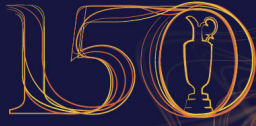


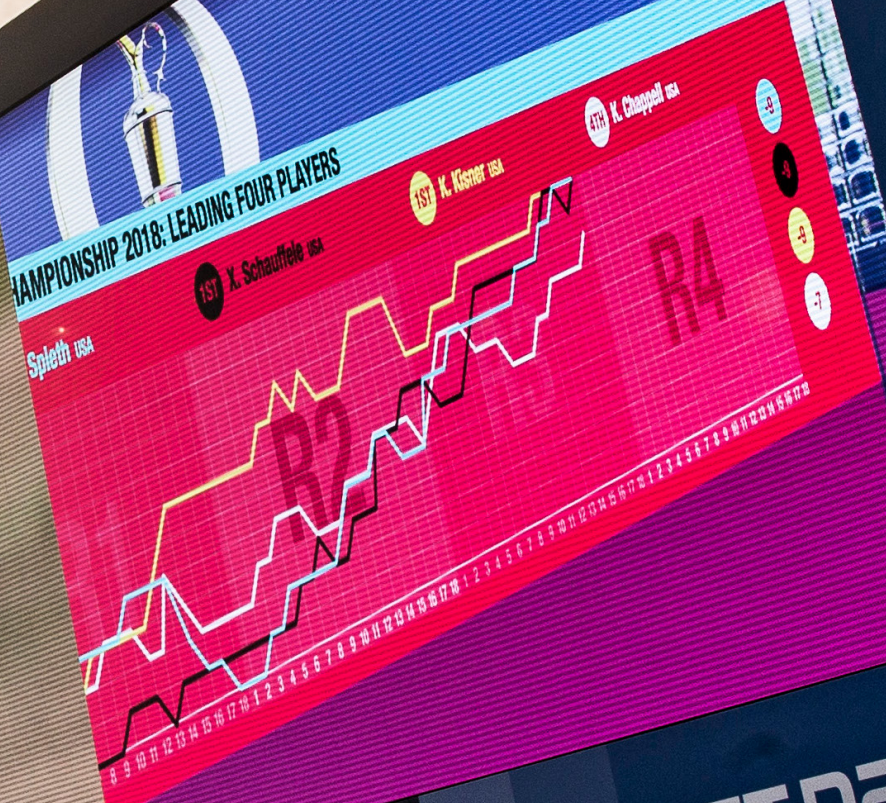
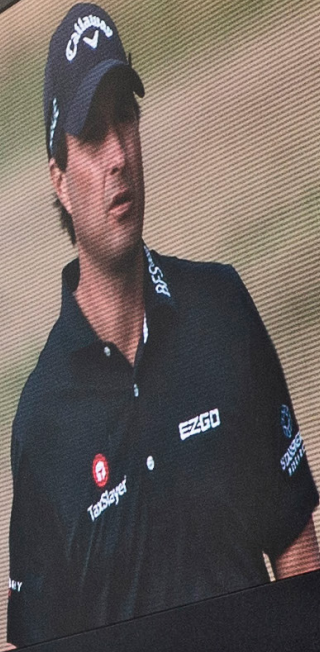
**NTT Data**  
Trusted Global Innovator

DRIVING DATA  
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**NTT Data**

OFFICIAL  
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Driving the fan experience  
NTT DATA at The 150<sup>th</sup> Open

# The 150<sup>th</sup> Open

This year, the home of golf will host The 150<sup>th</sup> Open at the Old Course, St Andrews. In what is sure to be a historic Open with record crowds, the world's greatest players will descend on Fife to try and capture the Claret Jug.

NTT DATA has a close partnership with The R&A, which began in 2013. Throughout the years, we have delivered cutting-edge technology to elevate the fan experience. We have always been committed to using the latest technology to enhance The Open for fans, whether on the course, at home, or on the go. This has been demonstrated in the creation of the NTT DATA Wall in 2014 to the analysis of billions of data points

to bring fans real-time insights into the current play, identify trends and tell data driven stories over the four days of the championship.

