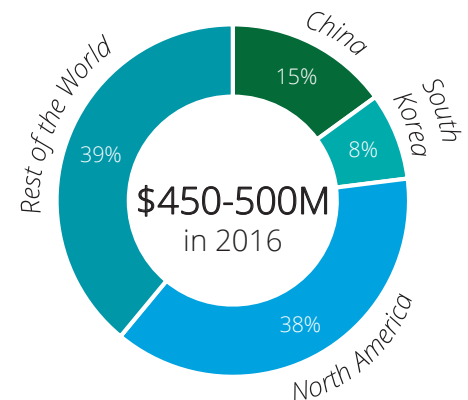
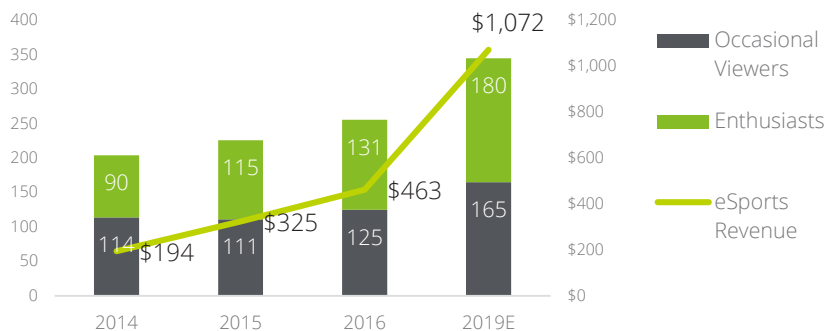
eSports has grown dramatically over the last several years, becoming one of the fastest growing segments of the entire sports industry. The global eSports audience reached around 200 million in 2015, generating revenues of about US\$325 million and are forecasted to top US\$1 billion by 2019. A single event may attract as many as 40,000 live spectators, and tens of millions online viewers. In 2015 alone, 112 major eSports events generated an estimated US\$20 million in ticket revenues.

Estimated revenues for 2016 range between US\$450 to US\$500 million, as Asia-Pacific leads the way in terms of audience size, accounting for over 40% of eSports audience.

Tech and media companies have been turning their attention to eSports, eyeing new business opportunities and particularly the chance to gain access to a much sought after demographic, young adults with disposable income. Notable examples include Amazon's acquisition of Twitch for 970 million in 2014, and the acquisition of a majority stake in ESL by Swedish media company 'Modern Times', for US\$87 million.

eSports Audience & Revenue Growth

2014-2019E, in million



* eSports enthusiasts are defined as consumers who watch eSports more than once a month and/or are active in eSports leagues. Occasional viewers watch eSports less than once a week.

eSports

Trends and applications

The past year has seen significant growth in eSports both in terms of audience and revenue. Among the recent developments expected to impact the eSports industry is the partnership formed between Facebook and Activision Blizzard, the world's largest computer-game publisher, to broadcast eSports on Facebook's live video platform. Activision also intends to update their MLG.tv platform, providing detailed information about individual players' performances and in-game action.

Another major development is the planned launching of a 24-hour eSports TV channel in the UK. The channel which will be jointly held by Sky, ITV and Ginx eSports TV, plans to cater not only to the local audience of 14 million UK and Irish households, but to reach as well an additional 23 million globally, becoming one of the largest eSports broadcasters. The industry hit another milestone when Major League Baseball's streaming technology division, known as BAMTech, struck a deal with Riot Games to stream League of Legends tournaments. According to the deal, BAMTech will be paying Riot, about \$300 million for streaming rights through 2023. As part of the deal, BAMTech will help Riot launch a dedicated streaming app and will handle distribution and monetization of League tournaments across third-party platforms like YouTube and Amazon's Twitch.

Traditional sports teams have also taken notice of this growing trend and are increasingly investing in eSports. European soccer clubs such as Valencia, FC Schalke and West Ham United have led the way, followed more recently by the Philadelphia 76ers. NBA team owners are also investing in this 'new' digital sport, including Washington Wizards owner Ted Leonsis, Golden State Warriors co-owner Peter Guber and Memphis Grizzlies owner Stephen Kaplan.



\$78M

2016 estimated total prize money



\$3.5

2016 average revenue per eSports enthusiast

Investments in Sports Tech



**more than
US\$5 billion**

invested globally in
sports tech
between '14-'16

Investment in Sports Tech

Show me the money!

Sports are the great unifier and one of the most interesting markets in venture investing. While there are established professional investors in the “traditional” sports market (leagues, teams, advertising etc.), the venture ecosystem for sports technology and innovation is still in its early stages, although developing at a rapid pace.

As the sports industry undergoes a technological transformation, investors are taking notice of the potential business opportunities. According to market data, about US\$6 billion was invested globally in the sports tech industry between 2011 and 2015, with over US\$2.4 billion invested in 2015 alone. Looking at 2016, an estimated US\$1.6 billion has been raised as of August with the leading markets in sports tech innovation currently being the US and Europe. This includes investments in fitness related start-ups.

This rise in investor interest has been accompanied by the launching of dedicated sports tech accelerators and venture funds. Some examples include Courtside Ventures which was launched in early 2016, backed by Cleveland Cavaliers owner Dan Gilbert, communication services company WPP and George Pyne from Bruin Sport Capital and Causeway Media Partners led by Boston Celtics co-owner Wyc Grousbeck. Among the Sports tech accelerators there are the Los Angeles Dodgers accelerator program and the Stadia Ventures Innovation Hub. Private investors, such as Ted Leonsis, owner of Monumental Sports & Entertainment, and Dallas Mavericks’ Mark Cuban, have also been actively pursuing this industry. Leonsis for instance announced his intention to launch a US\$10 million VC fund for the purposes of investing in sports and entertainment tech start-ups.

Investment in Sports Tech

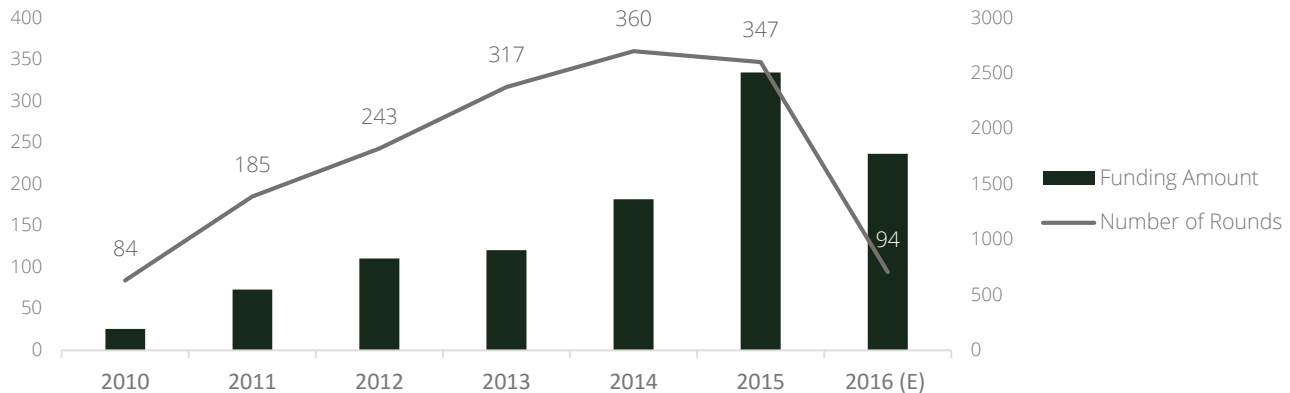
Show me the money!

