



The Future of Rugby

Uncovering rugby's social impact: ways the game is positively impacting society through inclusivity, health, education, fan experience and sustainability.

REPORT
SEPTEMBER 2023



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Foreward



Raja Rajamannar

Chief Marketing & Communications Officer
and President, Healthcare, Mastercard

"A sport that is defined by teamwork, inclusivity and sportsmanship—values with tremendous benefits on and off the pitch—rugby brings us together in ways proven and still unknown."

This September, rugby fans around the world will turn their attention to Paris, where a historic Rugby World Cup awaits. Historic not only because it is shaping up to be a tournament for the ages, but also because this year marks the 200th anniversary of rugby.

Since Mastercard first began supporting men's rugby in 2008, we've seen the unprecedented growth of the sport—with greater inclusion on and off the pitch. It is remarkable how the game has evolved as it has embraced new players, new playing formats and new audiences.

In 2021, we became a founding global partner of World Rugby's Women in Rugby program and Pacific Four Series, the first global partner of WXV, as well as the first worldwide partner of women's Rugby World Cup 2021 and 2025. Our commitment to this sport is founded in the passion rugby evokes for its community of players and fans.

Connecting people to their passions is at the heart of our partnerships all around the world. Together with World Rugby, we aim to inspire more people to play rugby and to embrace its values of sportsmanship. We are investing in programs like Youth Unstoppables that champion inspirational young athletes from around the world.

A sport that is defined by teamwork, inclusivity and sportsmanship—values with tremendous benefits on and off the pitch—rugby brings us together in ways proven and still unknown. I have no doubt rugby's best days are ahead. This report is an exploration and celebration of that potential.

We would like to thank the University of Bath for their dedication in unveiling rugby's future.

Executive Summary



Professor Keith Stokes
University of Bath

This September, the rugby world will come together in France in a celebration of the pinnacle of performance in the men's game.

Rugby World Cup (RWC) 2023 is anticipated to be the most hotly contested Rugby World Cup ever and the greatest celebration of togetherness in the sport's 200th anniversary year. Fans of the sport have been waiting expectantly since South Africa's men's victory in Japan in 2019 and New Zealand's women's triumph in their home tournament in 2022.

But, the seven-week tournament is more than an opportunity to see the best men's rugby players compete for the sport's biggest prize; it is a chance to celebrate the sport and the positive impact it has on individuals, communities, and societies around the globe. For so many people, and in so many different ways, rugby is demonstrating itself as a 'force for good'.

Our sport is proud of its values and character-building attributes of integrity, passion, solidarity, discipline, respect and its inclusive ethos as a sport for all. From the grassroots right through to the elite level, these values help rugby contribute towards better societies, and ultimately a better world.

In this report, we highlight ways that rugby is tackling issues around inclusivity, health, the environment,

education and empowerment. We will also look to the future of fan engagement and point to ideas for how the game's influence can continue to grow. Building on success in key areas, like the growth of the women's game, we will show how these different strands can come together to enhance the game.

Brought together by leading sports scientists and rugby specialists at the University of Bath (UK), the pages that follow are composed of analysis of research and trends, qualitative interviews with individuals and innovative organisations using rugby in exciting ways, and profiles with legends of the game as well as Mastercard Brand Ambassadors Bryan Habana, Dan Carter, Portia Woodman-Wickliffe, Safi N'Daiye, Sébastien Chabal and Maggie Alphonsi.

The report also points to areas where rugby can also take more of a lead in the years ahead. Across all interviews, the pressing global challenge of climate change and sustainability emerged. This is an area where rugby – as a collective global community – can take a lead, positioning itself as a global sports leader in the fight for a more sustainable world.

Here at the University of Bath, building on our own research successes in improving player welfare through the scrum engagement technique 'crouch, bind, set', and more recently through the roll-out of the 'Activate' programme we are pioneering solutions to make the game safer.

Some of the other effects, expressed via the powerful personal testimonies of where rugby has positively impacted people's lives, are often harder to quantify. Yet it is our belief that as a sport rugby can tell a stronger, more powerful story of the positive impacts it can and does make. By doing so, these impacts in the years ahead can continue to grow. As we look ahead to RWC 2023 and WXV, which launches in October 2023 and promises to revolutionise the women's international landscape, we hope this research will contribute to that positive story.



State of Play

“Rugby: a game born by chance and now one of the most popular global sports on the planet, attracting participants from all walks of life, of every shape and size and from every corner of the globe.”

9.6
million

across 124 countries (World Rugby: Year in review 2019 p68-69)

Two centuries of rugby

When William Webb Ellis picked up the football in 1823 and ran towards the opposition goal line, little could he have imagined that 200 years on, millions of fans would one day be tuning in to celebrate two centuries of a sport loved by millions as Rugby World Cup 2023 (RWC 2023) unfolds in stadia across France this autumn.

Rugby: a game born by chance and now one of the most popular global sports on the planet, attracting participants from all walks of life, of every shape and size and from every corner of the globe. Today rugby faces its own challenges, but it also demonstrating its unique abilities to be a global force for good.

This report is an analysis of rugby in 2023 and a look towards the future, pointing to areas of growth and new prospects to continue to build and showcase the game among new audiences. More broadly, it is a call to action for the rugby community to shout loudly about the many ways in which the power of the game inspires change in people and in societies.

Opportunities for growth

Developments over the past 40 years have coincided with a surge in interest from fans across the world, and World Rugby forecasts a further 10% growth in global followers and fans of rugby between 2021 and 2025. The first-ever RWC, co-hosted by Australia and New Zealand in 1987, and the professionalisation of the sport in 1995, both led to the enormous growth of the sport in the late 1990s and into the early 2000s.

When Japan hosted Rugby World Cup 2019 record numbers approaching one billion tuned in globally for the tournament. When New Zealand hosted the women's RWC 2021¹, the final drew a record for women's rugby of nearly 43,000 fans to Eden Park in New Zealand. For World Rugby these showcase events are evidence of the sport's popularity (See page 8).

In March 2023, the previous RWC record for women's rugby was surpassed in the 2023 Six Nations when 59,000 fans packed Twickenham for a grand-slam decider between England and France. Mastercard's Sport Economy Index data shows interest in RWC 2023 is high right across Europe (See page 9).

Coupled with an increase in viewership, participation in the sport is also on the rise, not just in the traditional formats of the sport but also in new and exciting ones. These formats are increasing access to the sport for many populations. Prior to the COVID-19 pandemic, participation globally was reported to be 9.6 million across 124 countries.

57%

of the total playing population in rugby are pre-teens.

As with many sports, COVID-19 decimated participation, however, the most recent World Rugby annual report suggests a bounce back with 8.4 million players globally. In Europe alone, a 17% year on year increase in participation is expected this world cup year, up from 24% in 2022 to 28% in 2023. Most striking is the increase in the number of pre-teens playing the sport, now making up 57% of the total global playing population³. A clear area of growth is in youth female players, who make up 66% of this pre-teen group.

As participation grows, player welfare rightly remains a key focus for World Rugby. The sport is considered progressive for its evidence-informed approach for improve player welfare and at the University of Bath we have played a role in helping rugby to respond to these challenges and make the game safer for all those who play (See page 10).

While global participation is still dominated by some historically strong rugby nations, the global growth of the game is now moving beyond these borders. Growing rugby nations of Georgia, Portugal and Chile will all be represented at RWC 2023⁴. Building on the success of RWC 2019 in Japan, RWCs 2031 and 2033 will both be hosted in the USA.

The inclusion of Rugby Sevens in the Olympics expands the game's horizons even more. While the established nations continue to dominate the world scene, the success and growth of the sport in these less-traditional rugby nations is challenging the norms of the game. This will further drive global participation and engagement.

A wide range of formats now exist for rugby - from rugby sevens, rugby tens, rugby X, to reduced contact formats (tag rugby, flag rugby, touch rugby), wheelchair rugby, walking rugby, visually impaired rugby, mixed ability rugby and beach rugby. The growth of these formats will not only increase participation but also increase viewership and engagement.

With RWC 2023 upon us, we are also living in an age of great global change and advancements. In this report we will highlight some of the social and cultural drivers that will guide the way we play, watch, and interact with rugby. In turn, we also explore the contributions that rugby can make to individuals, communities and societies.

If the first two hundred years of rugby were marked by the game's tremendous evolution from its humble beginnings, the next will be shaped by the significant social, environmental and technological changes now upon us. Against a changing backdrop, rugby's core values of integrity, passion, solidarity, discipline, and respect are as important now as ever.

The growth of the game

Interest and participation in rugby



According to analysis from Mastercard's latest Sport Economy Index 2023, over a fifth of Europeans (24%) played rugby last year - an increase in 19% on 2021 figures.



Rugby is in the top five live sports in both France and in the UK. In France, 24% of the public watched live rugby in 2022; in the UK 14% did.



Interest in rugby was highest in Austria (32%), Slovenia (28%) and France and Germany (26% respectively).



12% of Europeans intend to watch the Rugby World Cup 2023. Of these people, 16% plan on attending in person and 40% plan to watch live on TV.



28% of people surveyed plan on playing rugby in 2023. In emerging markets, this was highest in Poland (35%), Austria (32%) and Slovenia (30%).

The growth of the game

Trends in wider sports



Across Europe, 49% of people agree that they prefer watching sports live at stadiums/venues than on TV/online. 34% of Europeans plan on travelling specifically to watch sport in 2023.



The majority also agree that their experience at stadiums and venues improved in 2022 compared to 2021. According to the report Europeans also voted for their top ten additions to the matchday of the future.



These included ways to make more of a spectacle of sports event (e.g., live music at half-time), efforts to improve accessibility (e.g., better facilities for disabled fans), and new technologies to enhance the viewing experience (e.g., earpieces to hear live manager/player communication; VR experiences to show 'player's view'; as well as other in-game supporter engagement).



According to Mastercard's analysis, 6 in 10 Europeans considered tech to be a vital lifeline for how they enjoyed sport last year. Social media, multi-screen viewing, and watching esports were primary use cases of tech for sport entertainment. Half of Europeans want to experience sport via VR in 2023 it found.

A view from the top



“Rugby is a sport for all shapes and sizes, and we want to create inclusive and strong communities where everyone has a place. This is our global ambition.”

Sally Horrox is World Rugby’s Director of Women’s Rugby.

With a proven track record in transforming women’s sports, Horrox is a former non-executive director of England Netball, advisor to UEFA, international football federations and The FA. She has played a leading role in the success of the Vitality Netball Super League and the FA Women’s Super League.

She shares World Rugby’s vision for the game, how it hopes to capitalise on growth areas and how it can continue to be a force for good around the world.

Rugby for social good

“World Rugby’s ambition is to create a global sport for all and we continue to invest to achieve these outcomes. Rugby has strong core values that revolve around integrity, solidarity, respect, passion and discipline and we incorporate these into our vision for the sport as we commit to contributing as much social value as we possibly can.

