

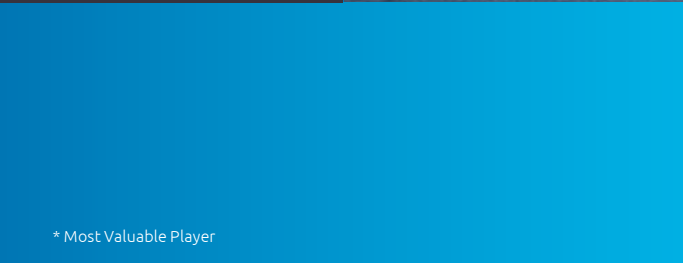
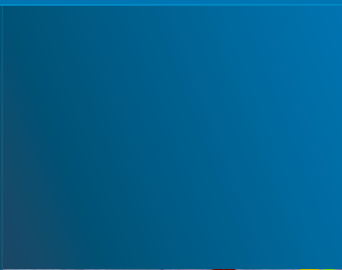
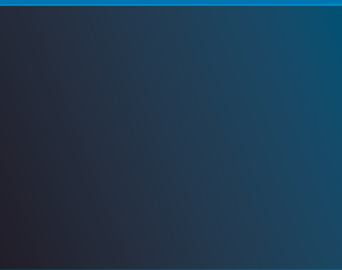


Research brief - Capgemini Research Institute 2025

Beyond the game:

The new era of AI-powered sports engagement

Table of contents



* Most Valuable Player



Who is this report for?

This report is intended for executives working in designing experiences around sports across countries. The report focuses on how the fan experience is transforming thanks to the greater adoption of emerging technology and increasing impact of AI/Gen AI on the sport. The report draws out the differing ways in which the sports fan experience is changing in-stadium and outside the stadium.

The report will be of interest to Chief Experience Officers, Chief Data Officers, sports team managers, stadium operators, and Chief Technology and AI Officers who are tasked with enhancing the fan experience across channels.



01

Executive summary



I Executive summary - *Technology is reimagining the fan experience*



Fan attendance for live matches in stadiums is resurgent.

From a reported 34% of fans attending live matches in 2023 to 37% in 2025. Gen Z and millennials, who particularly appreciate the new tech-enhanced stadium experience, are driving this rise.



AI/Gen AI is transforming the remote fan experience.

Fans are embracing AI: 54% have switched from Google to AI tools to access sports info, and 59% trust AI-generated sports content. Plus, 27% of fans would pay ~8% extra for AI-enhanced viewing experiences.

- Fans are most excited about the possibility of competing against real sports players virtually during a live game.



Data-driven fandom is here.

Fans crave stats and real-time data: ~70% want player performance metrics and live conditions (such as wind or pitch-related data) during matches. This is underlined by telecom data usage spikes during matches, especially during pre-match and break periods.

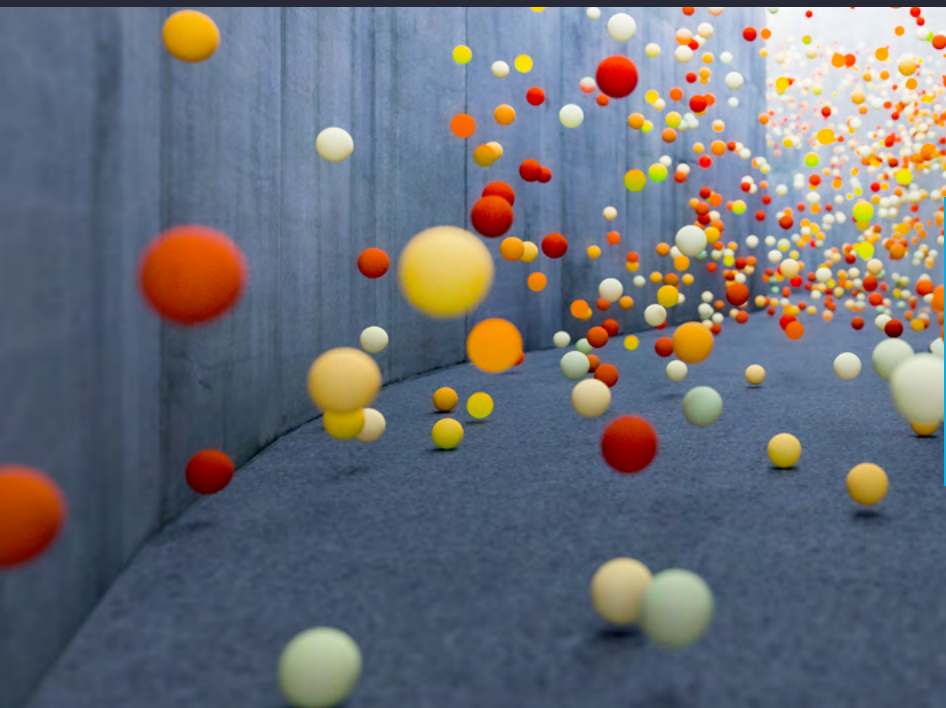


Fans seek a balance between tech innovation and authentic sports experiences.

While many use AI and Gen AI tools, over half worry that excessive tech use could interfere with the authenticity and enjoyment of the live sports experience. Concerns include misinformation – potentially leading to aggression toward athletes – and data privacy, especially among older fans.

- To attract more fans and maintain ongoing engagement, sports organizations must harness technology—especially AI and generative AI—to deliver an enhanced viewing experience. They must identify the high-potential solutions and develop a clear implementation strategy.
- At the same time, they must:
 - Ensure the solutions **augment** the sports consumption experience, without distracting from or overshadowing it
 - Implement **robust cybersecurity measures** to safeguard fans’ (and players’) personal data
 - Continuously **verify the content** being shared across various platforms to avoid spreading misleading content about the sports teams and players





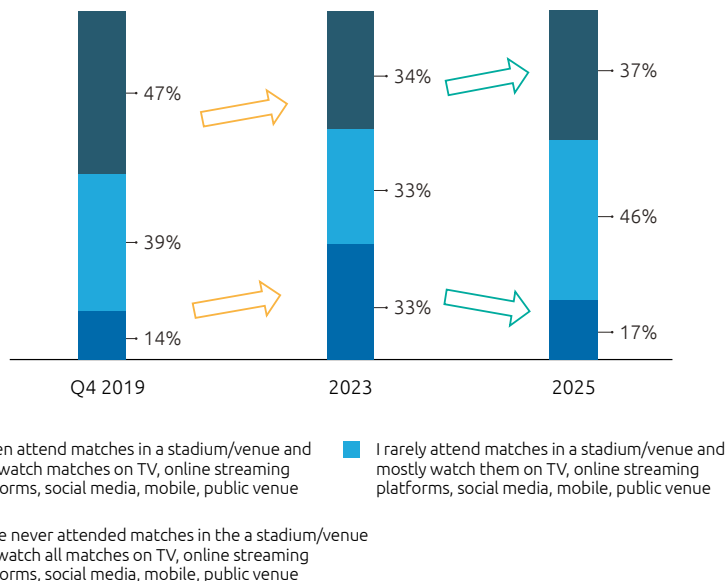
02

Fans are coming back to the stadium



I Fans are beginning to come back to the stadiums

There has been a modest rise in the proportion of fans attending matches in stadiums, from 34% in 2023 to 37% in 2025. Stadiums are roaring back to life, proving that nothing rivals the energy of a live crowd. Fans in the stands don't just watch the game - they transform it, turning matches into electric, communal experiences.



Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025; N = 7,080 fans.
A whole new ball game, 2023; N = 7,081 fans, Emerging technologies in sports, 2020; N = 10,363 fans
Note: The 2025 and 2023 samples for this chart include only those countries covered in the Q4 2019 survey.

3%

In US, attendance of sports events saw an increase of 3% in 2024 over 2023, half of which was driven by women's sports.¹

9%

Australia witnessed sports events attendance increase by 9% in 2024 over 2023.²

Sold-out

Indianapolis 500 was the most attended motorsport event in US in 2025, where all grandstand seats were sold-out for first time since 2016.³

80,000+

Tennis French Open Roland-Garros 2025 saw a new attendance record of more than 80,000 spectators in the opening week (75,000 spectators in 2024).⁴



Fans are not just a source of revenue – they are a vital part of every match

//

There's no better feeling than sitting on the team bus travelling to the Millennium Stadium, knowing that the team will be playing in front of 74,500 people. You're driven through the crowds where you see the smiles on people's faces, and I get a huge buzz out of that.”⁵

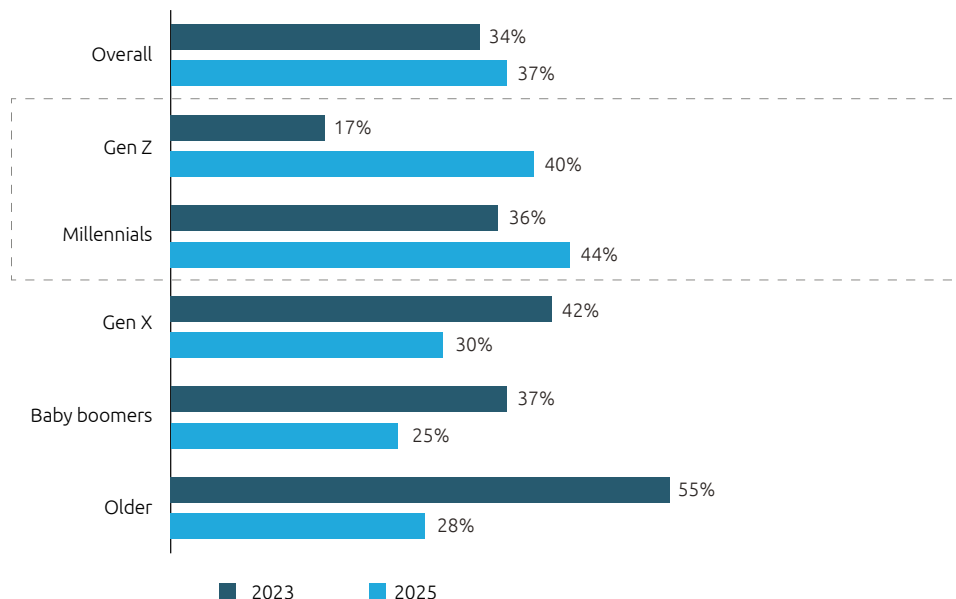
Warren Gatland

Former Head Coach of Wales national men's rugby team

| Millennials and Gen Z are driving the return to stadiums

Who's in, who's out

Percentage of fans who mentioned they **often** attend matches in stadiums/venue, and also watch matches on TV, online streaming platforms, etc.



Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025; N = 7,080 fans, A whole new ball game, 2023; N = 7,081 fans.

Live stadium experiences remain a powerful draw, unaffected by climbing ticket costs

Sports fandom isn't one-dimensional—it's nearly evenly split between men and women, and it's getting younger. Winning over this diverse fan base means catering to Gen Z's digital cravings while honoring timeless traditions.

Ticket prices are on the rise

22% Admission prices for sporting events jumped 22%, year on year, in May 2024.⁶

"Funflation" is here to stay

38% Despite rising costs, 38% of adults said they are prepared to take on more debt to allow themselves to travel, dine out, and see live entertainment.

13% At least one in ten (13%) adults would use credit to go to the theater, see a live sporting event, or attend a concert.

FOMO is the name of the game

43% According to a study from Intuit Credit Karma, Gen Z is the generation most likely to spend on entertainment. While nearly half of US respondents surveyed (46%) spend less on entertainment than they did pre-pandemic, many Gen Z consumers (43%) are spending more.⁷



Stadium tech has been ramped up to meet the expectations of a younger audience

Smart stadium

The global smart stadium market is projected to rise from \$19.6 billion in 2024 to \$41.7 billion by 2029, at a CAGR of 16.4%⁸

From 70k-sq-foot jumbotrons to cashless concessions, tech-laden arenas are raising the bar for live sports. Teams know a frictionless, wow-factor stadium experience keeps modern fans coming back for more – it's not just a game, it's an immersive event.



To elevate live game experience, stadiums are turning to advanced technological innovations



Real-time access to game statistics

Levi's Stadium in Santa Clara, California, has implemented an AR feature in its mobile app, supporting an **interactive fan experience, overlaying real-time stats and player information onto the field during games.**⁹

Venues for the 2024 Paris Olympics were equipped with internet of things (IoT) sensors, connected devices, Wi-Fi, and 5G connectivity for seamless communication and streaming, allowing fans to **access live statistics, replays, and athlete information.**¹⁰



High-resolution big screens with advanced technology

SoFi Stadium, also in California, boasts a **70,000-sq-ft infinity jumbotron 4K screen.** The Mercedes-Benz Stadium in Atlanta, Georgia, has a Halo Board with a 360° screen, to ensure fans have a clear view from any angle, with real-time game updates, stats, etc.¹¹

At the Moody Center Arena in Austin, Texas, fans can interact with a **70-foot digital wall,** inspired by the popular Lite-Brite toy, allowing fans to capture fun moments before, during, or after their event.¹²



Convenience: Navigation tools and crowd management

The Prince Moulay Abdellah Stadium in Rabat, Morocco, offers **smart crowd-management technologies** for the safety and convenience of fans.¹³

Stadiums enhance the fan experience by using **app-based location technology** to assist in finding seats, restrooms, and concessions. Stadiums in Qatar used Mapsted's navigation technology during the FIFA World Cup 2022.¹⁴

| AI/Gen AI solutions have helped elevate the in-stadium fan experience

The fan of the future isn't a passive spectator but an active participant—thanks to AI. From chatbots that answer any sports trivia to AI avatars enabling virtual races against real athletes, technology is closing the gap between fans and the action.



53%

of fans agree that apps for ticket bookings, game schedules, playing conditions, etc., are useful.

Ticketmaster, a global leader in ticket management of major sports events, partnered with sports tech company, Prospect, to use AI for forecasting and pricing strategies.¹⁵

*Ticketmaster Sports was declared **winner of Best Data and Analytics in the Business Intelligence category of the 2025 Sports Technology Awards.***



49%

of fans agree that stadium entry through facial recognition is useful for them.

The Cleveland Browns football team have implemented facial authentication technology to expedite stadium entry, with over 10,000 fans using it per game during the 2023 season.¹⁶

*This system processes tickets in two seconds on average, **saving over \$8,000 per lane annually and reducing average entry time by 10 minutes.***



49%

of fans agree that apps to help them with stadium layout, parking, seating, gates, restrooms, etc. are useful.

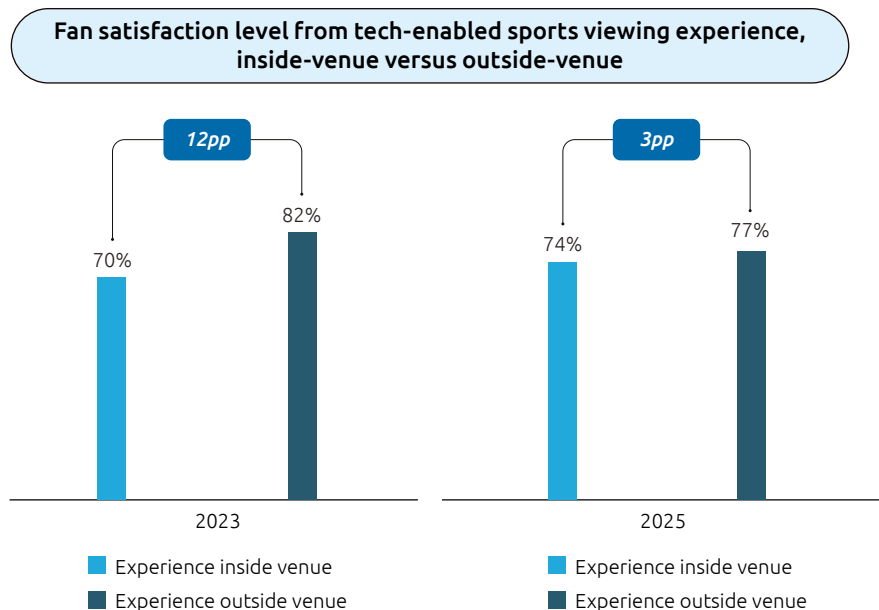
The Mercedes-Benz Stadium in Atlanta offers fans the ability to order food and drinks directly to their seats, reducing wait times and queueing.¹⁷

*By **streamlining ordering and delivery**, Mercedes-Benz Stadium enhances the game-day experience for fans.*

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 fans.

These technologies are bridging the inside-venue versus outside-venue experience gap

For remote fans, AI is becoming the ultimate sports concierge – delivering custom stats, replays, and news tailored to - individual preferences. Transforming every fan's feed into a personalized sports hub, bridging the gap between them and the action.



“Artificial intelligence (AI), augmented and virtual reality (AR, VR), 5G, and indoor mapping solutions are creating more immersive and personalized experiences for spectators.”¹⁸

Brian Parks
Chief Revenue Officer, MapsPeople*

*a software-as-a-service (SaaS) company developing a mapping platform for fans in the stadium

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025; N = 7,080 fans, A whole new ball game, 2023; N = 7,081 fans.



03

**AI/Gen AI is
giving the remote
fan experience a
makeover**





"Sport has always been, first and foremost, a story of passion. But technology is radically transforming how we see sport – and how we experience it as fans. Over the years, we've seen many innovations that promised to reshape the game, like the metaverse. Yet today, there's no longer any doubt: AI, and especially generative AI, is set to revolutionize the way we consume sport."

Thomas Hirsch

EVP and Group External Communications,
Sponsoring & Digital Director, Capgemini

Majority of fans have already turned to AI/Gen AI tools over traditional search engines for accessing sports information

54%

of fans have replaced traditional search engines with AI/Gen AI tools (such as ChatGPT) as their go-to tools for all sports-related information.

**58% of consumers in the retail industry have also replaced traditional search engines with AI/Gen AI tools for shopping.¹⁹*

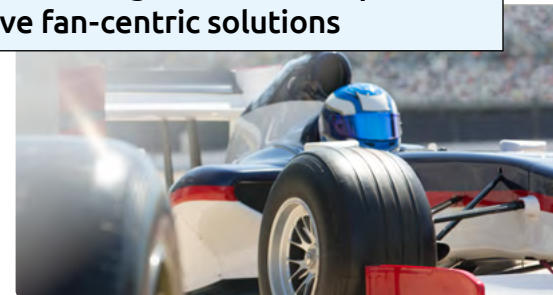
59%

of fans trust the sports-related information shared by AI/ Gen AI tools.

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025; N=12,017 fans.

Sports organizations are partnering with tech companies to create innovative fan-centric solutions

Scuderia Ferrari and IBM launched an app offering an interactive F1 fan experience. Features include race center, Italian language assistant, race summaries, and fan polls.²⁰



Key offerings for fans



Ferrari's global fanbase (estimated at 400 million) will get real-time race summaries and AI-generated insights.



Through interactive data visualizations, fans can explore telemetry, tire strategies, track conditions, and weather impact.



The app also uses AI to link past and present, allowing fans to compare today's races with those of Ferrari's legendary past.

Fans are increasingly viewing AI/Gen AI tools as personalized sports content hubs

At its heart, sport is still about passion and community. Technology is simply offering new ways to share that passion—and when done right, it's a win-win for fans, players, and the game itself.

67%

of fans want AI/Gen AI tools to aggregate in one place all sports-related information from websites, online search engines, and social media platforms.

64%

of fans want AI/Gen AI to share personalized sports-related content tailored specifically to their preferences.

Gen AI can create personalized content using fans' engagement histories.

“

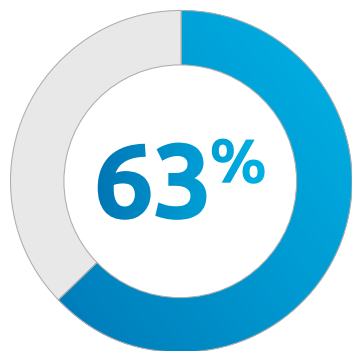
By analyzing a fan's engagement history – their favorite teams, games watched, and players followed – Gen AI can craft custom content that speaks directly to individual preferences. This could include customized player updates, game/match summaries, fantasy league recommendations, or personalized conversational videos and messages.”²¹

Ryan Steelberg
CEO & President, Veritone*

*a cloud-based AI technology service provider

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025; N = 12,017 fans.

Fans are most excited about AI/Gen AI solutions that allow them to compete virtually in real-time during live games



of fans would like to compete against a well-known player in a virtual space during a live game

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 fans.

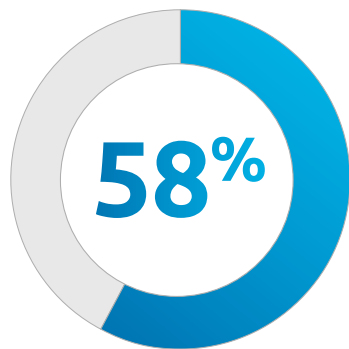
Lap of Legends - First-ever real versus virtual F1 race ²²

Michelob Ultra and Williams Racing created Lap of Legends, a televised racing event in which a real F1 driver races against AI-generated avatars of legendary F1 drivers.