We are now in our 10th year as the official patron and IT provider for the world's oldest golf tournament and are excited to be once again bringing ground-breaking innovation. Not only will we be launching new technologies to The Open this year, but we are also pleased to announce our inaugural sponsorship of the AIG Women's Open, the most international major in women's golf and one of the premier Championships in the game.



**Felix Bonmati,**

*Head of Brand, Communication and  
ESG NTT DATA Europe & LATAM:*

“

This year marks a decade that NTT DATA has been a Patron of The Open, and throughout that time, we have proved to be an essential partner to The R&A. As golf's oldest championship celebrates the momentous occasion of 150 years in 2022, we're pleased to once again be delivering innovative and transformative technologies to not only improve the fan experience but to also support wider important initiatives.

“As we renew our esteemed partnership and build on the work we have achieved together, we're thrilled to also support the AIG Women's Open. NTT DATA is proud of the DE&I initiatives it executes across the world, and we believe this sponsorship further demonstrates our investment in equality and meaningful change, not just within the business world but in the sporting arena and more broadly too.”

**John Espley,**

*Director, Commercial Partnerships at The R&A:*

“

Over the past 10 years, we have built a strong relationship with NTT DATA as it's delivered ground-breaking technologies to us and our fans. Our partnerships are of the utmost importance to us and help drive forward innovations and bring new experiences to golf fans. NTT DATA in particular has enabled us to develop a wealth of possibilities for innovation and fan engagement at The Open, and we are thrilled to be extending our relationship to The Women's Open. We look forward to continuing to build special experiences with NTT DATA.”

# The importance of data and technology in the modern game

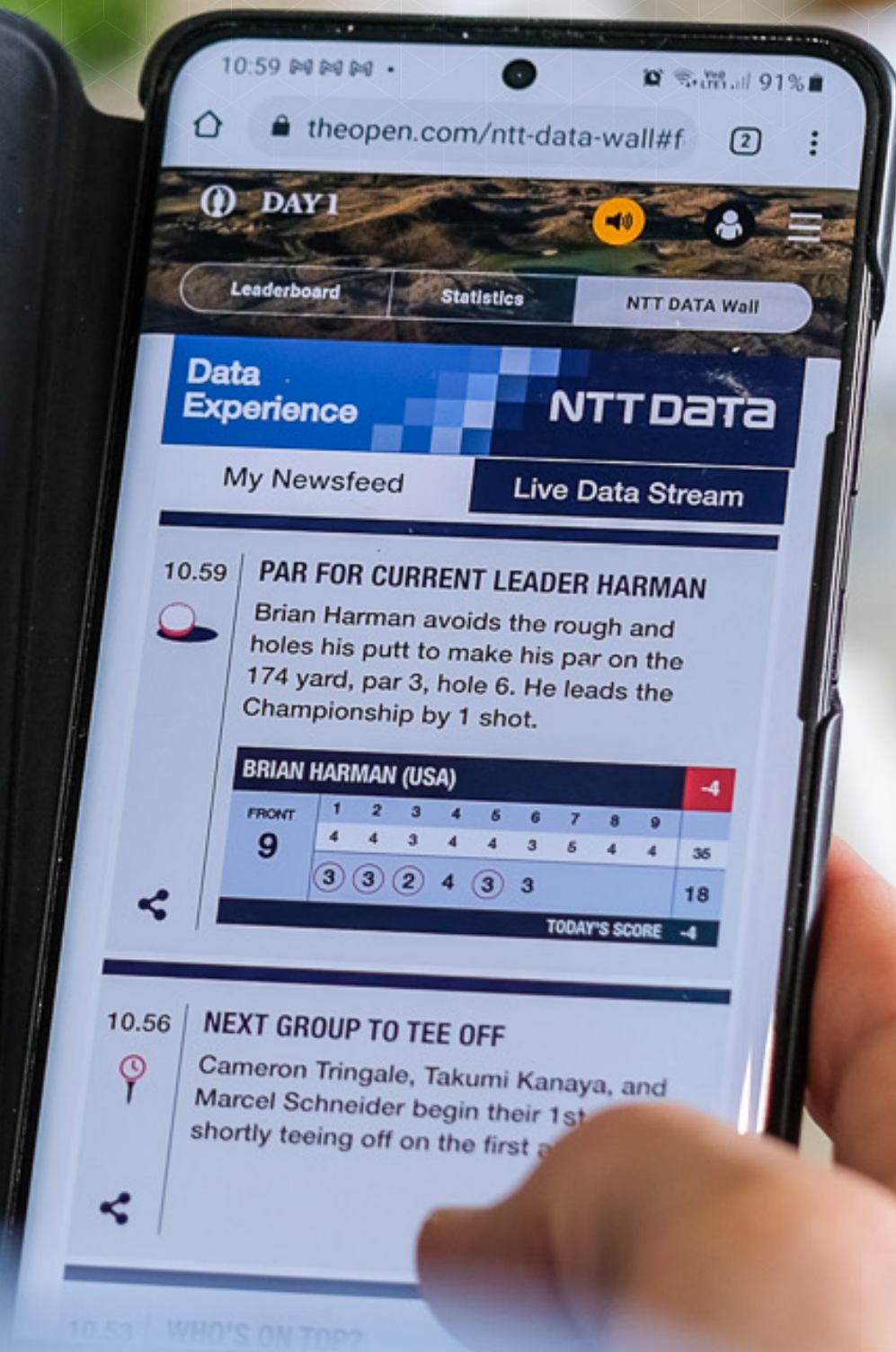
Technology is vital to the game of golf. Technology permeates through the course and the modern game, from professionals using it to improve and finesse their game to amateurs booking tee times for their weekly round.