Although the definition of a “sports tech company” is somewhat open to interpretation, a study found that the top 10 venture investments in this industry between 2014-2016 were primarily directed at digital content and online services. The main areas of sports tech start-ups activity can be categorized according to 8 segments:

- Data Analytics
- Performance Enhancement
- Smart Stadium & Ticketing
- Media & Sponsorship
- Fan Engagement & Social
- Fantasy Sports
- eSports
- Fitness, Wellness & Recreation

Venture Investments in Sports Tech 2010-Q32016*

US\$, million



*Data for 2016 includes three quarters of sports tech investments (not including fitness) and one quarter of fitness related investments

Investment in Sports Tech

Challenges

Though the sports tech market seems to have a lot going for it, as with any new industry there are hurdles to overcome and challenges to be met. In a paper reviewing the sports tech venture ecosystem a number of challenges were raised during conversations with investors regarding investment in the sports tech industry.

Few Exits

Despite significant investments, there have been relatively few exits compared to other industries. One reason may be that sports tech start-ups are very “category dependent”. Though they employ the most innovative technologies and refer to recent trends in consumer behavior, they are – in some cases - addressing ‘only one’ market (a specific sport). Another possible reason is the novelty and relative immaturity of the current sports tech market.

Market Sizing and Monetization

Assessing the revenue potential of sports tech start-ups can be challenging for investors as companies are struggling to determine which stakeholder they are actually targeting with their product (team, clubs, media, sponsors, the fan)

Access

The sports world is mostly network driven, requiring access to the right people and organizations. Tapping into this market (for investor and entrepreneur alike) without the having good channels into the industry may prove to be somewhat of a challenge.



HomeRun Ventures is the first sports tech fund in Israel, focusing on Israeli related sports, fitness and wellness technology ventures.

Sports tech, the utilization of technology in sports, is playing a greater role in sports and encompasses all aspects of the sports market, making sports tech one of the fastest growing fields for technology investments.

Israel, a world leader in terms of entrepreneurship, technology and VC investments, boasts some of the most innovative startups in the field of sports tech.

HomeRun ventures is headed by Yossi Moldawsky, a professional early stage investor with a proven track record of growing successful technology companies and is chaired by Mr. Alex Gilady, member of International Olympic Committee, Vice Chairman of the Olympic Coordination Commission for the Tokyo 2020 Olympics and Senior Vice President of NBC sports, global operations.

Together with a skilled team of managers and top advisors from the world of sports and venture capital, such as Yael Arad, Andy Ram and others, HomeRun Ventures is in a unique position to identify, invest and grow innovative sports tech ventures that will disrupt the sports industry.

By leveraging our domain expertise and extensive global network, our mission at HomeRun Ventures is to empower ambitious entrepreneurs to create great companies.

As the world of sports is evolving through innovation, we believe that sports tech will disrupt all sports sectors as we know them today, thus creating tremendous opportunities for investments.

You are invited to join us on our journey to shape the future of sports.



Alex Gilady

Chairman
HomeRun Ventures



Yossi Moldawsky

Managing Partner
HomeRun Ventures
Yossi@homerun.vc

Israel's Unique Innovation System



104

Hi-tech exits
in 2016 totaled

\$10B

Israel's Unique Innovation System

Israel has the highest concentration of technical companies outside Silicon Valley

Israel has the highest concentration of technical companies outside Silicon Valley and the highest number of NASDAQ-listed technology companies after the U.S. and China. Over 350 global tech leaders have a local presence in Israel.

Israel was spending 4.3% of GDP on R&D, being the world's top spender on R&D relative to the size of its economy over the last five years.

Technology accounts for 40 percent of the country's exports, which make up about a third of Israel's GDP. About 12 percent of Israelis employed in the business sector work for technology companies.

The over 1,100 Israeli technology exits between 2006 and 2016 amounted to over US\$70 billion in capital. In 2016 Israeli high-tech companies raised a total of US\$4.8 billion in 659 funding deals. The average financing round stood at US\$7.3 million. The strongest sector was the software industry with 32% of total capital raised, followed by cleantech capital with 22%, the life science sector (18%) and Internet (16%).



Unique society and culture



Highest # of engineers per Capita



"Global-first" market approach



Strong economy and government support



World's highest R&D expenditure

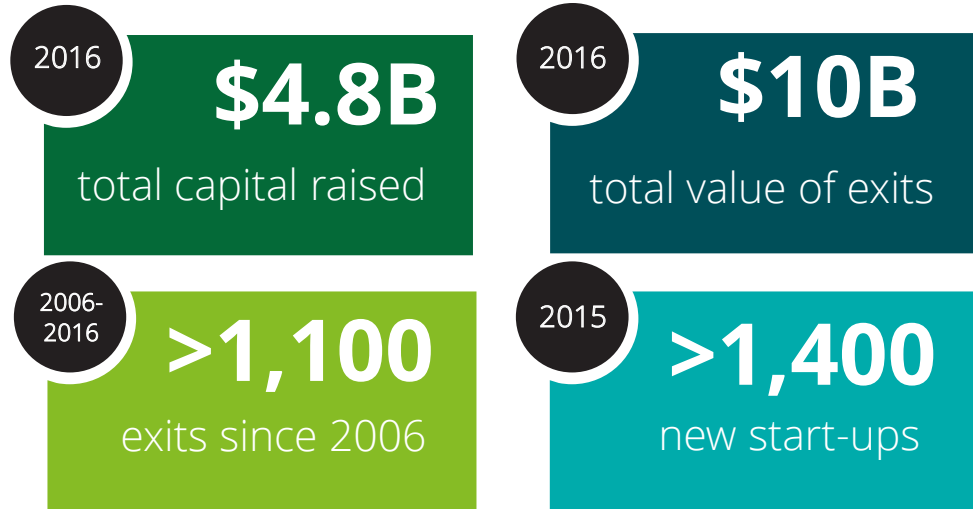


>1,400 start-ups formed in 2015

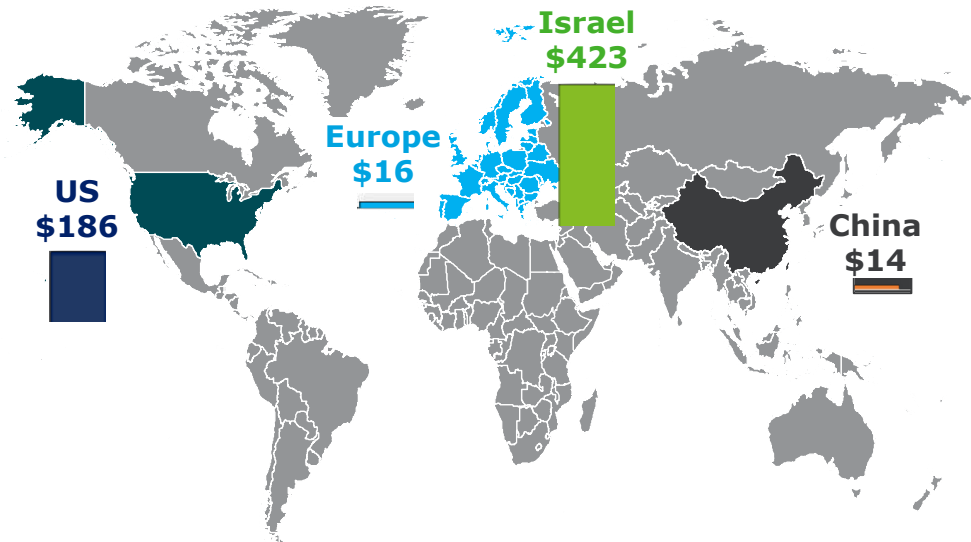
Israel's Unique Innovation System

2016 was another strong year for the start-up nation

AT A GLANCE



2015 GLOBAL PER CAPITA INVESTMENT IN START-UPS



Israel's Unique Innovation System

How companies tap into the market

Attracted by Israel's dynamic innovation ecosystem, many international corporates, mid-sized firms, and entrepreneurs have already partnered with Israeli companies or set up facilities in the country. Depending on company size and strategy, different models are chosen in order to tap into Israeli innovation capacity.

