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Capgemini and America's Cup Media to bring a new dimension to the 37th America's Cup experience with WindSight IQ[™]

Breakthrough technology will visualize the wind live on screen, allowing fans and commentators to better understand optimum routes and team tactics, and making coverage of the sport more accessible than ever before

Paris, August 22, 2024 – <u>Capgemini</u> and the <u>America's Cup Media</u> today revealed WindSight IQ[™], the product innovation they will bring to the broadcast of the Louis Vuitton 37th America's Cup, as part of their global partnership <u>announced earlier this year</u>. For the first time, viewers and race commentators will be able to actually see the wind and how it varies across the racecourse in real-time. Furthermore, a yacht simulator will take the wind data and calculate the optimal routes around the course, enabling commentators and viewers to predict what teams on the water should do or analyze how teams could have won a race. A feat of engineering and design, WindSight IQ[™] means that commentators and viewers will have more data and insight into the pinnacle event of international sailing than is available to the competing teams on the water.



Tech is now an integral part of how fans consume sports

Viewing habits are changing, a recent study by the Cappemini Research Institute¹ found that 84% of fans say emerging technologies have enhanced their overall viewing experience. With 77% of Gen Z and 75% of Millennials preferring to watch sport outside of live venues, the viewing experience on screen is more important than ever. Wind patterns are a key factor in sailing that can change the course of a race and make the difference between winning or losing. For the first time, these wind patterns will be revealed and visualized by WindSight IQ^{TM} to bring a whole new dimension to the race experience for fans and broadcasters.

¹ <u>A Whole New Ball Game – Why Sports Tech is a Game Changer</u>, Capgemini Research Institute, June 2023

"WindSight IQ^{TM} is an innovation America's Cup Media have been evaluating for a long time now, our objective has been to take another quantum leap in using technology to increase the understanding of sailing and the intricacies that the sailors at the pinnacle of our sport have to conquer. But to achieve our objective we needed to find a partner that was equally driven by pushing the boundaries of technology and innovation which Capgemini clearly were. So, for the Louis Vuitton 37^{th} America's Cup WindSight IQ^{TM} is a significant advancement for the consumption of our sport," explains Grant Dalton, CEO of the America's Cup Event. "Four elements determine the race winner: the boat design, the team, the water, and the wind. Before and during the race, commentators will now be able to see the real-time wind patterns and explain to the viewers the options for the competing yachts. Being able to see the unseen wind and compare teams' actual performances and tactical decisions to the optimum routes, will mean audiences can follow and engage in the racing on a whole new level. We are really looking forward to the impact WindSight IQ^{TM} will bring to this year's Louis Vuitton 37^{th} America's Cup viewing experience."

Revealing the wind to millions in real time

Due to the technical challenge, no-one has been able to accurately demonstrate visualization of the wind in real-time yacht racing conditions – until now. Combining its expertise in technology, engineering, data and design, Capgemini and America's Cup Media, the host broadcaster for the event, will use LiDAR (light detection and ranging), sensor fusion and scientific computation to reveal the wind in augmented reality (AR) and virtual reality (VR) graphics. The wind field data is also fed in real-time to a yacht simulator and used to create a live 'ghost boat' simulation that can be projected onto the racecourse through AR and VR graphics. It will show the optimal path that the crews should take given the measured variations in wind pressure, sheers, orientation, and speed.

To accurately collect raw wind data, three LiDARs have been positioned along the Barcelona waterfront overlooking the racecourse, scanning the full race area. Each LiDAR has an average 6.5km scanning range up to a maximum of 12km, and measures wind speeds, every 1.5 meters from 0 to 12km, up to 38m/s (73 knots) with an accuracy of <0.1m/s. WindSight IQ™ supplements the LiDARs with wind data directly from the racing yachts and buoys' wind sensors. All these data streams are fused using innovative algorithms to enable a wind field to be created over the entire racecourse. The wind field is refreshed every second based on the sensor measurements and predictive wind models.

"Through technological innovation, combining laser sensor technology with advanced engineering and new visualization techniques, WindSight IQ^{TM} brings together the digital and physical worlds," explains Keith Williams, Capgemini's Chief Engineer for WindSight IQ^{TM} . "The wind plays a decisive role in the teams' choices during the race, and by visualizing it, viewers can now see and comprehend the detailed pattern of wind speed and direction across the racecourse, as well as the best potential paths to be followed. The core challenge of this innovation lies in combining both engineering and design; accurately capturing the intricate patterns of the wind and also portraying it in a way that fans and commentators can easily see and understand. Our goal is to make the coverage of the Louis Vuitton 37^{th} America's Cup more captivating and immersive than it has ever been."

WindSight IQ^{TM} is a turnkey solution designed, built and operated through a partnership between America's Cup Media and Capgemini, combining its expertise in technology, engineering, data and design to feed the America's Cup Media broadcast systems with real-time wind field visuals and AR/VR designs. The three LiDARs used as part of the solution are supplied by <u>LUMIBIRD</u>.

Transforming sport through technology and innovation

<u>The Louis Vuitton 37th America's Cup partnership</u> builds on Capgemini's already strong track record in adding value to the fan experience and sporting performance through its <u>sports sponsorships</u>.

- For the <u>2023 Ryder Cup</u>, Capgemini provided Outcome IQ, a tool that puts the intelligence of real-time data in the palm of every fan's hand and helped enhance fan experience by tracking outcome probabilities shot by shot.
- As <u>Worldwide Partner of Rugby World Cup France 2023</u>, Capgemini played a central role across multiple areas to support a smooth delivery of the tournament and enhance the fan experience.
- As part of a <u>multi-year partnership with Peugeot Sport</u>, Capgemini makes its advanced data analysis
 and artificial intelligence expertise available to Peugeot Sport's experts. Capgemini provides the Peugeot
 9X8 FIA World Endurance Championship (WEC) program team with advanced digital tools and analytics
 to enhance the performance of the team and the Peugeot 9X8 Hypercar.

Hi-resolution images are available on request.

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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 2023 global revenues of €22.5 billion.

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About The America's Cup

The America's Cup is the oldest international sporting trophy —dating back to 1851— and stands as one of the hardest sporting endeavours. The New York Yacht Club held the trophy for 132 years before losing it in 1983 to Australia. Since then, the Cup has only been won by teams from the United States, Switzerland and New Zealand. The current Defender of the America's Cup is Emirates Team New Zealand, representing the Royal New Zealand Yacht Squadron.

The Louis Vuitton 37th America's Cup will take place between 22nd August and 22nd October 2024 in the beating heart of Barcelona, one of the most visited cities on planet earth. Situated around Port Vell and out along the beach to Port Olympic, the sailing world has made Barcelona their home for what promises to be one of the most intense America's Cups in the event's 174-year history.