With this, data has become a prominent feature in golf as a sport, with a particular emphasis on data accuracy. With accurate data, a foundation is laid to compare and contrast different players, courses, and holes over the years to understand the game better.

Even 100 years ago, accuracy remained a crucial part of the game, with base data retained in scorecards, noting who was playing, the date of the game and their scores at each hole. Skip ahead to 20 years ago, and professionals were receiving more accurate data from equipment manufacturers on how certain pieces of equipment impacted their performance. Moreover, the vast growth in the popularity of laser rangefinders in the 2000s meant that golfers of all

abilities could access more accurate data for each hole, improving their precision, skill, and speed. Fast forward to 2022 and professionals now have all the data they need at their fingertips to analyse their own game and decide on adjustments in training to give them every advantage when they hit the course.

However, it's not just professionals that can enjoy and benefit from the rise of data, as technology has made it available to more and more people. Apps to book rounds of golf or video technologies to virtually teach people how to play are proliferating and enabling the casual fan to benefit from data as well. Tracking has also become more popular across the board, with people now able to track scores digitally on mobile devices or radar tracking to identify club head speed at tee off and the flight path of a ball, which opens up a new wealth of data for analysis, by professionals and amateurs alike.



As a result, The R&A, the governing body of golf worldwide and organisers of The Open, is now ensuring that the right data governance is in effect. This ensures that the integrity of critical data from tournaments is maintained, and all data captured is standardised. This includes all statistics related to the modern game, such as driving distance,

the number of fairways hit, the scores for each hole, and even the weather and temperature on the day. Not only does this give deeper insight into a player's game across tournaments, but it provides a wealth of insights which helps to power analytics and supplement the digital fan experience.

# NTT DATA at The Open – a partnership that lasts

Companies have a choice with sponsorship. They can settle with simply placing a logo on a player's shirt and broadcast graphics, or they can utilise their products and services to reimagine how the public engages with an event.