“Rugby is a sport for all shapes and sizes, and we want to create inclusive and strong communities where everyone

has a place. This is our global ambition. We are passionate about creating the very best environment for those that want to play rugby but also for those that want to be part of an inclusive and strong community on and off the pitch.

“By playing rugby we are positively impacting the health of individual participants resulting in significant positive mental and physical health benefits including reducing the risk of anxiety, type two diabetes and depression. It also impacts positively on social interaction for players as it’s a really fun sport that increases fitness, self-confidence and it’s a supportive and inclusive community where lifelong friendships are formed. Those involved with the game are also able to learn new skills that lead to higher educational and leadership attainment.

“We are seeking through rugby and participation to develop better individuals, stronger communities and more resilient nations with whom we partner to host our pinnacle and flagship Rugby World Cup (RWC) events and global competitions as we strive to develop the game further with them.”

Maximizing impact

"In order to maximise impact, World Rugby is committed to investing in improving the numbers of players retained in the game by targeting key markets around the world. Participation is still highly skewed towards a high number of participants in a small number of markets.

"On that basis, we are seeking to grow the sport in new countries, including USA and Australia, where we are hosting Rugby World Cups in the next 10 years. We are selecting new target markets based on the potential to grow the sport through

participation and building of capacity and capability in the countries that want to support rugby and have commercial sustainability."

Women's participation

"Women's participation has greatly improved but there's still plenty of opportunity to promote women's and girls' rugby further. We are doing that through increased investment, fast tracking the professional and commercial development of the game and through showcasing the sport through our pinnacle events, not just at Rugby World Cup level but also through events such as our newly launched

women's 15s tournament, WXV.

"The impact of this competition should cascade down to our fans and the markets of the 18 countries around the world that will participate year-on-year. As a result, we should have more players involved and retained in rugby and we'll be broadening the global development of the game and closing the gender gap, and that should deliver significant returns."



Making the game safer

“Dramatic improvements seen by implementing the ‘Activate’ warm up routine.”

Applied sports science research from our team at the University of Bath is helping to make rugby safer for the 9 million players around the world.

In 2018 our work at Bath to improve player welfare in rugby was included in a list of [‘most significant’ university breakthroughs](#)⁵ for research impact.

Crouch, bind, set!

From 2010-13, researchers from our Department for Health led by [Professor Keith](#)

[Stokes](#)⁶ and Dr Grant Trewartha worked with the International Rugby Board (now World Rugby) and England Rugby to analyse and assess the forces experienced by front row forwards in the scrum.

Whilst not common, scrum-related injuries made up around 40 percent of the catastrophic injuries players experienced. As a result, the focus of our ‘Biomechanics of the Rugby Scrum’ project was to reduce the forces, but to do so with minimal effect on the scrum’s competitive nature.

Working with teams and governing bodies, we developed



Image supplied by Bath University

the pre-binding scrum technique, now known as 'crouch, bind, set', whereby front row players bind to the opposition before pushing. This has a significant impact in reducing the forces of engagement by 25%.

Tried by the International Rugby Board (IRB) ten years ago, it was subsequently rolled out globally and can now be seen in action week in, week out in every rugby match around the world at all levels. Described as a 'seminal moment' in the development of the sport by Chairman of the IRB Rugby Committee John Jeffrey, '[crouch, bind, set](#)'⁷ has also featured in successive RWCs.

Its long-term impact will be felt for years to come and is hugely significant for player welfare.

Activate for youth and community rugby

Building on this research, our work has also been important to efforts to enhance player safety through the development of a new injury prevention programme which can be applied specifically for youth and adult community rugby.

As part of England Rugby's RugbySafe programme, we studied injury risk, including concussions, from data of over 2,500 young players and 2,000 adults to demonstrate the dramatic effects a new warm-up programme could bring.

Known as 'Activate', the 20-minute pre-activation warm-up routine – developed by Bath researchers - is split into four stages. These focus on balance, strength, and agility in order to better prepare players for the physical challenges experienced in the game. The results observed were dramatic.

[Findings from our adult community project](#)⁸ highlighted that concussion injuries could be reduced by up to 60 percent and lower-limb injuries reduced by up to 40 percent as a result of players performing the new routine.

For youth rugby players aged 14-18, there were equally impressive results, with overall injuries down by 72 percent and concussions reduced by 59 percent in those teams that completed the exercises three times per week.

The season-long intervention, which is practised by players both in training and before matches, has also since been rolled out internationally by World Rugby. The research team is now working to ensure Activate is adopted by coaches at all levels.

Our latest projects in rugby are assessing efforts to prevent injuries for female rugby players across Scotland, England and Wales. Part of this work is considering how the success of Activate might be

applied and developed in view of the growth of the women's game.

National and international networks to reduce injuries

Our researchers are now applying this learning in other areas of sports injury prevention via recently launched international networks.

In 2023, with the UK-charity 'Love of The Game', we also launched a brand-new UK Concussion Prevention Network. This work is complementing sports policy initiatives designed to curb concussion incidence among players at all levels.



Social and Cultural 'Grand Challenges'



Image is the property of Gareth Lyons – Includus and URA with the Spirit of Mixed Ability Rugby Trophy

A sport for all

1.1. Key findings

- ➔ Rugby is a sport underpinned by inclusion and respect
- ➔ The sport encompasses a way of life, a culture, a community, a place to learn new skills, to challenge yourself and forge comradeship for all individuals, whatever their background
- ➔ World Rugby takes a firm stance against discrimination and reinforces inclusion as being of key importance for anyone involved in the game, promoted through #RugbyForAll
- ➔ Its efforts to promote gender equality through their governance reforms and resources has helped to grow the game for new audiences – from the growth of the women's game, to disabled sport
- ➔ Growth of the women's game is a standout success, since 2017, there has been a 28% increase in registered female players
- ➔ Through ever closer partnership and alignments with organisations such as World Wheelchair Rugby and International Gay Rugby, the sport continues to foster inclusivity within marginalised communities
- ➔ Focus on inclusivity offers clubs the opportunities for growth to open up the sport to a more diverse groups and sharing the love of the game with a wider audience

1.2. Defining different dimensions of inclusivity

Sport, whether played or watched, is universally acknowledged for its unifying power, transcending differences in background and identity. Rugby is no different. Over recent years, efforts have increased to expand the diversity of both the players and fans, proving without a doubt that it really is 'a sport for all.' For World Rugby, that means making the sport more relevant and more accessible. This is fundamental in an attention economy and has underpinned the international federation's business transformation in recent years.

'Diversity' for rugby refers to different characteristics of people who make up the sporting community – by gender, age, race, religion, sexual orientation or disability. While diversity can promote harmony in sports, inclusion in sport refers to how an organisation or country ensures that a diverse community are reflected in its sports population.

Being inclusive is the proactive way in which organisations can plan, lead and develop the delivery of sports to create opportunities for everyone. Inclusion in sports refers to everyone from across a diverse community being afforded a range of opportunities to engage and participate.

For World Rugby, underpinned by the sport's character-building values of discipline, integrity, passion, solidarity and respect, rugby is a game for everyone. A renewed focus on the importance of diversity and inclusion and efforts to expand rugby's reach and appeal is opening up the sport to new audiences around the world.

Inclusion in rugby takes multiple forms. This section focuses on the rise of girls' and women's rugby; efforts to increase opportunities to participate for disabled athletes; and inclusive rugby for LGBTQ+ communities. These initiatives are helping to showcase rugby to new audiences, expanding its reach and increasing participation and engagement.

2.7
million

Female participation
globally (World Rugby)

1.3. Growth of the women's game

Women's rugby, recognised as the biggest opportunity to grow the game as a whole, has experienced a surge in popularity and recognition globally over the past decade. The success of international tournaments - such as the Women's Six Nations where, in 2023, nearly 60,000 people attended the last game at Twickenham Stadium (UK) - are testament to this success.

To build this success, governing bodies have invested in professional structures, creating pathways for female athletes to progress from grassroots to the highest levels. Female participation levels are at an all-time high with 2.7 million players globally (World Rugby), supported by campaigns including Women's Rugby Plan 2021-2025, 'Try and Stop Us', and Mastercard's own [Youth Unstoppables](#).



28%

increase in registered female players since 2017 according to World Rugby.

Thanks to the initiatives of the international rugby community, girls' rugby has witnessed a remarkable growth. Since 2017, there has been a 28% increase in registered female players, according to World Rugby. This growth has not only provided more opportunities for female players but is also encouraging greater gender equality within the sport.

In England, the 'Every Rose' initiative aims to accelerate the growth of the women's and girls' game and create long-term value. The initiative has invested in nurturing the development of the girl's game through community events, making rugby easily accessible for girls to play and experience.

The 'Every Rose' initiative involves role models and leaders of women's rugby being visible and connecting with younger players to inspire the next generation. By breaking gender stereotypes and fostering inclusivity, girls' rugby is becoming a platform for empowerment, where young women can challenge societal norms and achieve their potential.

The 'Inner Warrior' initiative: rugby camps for girls aged 11-18, and women over-18 to introduce those who have never played, or who want to get back into the game. The camps encourage participants to challenge themselves and learn new skills alongside likeminded females.

In New Zealand, where rugby occupies an almost religious position, a gender revolution is brewing. One in five rugby players in New Zealand are women and with the success of their national team, the women's game is helping to break down stereotypes in what has traditionally been a male-dominated sport.

This year, New Zealand's rugby community launched a 10-year women and girls' rugby strategy⁹ aiming to enhance their experience of rugby. The strategy aims to deliver sustainable engagement of women and girls in

40%

The target aim for women in leadership roles across New Zealand's rugby system, as part of 10-year strategy.

"These programs are building on confidence, skills and promoting a positive body image for women and girls."

rugby whilst also promoting inclusivity in leadership. It aims for 40% women in leadership roles across its rugby system.

Through this, it is developing a women and girl's advisory group to ensure the female voice is heard. Its overall goal of branding rugby as a 'game for all' is helping to shift public perceptions of the game and to change the systems to be more supportive of women's rugby.

In Australia, growth of the women's game has been used as a vehicle to break down wider societal inequalities against women. In partnership with the not-for-profit organisation 'Our Watch', it is using rugby to embed and enhance gender equality and respectful relationships into people's lives, successfully rolling out two major programs.

The 'Sports Engagement Programme', aimed at bringing sports organisations together to encourage action to prevent violence against women and children. The second has brought sporting organisations together to embed greater gender equality in workplaces and organisations.

In Georgia, a cooperation with UN-Women, has resulted in an innovative program for coaches to educate young people on the principles of gender equality and the challenges of violence against women and girls in line with the values of rugby. To receive their coaching licences, all coaches are now mandated to take this training.

Efforts across rugby organisations, schools, and communities, recognise that gender equality in sport means that more girls across the world are encouraged to participate in rugby from a young age. These programs are building on confidence, skills and promoting a positive body image for women and girls.



“Wheelchair rugby has opened the doors for disabled athletes to engage in a physically demanding and competitive sport.”