- Lap of Legends uses **AI, machine learning (ML), AR, historical race data, and live GPS data to create avatars** of legendary F1 drivers.
- It **allows a real F1 driver to race against these avatars in real time**, blending physical racing with digital simulation.
- Fans enjoy the opportunity to **participate virtually during live races**, bringing them even closer to the action.



| Fans are interested in AI/Gen AI solutions that offer “what if” scenarios



of fans would like to replay a completed match using different strategies and track possible outcomes (what-if scenarios)

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 fans.

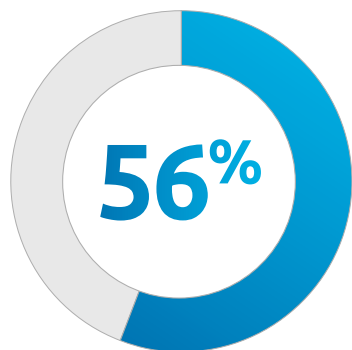
Hudl Sportscore: AI-powered video analysis platform²³

The platform makes it easy to create interactive reports that link directly to key match moments, supporting performance analysis.

- Hudl Sportscore is an **AI-powered video analysis platform** that enables coaches to break down plays, track player performance, and make informed decisions in real time.
- Such solutions can extend to instant replays and highlights reels.
- Fans can also replay completed games using alternative strategies and explore different outcomes.



Fans are seeking AI/Gen AI solutions that deliver highly personalized, real-time match replays



of fans want AI/Gen AI to compile personalized highlight reels in real time

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 fans.

Magnifi: AI-powered platform for personalized highlights²⁴

Magnifi uses AI to identify and share key moments in a match, as well as crowd reactions, within 60 seconds of them occurring.

- Magnifi is an AI-powered platform that helps sports rights holders, leagues, and federations **automatically generate and distribute real-time, AI-curated highlights.**
- The tool processes live sports videos through **AI and algorithms** to instantly recognize star players and identify key moments, enabling near-instantaneous creation of match highlights.
- Fans will eventually benefit from personalized highlights – goals, replays, and key moments – across platforms, for a richer viewing experience.





"Sport is one of AI's ultimate proving grounds, demanding innovation in sensor fusion, computer vision, analytics, and modeling. In return, AI empowers athletes and teams to achieve the impossible, redefining competition and fan engagement along the way. It's a symbiotic race to the finish line, where everyone wins."

Mark Roberts

Deputy Director of Capgemini Generative AI Lab,
CTO Applied Science,
Capgemini Engineering

AI/Gen AI is improving existing fan technologies

54%*

Video assistant referee (VAR)

Introduced for the 2018 FIFA World Cup. Uses multiple high-definition cameras, including slow-motion and ultra-slow-motion cameras, to provide detailed replays and assist in decision-making.²⁵

Since 2018, over 100 competitions worldwide have used VAR. AI integrated in VAR cams automatically detects fouls, handballs, and offsidess in real time.

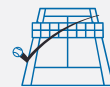


53%*

Field or court line technology

Credited with improving the efficiency and precision of marking out sports fields and courts, this solution includes robotic, GPS- and laser-guided, and AR line-marking tools, and is often augmented by AI solutions.²⁶

As well as improving efficiency and accuracy, the court line tech offers eco-friendly solutions for sports, greater safety, improved gameplay, and enhanced spectator experience.



51%*

Apps for game-related data

Backed by AI and machine learning (ML), these apps offer real-time game updates and insights, player comparisons, predictive analytics, etc., to enhance the viewing experience.

There are a wide range of options available to fans to choose based on convenience and sports, such as ESPN, FIFA+, NFL Game Pass, MLB At Bat, Sofascore, Yahoo Sports, etc.²⁸



52%*

Customized camera angles

Customized camera angles provide fans with a more engaging and immersive viewing experience.

Used in football, cricket, and basketball, these include drone cameras, helmet cameras, goal-line cameras, 360-degree cameras, and Spidercams.²⁷



** Percentage of fans who find this solution useful*

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025; N = 12,017 fans.

| AI is also transforming outside-venue experiences



Personalized content offered by AI applications/tools



The International Cricket Council (ICC) has integrated AI into its digital platforms for the ICC Men's Champions Trophy 2025, creating a more personalized and engaging fan experience.

ICC Recapped, a new feature with an advanced AI engine, tracks fan interaction with the ICC's digital tools, including match predictors and player-of-the-match voting – and analyzes their behavior to generate a unique, customized recap of their tournament journey.²⁹

After the tournament, fans receive a personalized souvenir summary showing how they took part in score predictions, favorite player picks, etc.



AI-powered apps boost fan engagement



The National Football League and Adobe expanded global partnership combines AI and creativity to deliver a new level of AI-powered fan experience.³¹

Fan-generated storytelling – fans can use AI-powered tools such as Adobe Express and Firefly to create and share NFL-themed content around their favorite teams and players.

Using AI technology, the NFL OnePass app will offer tailored content for every fan, showing them highlights, offers, and news relevant to their team and player interests.

Organizations can use AI to enhance fans' engagement by analyzing their behavior.



The ICC is constantly evolving its digital offerings to ensure fans feel more connected than ever during the ICC Men's Champions Trophy 2025. By harnessing the power of AI, we're able to create tailored experiences for millions of fans worldwide, taking their engagement to new heights.”³⁰

Finn Bradshaw
ICC Head of Digital

AI/Gen AI is enhancing fan experiences even for open-air events, such as cycling races



Creation of an AI-powered digital twin for cycling races

In partnership with NTT, the Tour de France launched a generative AI-powered digital twin of the race. Leveraging IoT sensors, edge computing, cloud technology, machine learning, and AI, it **offers an immersive experience of the riders' journey across the race's varied terrains.**³³

Real-time rider data streams from saddle-mounted sensors, providing fans with live race insights and offering organizers a comprehensive operational overview.

Launch of Gen AI-powered Cycling Central Intelligence (CCI) platform

Developed by Warner Bros. Discovery Sports Europe and Amazon Web Services (AWS), the AI-powered CCI platform enhances live cycling commentary by delivering **real-time insights through instant access to a rich array of rider, venue, and race history data**, enabling more compelling storytelling and deeper fan engagement.³²

It debuts at the 2025 WHOOP UCI Mountain Bike World Series opener in Araxá, Brazil.

Innovative AI-based solutions are enhancing the cycling experience

AI is reshaping cycling—from **route planning and performance tracking to predictive maintenance, training, and even early steps toward autonomous riding.**³⁴

Tero Labs offers AI-based bike-mounted sensors that provide real-time feedback on posture and technique.

Komoot leverages AI to suggest optimized routes for road, gravel, or mountain biking based on rider preferences.



Antoine Courbon

Head of Digital,
A.S.O. - Amaury Sport Organisation

Q. What role does technology play in engaging sports fans and boosting live attendance?

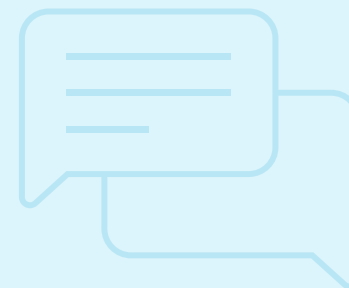
In major sport events such as the **Tour de France**, technology plays a key role in **reaching new audiences online and along the road. It reinvents the way fans engage** with the event, simplifying the fan experience, creating deeper emotional bonds with it, and inspiring them to be part of it. Innovative content format and storytelling supported by new technologies are also great examples.

Gamification is another technological development that puts fans at the heart of the action. For example, Tour de France fans can now select and follow their fantasy team in real time; vote for the most combative rider of the day; play all over the year with official video games or learning quiz; and even experience the race from inside an official fan car. They watch the Tour, they live the Tour, they play the Tour, they share the Tour, and they attend the Tour.

Technology also improves the overall fan journey, from digital ticketing and interactive maps to real-time news, curated content feeds, AR [augmented reality], and immersive live broadcast experiences.

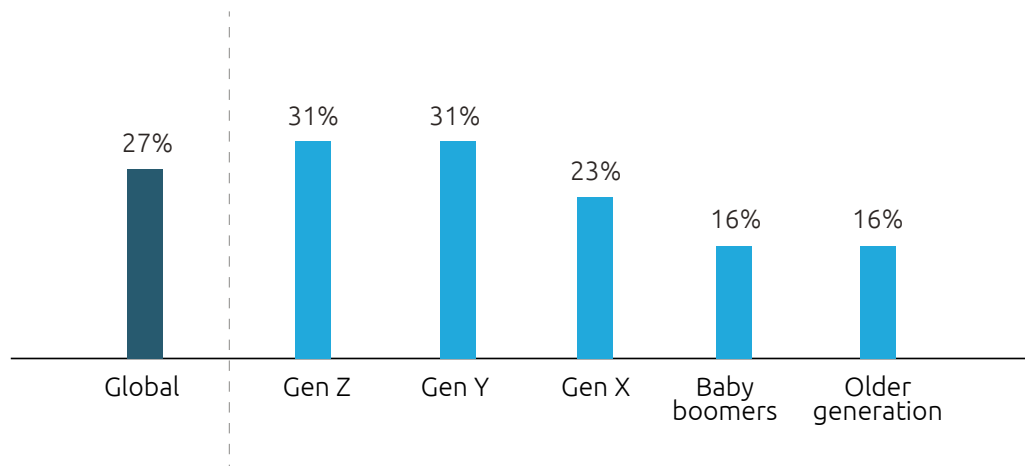
Q. Which role do you see specifically for AI/Gen AI in this space?

AI and Gen AI add a new layer of personalization and storytelling, from real-time insights (for explaining the race and strategies), tailored and localized push content, and even co-creation with fans. It can also support the fan experience, both onsite and digitally. It will strongly impact fans engagement in the near future.



One in four fans is willing to pay more for an AI/Gen AI-augmented sports-viewing experience

Are you willing to spend more for an enhanced sports-viewing experience, enabled by AI/ Gen AI-based tools? (Percentage who said “yes”)



8%

is the average premium fans are willing to pay for AI/Gen AI-powered solutions

Younger generations, particularly Gen Z and Gen Y, show a slightly higher willingness to pay a premium

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 fans.



04

Is data the new MVP* of sports consumption?