1 ESTABLISH AN R&D CENTER

With over 350 foreign technology companies with a presence in Israel, this continues to be one of the leading strategies to tap into Israel's innovation capabilities. Intel, IBM, Google, Microsoft, Facebook and SAP are only a few examples of global IT giants that opened research centers in the start-up nation.

2 BUY TECHNOLOGY & TALENT

Buying a start-up company can be seen as a shortcut for acquiring talent and know-how, instead of breeding it internally. Often, multinationals might turn their acquisition into an R&D center, resorting to existing capabilities (as opposed to building them from scratch). Others integrate start-ups into existing operations in order to build up a new business area or complement missing know-how. Last but not least, a lot of multi-nationals acquire ownership stakes of an Israeli start-up through foreign corporate venture capital in order to tap into talent and know-how, while preserving the start-up's innovative spirit.

3 SET UP INNOVATION LABS & ACCELERATORS

There are close to 100 incubators and accelerators operating in Israel, including Citigroup, Barclays, IBM, and Microsoft. Accelerator programs are mostly focusing on certain sectors and applications, such as fintech, cybersecurity, Internet of Things (IoT) etc. In a sector where the ecosystem is still evolving, a global player can position itself at the center of the start-up network by offering entrepreneurs a platform and network for cooperation and expansion.

4 FIND A LOCAL PARTNER

Tap Israel's innovation ecosystem by partnering with a local player or service provider, benefiting from its network while staying flexible with a small footprint. A lot of companies are choosing this option as an interim solution and testing ground before fully committing.

Israel's Unique Innovation System

The sports tech innovation ecosystem

While the US remains the epicenter of the sports tech industry, market players are always on the search for game-changing solutions capable of bringing new value to the global sports industry. The number of Israeli start-ups entering the sports tech arena in recent years has been growing rapidly, doubling in number from around 50 to nearly a 100 in the span of just two years. These companies are leveraging Israel's high-tech sector's vast experience and unique expertise in various fields such as big data analytics, computer vision, AI and IoT, to create cutting-edge solutions and applications for the global sports market.

Recognizing this growing trend, Israel's Economic & Trade Ministry organized a US "road show", for a delegation of 13 Israeli sports tech start-ups, providing them the opportunity to present their innovative technology to representatives from all the major sport leagues, as well as to select private investors, VCs and technology companies such as Twitter, HTC and Sony. Two of those promising start-ups have already made quite an impression in the media:

WSC

WSC Sports Technologies closed a US\$12 million Series B round led by Intel Capital, and other investors including Plus ventures, owners of the Minnesota Vikings, owners of the LA Dodgers, and owners of Cleveland Cavaliers. The investment brings WSC Sports' total funding to US\$16 million and will help the company significantly accelerate growth and international expansion.

Based in Ramat Gan, the company has developed an automatic, real-time, customized video creation platform for sports media right-owners designed for amplifying sports content and value. WSC Sports' customers include the NBA, Turner Sports, FIBA, MLS the "E-League" and others.

freeD

3D video tech firm Replay Technologies was acquired in 2016 by tech giant Intel for a reported sum of US\$175 million. The acquisition was announced just a week after it was revealed that the company successfully raised an additional \$13.5 million, in a funding round led by Deutsche Telekom Capital Partners, bringing its total to over \$30 million. Replay's 'FreeD' is a multi-dimensional video imaging technology which allows sports fans to view replays in 3D from multiple angles. The company has been collaborating with intel since 2013 and provided consumer-controlled, 360-degree instant replays for the NFL during Super Bowl 50 and for the NBA during the All-Star Weekend.

As interest in the Israeli sports tech market continues to grow, additional investments are expected to follow. In the following section we present a detailed overview of some of the most promising Israeli sports tech start-ups to date.

Mapping Israel's Sports Tech Start-ups



95

Sports tech start-ups*
disrupting the market

41

of them have raised
more than

\$380M

**active start-ups specifically targeting the sports market either exclusively or as an applicable use-case for their product or solution*

Mapping Israel's Sports Tech Start-ups

The sports tech innovation ecosystem



>\$380 million

Total investment in Israeli sports tech startups

Raised by

41 Start-ups



Active VCs

Plus Ventures, First Time Fund, Pitango, Battery Ventures, D5 Capital, The Time, iAngels OurCrowd, Deutsche Telekom, Samsung Ventures, Blumberg Capital, Baidu, Canaan Partners, Greylock Israel, Carmel Ventures, Lightspeed, Opus Capital, Plenus, Trinity Capital, Intel Capital

Investments in Israeli sports tech start-ups are among the top global sports tech investments

Start-ups targeting the sports market exclusively:

freeD
FREE DIMENSIONAL VIDEO

Raised >\$35M, acquired by Intel for ~\$170B

MinuteMedia

Raised >\$55M, last round closed in Feb 17'

Start-ups with a significant sports market use-case:

LiveU

Raised >\$50M

ycd
multimedia

Raised >\$45M



Active Accelerators & Incubators

Explore, The bridge (Coca Cola), Microsoft, EISP 8200, Tech4Good, The Junction, Nielsen Innovate, Vertical Engine, A3i, SOSA, StartupEast, hub:raum, The Hive, Inno-Negev, Startupbootcamp.

Mapping Israeli Sports Tech Start-ups

Performance Enhancement



Fan Engagement & Social



Media, Broadcasting & Sponsorship



Amateur Sports: Fitness, Wellness & Recreational



Data Analytics



Fantasy & eSports



Smart Stadium & Ticketing



*The companies presented in the map are start-ups which target the sports market either exclusively or as an applicable use-case for their product or solution
 **Companies may relate to more than one category

Mapping Israel's Sports Tech Start-ups

Select Start-ups

MinuteMedia

Founded: 2011
Management: Asaf Peled, CEO
Rich Routman, President
Sharon Weiss, CTO & GM Israel

Website: <http://www.minutemedia.com/>



WSC Sports Technologies

Founded: 2008
Management: Daniel Shichman, CEO
Aviv Arnon, VP Business Development
Shmulik Yoffe, CTO
Hy Gal, COO

Website: <http://wsc-sports.com/>

- Minute Media is a leading sports media and technology company, powered by authentic and socially driven content.
 - Minute Media develops products that enable fans to create, publish, share and distribute sports content around the world.
 - Minute Media was launched in 2011 as FTBPro, then **90min**, and has become the fastest growing digital football media community in the world.
 - Since then, Minute Media has expanded its family of sports destinations with 12up in the United States and with joint partnerships with FTB90, Prosieben and HT Media, covering sports and the stories behind the games in eleven languages across 20 countries.
 - 90min receives over 1B social impressions per month and over 70M unique global monthly visitors globally.
- WSC's platform helps media right owners to generate automated videos for all of their digital products and social media channels. The company's platform analyzes live sports videos in real-time and creates customized videos on every player, team, game or action.
 - WSC's technology is used extensively by the NBA as well as other major sports leagues and sports content owners.
 - The technology helps sports content owners maximize their video assets by creating more content and increasing the number of views, by allowing for better marketing and branding through smarter content and new branded real estate and by enhancing fan engagement and loyalty while creating an interactive and personalized experience.