1.4. Growth of disabled sport

Rugby has also made strides in promoting inclusivity for individuals with disabilities. Wheelchair rugby has opened the doors for disabled athletes to engage in a physically demanding and competitive sport. Rugby organisations have also implemented adaptations, enabling individuals with visual impairments or hearing loss to participate.

International Mixed Ability Sports (IMAS) is at the forefront of a global movement breaking down barriers to participate in mainstream sports, with a belief everyone should be able to benefit from the transformational power of sport, regardless of disability, age, gender, background or poor self-perception.

IMAS has developed a version of mixed ability rugby (MAR) which closely reflects the mainstream game but with some variations enabling it to be played by those of varying physical and intellectual abilities. With teams spread internationally, including the ‘Rebels’ in Ireland, ‘Chivassa Rugby’ in Italy, ‘Gaztedi’ in Spain, ‘Hasselt Mixed Ability’ in Belgium and the ‘Hessle Vikings’ in England, MAR supports the right of everyone to participate in the sport.

Wheelchair rugby has also surged in popularity. The sport is played in around 40 countries, 30 of which are members of World Wheelchair Rugby who have a close, collaborative relationship with World Rugby. The sport has been part of the Paralympic Games since 2000 and included within the Invictus Games since 2014. It aims to be a leader in para sport and expand its inclusivity.



**CASE STUDY: ENGAGING
NEW AUDIENCES IN RUGBY –
WHEELCHAIR RUGBY CANADA**

“At its core, rugby is a values-led sport, and with wheelchair rugby over recent decades we have been spreading those values into other areas.”

– Paul Hunter, CEO
of Wheelchair Rugby
Canada

Originally known as murderball, wheelchair rugby is a rough and rumbling sport for men and women, most of whom have quadriplegia.

Played indoors on a basketball court, the objective is to fully cross the opponent’s goal line for a point. It is non-stop action with passing, ball carrying and wheelchairs crashing into each other.

Invented in 1976 in Canada, the unique sport combines traditional rugby, with elements of basketball, handball and ice hockey. Today, it is played in 40 countries and is under development in many more. Inclusion in the Paralympics from 2000, and more recently via The Invictus Games, has given the sport a global audience.

Someone who has seen first-hand the growth of the sport and the burgeoning interest from fans is CEO of Wheelchair Rugby Canada, Paul Hunter. Hunter sees a clear opportunity through wheelchair rugby to grow the sport in more diverse and inclusive ways.

‘At its core, rugby is a values-led sport, and with wheelchair rugby over recent decades we have been spreading those values into other areas,’ he says. Through the opportunity it affords players to maintain physical and mental fitness, and the excitement it elicits among fans, the sport is helping to breakdown barriers and perceptions about disability, he says.

Alongside Mixed Ability Rugby – interest in which has also skyrocketed in Canada over recent years - there are emerging opportunities to better integrate the able-bodied game with



CASE STUDY: ENGAGING NEW AUDIENCES IN RUGBY – WHEELCHAIR RUGBY CANADA

wheelchair rugby. 'I see rugby as a brand under which various different forms of the game exist and can support each other.'

With a greater push towards diversity, there could be new commercial opportunities in this too. Examples of this could include joint kit launches between a club's different teams and co-hosted, integrated international tournaments. At a club level, though, teams can still do more to improve accessibility, like ensuring stadia have better access for disabled athletes.

'Our athletes want to be included, they want to go into clubs and feel like it's their club. That's where able-bodied rugby could play a big part in offering wheelchair rugby, and in doing so unlock a huge commercial opportunity,' he says. Having seen first-hand the effect this can have on players, improving this integration can further help change individuals lives for the better, he thinks.

Hunter cites examples, such as Peterborough Rugby Club in Ontario, where extra efforts have been made to make its facilities as accessible to all to ensure all feel fully included. He also reflects on the trajectory of wheelchair rugby athletes, like Ryan Straschnitzki, paralyzed from the chest down in the horrific Humboldt Broncos' bus crash in Saskatchewan in 2018.

Straschnitzki has since used wheelchair rugby as part of his route to recovery and Hunter sees it as a stand-out example of the positive effects the game is having on people's lives. 'It's no underestimation to say our sport

can be a game changer for our athletes, some of whom have had their own true life changing experiences,' he adds.

With the RWC in Paris in 2023, and looking ahead to Australia 2027 and, most significantly, North America in 2031, he sees a great opportunity for wheelchair rugby and its athletes with a disability to play a key role. 'The RWC is one of the largest sporting events and, through it, athletes with disabilities have a fantastic opportunity to be part of that,' he adds.

Deaf and visually impaired rugby are other variants of the game which have developed to enhance the sport's appeal and open it up to new audiences. Deaf rugby is played across the world, with Wales, England and New Zealand currently sitting at the top of the international standings.

Deaf rugby is played in a similar manner to a standard rugby match however there are slight variations to the laws. The use of flags, visual referee signals, additional referees on the field and having a sign language interpreter present at games allow deaf athletes to easily participate.

Rugby Australia championed the country's first Deaf Rugby team¹⁰ more than 15 years ago made up of players who have a hearing loss of at least 50 decibels in one or both ears. Reflecting the ethos of the IMAS and World Rugby, the Australian Deaf Rugby Teams motto is 'inclusiveness'.

Australia also hosted the 2018 World Deaf Rugby 7s tournament which included more than 180 athletes from all around the world

including Japan, Wales, Ghana and England. 2018 also saw the first International Women's (Deaf) Tournament, with three female teams taking part.

This year, Wales men's and women's deaf rugby teams both won their respective competitions at the biggest events in deaf rugby sports history, the World Deaf Rugby Sevens World Cup in Cordoba, Argentina. Eight male and four women's teams competed for the World Cup titles.

Adaptations for sight loss through visually impaired rugby have included modifications¹¹ such as creating a fluorescent yellow, audible rugby ball, and using inflatable rugby posts. Demand for the game has led to international tournaments being hosted, with the first 'Six Nations' in 2021 and the first World Cup in 2023.

With international teams such as the 'Blind Lions' in England and 'Blind Boks' in South Africa, athletes are advocating for what is possible to younger players. The publication of World Rugby's Colour Blindness Guidelines¹² have helped make the game even more accessible to fans, players, coaches and officials, creating greater awareness of the challenges faced by those with a colour vision deficiency and providing solutions to remove obstacles to participation and enjoyment.

"It's my great pleasure to act as an ambassador for IMAS and for mixed-ability rugby, our integrated teams break down barriers between disabled and non-disabled players, this is how sport should be."

Les Cusworth, former England and Barbarians International, former Director of Rugby Argentina.

Mixed ability sport is a worldwide movement spearheaded by International Mixed Ability Sports (IMAS).

Mixed ability rugby (MAR) is the flagship element, pioneering inclusion and diversity across the sports sector. It is played to the same rules and regulations as mainstream rugby with competition against local social sides encouraged to spread its inclusionary model.

Played on a full-sized pitch, and despite many players having learning and/or physical disabilities, or other barriers to participation, the sport is the same non-adapted,

full contact rugby, with only minor adjustments such as uncontested scrums and rolling substitutions. Characterised by its ability to bring in new members and drive further inclusivity in the sport, it is proving popular with players of all ages, shapes, sizes, and abilities right around the world.

In 2022, the 3rd IMAS organised International Mixed Ability Rugby Tournament (IMART) – the World Cup of Mixed Ability Rugby – was hosted in Cork, Ireland. With a total of 15 countries represented, more than 900 players and over 1,100 participants were involved in the event which drew a staggering 25,000 spectators and more than 55,000 online viewers from around the world.



CASE STUDY: IMPOSSIBLE IS NOTHING - INTERNATIONAL MIXED ABILITY RUGBY

“If we were to start sport again, we would probably use the Mixed Ability model to reshape it.”

– Catherine Carty, UNESCO Chair in Inclusive Physical Education, Sport, Fitness and Recreation, MTU

The event embodied the spirit of inclusion. For former Irish Taoiseach Micheál Martin: “We all aspire to having a sport sector that provides opportunities for lifelong participation in sport and physical activity for everyone. We want a sport sector that fully celebrates diversity and promotes inclusion. Mixed Ability rugby is an excellent example of exactly this, demonstrating the richest forms of inclusion, diversity, community engagement and competitiveness.”

One aspect of the sport’s uniqueness is that it enables older participants who would otherwise be inactive in community sport, to rekindle their love for the game and share their knowledge and expertise with less experienced players. Players and coaches talk about its incredible ability to use grassroots rugby as a positive force for good and make clubs more representative of their local communities.

Richard Philpott plays for Ireland’s ‘Sundays Well Rebels’. He said: “Mixed Ability rugby has changed my life. It brought me out of my shell and made me a better person than before. I am much more confident socially and my perspective on health and physical fitness has changed radically.”

In Wales, Swansea Gladiators, now in their 32nd year, are recognised as the oldest Mixed Ability rugby team in the world. But, the sport is flourishing across Europe, rapidly developing across South American countries, as well as newly established teams in Canada, Belgium, and the Netherlands.



1.5. Inclusive Rugby and LGBTQ+

Pro-active efforts over recent years have also helped to broaden the appeal of rugby to gay and lesbian communities. International Gay Rugby (IGR) is the global membership organisation for Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) and inclusive rugby clubs and has helped drive much of the progress seen to date. It has 85 inclusive rugby clubs from 20 rugby nations across five continents registered and hosts regional, nation and international tournaments, such as the Bingham Cup and Union Cup.

Against a backdrop where the LGBTQ+ community often experience prejudices that can act as barriers for individuals wanting to join a sport club or team, IGR promotes equality and diversity, breaks down barriers that have been created through previous negative experiences, emphasises the need to eliminate discrimination on the grounds of sexual orientation or identification and promotes good health and well-being through playing rugby.

IGR and World Rugby signed a Memorandum of Understanding in 2015 to foster closer collaboration between the two organisations and consult on issues of importance to members of the LGBTQ+ community and the game of rugby.

For this year's RWC, the France 2023 organising committee has also presented the 'Rugby is my Pride'¹³ programme in partnership with Mastercard, which aims to support LGBTQ+ groups by shining a light on measures to fight all forms of discrimination during the competition. This includes a dedicated video campaign which will be displayed at host venues and in rugby villages.

Additionally, organisers for RWC 2023 will participate in a symposium on 'Coming Out Day' in October, highlighting the role and importance of sport in shifting attitudes towards LGBTQ+. The 'Pride Respect Cup' is another example, due to take place around the same time as the RWC quarter finals. It will include eight inclusive teams competing (four French and four international).

"It has 85 inclusive rugby clubs from 20 rugby nations across five continents registered and hosts regional, nation and international tournaments."



Inspiring new leadership in rugby



Maggie Alphonsi is the face of international women's rugby and one of most well-known names in women's team sports on the planet.

Before announcing her international retirement from rugby in 2014, she represented the England women's national team 74 times, scored 28 tries, won a World Cup and helped England to win a record-breaking seven consecutive Six Nations crowns.

Throughout her rugby career, and now as a TV pundit and an Ambassador for the sport, she became a household name. Now she wants to use her position to help the sport grow, to open up the women's games to new audiences, and to inspire others.