NTT DATA has always worked closely with The Open to push the boundaries on how technology can offer fans new, immersive digital experiences. This allows the world's oldest golf tournament to offer an innovative way

for spectators to get digitally engaged with the Championship, allowing both NTT DATA and The R&A to build a closer relationship with fans whilst the fans get closer to the action.

The partnership between The R&A and NTT DATA began when NTT DATA was expanding in Europe and was looking to underline its blue-chip position in a way that would showcase the power of its technology.





The strong histories and international outlook of both NTT DATA and The R&A rely on long-term partnerships to drive continuous innovation – making them perfect collaborators. Despite The Open’s long history, it is a golf tournament dedicated to using the very best in technology to enhance all aspects of the fan experience. Modern tournaments use the latest in Wi-Fi and distributed antenna systems to bring mobile connectivity to spectators. This powers digital ticketing, and ecommerce and empowers spectators to keep up with the action wherever they happen to be on the course.

The R&A had already begun to update its on-course technology and was looking to work with a partner who could accelerate the digital transformation project. By collaborating with NTT DATA, the result has been a reimagining of how fans engage with the tournament through a statistically based, digital experience provided through NTT DATA’s technology.

Like all good partnerships, both sides continue to challenge one another to develop innovative ways of enhancing digitally-driven fan experiences.

# Expanding the fan experience for 2022: The launch of Digital Twin

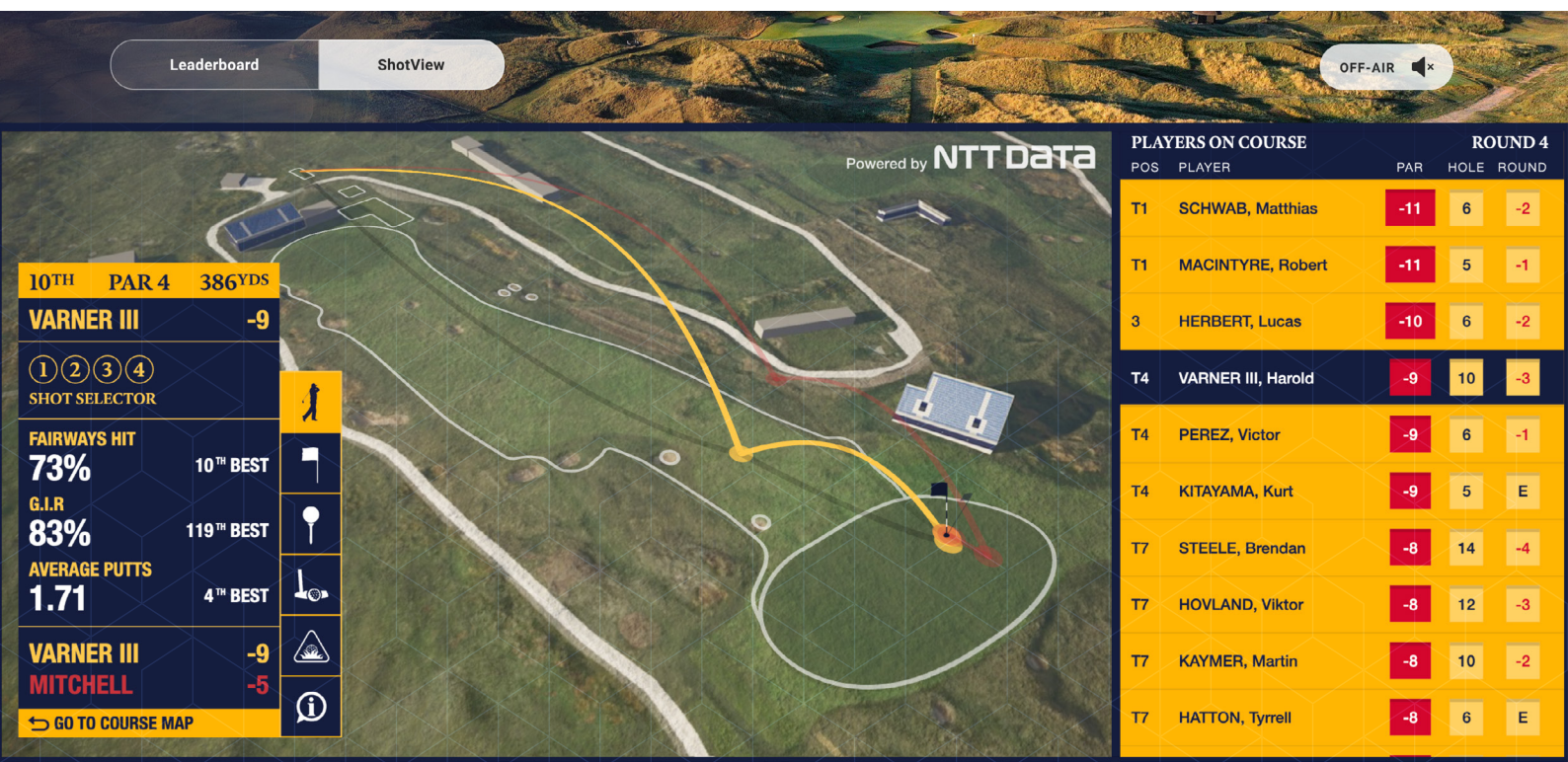
In celebration of the momentous occasion of The 150<sup>th</sup> Open, NTT DATA will be launching its Digital Twin technology, which is set to transform how fans experience The Open.