Mapping Israel's Sports Tech Start-ups

Select Start-ups



Founded: 2011
Management: Omri Yoffe, CEO

Website: <http://lifebeam.com/>



Founded: 2010
Management: Chen Shachar, CEO
Evgeni Khazanov, CTO

Website: <https://www.playsight.com/>

- LifeBEAM aims to sense human body performance during dynamic activities via innovative bio-sensing technology implemented into wearables.
 - After creating life-saving bio-sensing tech for pilots and astronauts, the company turned to explore the fitness and wellness domains gradually transforming its proprietary technology into wearable-tech products for brands like Under Armour and Samsung.
 - LifeBEAM's developed the SMART, the world's first cycling helmet that continuously measures vital signs (heart rate, calorie consumption, steps taken, cadence), eliminating the need to wear a chest strap.
 - LifeBEAM is about to launch Vi, an AI personal trainer, who lives in advanced, bio-sensing earphones, looking to change the world of fitness.
 - Vi provides expert fitness advice through voice and sound, based on the user's unique biometric data, helping the user to reach his maximum potential.
- PlaySight's vision is to connect the next generation of athletes, bringing together their physical and digital worlds.
 - PlaySight developed a SmartCourt solution (refers to all sports) - connected to the internet with built-in cameras which automatically record, analyze, live stream and store all activities, and communicates with tracking sensors, score boards etc.
 - The solution allows users to watch, measure, learn from and share any detail about their game instantly and accelerate improvement, while creating a global and connected community of athletes, coaches, and fans.
 - PlaySight delivers the experience of how sports are coached, played, scouted, officiated, broadcasted and consumed at the elite levels to all levels of sport.
 - PlaySight's technology is applicable in various sports where it is used in the highest levels. Among PlaySight's investors and partners are Novak Djokovic, Billy Jean King, Anna Ivanovic and more.



Deloitte Israel

The leading partner and one-stop-shop for sport entities, technology companies, investors and entrepreneurs

BUSINESS PLANNING With an experienced team combining multi-disciplinary backgrounds, we offer economic consulting services to support start-ups in getting their business off the ground.

SCOUTING SERVICES Extensive experience and insights from similar assignments with major global multinational companies from the USA, Japan, Europe, China, and more.

STRATEGY COMPETENCY Cutting edge methodologies to assess target synergy fit, acquisition implications – through industry renowned thought leadership and understanding of success/failure drivers in alliances, JVs, and acquisitions.

INNOVATION TECH TERMINAL Deeply rooted in the Israeli ecosystem and oriented towards identifying cutting-edge technologies, we develop unique methodologies to nurture local innovation, fuel entrepreneurship and assist global power-houses with matchmaking services in the sports industry.

PARTNERSHIPS Deloitte's Strategy Consulting Practice has a track record of projects with major Israeli Sports organizations, including: Ministry of Sports, Olympic Committee, national soccer and basketball leagues, Toto, various stadiums and sports facilities and leading teams.

Our Value Proposition:

We are the right partner to connect and integrate startups and innovative Hi-Tech firms with key global players from multiple industries



Deloitte's Innovation Tech Terminal (ITT) Israel

Connecting global clients to Israel's start-up ecosystem

Deloitte's Innovation Tech Terminal ('ITT') is a newly established initiative connecting Israeli innovation with Deloitte's global clients. Deloitte's ITT mission is to provide the best platform in response to the ever growing demand for global innovation and technology strategies. This collaboration between Deloitte US and Deloitte Israel allows clients to leverage the innovative technologies of Israel's best and brightest startups. ITT is focused on curating innovation and facilitating relationships with the Israeli Startup Ecosystem by providing clients with Immersion Labs and Scouting Services into Israeli tech innovation.

The ITT utilizes the S3 approach, focused on Sensing, Scanning, and Scouting



Immersion Lab | A carefully curated and tailored client experience, including visits to transformative startups, leading venture capitalists, R&D centers and government officials, providing deep dives into particular exponential technologies .

Innovation Mapping Report | A review of high-tech innovation companies and technologies within the Israeli ecosystem that meet the screening criteria identified by Deloitte and the client. The report includes Company Overview, Product Analysis and Technology Assessment, all within the scope of the client's needs.

The ITT is built to provide unique value-added services to the Israeli ecosystem throughout the entire entrepreneurial lifecycle, leveraging Deloitte's vast array of industry and technology experts and global footprint.

Deloitte Thought Leadership

Deloitte frequently publishes a number of sports related insights and analysis



Deloitte's Sports Industry Updates

Frequent publications presenting Deloitte's perspective regarding recent developments and hot trends in the sport industry.



"Deloitte Football Money League 2017"

Published just eight months after the end of the 2015/16 season, Deloitte's Football Money League is the most contemporary and reliable analysis of the world's football clubs' relative financial performance.



"The stadium as platform: A new model for integrating venue technology into sports business" (2016)

The sports industry is changing and integrating new technologies. This report analyzes how the stadium is transformed to be a technological and commercial platform offering operators, teams, and fans new opportunities.

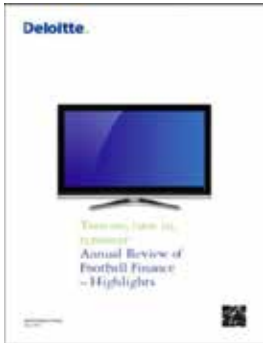
Deloitte Thought Leadership

Deloitte frequently publishes a number of sports related insights and analysis



“State of the Unions 2016: A close up on results”

This report published by Deloitte New Zealand presents a financial review of country’s leading rugby unions reveals the overall state of the game remains resilient in a challenging environment, with a few key areas for improvement.



“Annual Review of Football Finance 2016”

Annual Deloitte publication analyzing business drivers and financial trends and prospects for clubs in some of the top leagues in European football and in the top four divisions of English football, with a particular focus on Premier League and Championship clubs.



“Redefining home field advantage: A game plan enhancing fan engagement ”








Home field advantage is no longer simply packing a stadium, but engaging distinct groups of fans inside and outside the game venue 364 days a year. Based on learnings from Deloitte’s survey on fan engagement in sports, this report identifies moves teams and leagues can make to connect and deepen their relationships with fans.

Appendix











Appendix

Extended list of Israel's sport-tech start-ups

Name	Business Description	Segment	Founded	Website
 <p>365Scores</p>	Cross platform app that enables anyone to create their own sports channel. The platform provides live scores, news from the world's media, video highlights, statistics, fixtures, standings, tweets and more. 365Scores allows fans from around the world to converse through the virtual stadium in the app.	Media, Broadcasting & Sponsorship	2010	www.365scores.com
 <p>ABonAir</p>	ABonAir Ltd is a global leader in video and wireless technologies for broadcast professionals and production teams. The company's wireless broadcasting solutions are designed for news coverage, outdoor sports, reality shows, and other live events. The innovative technology allows for providing robust and reliable wireless video transmission while ensuring a continuous and stable broadcast session.	Media, Broadcasting & Sponsorship	2008	www.abonair.com
 <p>Acceler8</p>	Acceler8 focuses on high speed decision making in sports, training athletes to see clearer, think quicker and respond faster using advanced technology. The training process begins with a lab assessment, continues through a comparison to a sport specific database, and then generates an on-field training program to improve the necessary skills.	Performance Enhancement	2016	http://acceler8.co.il/
 <p>Apester</p>	Apester is an online marketing solution that enables content creators to better engage their readers through the use of interactive units that make users a part of the story. Using the company's user-sentiment-based algorithm, the units send readers from one page to another, increasing the number of page views per session in an engaging way.	Fan Engagement & Social	2011	www.apester.com
 <p>Applicaster</p>	Applicaster offers broadcast solutions for cross-screen TV experiences, empowering world-leading broadcasters and formats. Solutions include live and on-demand TV, second screen, synchronized and social TV experiences, and engaging apps that support any business model.	Media, Broadcasting & Sponsorship	2009	www.applicaster.com
 <p>Applied Cognitive Engineering (ACE)</p>	Applied Cognitive Engineering (ACE) develops software based "Brain-Gyms" under the brand IntelliGym®. These training tools significantly improve the performance of trainees in targeted tasks in specific sports.	Performance Enhancement	2003	www.intelligym.com
 <p>Arbox</p>	Arbox created a system for CrossFit users to register their workouts and maximize their CrossFit experience. Arbox's platform provides tools to keep the box's performance at the highest level by tracking members' activity and performance.	Fitness, Wellness & Recreational	2015	www.arboxapp.com











Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
 <p>At Event</p>	At event is a Sport mobile platform that enables the user to register to sport events, order merchandise and pay. The platform was created in order to save you time and provide you accessibility to many businesses under one platform.	Fitness, Wellness & Recreational	2013	www.atevent.co.il
 <p>Aydrate</p>	Aydrate has developed a hydration analysis system for athletes. It is comprised of a hydration pack, smartphone app, clip-on sensor, and Cloud-based big data analysis.	Fitness, Wellness & Recreational	2016	www.aydrate.com
 <p>Be Talent</p>	Be Talent Group is a software development start-up that provides a talent identification and prediction platform based on the concept of deliberate practice. Using algorithms based on sports science, the company can analyze and optimize athletes' skills, aiming to prepare more players for the highest leagues.	Data Analytics	2015	www.betalentgroup.com
 <p>BioGaming</p>	BioGaming offers a VR exercise gamification platform for in-clinic and home use. The platform enables physical therapists to prescribe exercise programs which are automatically transformed into games and training exercises designed to engage patients while tracking their progress remotely.	Fitness, Wellness & Recreational	2011	www.biogaming.com
 <p>Boost</p>	Boost is developing a mobile app which provides athletes a virtual analyst. The virtual analyst generates data-driven insights on demand. Boost offers built-in research kits that provide the answers to all important decisions in the athletes' activities.	Data Analytics	2016	www.boostapp.pro
 <p>Byond</p>	Byond provides a fast, easy, and intuitive web-based VR publishing platform. The company empower brands, media companies and businesses to create their own interactive experiences in Virtual Reality for their users.	Media, Broadcasting & Sponsorship	2014	www.byondvr.com
 <p>Coyotta</p>	Coyotta developed a professional-level, interactive fitness training program comprised of touch sensors and a smartphone app. The console functions as a personal or competitive fitness platform, tracking users' performance.	Fitness, Wellness & Recreational	2015	www.coyotta.com
 <p>Draft Fantasy</p>	Draft Fantasy is a free-to-play, draft-style fantasy football game for the English Premier League.	Fantasy & eSports	2014	www.fraftfantasyfootball.co.uk










Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
 Eco-Net	Eco-Net (the Ecology Network) develops smart, connected, digital fishing lures tailored to the Leisure and Sports Fishing markets. This IoT lure, the Eco-Popper, supplies fishermen with detailed metrics to enhance their experience.	Fitness, Wellness & Recreational	2014	www.eco-net.com
 ElMinda	ElMindA has developed the BNA™ technology platform, which allows high resolution visualization and evaluation of neuro-physiological interconnections of the human brain at work. BNA is used to diagnose and monitor concussions in NFL and NCAA athletes.	Performance Enhancement	2006	http://elminda.com/
 EveryMatch	EveryMatch developed an algorithm-based matching and management platform that helps users find like-minded people to share their passion, manage their activity, and join or create events and groups.	Fitness, Wellness & Recreational	2012	www.everymatch.com
 Fabula Gaming	Fabula Gaming is a sports game development company that supplies organizations with a variety of engaging games to energize, broaden and monetize their fan base.	Fan Engagement & Social	2013	www.fabulagame.com
 FanPassTick	FanPassTick is a mobile app that enables sports clubs to resell game tickets when the original ticket holders are not able to attend an event, creating a win-win situation.	Smart Stadium & Ticketing	2015	www.fanpasstick.com
 Fans League Club	Fans League is establishing a league for fans only. A competition that will measure and reward sport fans for their quality of support using empirical parameters.	Fan Engagement & Social	2016	http://www.fans-league.club/
 Fantasy Network	Fantasy Network Ltd is a technology company offering Daily Fantasy Sports (DFS) white-label games to iGaming operators worldwide. Each game is designed to target different audiences across the globe.	Fantasy & eSports	2013	www.fantasynetwork.com
 Fanzone	Fanzone's online platform for event organizers allows attendees to plan their journey to sports events and live music concerts, by offering multiple services such as organized buses, shared taxis, shared rides, navigation to parking and additional location-based services.	Smart Stadium & Ticketing	2014	www.myfanzone.com
 Finishers Club	Finishers Club is a free online platform for any runner who has crossed a finish line. Finishers Club serves as both a running career résumé and a virtual trophy case.	Fitness, Wellness & Recreational	2016	www.finishers.club
 Fitch	Fitch develops fully autonomous drone technology for recreational fishing. Its drones take the angler's bait to whatever location he or she wants—all at the push of a button via the Finch app.	Fitness, Wellness & Recreational	2015	www.gofitch.co









Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
Fitness Meal Planner 	Fitness Meal Planner simplifies fitness nutrition by automatically generating customizable meal plans.	Fitness, Wellness & Recreational	2014	www.fitnessmealplanner.com
Fitness22 	Fitness22 is a platform to help users get in shape and stay in shape, designed to be simple and motivating. The company's apps have successfully helped over 30M people get into shape, live healthier, and be more productive using its iOS and Android apps.	Fitness, Wellness & Recreational	2011	www.fitness22.com
Fitto 	Fitto is building a personalized smart bottle and customized pods that optimize dietary and sport nutrition supplements. Fitto enables personalized sport and lifestyle nutrition maximizing users' performance.	Fitness, Wellness & Recreational	2015	www.fitto.biz
FreeD (Replay Video Technologies) 	The freeD™ video format allows the viewer to experience never-before-seen perspectives of live sporting events, showcasing athletes in a unique and breakthrough way as if they were wearing cameras themselves. The patented data algorithms are able to create 3D-pixels of the entire surface area to build the scene in real time. Acquired by Intel in 2016.	Media, Broadcasting & Sponsorship	2011	www.replay-technologies.com
Giraffic 	Giraffic is a market leader in client-side multimedia software acceleration. The company's mission is to help device manufacturers and OTT content providers overcome internet congestion challenges in order to provide their customers with an enjoyable, engaging user experience when viewing their favorite online content.	Media, Broadcasting & Sponsorship	2008	www.giraffic.com/
Global ski pic 	Global Ski-Pic is a mobile app that provides an opportunity for skiers and snowboarders to get pictures of themselves in action. Global Ski-Pic is a fully-automated system that captures users on their way down the slopes and delivers high-quality photos with exciting options and filters.	Fitness, Wellness & Recreational	2014	https://ski-pic.com
goFlow 	goFlow is an app for weather-driven sports like surfing, kiteboarding, skiing, and snowboarding, which gets its data from users uploading the conditions.	Fitness, Wellness & Recreational	2013	www.goflow.me
Gymex 	High Frequency Data / Artificial intelligence driven soccer predictor.	Data Analytics	2008	www.gymex.com
HyFit 	HyFit develops a "Wearable Gym", a smart Suspension Training that allows users to train and track their workout anywhere	Fitness, Wellness & Recreational	2015	-









Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
 <p>iChannel</p>	iChannel develops a self-service B2B SaaS platform for live sports online in broadcast quality. The all-in-one platform is also measurable, personalized, cost-effective, and interactive, enabling channel creation, live production, graphics, and widgets.	Media, Broadcasting & Sponsorship	2016	http://ichannel.io/
 <p>iFloat Systems (former spydro)</p>	iFloat Systems develops Spydro, a small sensor that attaches to fishing angles. It provides real-time strike notifications, sonar information, and video. Spydro connects fishers to the point of action underwater, reporting to their smartphone or tablet information from the tip of the fishing line.	Fitness, Wellness & Recreational	2015	www.getspydro.com
 <p>InnoVision Labs</p>	InnoVision Labs is a neuroscience technology company focused on enhancing image-processing functions in the human vision system. InnoVision Labs developed Game Vision, a mobile app created for athletes who play sports that require swift image-processing speed, helping them to improve their sports vision.	Performance Enhancement	2014	www.innoVision-labs.com/
 <p>InPlay King</p>	INPLAY KING is a mobile social game that enables sports fans to experience live inplay sports betting using fun credits.	Fan Engagement & Social	2014	www.inplayking.com
 <p>InSoundz</p>	InSoundz patented technology captures, isolates and mixes every sound, changing the way sound is experienced in live event broadcasting. InSoundz's patented software and algorithms allow for consistent microphone-tracking of remote sounds, that are cleaned from background or fan-related noise. Computer vision algorithms match the audio to the movement in the video feed in real time.	Media, Broadcasting & Sponsorship	2013	www.insoundz.com
 <p>Interacting Technology</p>	Interacting Technology has developed a social content cross-platform monetization solution that connects people with relevant content. The solution uses a content-scoring engine and relevance analysis to create a world of content-based, highly engaged micro-communities. Interacting is collaborating with Real Madrid FC on the development of the Real Madrid App.	Fan Engagement & Social	2012	www.interactech.com
 <p>Join.</p>	JOIN is a platform for incentives referral and viral marketing. A highly cost-effective user acquisition tool that boosts pay conversion, JOIN's robust analytics engine identifies social leaders and viral vectors, and connects with social channels, billing platforms and POS.	Fan Engagement & Social	2013	www.join.tech
 <p>Kinitro</p>	Kinitro is a social market place and search engine for sport activities.	Fitness, Wellness & Recreational	2015	www.kinitroapp.com/









Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
 KonnecTo	KonnecTo has developed an innovative cloud-based platform that motivates customers and fans to continuously engage with brands by rewarding them for real life and online activities that keep brands on the top of their minds at all times, connecting their physical and digital worlds through various technological solutions..	Fan Engagement & Social	2014	www.konnecto.io
 Kwik	Kwik is an end-to-end push-button commerce solution for consumers to re-order their favorite products or services. Kwik's open marketplace offers brands the ability to develop a direct customer relationship, increasing engagement, loyalty and sales. Unlike existing solutions, brands or services can choose their own delivery and fulfillment partners.	Smart Stadium & Ticketing	2013	www.kwik.me
 LedSwim	LedSwim lets users follow all their training exercises. They can see the history of the previous sessions, build personal swimming programs, set personal milestones on the way to the final target, train in light of the goals set, and get notifications about their user experience.	Performance Enhancement	2014	www.ledswim.com/
 LifeBEAM	LifeBEAM is brings aerospace-grade innovation to the consumer space, having transformed its proprietary technology into wearable-tech products for major B2C brands. Today LifeBEAM is creating AI-powered experiences for fitness and wellness, primarily Vi, an AI personal trainer based on bio-sensing earphones.	Fitness, Wellness & Recreational	2010	www.life-beam.com
 LiveU	LiveU creates, develops and markets real-time video technologies and solutions that enable video broadcasters to uplink and transmit live instantly, anywhere, and at anytime.	Media, Broadcasting & Sponsorship	2006	www.liveu.tv
 LogLig	A platform for sports associations and clubs to reach and expand their audiences, fans and athletes, through a mobile app integrated with a management platform.	Fan Engagement & Social	2015	www.loglig.com
 LSports	LSports Ltd developed OddService.com, an automated system that provides its clients with real-time sports data solutions. Its products include risk management software, a sports book management interface, real-time odds from the biggest bookmakers across the industry, and more.	Data Analytics	2011	www.oddservice.com
 Metaflow	Metaflow is a team of scientists, engineers and designers aiming to change the way people eat and manage their bodies in order to live a healthier life	Fitness, Wellness & Recreational	2015	http://www.metaflow.co/









Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
 MilestonePod	The MilestonePod is the easiest way to track the mileage on running or walking shoes. Wirelessly sync to smartphone to view mileage, pace, cadence, stance time, stride length, calories, and run history.	Fitness, Wellness & Recreational	2012	www.milestonepod.com
 Minute	Minute has developed a video optimization technology that automatically generates highlights from full length videos to drive video engagement and higher rates of conversion.	Media, Broadcasting & Sponsorship	2012	www.minute.ly
 Minute Media (90MIN)	Minute Media is a leading sports media and technology company, powered by authentic and socially driven content with over 70M global monthly visitors. Minute Media develop products that enable fans to create, publish, share and distribute sports content around the world.	Media, Broadcasting & Sponsorship	2011	www.minutemedia.com
 Motionize	Motionize is combine motion sensors design, motion analysis and the methodology of providing users with corrective feedback for sport to enhance the training experience. Motionize have developed sensors and apps for kayakers, SUP paddlers and for the Shooting Sport, and are continuing to develop for additional sports.	Performance Enhancement	2012	www.motionize-inc.com
 My diet coach	My Diet Coach is a weight-loss motivation and tracking app that helps users make healthy lifestyle changes, resist food cravings, avoid exercise laziness and other weight loss difficulties.	Fitness, Wellness & Recreational	2013	http://www.mydietcoach.com/
 MyPlay	MyPlay develops a smart and affordable video training solution for sports clubs, enabling the athlete to analyse his on-court decision making, getting a wide perspective of the game. It also serves as a club managing tool and as an off-court meeting place for the team to re-live the game and share highlights with families and friends.	Performance Enhancement	2017	http://myplay.systems/
 Neetour	Neetour Medical has developed the Capno-Pulse technology to monitor PaCO2. Monitoring CO2 trends can be used in a wide variety of well-being, sport, and medical applications. CO2 monitoring is an indicator of ventilation, and provides the earliest alert to respiratory difficulties prior to any other indicator.	Performance Enhancement	2010	www.neetourmedical.com/
 Nutrino	Nutrino is patented technology that offers a virtual nutritionist who creates a food plan tailored to users based on their health goals, dietary needs, medical profile, taste, and lifestyle. Nutrino can recommend specific dishes from restaurants when eating out (based on users' location) or recipes when eating at home.	Fitness, Wellness & Recreational	2011	www.nutrino.co








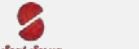

Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
 <p>Overwolf</p>	Overwolf specializes in reinventing user-generated content in the hardcore gaming space by creating apps to help players win and have more fun in their favorite PC games.	Fantasy & eSports	2010	www.overwolf.com
 <p>PhysiMax Technologies</p>	PhysiMax Technologies has built a real-time athletic movement assessment solution, reliably scoring an athlete's risk of injury and athletic performance. It offers a cloud-based movement assessment service to automatically capture and extract the human quality of motion, identify and measure full-body kinematic events, and convert measurements into performance scoring.	Performance Enhancement	2012	http://pmax.co/
 <p>Pic2Go</p>	Pic2Go is a leading provider of social engagement solutions for endurance events and sponsors. Pic2Go offers event participants with personal branded albums to instantly share on Facebook, while amplifying sponsors' engagement and social reach.	Fan Engagement & Social	2010	www1.pic2go.com
 <p>Pico Buzz</p>	Pico helps companies boost their brand awareness and fan engagement using the content fans are already posting. Pico creates a complete user profile for each fan. The company then enhances these profiles by providing useful tips and call to actions to easily meet the fans' needs and desires.	Fan Engagement & Social	2013	www.pico-app.com
 <p>Pixellot</p>	Pixellot's fully automated sports production solutions enable the long-tail sports market to easily produce high-quality game and player videos at significantly reduced costs, as well as an interactive mobile app for the end user.	Media, Broadcasting & Sponsorship	2013	www.pixellot.tv
 <p>Playkers</p>	Playkers is a mobile app that provides a high-quality management solution for amateur sports players, for venue managers and for smart sports cities' municipalities.	Fitness, Wellness & Recreational	2014	http://playkers.com
 <p>PlaySight</p>	PlaySight's solution turns any court, pitch, rink or field into a SmartCourt, revolutionizing not only the coaching process but also the player's game experience. Initially designed for use at tennis clubs across the world, the technology has expanded to all ball sports.	Performance Enhancement	2010	www.playsight.com
 <p>Playwork</p>	Playwork integrates an interactive gaming system with training devices used for physical rehabilitation, fitness, and sports. The combination of practice and gaming makes rehabilitation and fitness training a fun, challenging, and engaging experience.	Fitness, Wellness & Recreational	2015	http://www.playwork.me/










Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
Pulse Play 	Pulse Play has developed a smart wristband for racket sports players. The wristband connects via Bluetooth to smartphone devices, allowing players to keep score during a match, track and compare improvement over time and connect with other players.	Performance Enhancement	2015	www.pulse-play.com
Quarterback 	Quarterback is a unique crowdfunding platform for eSports players to raise funds for their careers: Fans and sponsors who back players are offered a revenue share of the gamers' proceeds and rewards.	Fantasy & eSports	2016	http://www.quarterback.com/
Reccenter 	RecCenter is a digital community for recreational sports that connects players, event organizers, venues, referees, and coaches.	Fitness, Wellness & Recreational	2016	https://www.reccenter.me/
Redwood International Sports 	Redwood International Sports provides a centralized, reliable and innovative source to provide advanced data for a wide global coverage of football games. The company gathers precise data according to the client's specific needs developing progressive, tailor made, data delivery platforms.	Data Analytics	2004	http://www.redwoodinternationalsports.com
RideOn 	RideOn specializes in AR technology for outdoor activities, creating products for the connected, active lifestyle. The company's AR ski goggles have already been shipped to hundreds of early adopters worldwide and an AR motorcycle helmet is next in development.	Fitness, Wellness & Recreational	2014	www.rideonvision.com
RSPCT 	RSPCT Basketball Technologies tracks shooting in high resolution & uses that to improve shooting, decisions and increase fun.	Performance Enhancement	2015	rspct-basketball.com
Scouting4U 	Scouting4U provides stakeholders in the basketball community with access to a reliable, up-to-date, and comprehensive statistical and video database of players and games.	Data Analytics	2009	www.s4upro.com
seatserve (Horizon Innovations) 	Horizon Innovations has developed SeatServe, an end to end solution for stadium concessions where fans can order food, drinks and merchandise from their smartphone and get it delivered to their seat. SeatServe manages orders, billing and analytics.E82	Smart Stadium & Ticketing	2014	www.seatserve.com
Sensight 	Sensight is focused on the worldwide sports shooting industry with revolutionary digital rifle sights, utilizing the latest hardware technologies combined with state of the art image processing and machine vision.	Performance Enhancement	2015	-










Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
 <p>SenSwim</p>	SenSwim provides an end to end solution for the swimming workout process based on advanced technology, analysis and debriefing modules, enhancing practice plans, training metrics measurement and real time and offline analysis.	Performance Enhancement	2016	-
 <p>SmarTag</p>	SmarTag provides smart crowd management, access control and cashless payment solutions. SmarTag's platform is based on wearable devices and is using RFID and NFC technology to create a bridge between the online and the offline world, striving to create a unique and seamless guest experience.	Smart Stadium & Ticketing	2015	www.smartagid.com
 <p>Smarter TV</p>	SmarterTV has developed a technology enabling the production of high-quality video coverage from live events, and narrow-band and video-over-IP dissemination of video.	Media, Broadcasting & Sponsorship	2014	www.smartertv.net
 <p>SolnFit</p>	SolnFit is a mobile application that creates a social network for its users while increasing the engagement level between fitness clubs and their members. The company's main purpose is to prevent people from abandoning fitness clubs because they haven't achieved the goals they'd hoped for.	Fitness, Wellness & Recreational	2012	www.soinfit.com/
 <p>Spilon</p>	Spilon is the maker and developer of Fanatics - a social gaming platform that lets the user build his own football (soccer) fan club of an actual real life team.	Fan Engagement & Social	2011	www.spilon.com
 <p>Sport M</p>	SporTM is a social sports platform that allows anyone to find sports partners anywhere they go. With SporTM, users can invite others around them for any kind of sports activity.	Fitness, Wellness & Recreational	2016	www.sportmapp.com
 <p>SporTech</p>	SporTech creates a new personalized and targeted advertising platform, allowing the team both to engage the fans and to add commercial value to new sponsors.	Fan Engagement & Social	2016	-
 <p>SportJobz</p>	SportJobz is a social network that provides an innovative way for the sports industry to recruit players. The company's mission is to improve networking between players and teams in the sports industry worldwide.	Data Analytics	2012	www.sportjobz.com
 <p>SpotOn</p>	SpotOn specializes in automatic creation and editing of action videos, providing a solution for filming personal videos of action sports such as skiing/snowboarding, white water rafting, go-carting, cycling, E-motocrossing, etc.	Media, Broadcasting & Sponsorship	2011	www.spotonaction.com



Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
<p>Toptix</p> 	TopTix is a software house focused on the design, development, and support of "white label" ticketing systems for the live entertainment and sports industries.	Smart Stadium & Ticketing	2000	www.toptix.com
<p>Trailze</p> 	Trailze is an end-to-end outdoor navigation and mapping ecosystem. It changes the experience for riders, hikers, jeepers and everyone who travels in nature. Trailze is striving to find the ultimate trail based on user's abilities, know-how and wishes.	Fitness, Wellness & Recreational	2014	www.trailze.com
<p>TrekAce</p> 	TrekAce developed a navigational tool that is ideal for bicycle riders, hikers, skiers, and soldiers. The product is a sleeve worn on the arm that gives the user real-time directions where he should go, based on a predefined route, through the use of sensory stimulation.	Fitness, Wellness & Recreational	2015	www.trekace.com
<p>udobu</p> 	Udobu's solution transforms historic and real-time information into actionable insights using machine learning and predictive modeling to optimize sports clubs' and media streaming revenue through better targeting and accurate pricing for tickets and streaming rights and proces.	Smart Stadium & Ticketing	2014	www.udobu.com
<p>vBrand</p> 	vBrand is an AI Marketing Insight platform for sports marketers and rights holders. The AI-based big data platform enables marketers to plan, measure and optimize sport sponsorship campaigns, while uncovering the full impact generated through the sponsorship activation.	Media, Broadcasting & Sponsorship	2014	www.vbrandsports.com
<p>Vodience (Livingrid)</p> 	Vodience, or "virtual audience," is a real-time crowd-visualization engine that reflects web and TV viewers who are simultaneously consuming the same digital content.	Fan Engagement	2012	www.vodience.tv
<p>VR Physio</p> 	VRPHYSIO is the developer of a virtual reality rehabilitation platform that gamifies physical therapy, making it both fun and easy to monitor.	Fitness, Wellness & Recreational	2016	www.vrphysio.com
<p>Watteam</p> 	Watteam develops a professional & affordable power meter that works on any bike – without the need for factory installation or component replacement. Watteam caters all levels, professional and amateur.	Performance Enhancement	2014	http://watteam.com/
<p>W.S.C Sports Technologies</p> 	WSC developed a platform that automatically and in real-time generates customized sports videos for every fan or digital platform. The company helps sports media right owners such as the NBA, Turner, FIBA, MLS and others to create relevant content automatically, in real-time and high scale.	Media, Broadcasting & Sponsorship	2008	www.wsouting.com

Appendix

Extended list of Israel's sport-tech start-ups (cont.)