Shining a spotlight on the women's game

Throughout an illustrious career, Alphonsi has seen a huge shift in how women's rugby is both played and watched. She attributes rugby's success in part to the leadership structures and governance put in place, resulting in the increased visibility the women's game has achieved.

'There's been a real shift in professionalism and the leadership around women's rugby, also the branding of it,' Alphonsi explains. Big games drawing huge crowds, such as the record-breaking 58,000 who saw the England women's national team take the Grand Slam in April 2023, and enhanced TV coverage have all helped to shift perceptions about the game.'

'What I loved about that day was that the range of people who attended were so different to what we are normally used to. It made me feel like I want to go back for more and more, and I would like to bring my kids to go and watch that,' Alphonsi says. 'It's just great to see the women and girls game attract that level of interest and I hope we can replicate it again and again.'

A new focus on the women's game has also helped to grow TV audiences too. Whereas once the women's game might have been relegated by broadcasters, sidelined behind the men's game, nowadays it is much more front and centre. Alphonsi thinks its success is also due to it being 'packaged' in its own right. 'The people watching love that,' she says.

Alphonsi has been part of that evolution in broadcasting, too, as the first England women's rugby

"There's been a real shift in professionalism and the leadership around women's rugby, also the branding of it."

player to commentate on men's matches. That has been part of a broader trend to ensure greater gender balance for matches, with men commentating on women's matches and vice-versa. Alphonsi says it all adds to the credibility of watching the game.

Reflecting on her playing career, Alphonsi recalls international matches at Twickenham during the 2010 World Cup and seeing that perception shift among fans. 'I think seeing a woman tackle incredibly hard and take someone down - because that's what they see in the men's game - people started looking at the athlete, not the gender,' she explains.

At club level, playing for Saracens, she reflects on how rewarding an experience it was to see the women's game fully integrated with the men's game. 'I loved being part of that club and seeing the community feel, but also seeing the emphasis on making sure the women's team was included and front and centre alongside the men's, that was very rewarding.'

For Alphonsi, from the grassroots level to the leadership, the RFU in England has taken great strides in building the women's game, which is beginning to have ripple effects across other nations. 'It feels like England has been leading the way on this, but what I'm pleased about is seeing other unions really starting to move forward,' she adds.

Alphonsi points to the recent selection of Deborah Griffin, as the first woman RFU President, as another example of this leadership. But Alphonsi is keen to ensure there is legacy and a succession plan at the top of the game. 'It's really positive, I just don't want her [Griffin] to be the last. We need to ensure we have that new pipeline of people to come through.'

Unpicking the broader benefits of the game

Naturally enthused by the power of rugby, Alphonsi sees benefits of playing and spectating on the game all around. She cites mixed ability rugby, and walking rugby, as two innovative ways in which the sport has evolved, opened it up to new people, and significantly helping to give people a 'post-rugby career'.

'We spend a lot of time talking about different ways to get people into the game, but I'm also interested in how we keep people in rugby for longer too, into later life,' she says. Post-playing career, Alphonsi has been a regular attendee at her local O2 Touch Centre to give her the feel of passing the ball again. 'The only way you're going to get that range of diverse people is if people can stay in the sport for longer,' she says.

At the other end of the game, she wants to use her position to inspire youngsters through the RFU's Schools Programmes. Having come from a challenging background, she

sees rugby as a key driver that can help lift people's aspirations and improve their life chances.

Alphonsi explains: 'I grew up on a Council estate, single parent family, no brother or sisters. I was surrounded by a lack of aspiration. There was no real drive, no real focus. A teacher introduced me to rugby, that got me on the direction, it enabled me to get my GCSEs, it enabled me to go to university, it enabled me to establish a career, it has given me a family. If it wasn't for rugby, I don't know where I'd be in my life. If I was to sum up rugby as a whole, it's always been a sport for all. Sport can give you a family, a direction, core values, and purpose. What rugby did for me was it really saved my life. But I think most importantly, rugby now just makes me smile.'



Rugby as a vehicle to better health

2.1. Key findings

- ➔ The health benefits of playing rugby outweigh the associated risks. Across the world people's participation in rugby is keeping them more physically active and healthier
- ➔ With so many adaptive forms, rugby is one of the most accessible sports to people of all ages, abilities, interests, and resources
- ➔ Around the world, player associations and rugby-based charities are leading the charge in destigmatising mental ill-health and help-seeking, especially amongst men – using rugby as a vehicle to promote better physical and mental health
- ➔ There are positive wellbeing benefits in people coming together to watch rugby in communities

2.2. Defining rugby's role in promoting better health

Whatever the level, rugby is health-enhancing for those who participate. A [2021 study](#) from the University of Edinburgh¹⁴ found that playing rugby significantly improves people's health and wellbeing, despite the associated risks of injury.

With eight million players across 120 countries, rugby has a vital role in helping the global population meet the World Health Organization's (WHO) physical activity goals. Not only is rugby a fun way to engage in regular physical activity, but it also offers an effective route to increase lean mass and strengthen muscle and bones.

Yet rugby's health benefits extend beyond individuals' physical health. Over recent years multiple initiatives have arisen, using rugby as a springboard to tackle the growing mental health challenges witnessed around the world. The past decade has seen [a significant rise](#) in mental health conditions, with one in five young people experiencing challenges¹⁵.

Here we consider rugby both as a driver for better physical health and also improved mental health. By drawing on initiatives across rugby, and reflections from key voices, it considers the ways in which both components to health are also interrelated: by increasing participation in rugby, the burden of mental health can also be reduced.

2.3. Rugby and physical health

According to [World Rugby](#), the health benefits of rugby¹⁶ are many and varied. At its most basic level, it's a means of increasing the time spent doing regular physical activity.

The World Health Organisation recommends at least 150 to 300 minutes of moderate aerobic activity per week (or the equivalent vigorous activity) for all adults, and an average of 60 minutes of moderate aerobic physical activity per day for children and adolescents.

Rugby is enjoyed by players young and old around the world. It promotes a healthy lifestyle and helps people of all shapes and sizes to stay fit and active. This is particularly relevant for young people, given rising the incidence for childhood inactivity and growing obesity.

With a dominance of female-orientated fitness or weight management programmes, men between the ages of 30 and 65 years old can typically be hard to engage in weight loss interventions.

Research from 2023¹⁷ finds that using rugby as a means to promote healthier living can be a gamechanger, in particular in motivating men who might otherwise be reluctant to engage in traditional exercise or diets.

60
minutes

Recommended average
time per week of moderate
aerobic physical activity
per day for children and
adolescents.

SECTION 2: RUGBY AS A VEHICLE TO BETTER HEALTH

Rugby as a tool to promote healthy living is currently being applied in various settings. In New Zealand, '[Rugby Fans in Training](#)' (RUFIT-NZ)¹⁷ is a healthy lifestyle programme for physically inactive, overweight men delivered through three New Zealand 'Super Rugby' clubs: the Blues, Crusaders, and Highlanders.

Through RUFIT-NZ, men in New Zealand are being given opportunities to train together in their team's stadium. With expert guidance, and by training groups of fans together, after 12 weeks of the RUFIT-NZ programme, those who participated lost on average 4 kg and 5 cm off their waist. This weight loss was sustained for a further 40 weeks. The participants also performed better on fitness tests, ate more fruit and vegetables, and reported better quality of life.

In North America, rugby is particularly popular amongst middle-aged men. Tournaments such as the 'Golden Oldies' Rugby Annual Festival and the 'Vintage Rugby World Carnival' are only open to players above 35 years old. These tournaments emphasise friendship, belonging, and enjoyment, as articulated in [this American study](#)¹⁸:

"Rugby has been a second family. In a club, you have men all ages, which can bring you drinking buddies, mentors, teachers, students, and brothers... rugby has given me people to ask for help and give help."¹⁸



"Space walks are physically challenging but also very mentally challenging. In the times you get exhausted in space flight, like the times you get exhausted during the 60th minute of a rugby match, you have to be more cued in mentally to what's going on."

Anne McClain is a NASA astronaut and a Colonel in the U.S. Army. She is also an accomplished athlete, having both competed in England's Women's Premiership Rugby and played for the United States Women's National Rugby Union team, including as Captain of US Rugby South Women's All-Stars.

After serving as a pilot, McClain made her way to NASA's prestigious astronaut program as an instructor and test pilot for the U.S. Army. She was selected as a member of the 21st NASA astronaut class and subsequently served as a flight engineer aboard the International Space Station (ISS), where she completed two space walks in 2018 and 2020.

In 2020, McClain was also announced as one of NASA's Artemis astronauts. The Artemis program - the major focus of NASA's spaceflight plans - will take astronauts back to the Moon for the first time in the 21st century. It's an exciting prospect for the next generation of space flight, and one where she thinks her experiences on the rugby pitch can help her.

'It's interesting to me how many parallels there are between playing rugby and going to space,' says McClain. 'Space walks are physically challenging - you are in the suit for 6 to 8 hours - but also very mentally challenging. In the times you get exhausted in space flight, like the times you get exhausted during the 60th minute of a rugby match, you have to be more cued in mentally to what's going on,' she says.

McClain, whose NASA call sign 'Animal' dates back to her bruising rugby days, says the physical and mental training for rugby has helped her tremendously in space. 'I hit that level of exhaustion on a space flight in a way I'd only ever felt on the rugby pitch, and I remember thinking I know I've felt this before, and I know I can push through this because of that experience I've had playing rugby.'

She also emphasises how the core rugby values of team ship and camaraderie have helped. 'The other parallel is that it's very much a team sport and each person has to individually prepare for that both on their personal time and also together as a team, in order to make it happen. Everyone has a distinctly different role,' she says. 'In space as on the rugby pitch, your success depends on you knowing, understanding and preparing for your own role, but also respecting and understanding other people's roles and bringing that together for game time.'

“I always felt like keeping my emotions in was the way to kind of deal with it. When you’ve got this knot in your stomach, you’re struggling to get up in the morning. Eventually, you start talking and it’s nearly like a gas valve releasing... I think it’s really important to be open about mental health.”²⁰

– Jack McGrath

2.4. Rugby and mental health

In recent years, rugby players’ associations have kicked off important conversations on mental health and are leading change by destigmatising mental ill-health and help-seeking through rugby. There are interactions between campaigns aimed at opening up conversations on mental health at both elite and community levels.

To date, destigmatising male mental health through rugby has been a particular focus. Rugby Players Ireland, for example, runs the all-island mental health and well-being campaign ‘[Tackle Your Feelings](#)’ (TYF)¹⁹. It features prominent players, such as Jack McGrath, sharing their own difficulties and encouraging individuals to seek help.

Through its player ambassadors, which also includes CJ Stander, John Cooney and Eimear Considine, TYF aims to challenge the narratives that keep individuals from seeking help. TYF also includes an app with educational resources for individuals, aimed particularly at young people and students.

Focused on understanding stress and emotions, improving communication, developing a support network and improving self-care, TYF’s online resources provide a comprehensive directory of counselling, and therapeutic services, catering to diverse needs. Since its launch in 2015, they have been viewed over 23 million times.