** Most Valuable Player*





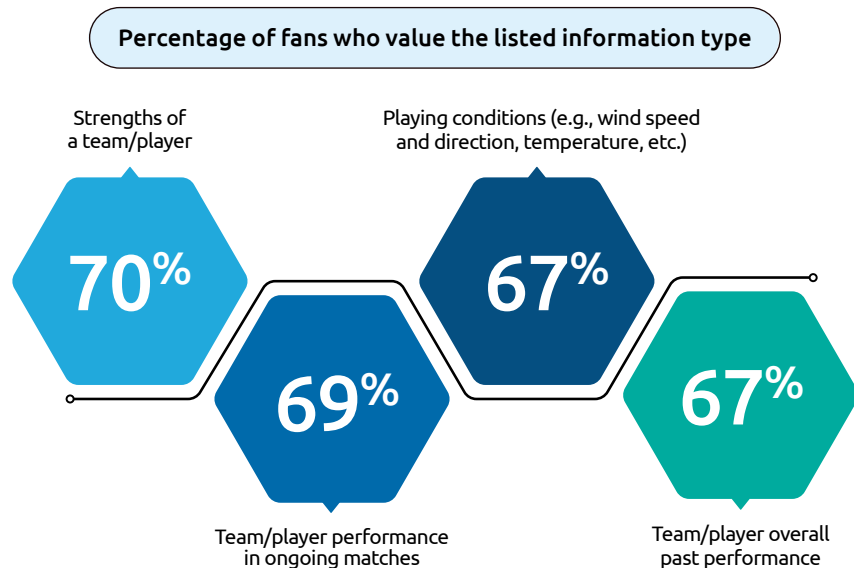
"In sport & cycling, data is helping a lot to understand the race and engage general public or newcomers. For core cycling fans, data is now a strong ally to inspire and drive the conversation. All sport data, before, during and after the race, but also data from fans (fans' predictor, fantasy team selection, etc.) generate many conversations and social media debates. It fuels fans' passion, helping them feel closer to the race."

Antoine Courbon

Head of Digital,
A.S.O. - Amaury Sport Organisation

| Data is at the core of the sports consumption experience

Sports organizations are increasingly using social media to share updates on players and matches. Real-time stats and data visuals have become as essential as the scoreboard itself. Fans don't just want to watch – they want to understand every play and every player in the moment, making data the new MVP of the fan experience.



X has signed a multi-year partnership with the NBA to share exclusive original content on its platform.³⁵



Partnership to deepen fan engagement

The partnership will allow fans to interact with live game commentary, enhancing their experience and strengthening their loyalty to the sport.



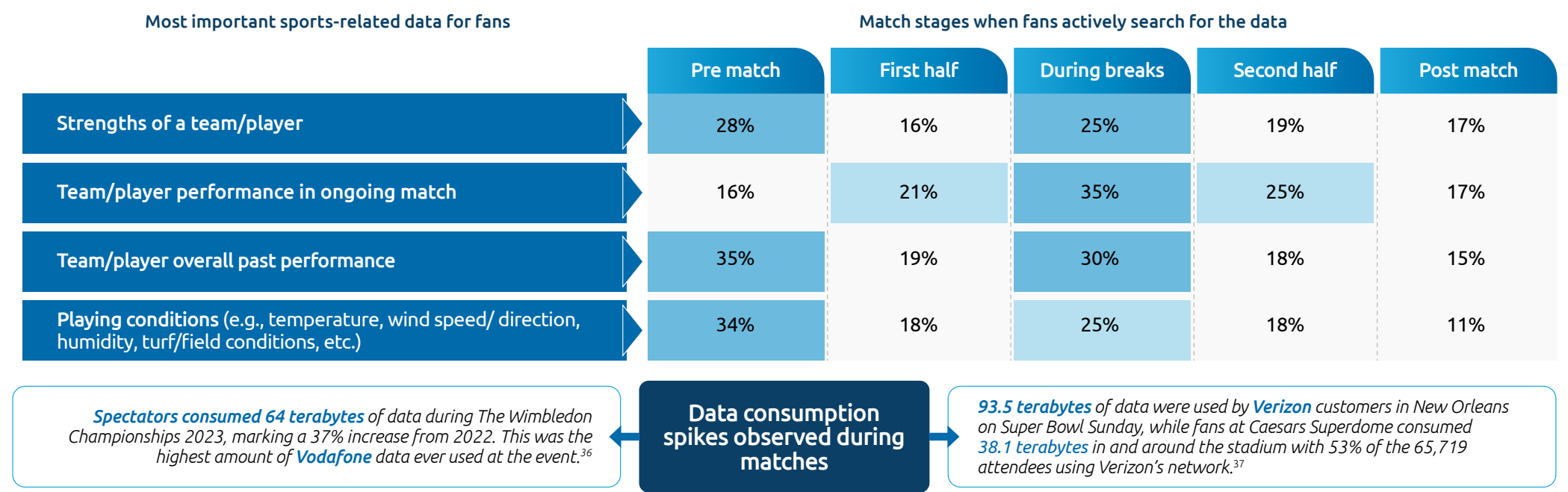
Track real-time match data and updates

X plans to launch an NBA portal, making it simpler for fans **to follow matches in real time and access the latest standings and stats directly within the app.**

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 fans.

| Data feeds fill the gaps in the live sports consumption experience

Fans now devour data as eagerly as the game itself. Record spikes in network usage during matches show that feeding fans’ appetite for stats and context is now part of the playbook.



Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 fans.



05

How much tech is too much tech?





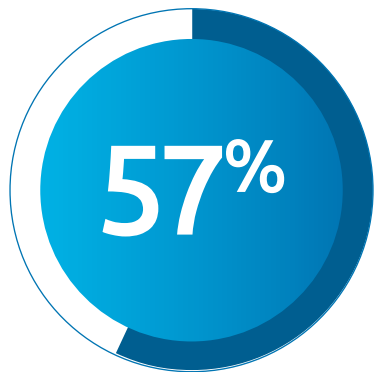
"Technology should enhance the game, not overshadow it. The soul of sport lies in the human spirit and sportsmanship, not just the data."

Siren Sundby

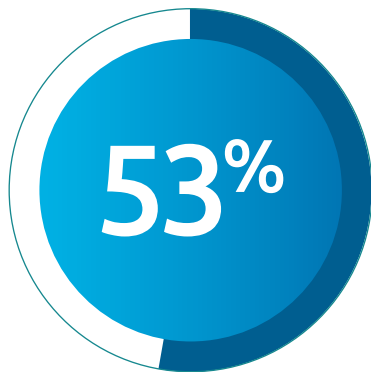
Managing Director, Capgemini
Olympic Sailing Gold winner, Athens 2004,
Awarded 'Rolex World Sailor of the Year' in 2003,
Three-times World Sailing Champion,
Two-times European Sailing Champion

| Fans caution against too much tech diluting the authenticity of live sports

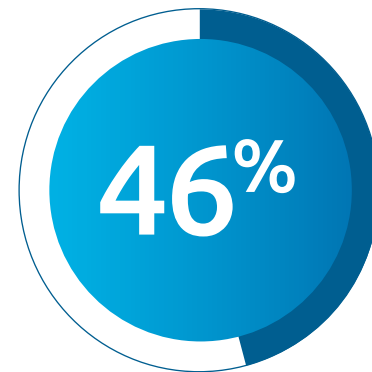
More than half of fans agree that overuse of technology compromises the authenticity of sports and even diminishes enjoyment of live viewing. High-tech enhancements thrill fans, but there's a fine line between enhancement and distraction. The best innovations in sports amplify the drama on the field - without ever stealing the spotlight.



of fans agree that the authenticity of sports will be compromised by excessive use of technology and data.



of fans think overuse of technology has diminished the fun from live sports viewing.

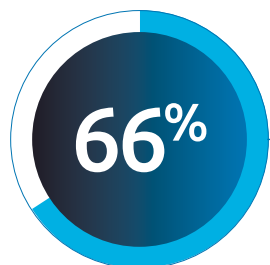


of fans agree that overuse of technology and data will diminish traditional sports-playing values.

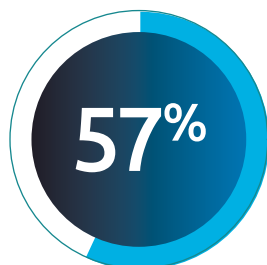
Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 fans.

| Sports fans remain concerned about the spread of misinformation

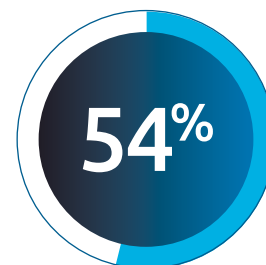
Almost two-thirds (66%) of fans are concerned that the spread of misinformation could increase the risk of athletes being targeted or harassed by disgruntled supporters. Sports bodies need to bear in mind that trust and integrity are non-negotiable. They need to use technology to take down deepfakes, data leaks, and toxic behavior – so fans get innovation and honesty in equal measure.



of fans agree that unverified information on AI/Gen AI platforms makes players more susceptible to fan harassment.



of fans are concerned about generation of false content resulting in spread of misinformation about players or sports teams.



of fans are concerned about impersonation of sports players using Gen AI to provide false/misleading recommendations.



Using AI to protect athletes from online abuse³⁸

- During the **Paris 2024 Olympics**, the International Olympic Committee (IOC) implemented an AI-powered system that **monitored thousands of social media accounts in real time across 35+ languages**.
- The system flagged threats and abusive comments before players saw them.



Collaboration with tech firm to prevent misinformation³⁹

- The **NFL has partnered with tech firm NetApp** to focus on **developing cutting-edge storage technology to ensure data security** and streamline technology operations.
- This will help prevent the spread of misinformation by providing accurate and verified information.

Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 Fans.