Name	Business Description	Segment	Founded	Website
YCD Multimedia 	YCD Multimedia offers powerful digital signage platforms that give users the opportunity to build engaging, interactive multimedia experiences specific to their needs. YCD Multimedia's technology is used in stadiums.	Smart Stadium & Ticketing	1999	www.ycdmultimedia.com
Zengaming 	Zengaming is a global eSports network and arena where players can connect with friends, other eSports players, teams, sponsors, and professionals.	Fantasy & eSports	2014	www.zengaming.co

Appendix

Sources

- Deloitte's Sports' Starting Lineup: Sports Trends that will Disrupt and Dominate 2016, Deloitte Consulting LLP
- eSports: bigger and smaller than you think, 2016, Deloitte Global
- Redefining the home field advantage: A game plan for enhancing fan engagement, 2016, Deloitte Consulting LLP
- The stadium as a platform: a new model for integrating venue technology into sports business, 2016, Deloitte Consulting LLP
- "Winning in the business of sports" AT Kearney, Simon Chadwick, "Football and China's World Cup goal" APP Society, 23 September 2015
- Sports Analytics: Market Shares, Strategies, and Forecasts, Worldwide, 2015 to 2021 - Wintergreen Research, Inc May 2015
-
- The Sports Technology and Sports Media Venture Ecosystem, Sparsh Agarwal, Varun Sanon, April 2016
- Sports Tech Research Note - Catalyst Investors, Kapil Desai, May, 2016
- Sports Analytics Market by Type (Solutions & Services), by Applications (Player Analysis, Team Performance Analysis, Health Assessment, Video Analysis, Data Interpretation & Analysis, Fan Engagement), by Deployment Type & by Region - Global Forecast to 2021, May 2016 Markets and Markets
- Sports Analytics: Accelerating In-Game Decision-Making through Analytics Insights, August, 2015, Sameer Dhanrajani
-
- Beyond Moneyball: The future of sports analytics, Benjamin Alamar and Vijay Mehrotra
- 8 Ways Big Data and Analytics Will Change Sports, March 2013, Lauren Brousell
- Predictive sports analytics put in play for Wimbledon, Formula One, Gareth Morgan, July 2012

Appendix

Sources (cont.)

- Behind the Numbers: Professional sports and the merits of being big and connected Deloitte University Press, Lester Gunnion, August 2015
- What do the Olympics mean for sport sponsorship in the digital age? August 2016 Dan Calladine, The Guardian
- Introducing the Stadium of the Future, Where Technology is King, Curbed, Patrick Sisson, February 2016
- Embedded Wearables: Enhancing Sports Performance, Brian Pitstick, 23 November 2013 Moor Insights & Strategy
- Wearable Sports Technology Market Landscape and SoC Trends, Damian Anzaldo International SoC Design Conference (ISOCC), IEEE, 2015
- The Wearables Report 2016: Reviewing a Fast-Changing Market. Fung Business Intelligence Center July 2015
- The NFL is putting tracking sensors inside its footballs for the first time, Kurt Wagner, Aug 29, 2016, Recode
- Top smart gadgets for soccer/football, Dusan Johnson, Gadgets & Wearables, October 5 2016
- Adidas Acquires Runtastic to Bolster Fitness Tracking, Wearables, and Possibly Smart Clothing, Aditya Kaul, Tractica August 7, 2015
- FIFA seeks global wearables standard, Ivan Jovin, Gadgets & Wearables, October 5 2016 October 20, 2015
- EPTS workshop hosted in London,(FIFA.com) 26 Apr 2016
- As Apple, Nike Launch Apple Watch Nike+, Here's Why It Might Be 'The Perfect Running Partner' Mark J. Burns September 7, 2016 SportTechie
- How Under Armour and Nike have tackled wearable technology, Mark J. Burns, Friday September 9th, 2016 SportTechie

Appendix

Sources (cont.)

- Football frenzy: Half of Americans are professional football fans, September 10th, 2015, Mintel
- Sponsorship spending report: where the dollars are going and trends for 2015, 2015, IEG
- Industry looks for right recipe to attract fans among millennials, Tripp Mickle, March 24, 2014, Sports Business Journal
- Stadiums race to digitize: How sports teams are scrambling to keep Millennials coming to games, Teena Maddox, April 12, 2014 TechRepublic
- Meet Levi's Stadium, the Most High-Tech Sports Venue Yet, Tim Bjarin, August 18, 2014, TIME Tech
- Behind the scenes at high-tech Levi's Stadium, where the WiFi is never more than 10 feet away, Taylor Soper, September 24, 2016, GeekWire
- The Highest-Tech Stadium in Sports Is Pretty Much a Giant Tesla, David Pierce, March 06, 2016 Wired
- Inside the Sacramento Kings' arena that's a '21st century communal fireplace', Ken Yeung, October 2, 2016, VentureBeat
- The Sacramento Kings' New Stadium Is Wired for Virtual Reality, Tom Simonite, June 20, 2016, MIT Technology review
- 2016 Global Esports Market Report, Newzoo, January 2016
- Israeli Hi-tech and Venture Capital Database, 2016, IVC Research Center
- Crunchbase Hi-tech Companies Database
- Gross domestic spending on R&D, 2016, OECD
- Start-up Nation Finder, Start-up Nation Central Ltd. (CC)

Appendix

Sources (cont.)

- Israel High Tech Industry Growth Slowing Amid Manpower Shortage, Gwen Ackerman, February 2016, Bloomberg Technology
- Millennials, Live Events, and Smartphones: A Look Into Their Behavior, Hugh McIntyre, May 7, 2015 Forbes
- Fan engagement in the business of sports in 2015, Kenneth Cortsen, February 7, 2015, Sport Management Perspectives
- Innovations in sports broadcasting technology, February 2, 2015, Luca Marinoni
- Five trends for 2017 in eSports, December 16, 2016, GlobalSportsJobs
- eSports Market Report 2016, SuperData
- Intel Acquires Israeli Sports Imaging Startup Replay Technologies For \$175M, Yonatan Sredni, March 9, 2016, NoCamels Israeli Innovation News
- What Sponsors want and where dollars will go in 2016, IEG, Sponsorship.com
- Market Insight: HOW UEFA & THE RYDER CUP INCREASED SPONSOR ENGAGEMENT WITH RFID, September 16, 2016, SoccerEx.com
- Five trends for 2017 in sports sponsorship, January 10, 2017, GlobalSportsJobs.com
- Esports: Trends to Watch in 2017, January 10, 2017, ketchum.com
- Inside 10 of the Industry's Best Digital Sports Sponsorship Activations, Sandra O'Loughlin, December 27, 2016, eventmarketer.com
- Need To Know: Eight Activation Trends In 2017, January 9, 2017

Researched and written by :

Roy Elishkov

Manager
Business Planning Group
Deloitte Israel

Nora Erdmann

Senior Consultant
Business Planning Group
Deloitte Israel

Yakov Flaumenhaft

Consultant
Business Planning Group
Deloitte Israel

We would like to thank our colleagues for their support and assistance in preparing this report:
Ilia Kotliar, Danny Feuer and Emily Leshem

Contact info

Industry experts



Amit Harel

Innovation Tech Terminal Leader,
Deloitte Israel

aharel@deloitte.co.il



Ariel Cohen

Sports Tech Domain Manager
Innovation Tech Terminal
Deloitte Israel

arcohen@deloitte.co.il



Hadar Poded

Head of Start-up
Business Development
Deloitte Israel

hpode@deloitte.co.il



Omri Bitan

Sports Business Group Leader
Deloitte Israel

obitan@deloitte.co.il



www.deloitte.co.il

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. Please see www.deloitte.com/about for a more detailed description of DTTL and its member firms.

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in 150 countries and territories, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte's more than 244,400 professionals are committed to becoming the standard of excellence.

Brightman Almagor Zohar & Co. (Deloitte Israel) is the member firm of Deloitte Touche Tohmatsu Limited in Israel. Deloitte Israel is one of Israel's leading professional services firms, providing a wide range of world-class audit, tax, consulting, financial advisory and trust services. Through approximately 100 partners and directors and 1000 employees the firm serves domestic and international clients, public institutions and promising fast-growth companies whose shares are traded on the Israeli, US and European capital markets.