Similar campaigns have also taken off in other rugby nations. Launched in 2017, ‘[Headfirst](#)’²¹ is a mental wellbeing programme in New Zealand, which promotes speaking out and helping others within the community, as well as the use of online tools and resources to develop awareness and engage in self-care.

The ‘Headfirst’ platform also features self-tests on depression and anxiety. Through its campaigns, it has also organised large-scale crowd activations to promote help-seeking, such as ‘[A Moment Against Silence](#)’²² – an initiative encouraging fans of the New Zealand national team to make noise in stadia, to talk to fellow spectators and not to keep silent and separate.

In Scotland, a [Mental Wellbeing e-learning course](#)²³ developed in collaboration with health professionals to equip the rugby community with tools and techniques to support their mental wellbeing, as well as those of others around them. The course is available to anyone, free of charge.

Alongside player associations and rugby federations, others are setting up initiatives and foundations to destigmatise mental ill-health and help-seeking through rugby. The mission of the ‘[LooseHeadz Foundation](#)’²⁴ in the UK is to place a mental health lead into every rugby club around the world and equip them with resources to #TackleTheStigma.

CASE STUDY: TACKLING THE STIGMA OF MENTAL HEALTH WITH LOOSEHEADZ

LooseHeadz is rugby's mental health charity on a mission to place a mental health lead at every rugby club in the world.

It began as a conversation in a rugby clubhouse bar in 2017 between three friends who wanted to do more to help others who were going through tough times.

That conversation resulted in the birth of the charity which is now using rugby as the vehicle to open-up conversations around mental health by tackling stigmas; challenges which are particularly prevalent among men. It is built on a belief that through the togetherness achieved on the pitch, rugby has the unique ability to foster better mental outcomes for players.

This belief is backed up by its research too. In the UK, LooseHeadz has partnered with the Mental Health Foundation and found that over 93% of people involved in rugby believe it supports their mental health. Yet, despite increases, only 60% believe their rugby club currently does enough to support their mental health. LooseHeadz hopes to change this.

To model and showcase how teams can better support players, it is working with 'super clubs' where additional support has been put in place to help respond to growing mental health challenges. One of those is Sidmouth RFC whose director of rugby, John Dunn, sees this renewed focus on mental health as overwhelmingly positive.

93%

of people involved in rugby believe it supports their mental health.



CASE STUDY: TACKLING THE STIGMA OF MENTAL HEALTH WITH LOOSEHEADZ

“People have messaged us to say that we have saved their life or sent photos of their LooseHeadz tattoos as they say that it’s such a big part of their life.”

– Rob Shotton,
Co-Founder of
LooseHeadz

“It’s allowing people to open-up, and actually speak to each other about it,” he says. “We’ve set up a seniors’ network, allowing other players who want to talk to one of us the opportunity to do so. That never happened back when I was playing, but now it’s great that it’s out there and it’s a massive bonus for us to have LooseHeadz on board.”

For Rob Shotton, Co-Founder of LooseHeadz in the five years since it was established, the charity is demonstrating its impact across the board, but some of the stand-out successes are the individual stories. “People have messaged us to say that we have saved their life or sent photos of their LooseHeadz tattoos as they say that it’s such a big part of their life,” he explains.

With a focus on prevention, promotion, education, and signposting for better mental health outcomes, the charity is already

working with over 850 clubs in 20 countries. By deepening its engagement with clubs and the wider community, it has big ambitions for the future to increase its reach and impact around the world.

[‘Brave Mind’²⁵](#), is another UK-based initiative promoting better mental health with a particular focus on tackling toxic masculinity in the sport. Their goals include assisting UK-based rugby federations to create mental health modules for its Coaching Certification Programme as well as holding regular events across the UK and Ireland.

In Wales, Welshpool Rugby Club has partnered with Ponthafren, a mental health charity, to launch [‘Walk and Talk Walking Rugby’²⁶](#). The initiative, which is particularly popular amongst older adults, is helping individuals cope with isolation, loneliness, and overall deterioration in physical health.



2.5. The fan experience and wellbeing

Besides playing, watching rugby can also have a positive impact on fans' health and well-being. Consider the 2015 Rugby World Cup Final between Australia and New Zealand as an example; played in England, with a kick-off time well after midnight in Australia and New Zealand.

An [innovative study by Neville and colleagues \(2019\)](#)²⁷ analysed data collected from New Zealanders and Australians on the day of the final as well as one to five days after the final, to understand what impact a rugby final can have on the everyday citizen. In their diary entries, New Zealanders illustrated how they experienced more support and closeness with complete strangers in their communities as a result of winning.

Meanwhile, the survey results showed that these positive social interactions had indirect effects on New Zealanders' health, by increasing self-esteem and satisfaction with life. These benefits were not limited to those who watched the final, but also extended to people who identified as New Zealanders. In this way, the RWC can transcend its fan base to meaningfully affect the lives of fans and non-fans alike.



Looking up to new role models



Portia Woodman-Wickliffe is one of the most recognisable and successful players in the history of women's rugby.

Having dominated rugby sevens, as both an Olympic Gold Medallist and leading try scorer in the World Series, she is also a RWC winner helping the New Zealand Women's XV take home the title in 2017 and 2022.

In 2020 Woodman-Wickliffe was named as the top women's sevens player of the decade and in 2022 scored her 200th try on the World Sevens Series, a history-making feat as the first woman to do so.

Still at the top of her game, Woodman-Wickliffe is today's role model, and is using her profile to help inspire the next generation and to help create a more sustainable world.

Seizing opportunities

Rugby has always been in the DNA of Portia Woodman-Wickliffe. The daughter of men's New Zealand rugby star, Kawhena, and the niece to his brother, Fred – both of whom played for the New Zealand's men's national team in the 1980s – rugby was a big part of life growing up. Yet, in 1990s New Zealand, female role models were few and far between.

Woodman-Wickliffe recalls watching the 1999 RWC where Jonah Lomu thundered past England's backs. 'I just remember him bowling players over, thinking I would love the chance to be anything like him,' she says. Fast forward over two decades and Woodman-Wickliffe has won plaudits around the world for her skills and distinct similarities to the former New Zealand and Tongan legend.

The shift towards girl's and women's rugby has afforded her incredible opportunities to play at the highest level, across both rugby 7s and 15s. The success of the New Zealand women's teams, the quality and professionalism of the game, and the growing interest from fans, means it's a different time to be playing rugby for Woodman-Wickliffe's 10-year-old daughter.

'For young girls nowadays it's just an incredible opportunity and I think the more that it's out there, the more that it's seen, the more people support it. You know, when I first started in the sevens team, we had to download a VPN blocker just so that we can watch games online. Nowadays it's on TV every weekend,' she says.

An enhanced profile for women's rugby has been accompanied by great strides taken in professionalising the game,

"For young girls nowadays it's just an incredible opportunity and I think the more that it's out there, the more that it's seen, the more people support it."

including players being fully contracted, which all bodes well for its rising stars. 'For my daughter, say in 10 years' when she's paying, she'll have so many options, including to play overseas. The game has come such a long way,' Woodman-Wickliffe says.

Boosting confidence

Part of the reason for the game's success is down to players like Woodman-Wickliffe. Week in and week out she has shown what a powerful and captivating sport rugby can be. She attributes her own success to the values instilled in her by her parents, and to the team ship and camaraderie she has experienced on the rugby pitch which has boosted her confidence.

'Rugby for me has just been incredible. You're able to express yourself, whoever you are. That allows you to be confident in who you are, what strengths you have, possibly your weaknesses, and everyone else is going to help you work through that. I've met my best mates through rugby; people I'd go to war for,'

The strong bonds achieved on the pitch and in the dressing room have enabled Woodman-Wickliffe to push to the limits of physical fitness. Not many players revolve between a summer season of rugby 7s, followed by a winter season for the 15s. It's helped to give her greater self-awareness and resilience to cope when times are tough.

Woodman-Wickliffe recognises the value of the professional well-being support she's been able to access. 'It's really not until you go and work on yourself mentally that you get real progress in your game,' she says.

Whether at elite level or in the community Woodman-Wickliffe sees how rugby can help transform lives and can help as an outlet when players feel low. She's even taken to supporting young players and their families who stop her in the street, or contact her on social media, asking for advice about the game and their career in it.

'People will ask me things like 'I've got a daughter. She's 15-years-old, she's struggling with rugby at the moment. What can I do for her?' I say 'either allow her time to feel what she's feeling, encourage her to go out and play with her mates. That's why we play the game. She's only young. Allow her to go and experience other sports too,' Woodman-Wickliffe says.

Inspiring the next generation

Helping with the transition to more elite levels for young girls in the sport is something Woodman-Wickliffe is particularly passionate about, and is keen to emphasise the importance of seizing opportunities when they come your way. She is currently advising her niece, who is working to balance the demands of academic study with a fledgling rugby career.

As an ambassador for the game. She regularly visits local primary schools, including a recent visit to Te Puke in the Bay of Plenty, meeting and interacting with pupils. 'Having successful role models for our young children, for our young Māori kids around New Zealand, it's really important to me. So, if I can go into a school and I can see a bunch of kids who probably look a little bit shy, but they can absolutely smash it on the rugby pitch, I just think this

could be you one day and I think that's what's really cool,' she adds.

Woodman-Wickliffe is also using her platform to front new environmental campaigns. This includes launching a campaign with the meal kit delivery company 'HelloFresh', using rugby to tackle the growing problem of food waste in Aotearoa. Through the campaign, she pushed a scrum machine full of food waste to illustrate how much produce an average New Zealander throws away.

Looking ahead, Woodman-Wickliffe wants to continue to make an impact on and off the pitch. Crucially, she hopes more people will soon find the sport and reap its benefits. She's keen for women's rugby to make more of a spectacle around its events too and thinks in New Zealand there's an opportunity to increase merchandise around matches.

'That would be my dream, seeing different young girls with a jersey with my name on it,' she says. It's clear that many budding rugby stars in New Zealand and around the world regard her in the same way she looked up to Lomu. The more fans make their way through the gates to games, the more people will be energised by the women's game, she hopes.



Image is the property of VUSA

Rugby for education and empowerment

3.1. Key findings

- ➔ Across the world rugby is being used as a force for good to drive better educational outcomes and empowerment, in particular for young people
- ➔ The ethos of rugby makes the sport an important driver for character building and education, instilling values of respect, tolerance and discipline
- ➔ Numerous positive examples of rugby being used for 'sport for development' purposes exist from around the world, but to date there is limited research about the overall effects of these projects. More should be done to champion small-scale projects already making a difference
- ➔ The international rugby community can use major competitions, such as the RWC to act as a springboard to help further empower disenfranchised youth, helping them to aim high and achieve more

3.2. Understanding rugby as a vehicle for personal growth

Rugby's core values of teamwork, respect, enjoyment, discipline and sportsmanship transcend the sport and impact on individuals lives and life chances in myriad ways. Against a backdrop of unequal opportunity, rugby can level the playing field for young people around the world, motivating and empowering them to play better and aim higher.