Through digital twin environmental modelling, NTT DATA will be presenting an interactive, 1:1 virtual model of the Old Course at St. Andrews and its surroundings. This will enable a full ball positioning, data-led experience. Fans will be able to access a route to hole visualisation with dynamic path capturing every shot, player, hole, and round in real-time. The interactive map will display the entire 18-hole course, and fans will be presented with slick drop-down lists with options to dive into the details of specific holes. For each

hole, fans can access interactive ball trajectories, stat summaries both off the tee and on the green, hazard data, and even stories from the history books giving a rounded, unique.

Using the same data, we will be creating unique digitally rendered re-creations of every one of the 35,000 shots of the championship, giving professional content teams, blog writers, media and journalists access to automatically created digital assets to help in their story telling.

Fans will also have access to a live blog with up-to-date analysis as well as interactive scorecards and an interactive course map of any player on the course.





Viewers will be able to go to a specific player's scorecard, access their interactive map, and scroll back through completed holes to watch their best shots.

This new technology will again run parallel with the core data livestream experience that we have continued to develop. The NTT DATA Wall, an LED event installation over 20 metres wide, providing a clear view of what's going on at the tournament in real-time, will once again be present. Delivering live broadcast from all around the venue, and alongside the compelling statistics and impactful visual trends, The Wall brings fans closer to the action and the hidden drama behind the numbers.

This new data experience from NTT DATA, alongside the existing technologies gives fans control over how they enjoy

the sport they love. Increased access to real-time statistics, analysis and insights allows them to elevate their viewing in an enhanced immersive experience, whether on the course or at home. Moreover, digital twin technology is not limited to the world of golf. We see Digital Twin technologies improving aspects of sports, businesses, organisations and societies across the globe.

At NTT DATA, we are focussed on how data can amplify, refine or deepen that unique rush. A feeling that results from the improved input of everyone from equipment manufacturers and supply chain businesses to athlete performance coaches and sustainability advisers. Together, they all produce the unique experience The Open provides, and they can all be revolutionised by utilising data and digital twin technology.



## About NTT DATA

NTT DATA is a leading IT services provider and trusted global innovator, headquartered in Tokyo, with business operations in over 50 countries. Our emphasis is on long-term commitment combining global reach with local intimacy to provide premier professional services varying from consulting and systems development to outsourcing. For more information, visit [www.nttdata.com](http://www.nttdata.com)