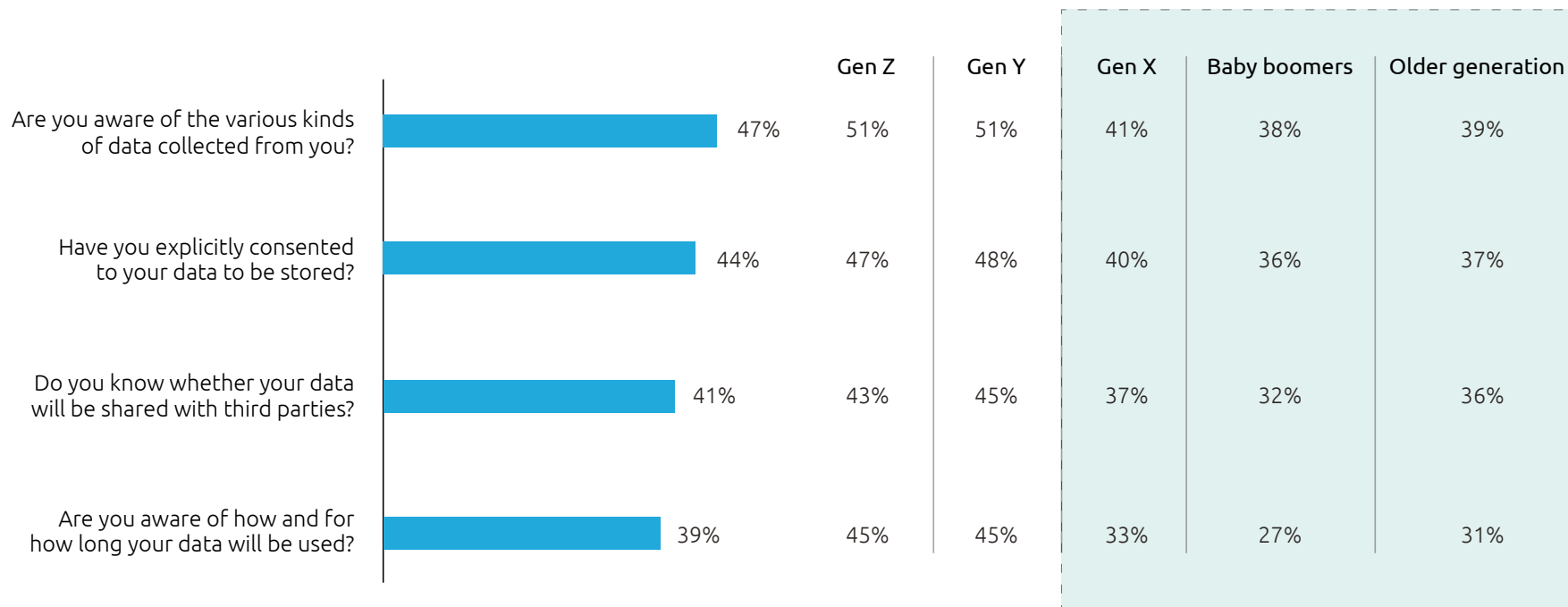
"Sports have a special ability to bring people together, and it's important for technology to support that unity by fostering positive, inclusive engagement rather than creating more keyboard warriors."

Bryn E. Raschke

Manager, frog - part of Capgemini Invent
former US college tennis player

Most fans lack awareness of how AI- and Gen AI-powered sports-viewing tools work

Awareness tends to be lower among older fans, leaving them more susceptible to data-privacy risks.



Source: Capgemini Research Institute, Beyond the game, Fan survey, March–April 2025, N = 12,017 fans.

Sports organizations are partnering with technology providers to safeguard fans' personal data

Tech innovation must come with ironclad privacy. Sports organizations need to earn fans' trust off the field by safeguarding personal data at every turn – losing that trust is a game nobody wins.

NBA's Atlanta Hawks partnered with Acronis⁴⁰

- In April 2024, the NBA's Atlanta Hawks announced a partnership with Acronis, a cybersecurity vendor, to bolster cybersecurity efforts.
- This partnership is designed to strengthen the Hawks' digital infrastructure and safeguard their vital data and systems, **ensuring fan information remains secure.**

Google Cloud and Atlético de Madrid partnership⁴¹

- Professional soccer club Atlético de Madrid faces cybersecurity threats such as data breaches and ransomware attacks; these could impact operations, reputation, and jeopardize fan data security.
- To **protect both operational and fan data**, the club has adopted Google Cloud's Backup and Disaster Recovery Service, which automatically encrypts data at rest, ensuring security and rapid recovery from disruption.

JSW Sports adopting data-protection framework⁴²

- In India, JSW Sports has implemented comprehensive data-protection policies **to manage personal and health data for athletes, staff, and fans.**
- The club has adopted a data protection impact assessment (DPIA) tool to evaluate the risks associated with processing sensitive data.



06

What does the rise of tech mean for the professional sports community?





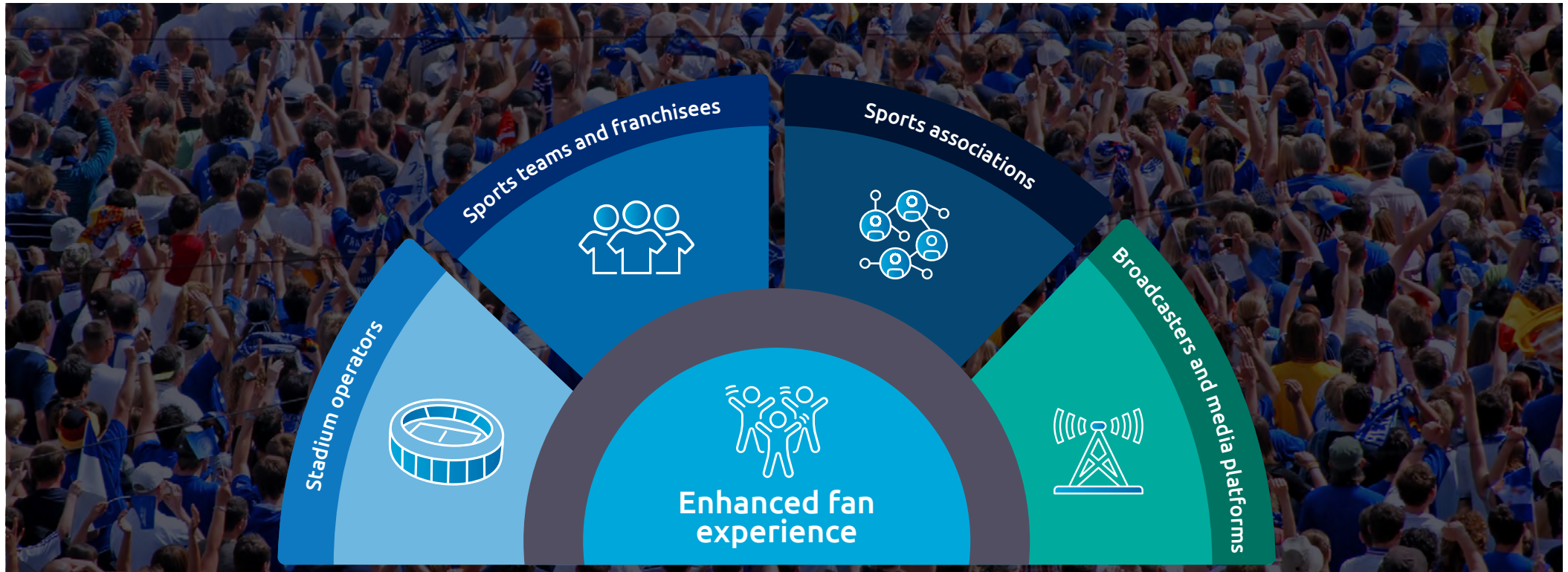
"If we want to protect revenues in live sport in the future, we need to look at how live sport can reinvent itself as an attractive destination."

Charlie Boyns

Management Consultant, Capgemini Invent
Captain of Capgemini UK rugby team for last 6 years,
Former captain of Cardiff University Law rugby team

| Tech provides a variety of levers to transform the fan experience

Sports will always belong to the fans. All the technology in the world won't change that – it should only bring fans closer to the game they love.



Stadium operators should invest in “smart stadium” infrastructure, implement fan-friendly apps, and use tech and data to personalize the fan experience

For teams, leagues, and venues, the playbook is clear: evolve or fall behind. Embracing tech innovations (ethically) isn't just an upgrade – it's how sports will build deeper fan loyalty and future-proof success.

	Invest in “smart stadiums”	Implement fan-friendly apps	Use tech to enhance access and amenities	Personalize on-site experience with data
What?	<ul style="list-style-type: none">Upgrade connectivity (5G Wi-Fi networks, IoT sensors) and interactive displaysEnsure fans have real-time info at their fingertips	<ul style="list-style-type: none">Deploy mobile apps for wayfinding, mobile ticketing, and in-seat servicesIntegrate AR features to enhance fan value	<ul style="list-style-type: none">Embrace innovations including facial-recognition entry and cashless payments to eliminate wait timesMobile food/drink ordering allows fans to stay in their seats enjoying the action	<ul style="list-style-type: none">Use data to tailor in-stadium offeringsSend targeted offers via the app (merchandise, seat upgrades) based on fan preferencesProvide “<i>tech-lite</i>” options for less tech-savvy fans, such as kiosks and staff assistance
Why?	<i>Close the comfort gap with home viewing</i>	<i>Adds a new dimension and appeals to youngsters</i>	<i>Convenience boosts fan satisfaction and return rates</i>	<i>Make attendees comfortable</i>

| Sports teams and franchisees can use AI sports tech to deepen fan engagement

Today's fan isn't just cheering on game day – they're engaged 24/7. Smart teams are meeting them there, building all-in-one digital platforms and interactive experiences that keep the fan spirit alive year-round.

Use AI for personalized fan interaction	Create a one-stop digital hub	Monetize tech-enhanced offerings	Gamify and enrich year-round engagement
<ul style="list-style-type: none">Integrate AI/Gen AI assistants into your fan engagement strategyDeploy chatbots on your app or website to answer fan queries, provide game updates, and generate personalized content	<ul style="list-style-type: none">Fans want aggregation – 67% desire a personalized “one-stop shop” for all sports infoDevelop or enhance your team's mobile app/website to be a comprehensive hub: live scores, behind-the-scenes videos, player stats, social media feeds, fantasy integration, etc., all in one	<ul style="list-style-type: none">Fans are open to paying for premium experiencesOffer optional add-ons: a subscription for exclusive content (e.g., an AI-curated weekly highlights reel of their team), AR merchandise try-on features, or “second screen” apps with coach's commentary	<ul style="list-style-type: none">Tap into fans' competitive and social instincts. Run fantasy leagues, prediction games, and AR/VR experiences

Sporting associations and leagues have the unique opportunity to deploy tech at scale

Leagues must lead by example, making sure tech elevates the game without compromising fairness or fan trust. Setting unified standards – for data privacy, ethical AI use, and sustainability – ensures every innovation benefits the sport as a whole.



Broadcasters and media platforms have a unique opportunity to drive an immersive viewing experience

Fans aren't just watching anymore – they're controlling the show. Whether it's watching four games at once or managing a fantasy team from the couch, the line between spectator and participant is blurring in the best possible way.