Principally this is achieved through '[Sport-for-development programmes](#)'. [These use sport as a primary enabler](#)²⁸ to improve school attendance, promote better behaviours, instil leadership qualities, enhance employability and learning in students. They do this by developing capability and confidence on the field; values that are then reinforced back in the classroom.

Internationally via the UN, sport is officially recognised as an important enabler of sustainable development. It is considered an important driver for achieving at least 11 of the 17 Sustainable Development Goals²⁹ (Palathingal et al., 2018). Despite this, there has been an historic challenge in demonstrating and evaluating the impact of sport for development.

[A global assessment in June 2010 found a total of 1,033 sport for development programmes](#)²⁸ registered on Internet databases, though the actual figure could be much higher. These programmes use sport to include disadvantaged groups; to distract from anti-social behaviours; and, as a hook to introduce other services like tutoring.

Across the world and in different contexts to suit different needs, innovative rugby-based initiatives are developing and achieving outcomes that conventional schools have often been unable to. Rugby acts as the means to attract young people, and through it they learn key life skills and lessons which are helping to empower them to better futures.

3.3. Enhancing social mobility through rugby

This section assesses the impact of examples from around the world where rugby is being used in this way as a force for good and an enabler for better life chances

'Terres en Mêlées' – France / Burkino Faso

Pierre Gony is a former Stade Toulousain player who founded '[Terres en Mêlées](#)' (TeM)³⁰ in 2010. Based in Burkino Faso, its vision is to 'transform rugby into a powerful educational lever to raise awareness and mobilise young people in favour of sustainable development' across Africa.

"Rugby acts as the means to attract young people, and through it they learn key life skills and lessons which are helping to empower them to better futures."

SECTION 3: RUGBY FOR EDUCATION AND EMPOWERMENT

60%

of 30,000 young people in Madagascar rugby-based educational projects are girls.

Of all the sports played in Africa, TeM believes rugby has the attributes to imbue young people with the values and education needed for 'social development, living together, surpassing oneself, collective mobilisation and solidarity.'

Through its activities, it has developed rugby-based educational projects across Burkina Faso, Togo, Côte d'Ivoire, Madagascar, Benin, and Morocco – encouraging the growth of the game in areas otherwise unfamiliar with the sport.

In Madagascar, their programmes have reached more than 30,000 young people, at least 60% of whom are girls³¹. They have also trained 450 educators in their rugby-based curriculum and opened five training centres, with the primary aim of elevating the status of girls in society by involving them in sport and school.



23%

higher self-efficacy scores reported for young people participating in UmRio's programme'

Rugby is new in Brazil. This has enabled the team behind UmRio – a social enterprise based in Rio de Janeiro using rugby to enhance young people's life chances – to create a different sporting culture from scratch.

In the ten years since it was established, the programme has positively impacted over 5,000 young people aged between 6 - 25 in and around the city.

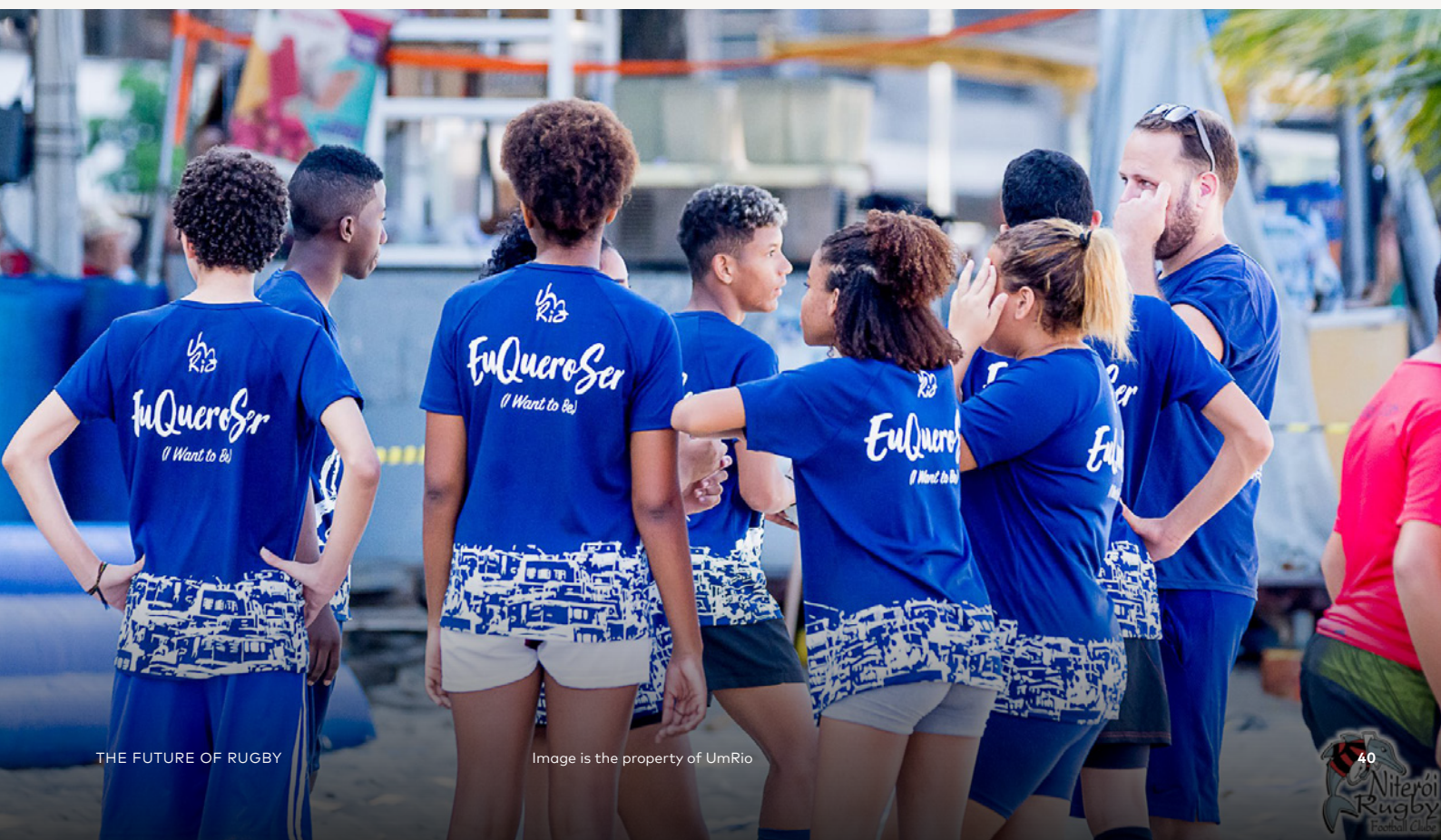
UmRio is on a mission to use rugby as a vehicle to help young people build confidence, access and forge new opportunities, and develop and pursue their aspirations. Its data collection systems have contributed to research which showed how participation in rugby improves

people's feeling of self-efficacy and their educational performance.

Through its activities in Rio, girls and boys who take part in the programme report self-efficacy scores 23% higher than their non-rugby playing peers. This translates as improved school grades too – academic scores for UmRio participants are 14% higher than the local average. This is helping local schools to succeed and flourish.

UmRio's impacts extend beyond education too. As a result of their involvement, participants on the programme are significantly more likely to undertake regular physical activity, to feel like they have a non-family support network to lean on, and to begin to take on leadership responsibilities.

This has resulted in young people, otherwise lost in the system, going back to school, being financially



93%

of UmRio's students reported having access to a safe space after only a year of participation – feeling more confident and empowered as a result.

supported through scholarships, and aiming higher with their aspirations. Young people whose life chances were once limited by crime and missed opportunity, are instead now considering top professions, and aiming for places at Brazil's top universities.

A reminder of the harsh environment its young participants grow up in, recently the brother of a UmRio participant was tragically killed by drug traffickers. Now aged 19, he reflects: 'If you compare our situations, they are identical, the only thing different is that from 2013 I had somewhere to go after school.' He has just been accepted to a prestigious university.

UmRio's job-readiness programme is helping to reposition young people's aspirations, by providing them with the tools, resources, and pathways to meet their full potential. As more young people take on leadership roles within the organisation, and seek to give back to younger generations, this cycle becomes a self-fulfilling prophecy.

Where issues of diversity create challenges for young people in Brazilian society, UmRio is playing an important role in inclusion, too. A quarter of its students self-define as being part of the LGBTQIA+ community. After a year of participating in the programme, 93% reported having access to a safe space, feeling more confident and empowered as a result.

Now the team are taking their model and applying it elsewhere in the world. In 2021, they piloted UmRio in East Jerusalem, with engagement in the programme increasing five-fold in just six months and plans to relaunch the programme in 2024. They have also supported rugby for development charities in the US, Kenya, and Cameroon.

'Our participants often refer to rugby as synonymous with family. In a context where rugby is still relatively unknown in Brazil, big competitions like the Rugby World Cup help to connect the young people we serve to something bigger and international,' said Robert Malengreau, Founder & President, UmRio.



89%

of SoHK's participants felt more hopeful about their futures.

The School of Hard Knocks (SoHK) began in 2009 as an eight-week life skills and employability course, based on the values and game of rugby, for a group of unemployed young men in Liverpool.

Over the years, public interest and awareness grew with a TV series fronted by rugby stars Scott Quinnell and Will Greenwood.

SoHK's Schools Programme is a three-year intervention that supports 1,787 students, aged 13 to 16 years old, in 37 schools located in deprived areas of London, Hertfordshire, Cardiff, and Edinburgh. Students who are part of the programme are typically underperforming, display

behavioural issues and / or are disenfranchised or marginalised in society.

Each week students in the programme participate in a rugby session, a classroom-based group discussion, and individual mentoring. These activities are supported by adults, who support young people to translate learning on the pitch into life lessons that improve their confidence, commitment, communication and self-control.

SoHK's activities are evidence-based and [informed by scientific research on coaching interventions to develop psychosocial skills in youth athletes](#)³². A recent survey on the [impact of their Schools Programme](#)³³ reported that 91% of participants felt more confident in their abilities; 90% felt more engaged at school; and, 89% were more hopeful about their futures.



