

Tackling carbon emissions through teamwork with *World Rugby*

World Rugby partnered with Capgemini to develop an emissions forecasting and measurement tool that contributes to minimizing international rugby's environmental footprint and ensures a sustainable future for the sport

Reimagining the future of sustainability in sport

In a landmark study, World Rugby revealed the growing threat climate change poses to the sport, forecasting more extreme heat, heavier rainfall, flash floods, and rising sea levels – all of which could limit player participation and fan enjoyment.

Despite generating significant carbon emissions through energy-intensive stadiums, international travel, and large-scale fan engagement, major sporting events fall into the “hard to abate” category. Transitioning to greener practices requires major investment, systemic reform, and unified industry action. And the challenge

Client: World Rugby

Region: Global

Industry: Sports

Client Challenges:

Determined to lead the way in sustainable sporting excellence, World Rugby wanted bespoke solutions to make substantial improvements in carbon reduction and deliver on its Environmental Sustainability Plan 2030.

Solution:

Capgemini helped World Rugby advance its sustainability efforts by developing a Carbon Emissions Reporting Tool that informs specific steps to reduce the environmental impact of major tournaments.

Benefits:

- Greater visibility and understanding of carbon emissions associated with tournaments and events
- Ability to identify carbon hotspots to support more sustainable choices
- More accurate emissions figures for reporting
- Associated operational efficiencies, cost savings, and potential revenue streams



extends beyond reducing emissions – it requires reimagining the future of sport without compromising its global appeal.

Determined to lead the way in sustainable sporting excellence, World Rugby launched its [Environmental Sustainability Plan 2030](#) in January 2022. Its associated roadmap is aligned with the objectives of the 2015 Paris Climate Agreement and Sustainable Development Goals.

Capgemini's longstanding links with rugby and extensive experience with sustainability best practices made it an obvious partner for the journey.

Driving substantial improvements in carbon reduction is highly complex and groundbreaking, so this was a pivotal project with vast implications. The engagement required Capgemini and World Rugby to build something innovative and bespoke. It demanded close collaboration with all stakeholders involved in the sport – a large network of governing bodies, events organizations, supply partners, national rugby bodies, and more – to maximize the overall impact.

World Rugby's Carbon Emissions Reporting Tool

Between September 2023 and February 2024, Capgemini collaborated with World Rugby to develop a tool for forecasting and measuring emissions from associated tournaments. The goal was to pilot the tool in time for planning the Women's Rugby World Cup 2025.

The project required exceptional focus and coordination, especially as the organization's events

division was busy delivering the Men's Rugby World Cup 2023 in France.

Capgemini had to balance its knowledge of emissions tracking with World Rugby's expertise in event delivery. Through a series of focused workshops, Capgemini and World Rugby's Events & Media team defined the data requirements for key emissions-driving activities, drawing on insights from past and current events. These sessions helped determine the scale of activities, feasibility of data collection, and opportunities to mitigate future emissions.

Understanding how to collect data from fans was crucial, given the impact of their travel and accommodation. To address this need, Capgemini worked with the fan insights team to understand the potential of surveys and ticketing systems as data gathering methods.

Based on these requirements, Capgemini built the Carbon Emissions Reporting Tool (CERT) to calculate and forecast emissions associated with tournament planning and delivery. CERT is designed to be used early in event planning to inform actions that reduce the overall carbon footprint. To do so, the solution calculates an initial carbon footprint estimate based on available data, which is refined through an iterative process as more accurate information becomes available. The final footprint is then calculated post-tournament.

Throughout the development process, Capgemini and World Rugby made sure that CERT's methodology aligned with the International Olympic Committee's Carbon Footprint Methodology and other industry standards.



A trailblazing solution with significant potential

CERT is currently being used to forecast Women's Rugby World Cup 2025's carbon emissions by gathering data from across the tournament's various functional areas to provide valuable insights that enable organisers and suppliers to act.

This tool has enabled greater visibility and understanding of the carbon emissions associated with World Rugby tournaments and events while improving the organisation's ability to identify carbon hotspots in support of more sustainable choices.

In addition, CERT has delivered more accurate emissions figures for reporting as well as associated operational efficiencies, cost savings, and potential revenue streams. Through the ability to help pinpoint carbon-intensive activity, for instance, the tool could eventually pave the way for new partnerships with organisations focused on clean energy, water and waste.

And beyond what has already been realized, the rich data now being captured and analysed by the CERT presents additional, far-reaching opportunities. World Rugby has the potential to improve the initial version of the tool and identify even more carbon emissions sources. This, in turn, could enhance the organisation's ability to implement robust data collection methodology that would involve all tournament stakeholders and foster new and enhanced stakeholder engagement and commercial partnerships linked to sustainability.

The impact may even extend beyond World Rugby, as the sports body will be able to support member unions and other tournament organisers in their own sustainability efforts. All of these future efforts would embed sustainability at the heart of decision-making for far-reaching and meaningful change.

This was by necessity a complex engagement requiring far-reaching, sensitive collaboration to maximise success over the long term. Most governing bodies have not yet thought about sustainability holistically, nor with this level of detail and clarity here, establishing this project as genuinely trailblazing.

As rugby continues to evolve, World Rugby's pioneering approach to sustainability sets a powerful precedent not just for the game, but for global sport. With tools like CERT, the industry is proving that environmental responsibility and world-class performance can go hand in hand and be entertaining. This is more than a playbook for carbon reduction – it's a rallying cry for a more resilient, inclusive, and sustainable future for sport everywhere.

About Capgemini

Capgemini is a global business and technology transformation partner, helping organisations 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 350,000 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 fuelled by its market leading capabilities in AI, generative AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2024 global revenues of €22.1 billion.

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