Build unique digital experiences:

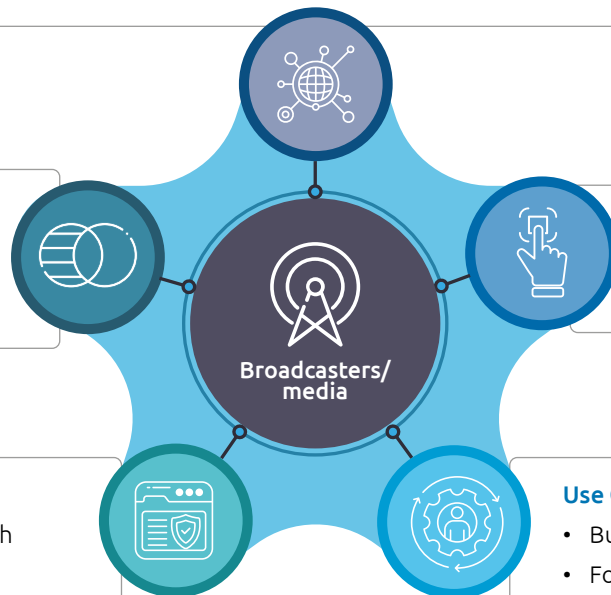
- Use AI to offer alternative commentary feeds or unusual camera angles
- Produce live games in VR, holographic displays

Promote transparency in usage of tech:

- Clearly highlight usage of AI
- Use AR to enhance explainability, rather than overwhelm the viewer

Integrate social and fan-generated content safely:

- Partner with social media platforms to amplify reach
- Ensure ongoing active moderation

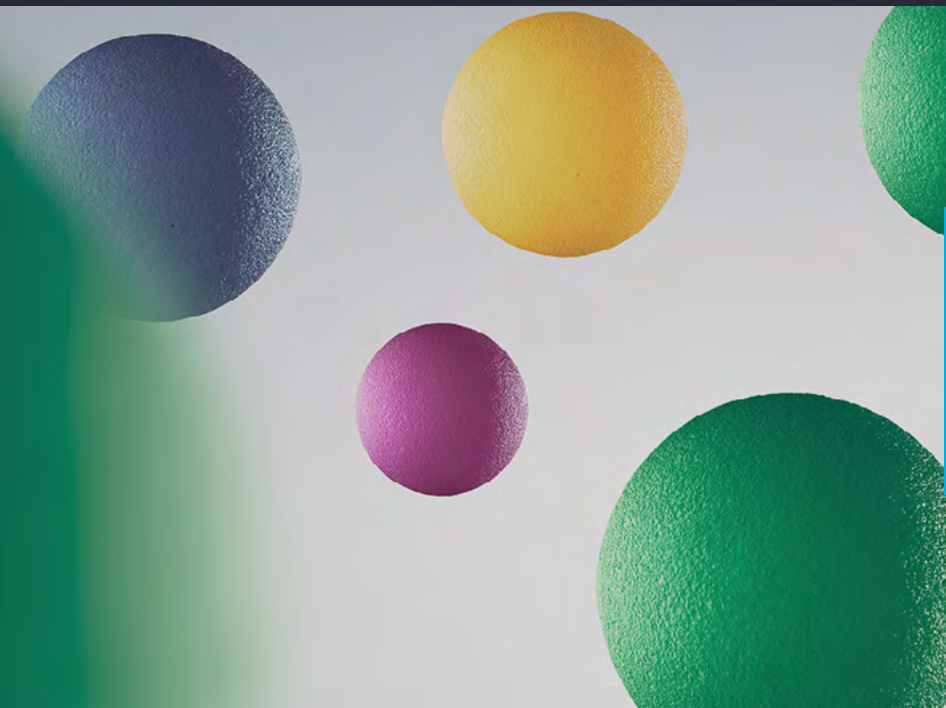


Deliver immersive, interactive broadcasts:

- Let fans choose their camera angles, commentary, or on-screen data overlays

Use Gen AI for content creation and personalization:

- Build personalized, AI-curated highlights
- Focus on personalized notifications



07

Capgemini is
helping enhance
fan experience





"As sponsorships evolve, the most impactful ones grow into true collaborations—where technology partners not only showcase cutting-edge work but also co-create bold ideas with rights-holders to drive innovation and shape the future of the sport."

Steven Webb

Vice President, UK Chief Technology
and Innovation Officer, Capgemini

Capgemini has a long legacy of promoting sports and leveraging technology to enhance fan experience



Capgemini is a Principal Partner of the Women's Rugby World Cup 2025 and a Global Partner of Women's Rugby. It has been collaborating **with World Rugby to enhance fan experience through data analysis, AI and cloud-based solutions:**

- **Match predictor:** It is an interactive app where rugby fans worldwide compete against each other and a Capgemini bot in prediction contests.
- **Digital Stats hub:** It is a unique tool that combines historical and live data to generate deeper insights for the audience.
- **Virtual penalty kicks in Rugby Legend app:** It is a VR-based solution that allows fans to participate in a penalty kick contest within a virtual rugby stadium.



Capgemini is a worldwide partner of the Ryder Cup. **It deployed an AI-powered predictive tool, Outcome IQ, to keep fans engaged during Ryder Cup 2023.**

Alexander Stuffelbeam, Insurance AI Leader for Capgemini shares about role of Outcome IQ during Ryder Cup 2023, *"It provided a probability estimation of which team is likely to win each hole, each match, and the tournament. And the cool thing about it is that it updated every time a player took a shot. It's a truly modern sports analytics service that we showcased on the world stage."*

During the 2023 match, the Ryder Cup homepage received approximately 500 million views, and the statistics were broadcast to audiences in 160 countries and 620 million households.

Combining data, engineering, and AI/Gen AI-enabled sailing fans to make wind “visible”: A case study of Capgemini’s WindSight IQ™



1 Capgemini developed WindSight IQ™ in collaboration with the America’s Cup.

2 The technology deploys light detection and ranging (LiDAR), sensor fusion, and scientific computation to reveal the wind pattern.

3 Advanced sensors located on shore scan the race area with 30,000 light pulses per second to capture the velocity of air particles.

4 Real-time wind field data is integrated into a yacht simulator, enabling the creation of a dynamic wind map across the entire racecourse, which is displayed with AR and VR graphics.

5 The solution visualizes the optimal route based on real-time variations in wind pressure, shear (strain produced by water flow), direction, and speed, helping commentators and viewers anticipate and analyze team strategies.

“Through technological innovation, combining laser sensor technology with advanced engineering and new visualization techniques, WindSight IQ™ brings together the digital and physical worlds.”

Keith Williams

Executive Vice President, CTO – WindSight IQ™, Capgemini

Sports with potential applications

Other than sailing events, the WindSight IQ™ technology has other potential applications, including:



Motor racing



Golf



"With WindSight IQ™, our priority was to find the right balance: to represent the wind in a way that allows for insightful conclusions without overshadowing the racing experience. Our goal is to make the audience feel the victory and understand the challenges and decisions the crew faces on the boat."

Mélanie Bras

Design Director,
frog – part of Capgemini Invent

| Meet our in-house Capgemini sports stars



Andreas Kilit

1. **Sport played:** professional football
2. **Achievement:** played for Fenerbache SK in Superlig. Champion 2018/2019, Regional Swedish Champion 2016, Player of the Year Jönköpings Södra 2017
3. **Role in Capgemini:** Bid Manager and Account Manager, Sogeti Sweden



Anne Junge

1. **Sport played:** soccer
2. **Achievement:** first league and second league (1.FC Saarbrücken, 1. FFC Frankfurt, etc.), played ~10 years within top 3 leagues in Germany
3. **Role in Capgemini:** Vice President, Head of Customer Experience Transformation & Advisory Client Partner Automotive, Capgemini Invent, Germany



Charlie Boyns

1. **Sport played:** rugby
2. **Achievement:** captain of Capgemini UK rugby for last 6 years, former captain of Cardiff University Law rugby
3. **Role in Capgemini:** Management Consultant at Capgemini Invent UK



Damien Vossion

1. **Sport played:** kayaking
2. **Achievement:** the French championship 10 times, part of the French kayaking team for 3 years, 7th in worldwide junior championship
3. **Role in Capgemini:**
 - Vice President, Head of smart plants Capgemini Invent, France
 - Chief Sport Officer, Capgemini Invent France



Gerrit Bottemöller

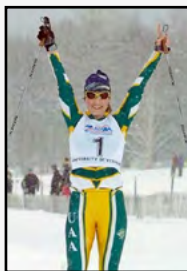
1. **Sport played:** high performance sailing
2. **Achievement:** German, European and World Champion in Sailing, represented Germany in the America's Cup in Valencia in 2007
3. **Role in Capgemini:** Senior Director, Manufacturing and High-tech Industries, Advisory Client Partner Capgemini Invent



Pape-Philippe Amagou

1. **Sport played:** basketball
2. **Achievement:** four-time France Champion, participated in the World Cup 2010
3. **Role in Capgemini:** Manager consultant, Capgemini Financial Services

| Meet our in-house Capgemini sports stars



Mandy Kämpf

1. **Sport played:** cross country skiing
2. **Achievement:** in the German National team for 5 years, German National Champion 1 time (Senior), Junior World Championships (16th place); USA (international university sports): Two-time NCAA Champion Division I; 6x All-American; Hall of Fame Inductee University of Alaska Anchorage; Sports Illustrated Faces in the Crowd; U.S. National Championships (Senior; while being a full-time student) – 3rd place; after being a student athlete was a University Ski Coach (Assistant) for 4,5 years in which the university ski team placed a historic 4th place at the NCAA Championships; some student-athletes competed in U23- World Championships and the Olympics
3. **Role in Capgemini:** Director, Public, Capgemini Invent



Siren Sundby

1. **Sport played:** former sailor, Europe Class and Yngling Class
2. **Achievement:** 2004 Olympic Gold Winner (three Olympic campaigns; 2000--2008), three-time World Champion, two-times European Champion. Awarded the 'Rolex World Sailor of the Year' in 2003
3. **Role in Capgemini:** Managing Director, Capgemini Invent, Norway



Thomas de Klerk

1. **Sport played:** field hockey coach
2. **Achievement:** coached at the highest under-18 level in Amsterdam, currently a senior coach (second highest level) in Utrecht, The Netherlands
3. **Role in Capgemini:** Senior Manager Marketing, the Netherlands



Taimur Munir

1. **Sport played:** boxing
2. **Achievement:** silver medal in nationals in Pakistan, bronze medal in London Capital Cup
3. **Role in Capgemini:** UX technical consultant, UK