CASE STUDY: 'SCHOOL OF HARD KNOCKS', UNITED KINGDOM

Académica Rugby – Portugal

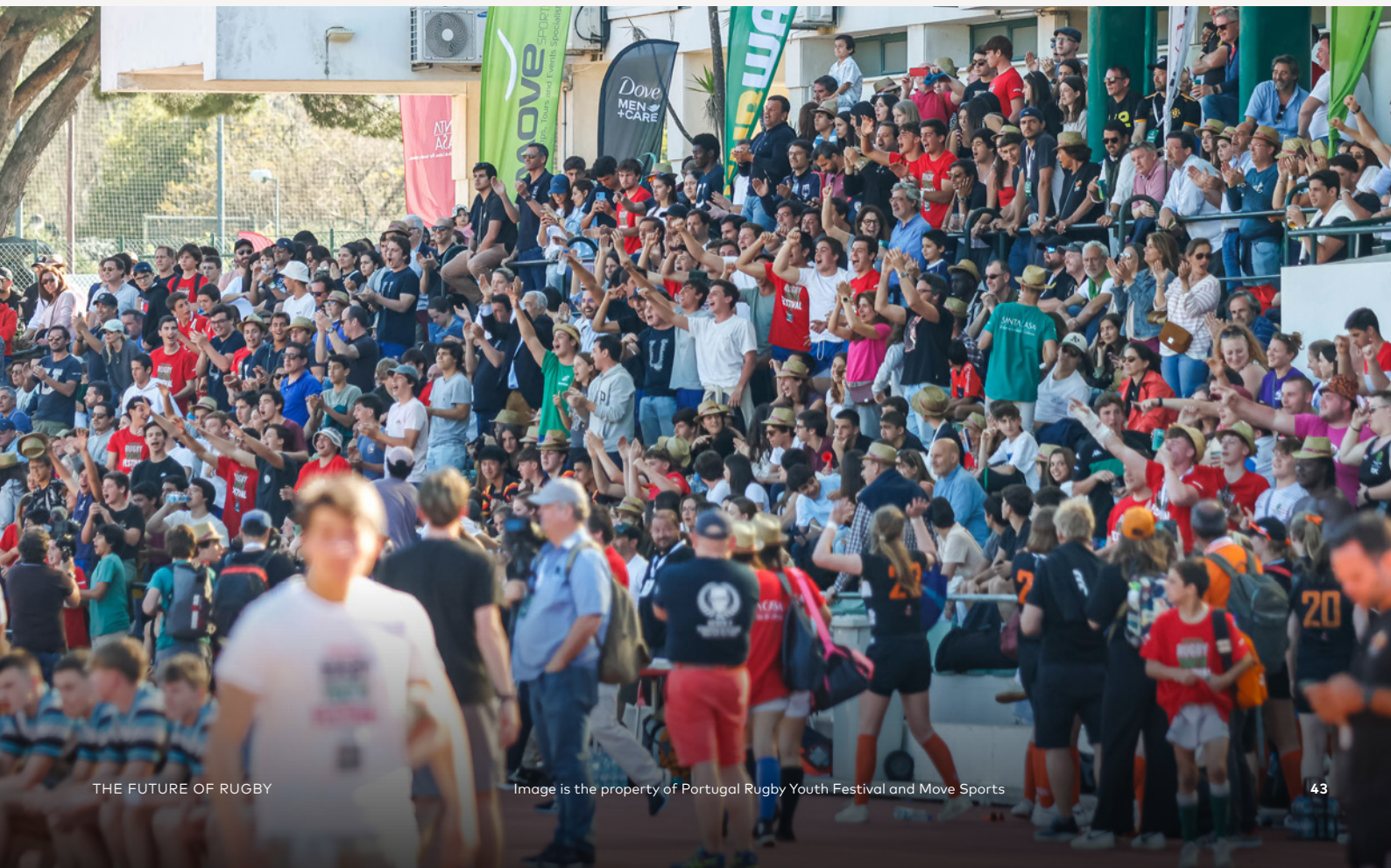
[Académica Rugby \(AAC\)](#)³⁴ is a Portuguese amateur rugby club that offers a year-long 'Play and Study' programme in collaboration with the University of Coimbra and Erasmus+ to young, university-going European rugby players who would like to combine their studies with a semi-professional rugby experience in Portugal.

Every year, Portugal hosts the '[Portugal Rugby Youth Festival](#)'³⁵ – billed as 'the greatest youth rugby

party in the world.' At the heart of the festival is the age group competitions for boys from under-13 to under-19, and girls from under-15 and under-19, which have drawn participation from more than 130 teams, more than 35 000 young athletes and from 25 different nationalities.

[Hendrik Grove, the coach of Windhoek High School in Namibia, whose team participates in the Rugby Youth Festival](#), says the experience benefits all young participants:

"For our rugby teams it enables us to participate in a strongly contested tournament at the start of the season. And in life it provides camaraderie, memorable experiences shared with other cultures. It also offers us a path to develop young people and a platform to promote our school on an international stage."³⁶



3000+

young people benefited
from VUSA Rugby
programme to date.

**In Cape Town, VUSA
Rugby offers a safe
space for children
from impoverished
backgrounds, where crime
and abuse are prevalent.**

This 'rugby for development' project teaches young people important life skills, such as teamwork, respect, and self-control, whilst giving them an outlet for their mental and physical health.

Working out the township of Langa, the programme is targeted at younger, primary school children. However, its impact is visible with older years too; given the high retention rate of its graduates mean that up to 95% of rugby players for the townships senior schools originally come from the programme.

By offering rugby as an outlet, the VUSA team is empowering young people by providing them opportunities to play and to develop. This ensures young people remain off the streets and away from socially destructive behaviours.

VUSA's founders attribute the programme's success to its coaches who are incredible role models for the young people it engages. They also think the model, which allows young people to play in the Cape Town Schools League against top teams, boosts children's confidence and expands their horizons. So far over 3,250 young people have benefited.

As a young boy who grew up in a nearby neighbourhood plagued with high crime and high substance abuse, Sikhumbuzo Notshe is one of those to benefit. He thinks VUSA has taught him invaluable life



lessons and helped him and others become better men in society. "VUSA helped me to fall in love with rugby and brought so much light upon my life," he said.

Apart from being on the programme, and given opportunities to play rugby regularly, another participant Ncedo Twaku says VUSA has helped him to see there is a greater life outside of his neighbourhood and encouraged him to dream bigger. He cherishes memories of watching South Africa play Australia, through an outreach trip organised by VUSA.

Competitions like the Rugby World Cup help in this endeavour. Witnessing rugby being played on the global stage empowers VUSA's young people with a sense of possibility and hope for their own futures, thinks Nikki Matthews, VUSA's Chief Operating Officer. The inspiring story of South African captain Siya Kolisi is one that resonates too.

She says: "Siya's journey from growing up in a township to leading the Springboks to victory in the Rugby World Cup is a testament to the potential and possibilities that exist for our young people. Seeing someone who looks like them, and comes from similar circumstances, achieving greatness on the world stage ignites a belief that they, too, can overcome their challenges and reach their dreams.

These big competitions create a sense of enthusiasm and engagement among our young participants. They watch the games with excitement, cheering their favourite teams and players, and it fosters a sense of connection with the global rugby community. The exposure to high-level rugby not only fuels their passion for the sport but reinforces the values of hard work, dedication, and determination required to achieve success."

'Rugby as a system of education' – Georgia

Georgia has a long and proud tradition of rugby. It is the country's most [popular sport](#) – and is home to their most successful national team – though the sport is not usually played at school level³⁷. More than two decades ago, the '[Rugby as a System of Education](#)' project was launched in the Samtskhe-Javakheti municipalities in Georgia³⁸.

The values, philosophy, and game of rugby were introduced to vulnerable and excluded young people, aged 10 to 18 years old, who lived in hostile multi-ethnic areas in Samtskhe-Javakheti where unemployment was high, agricultural businesses were under-developed, and social support and mobility were at an all-time low.

By interacting frequently with peers in their community who belonged to a different ethnic group, youngsters who were part of the project learned tolerance, friendship,

mutual respect, and inclusion. This has helped to reduce the likelihood of hostility between ethnic groups and brought greater stability to the shared environments they lived in.

Also through [the programme](#)³⁸, children began pursuing shared goals outside the pitch, such as attending leadership and citizenship training programmes, as well as seminars on the environment, social welfare, and creating change in their communities. Through rugby, participants learned to use rugby as a means to empower changes in their lives and local areas (Beyond Sport 2023).

Also from Georgia, in 2019, a film entitled '[Negative Numbers](#)', based on the true story of a juvenile detention centre in Tbilisi, Georgia, was shown at several film festivals in Europe³⁹. The movie follows a joint initiative of UNICEF, the Georgian Ministry of Corrections, and the Georgian Rugby Union to rehabilitate young offenders through learning and playing rugby.

The [initiative](#) was first introduced in 2011, with the coaching and help of professional rugby players⁴⁰. By 2017, up to 60 teenage boys were beneficiaries of the initiative, many of them continuing to play rugby after their release from detention centres.

“Rugby initiatives are proving an important enabler of UN sustainable development goals towards inclusive and quality education.”

3.4. Looking ahead

Many of these initiatives had humble beginnings and all have grown in size and scale, even in countries that do not have a large rugby-playing base. Looking ahead, there is an opportunity to embed these programmes and grow others across communities, leveraging the positive role rugby can play towards greater empowerment.

One way to do this is by championing legacy programmes tied to major tournaments. When England hosted the Rugby World Cup in 2015, its Department for Education funded 14 professional rugby clubs to draft coaches into schools to develop and deliver programmes, underpinned by rugby’s ethos and philosophy, to build character and resilience in students. For RWC 2019 in Japan, the global rugby family helped generate over GBPE2million for the tournament’s principal charity partner, ChildFund, to support rugby for development projects in Asia and beyond⁴¹.

Such rugby initiatives are proving an important enabler of UN sustainable development goals towards inclusive and quality education. The sport has many agents of change, from compassionate individuals like [Australian rugby coaches](#)⁴² who stamped down on bullying, to governments and organisations worldwide who partner, support, and uplift rugby-based initiatives.

As we kick-off the RWC this year, having Rugby au Coeur as the charity partner rugby provides a steppingstone to help achieve other inclusion goals of gender equality, sustainable and safe cities, and peaceful and inclusive societies, amongst others⁴³. Looking ahead, these positive examples can serve as a springboard for others using rugby for education and empowerment.



Using a platform to change lives through rugby



Widely regarded as one of the greatest and fastest players to ever play the game, Bryan Habana is a star of South African rugby. He was capped more than 100 times by his country and won almost every trophy the game has to offer.

First introduced to the sport as a young boy when Nelson Mandela's South Africa hosted its famous RWC in 1995, Habana's love affair with the game has grown over the three decades since. The retired South African rugby player is still active as a Mastercard RWC ambassador as well as ambassadorial commitments on the HSBC Sevens, a format of the game that he sees as an exciting entry point for new audiences around the globe.

In an effort to give back, and 'pay it forward', he has also established the Bryan Habana Foundation to channel the values and experiences he learned playing professional rugby to inspire the next generation of young South Africans.

The power of rugby

It's impossible to understand Bryan Habana's deep-rooted connection to

rugby and the power the sport can inspire, without going back to his early childhood in 1995. As a young boy, Habana remembers his father taking him to the opening game of the RWC in Cape Town; a game which would change his life forever.

He recalls, 'we drove down from Johannesburg, and I got to witness something which I had absolutely no emotional context into. We went to the quarter final where the late Chester Williams scored four tries against Samoa. We went to that rain-drenched semi-final, where the French probably still believe they won,' he said.