Luciano Bottoni

1. **Sport played:** rugby
2. **Achievement:** regionalliga Nordost (3. Liga) 2010/2011 and 2011/2012 (team Berliner SC Rugby)
3. **Role in Capgemini:** Vice President, ERD Head of Automotive – APAC Region, Capgemini Engineering



08

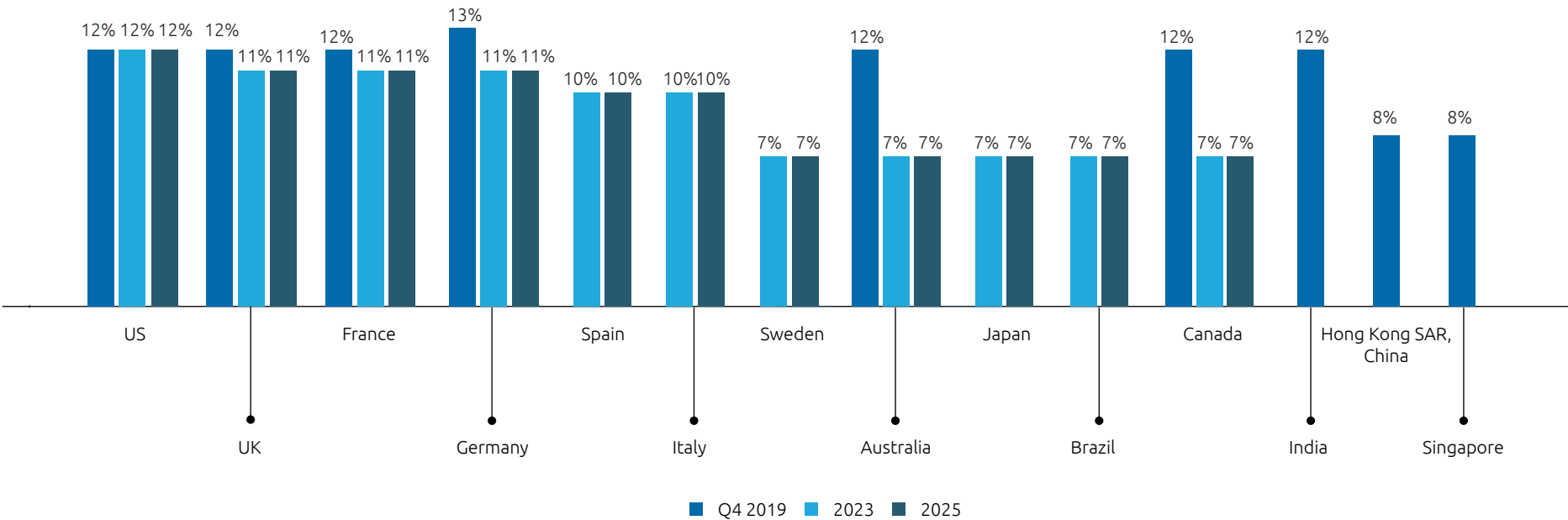
Research methodology



| Research methodology (1/3)

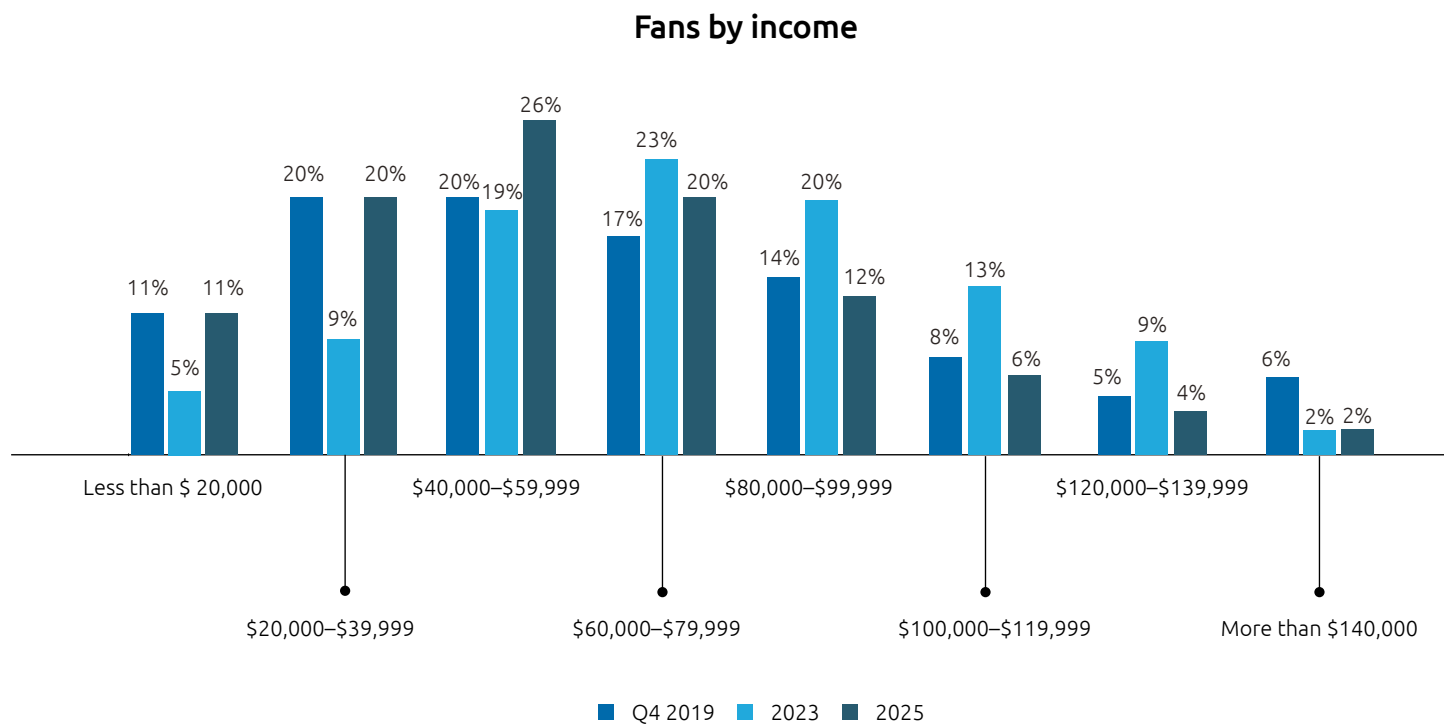
This report is the third edition of Tech in Sports series, with the first being [Emerging technologies in sports](#) (published in January, 2020) and second edition being [A whole new ball game: why sports tech is a game changer](#) (published in May, 2023). For this third edition, we surveyed 12,000 sports fans across 11 countries/ regions who regularly watch and follow sports globally in the best possible way.

Fans by country/ region



Source: Capgemini Research Institute, Beyond the game; March–April 2025; N = 12,017 fans, A whole new ball game; March–April 2023; N = 12,004 fans; Emerging technologies in sports; December 2019; N=10,363 fans.

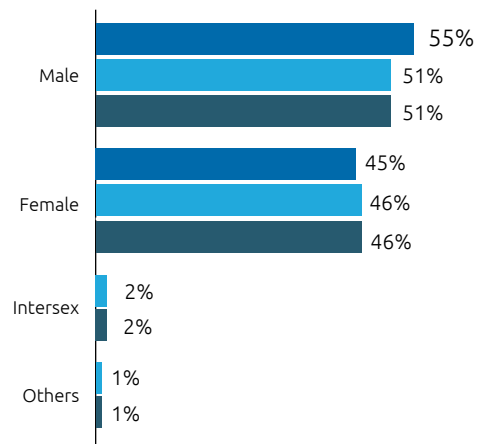
| Research methodology (2/3)



Source: Capgemini Research Institute, Beyond the game; March–April 2025; N = 12,017 fans, A whole new ball game; March–April 2023; N = 12,004 fans; Emerging technologies in sports; December 2019; N=10,363 fans.

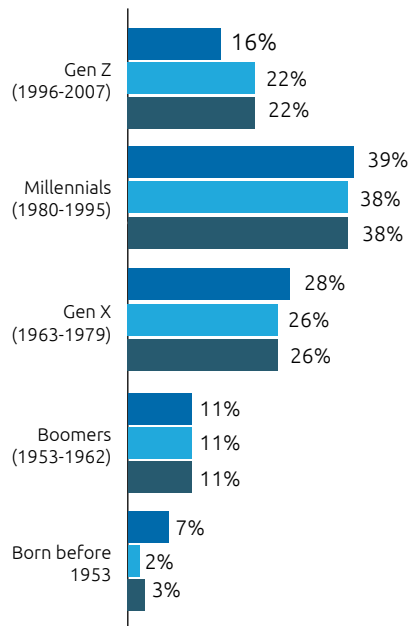
| Research methodology (3/3)

Fans by gender



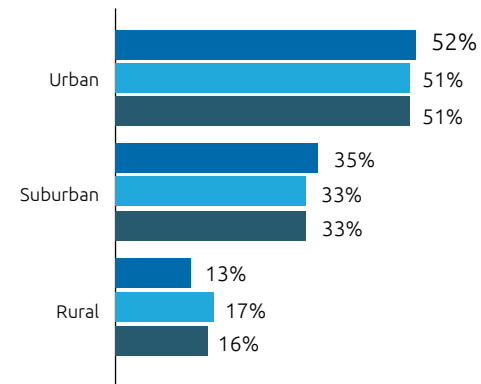
■ Q4 2019 ■ 2023 ■ 2025

Fans by age group



■ Q4 2019 ■ 2023 ■ 2025

Fans by area of residence



■ Q4 2019 ■ 2023 ■ 2025

Source: Capgemini Research Institute, Beyond the game; March–April 2025; N = 12,017 fans, A whole new ball game; March–April 2023; N = 12,004 fans; Emerging technologies in sports; December 2019; N=10,363 fans.

References

1. Two Circles, "2024 sports attendance review – US edition," February 26, 2025.
2. Two Circles, "2024 sports attendance review – Australia edition," March 12, 2025.
3. Forbes, "2025 Indy 500 draws record viewership of more than 7 million," March 27, 2025.
4. Roland-Garros, "2025 opening week: new attendance record," May 24, 2025.
5. BBC, "Colin Jackson's raise your game – Motivation – Warren Gatland," accessed May 2025.
6. CNBC, "The 'funflation' effect: Why Americans are spending so much on travel and entertainment this summer," June 26, 2024.
7. CBIZ, "Gen Z splurges as entertainment costs rise," accessed in May 2025.
8. MarketsandMarkets, "Smart stadium market," January 2025.
9. TISA, "IoT in Sports: How smart stadiums are making a big difference," April 7, 2023.
10. Teceze, "How digital innovation is shaping the Paris 2024 Olympics" July 26, 2024.
11. FTI Delta, "Fan Engagement in Sports: Then vs. Now," September 18, 2024.
12. Sports Venue Technology, "How technology is enhancing the fan experience at sports venues," accessed May 2025.
13. TFC Stadiums, "Prince Moulay Abdellah Stadium: A testament to Morocco's sporting legacy," February 21, 2025.
14. Mapsted, "Location technology for sustainably green stadiums," June 1, 2023.
15. Sports Technology Awards, "2025 Sports Technology Awards," April 23, 2025.
16. Wicket, "Smart stadiums: How cutting-edge technology is redefining sports venues," December 18, 2024.
17. MarketsandMarkets, "Smart stadium market," January 2025.
18. Digital CxO, "Smart stadiums are transforming the fan experience," accessed May 2025.
19. Capgemini Research Institute, Consumer demand survey, October–November 2024, N = 12,000 consumers.
20. AI Magazine, "Ferrari & IBM launch AI fan app for global F1 mobile users," May 6, 2025.
21. Forbes, "Generative AI: A critical new team player for the sports industry," September 28, 2023.
22. Sports Business Journal, "2025 Sports Business Awards: Tech winners unveiled," March 5, 2025.
23. Hudl, "Key features of Hudl Replay as told by coaches and analysts," October 15, 2022.
24. Magnify, "Explore the power of AI-powered storytelling," accessed in May 2025.
25. Inside FIFA, "Video Assistant Referee (VAR)," accessed May 2025.

References

26. Shawfield, "The technology behind modern sports line marking: What's new in 2024?" August 20, 2024.
27. Photographyreal.com, "Capturing the action: Positioning and angles for dynamic sports photos," February 28, 2024.
28. SportsFirst, "How data analytics is enhancing fan engagement in sports apps," accessed May 2025.
29. ICC, "AI set to revolutionise digital experience at ICC Men's Champions Trophy 2025," February 13, 2025.
30. Ibid.
31. Businesswire, "NFL and Adobe launch AI-powered fan experience partnership," April 23, 2025.
32. UCI, "Warner Bros. Discovery launches Generative AI-powered cycling central intelligence platform in collaboration with AWS," accessed May, 2025.
33. AI Business, "Tour de France digital twin gives fans real-time view of the race," July 13, 2023.
34. Bikes org UK, "Exploring the transformative impact of AI in cycling," accessed May, 2025.
35. SocialMediaToday, "X Announces Expanded Content Partnership With the NBA," December 17, 2024.
36. Vodafone, "Vodafone records the most data ever used at Wimbledon," July 20, 2023.
37. Verizon, "Verizon powers winning network experience on Super Bowl Sunday," February 25, 2025.
38. IOC, "AI system to protect athletes from online abuse during Paris 2024," May 7, 2024.
39. Technology Magazine, "How NetApp NFL deal could reshape sports data infrastructure," April 15, 2025.
40. Verdict, "How fan engagement impacts cybersecurity in sports," December 18, 2024.
41. ZAWYA, "Google Cloud and Atlético de Madrid expand cybersecurity partnership," March 26, 2025.
42. ET LegalWorld, "Sports clubs are now adopting data protection framework," March 17, 2025.

Authors

Meet the experts



Thomas Hirsch

EVP - Group External Communications,
Sponsoring & Digital Director
thomas.hirsch@capgemini.com

Thomas Hirsch was appointed Group External Communications, Sponsoring & Digital Director in 2019. He manages Capgemini Press Relation, the Social Media, and Sponsoring. Under his responsibility, Capgemini became sponsor of the Rugby World Cup in 2023, The Ryder Cup until 2027, The Women Rugby World Cup 2021 and 2025, the 37th America's Cup and more recently the Tour de France, the Vuelta and some other iconic cycling races. Prior to this, Thomas was Head of Marketing & Communications France & Europe Group External Communications & Digital Director. He coordinates the Marketing at a European level and was in charge of external communication, digital, market analysts and sponsoring. Previously to Capgemini, he worked in international companies like Havas, Nike, Fleishmann & Hillard. Thomas holds a Master's degree at Sciences PO. He is also member of the Board of Directors of the main association of communication directors in France, Entreprises & Médias.



Mélanie Bras

Design Director
frog - part of Capgemini Invent
melanie.bras@frog.co

Mélanie Bras is a Design Director within frog, part of Capgemini Invent, where she leads a design team across five studios in Paris, Montpellier, Lyon, Toulouse, and Nantes. With more than a decade of design experience, she is passionate about integrating design, emerging technologies, and engineering to craft innovative solutions. Mélanie specializes in the sports and manufacturing industries and is a strong advocate for the power of design to accelerate go-to-market strategies, align diverse stakeholders, and transform visionary ideas into tangible outcomes.

Authors

Meet the experts



Steven Webb

Vice President, UK Chief Technology and Innovation Officer, Capgemini
steven.webb@capgemini.com

Steven Webb is the UK Chief Technology and Innovation Officer at Capgemini in the UK, shaping the technology direction and strategy, bringing together emerging trends, ecosystem partnerships, and practical innovation to drive sustainable growth and client impact. His role spans technology leadership, architecture governance, and strategic innovation, with a sharp focus on generative and agentic AI.

With a background in software engineering and architecture, Steven has delivered complex programmes across digital, cloud, and customer-centric platforms. He now drives Capgemini's "Lead with AI" agenda in the UK, shaping AI governance, delivery, and partnerships

Steven is passionate about sport, working on a number of sport's partnerships, blending human ambition and technological excellence on the global stage and helping to advance Capgemini's position at the forefront of sports tech innovation.



Dr. Mark Roberts

Deputy Director of Capgemini Generative AI Lab,
CTO Applied Sciences, Capgemini Engineering
mark.roberts@capgemini.com

Mark Roberts is a visionary thought leader in emerging technologies and has worked with some of the world's most forward-thinking R&D companies to help them embrace the opportunities of new technologies. With a PhD in AI followed by nearly two decades on the frontline of technical innovation, Mark has a unique perspective unlocking business value from AI in real-world usage. He also has strong expertise in the transformative power of AI in engineering, science, and R&D.



Bryn E. Raschke

Manager,
frog - part of Capgemini Invent
bryn.raschke@frog.co

Bryn, a manager in frog, part of Capgemini Invent, is a lifelong sports enthusiast and former US college tennis player with experience working in the NWSL and volunteering at WTA, ATP, and LPGA events. Having witnessed the power of sports across three continents, she believes that the most memorable sports moments are those shared with others. Bryn is especially driven by the positive influence women's sports, including inclusive participation by trans and non-binary athletes, can have on society and marginalized communities. This perspective fuels her work helping clients reimagine customer experiences through empathy, connection, and shared moments that matter.

Authors

Meet the Capgemini Research Institute



Jerome Buvat

Head,
Capgemini Research Institute
jerome.buvat@capgemini.com

Jerome is the head of the Capgemini Research Institute. He works closely with industry leaders and academics to help organizations understand the business impact of emerging technologies.



Subrahmanyam KVJ

Senior Director,
Capgemini Research Institute
subrahmanyam.kvj@capgemini.com

Subrahmanyam is a Senior Director at the Capgemini Research Institute. He loves exploring the impact of technology on business and consumer behavior across industries in a world being eaten by software.



Amrita

Senior Manager,
Capgemini Research Institute
amrita.a.amrita@capgemini.com

Amrita has extensive experience in market research and consumer insights across industries and geographies. Her doctoral work was an amalgamation of key interests, exploring consumer behavior and digital payments, with focus on mobile wallets.



Anil Sharma

Senior Consultant,
Capgemini Research Institute
anil.f.sharma@capgemini.com

Anil is a Senior Consultant at the Capgemini Research Institute. He specializes in strategic research and advisory, supporting business leaders with insights into emerging technologies.

The key contributors would also like to thank Jean-Baptiste Perrin, Siren Sundby, Charlie Boyns, Oliver Graham Smith, Lucas Lauret, Fabien Meuris, Jonathan Ducros, Matthew Pigg, Sam Connatty, Victoire Grux, Mollie Mellows, Amol Khadikar, Dominique Banon, Punam Chavan, Subhadra Chakraborty, Aparajita Paul, Vibha Palekar, Amitabha Dutta and Manish Saha for their contribution to the report.

Contact us

Transform your fan experience



Thomas Hirsch

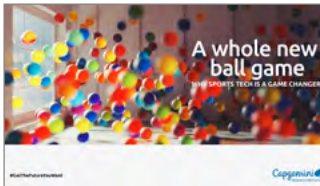
EVP - Group External Communications,
Sponsoring & Digital Director
thomas.hirsch@capgemini.com

About the Capgemini Research Institute

The Capgemini Research Institute is Capgemini's in-house think tank on all things digital. The Institute publishes research on the impact of digital technologies on large traditional businesses. The team draws on the worldwide network of Capgemini experts and works closely with academic and technology partners. The Institute has dedicated research centers in India, Singapore, the United Kingdom, and the United States. The Institute was ranked #1 in the world for the quality of its research by independent analysts for six consecutive times – an industry first.

Visit us at www.capgemini.com/researchinstitute/

More Capgemini Research Institute publications



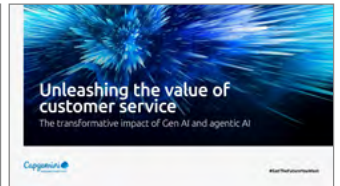
A whole new ball game: Why sports tech is a game changer



Emerging technologies in sports: Reimagining the fan experience



What matters to today's consumer 2025



Unleashing the value of customer service



Connected health research



Creative and generative AI



Generative AI in organizations 2024



Data-powered enterprises 2024

Subscribe to latest research from the Capgemini Research Institute



Receive copies of our reports by scanning
the QR code or visiting

<https://www.capgemini.com/capgemini-research-institute-subscription/>

Capgemini Research Institute

Fields marked with an * are required

First Name *

Last Name *

Email *

☐ By submitting this form, I understand that my data will be processed by Capgemini as indicated above and described in the [Terms of use](#) *

Submit



A thick, light blue line that starts on the left, dips down, and then rises sharply to the right, ending behind the text area.

About Capgemini

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2024 global revenues of €22.1 billion.

Get the Future You Want | www.capgemini.com