The experience was a hugely formative one for the young Habana. Only the third ever RWC, the tournament was the first in which every match was held in the same country. It was hosted and won by South Africa; the first major sporting event to take place in the country following the end of apartheid and the first time that South Africa could partake in the tournament.

'Being in that moment, seeing the incredible opportunity that sport has to impact lives was like nothing I've ever experienced before,' Habana says. Reflecting on the immortalised words of South African Captain, Francois Pienaar on receiving the RWC – 'we didn't

"Being in that moment, seeing the incredible opportunity that sport has to impact lives was like nothing I've ever experienced before."

have 60,000 South Africans [in the stadium], we had 43 million South Africans' – lit a fire inside the 12-year-old.

'If '95 hadn't happened to me as a youngster, then 2007 would have never happened,' he says. In 2007, Habana would finally get to take home his own RWC winners' medal, the last time the competition was hosted in France. It is an experience that will always stay with him, in particular for the impact it had back at home.

Channelling hope in South Africa

'Winning a trophy and a medal, it's all great, but it almost becomes insignificant when you see the power of sport to bring people together,' Habana reflects recounting the RWC trophy tour they had on their return to South Africa in 2007. 'The biggest impact for me was going through the Eastern Cape and there were young black kids running a kilometre or two behind the bus to get a glimpse of their heroes, a glimpse of the trophy, a glimpse of hope.'

Habana thinks rugby has been such a powerful force in South Africa as it gives people perspective on what's possible, irrespective of differences. 'It is this inclusive environment where each and every person is adding their skills to the greater good of the team, and everyone needs to contribute because without that you're not going to succeed,' he says.

More broadly, these positive ripple effects impact far and wide. 'Why sport is so successful is that it's not just those individuals on the ball, what it represents for a country is people being able to say that your

team, your country is the best in the world and celebrating that success creates unity,' Habana adds.

Inspiring lasting change

Now Habana is using the platform rugby has given him in an effort to give back. Following his retirement, he set up the Bryan Habana Foundation (BHF), whose motto 'train to lead, lead to change', encapsulates how he hopes to use it to continue to create positive, lasting impacts in South Africa.

'Sport gives you a platform that allows you to either continue a legacy, to create a legacy, or give the world back something that is so eagerly desired,' Habana explains. Through initiatives pioneered by the BHF, the team have used the core values of rugby to teach and inspire young adults, whilst also providing food relief and community development.

'Through our project 'Team Habana', we work with young adults, using some of the elements and values from rugby that I felt were very strong, through a one-year curriculum programme,' he explains. The programme requires young people to go back into their communities and complete up to 100 hours community service.

'Our slogan has always been 'one is better than none', and if you're making a difference in one person's life, you're hopefully having this cyclical effect of making a difference in two people's lives, four people's lives, and so on. As you do that you hope that continued positive momentum and changes continues,' Habana adds.

He reflects fondly on seeing the impact of where BHF beneficiaries

have gone back to their communities and are making a difference. 'We've had some incredible kids out of the BHF programme. These kids often don't know what's possible, so being able to make an impact on their lives has been really important to me,' Habana says.

Reigniting fans' passion for the game

Habana is also actively involved in rugby as an Ambassador on the HSBC Sevens. The Hong Kong 7s competition, held annually since 1976, is considered the premier tournament on the HSBC Sevens. Through it, he sees an ideal opportunity to grow the sport in new markets around the world.

The inclusion of 7s in the Olympics is also helping to cement rugby's position as a global sport, but in the years ahead Habana hopes rugby can build further on this, growing its market in Asia, and looking to the RWC in North America in 2031 as well. Habana describes North America and the US, in particular, as 'the sleeping, untouched giant' for the sport.

In the shorter term, on this year's RWC and the prospect of losing his own scoring record – in 2015 Habana equalled New Zealand rugby legend, Jonah Lomu's record 15 tries at the RWC 'Look it would be sad for me personally, but as a rugby lover it would mean the game is moving forward and records are meant to be broken.'



Fan engagement and the future fan experience

04

4.1. Key findings

- ➔ Over 800 million people follow rugby around the world, more than 10% of the world's population
- ➔ New markets have opened up, including in Asia, boosted by the success of the last men's RWC in Japan: 25% of the 'top 20' list for TV audiences for RWCs are now Asian countries
- ➔ The growth of the women's game has grown the sports fanbase and been boosted by major international competitions. A record-breaking crowd of nearly 60,000 watched England Women take on France at Twickenham in March 2023
- ➔ New opportunities are emerging, enabled by new technologies and social media, to enhance and augment the fan experience at matches, in the community, and at home
- ➔ In the future, wherever people watch rugby they will do so in more immersive ways. In stadia, this will include enhanced live analytics available to all; at home, this will include the roll-out of VR technology; and in the community, this could include experiencing matches together screened using player holograms

4.2. New markets, new fans

531 million rugby fans worldwide are the sport's lifeblood, and a further estimated 877 million followers² (World Rugby, 2019) provide opportunities for expanding and diversifying the game's supporter base. Rugby's fan base is young - half of fans are Millennials, born between the 1980s and 1990s (Global Web Index, 2019⁴⁴) - and it is more diverse and geographically spread than ever before.

Latest World Rugby (2019) estimates suggest there are over 140 million female rugby fans - a number that will have significantly expanded after the success of the women's Rugby World Cup 2021, held in New Zealand in 2022. Similar effects were observed following the last men's Rugby World Cup (RWC) hosted in Japan in 2019.

When Japan hosted the RWC, its fan base quadrupled from just 4% to nearly one fifth (16%) of its population. Across Asia, India, Thailand, The Philippines, Malaysia and Vietnam are now among the top 20 TV audiences for the RWC.

Of the emerging nations, both Brazil and India have the largest growing fan base, with around a quarter of the population (25% and 23%) classifying themselves as 'rugby fans.' Boosted by the hosting of international competitions in new markets, rugby's fanbase is extending beyond traditional nations and is growing globally.

With the men's RWC returning to France and Europe in 2023, rugby has the opportunity to solidify its fanbase and bring in new ones. In doing so, it has opportunities to further embed the power of rugby as a force for good beyond the big games, across education, health and the environment.

4.3. Spectatorship and opportunities for development

In person

Each week, rugby fans flock to stadiums around the world to watch matches. At the last men's RWC in 2019, 1.84 million match tickets were sold, leading to a record 99.3% attendance (World Rugby, 2019). Those watching rugby 'live' and in person represent 13% of the sports total fanbase (Global Web Index, 2019).

Attendance at women's matches is growing too; the record crowd for a women's match was broken in the RWC 2021 Final when a sold-out Eden Park in New Zealand saw 42,579 fans attend, only for this record to be smashed months later when 58,498 fans flooded Twickenham for the Women's 6 Nations decider between England v France in 2023.

At club level for the men's game, latest figures available for the 2022/23 season show that the 'Top 14' in France had a total attendance of

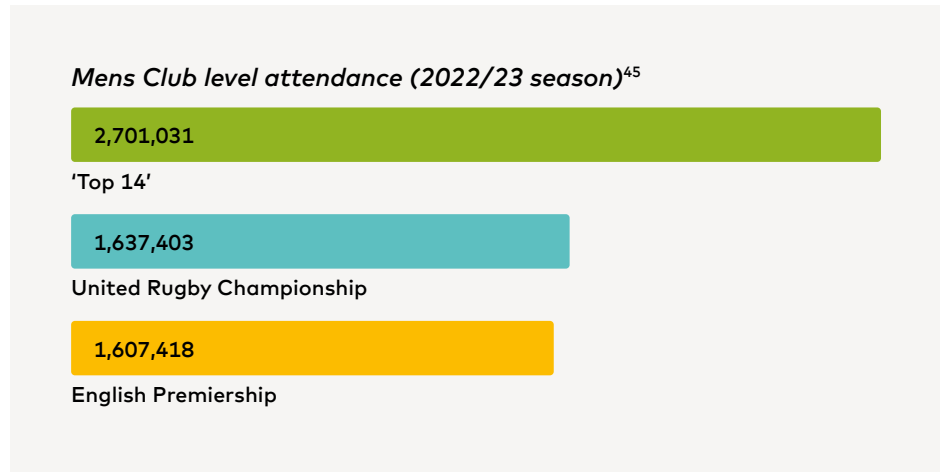
140
million

Estimated female rugby fans by World Rugby (2019).

99%

1.8 million match tickets sold at the last men's RWC 2019, leading to a record 99% attendance

2,701,031; the English Premiership, 1,607,418; and the United Rugby Championship involving teams from Ireland, Italy, Scotland, South Africa and Wales, 1,637,403.



"As fans continue to want to watch live sport, in stadia in person, there are emerging possibilities to augment their experience via new technology."

In person with enhanced technology

As fans continue to want to watch live sport, in stadia in person, there are emerging possibilities to augment their experience via new technology. Examples from other sports are showing what might be possible to create more immersive, engaging experiences for fans.

In the NBA, basketball fans can also use smartphones to replace players on the court with a 3D avatar of themselves, with a chance to view their movements and actions as a 360 experience⁴⁶.

Beyond stadia, in-person

Another emerging area for growing the fan experience involves groups watching the sport together. Fan parks can encourage attendance outside of the stadium (Rookwood, 2021), offering fans food and drink, entertainment, and activities before, during, and after the sporting spectacle which is shown on massive screens.

Such large-scale events have high resonance in Europe. During this autumn's RWC, France will host eight 'fan villages' for RWC 2023. Looking ahead to future competitions and tournaments, or for big games in domestic championships, there are opportunities to expand the availability of fan parks to increase rugby's reach into communities.

In the future, major European cities, where there is no professional club, such as Rome, could organise fan parks for supporters to congregate and support Italy. Such a concept could also be embraced in Georgia, where interest in rugby is growing. Fan parks allow supporters to meet fellow enthusiasts and build a sense of community.

Building a sustainable rugby future



Sébastien Chabal is one of the most iconic rugby players of a generation.

Nicknamed 'The Caveman' for his long hair, big beard, and towering frame, for over 15 years the French number eight and lock was a larger-than-life presence on the pitch for Bourgoin, Sale Sharks and Racing Métro 92 Paris, as well as for the national team. He played for France 62 times, winning the Six Nations twice.

Now retired, Chabal has returned to school, studying at the EM Lyon Business School, learning new skills which have enabled him to apply his talents and creativity seen on the rugby pitch through new business ventures, including as a wine grower.

From sportsman to businessman

Sébastien Chabal was not a man to mess with on the rugby pitch. Loved by fans for his distinctive look and take-no-prisoners playing approach, the powerful number eight struck fear in opponents' eyes, powered teams to victory, whilst inspiring 'Chabalmania' across France.

Away from the game and now retired, Chabal is now more often referred to as the 'hard man with a soft heart'. A post-playing career has seen him study enterprise, start a wine business, and champion new

initiatives that promote a more peaceful, united and sustainable world.

"For me, the transition from sports to business was quite easy. I chose to stop because I no longer wanted to train and make the effort to stay at the highest level. For almost four years, I had the chance to discover diverse and varied professional backgrounds. This time allowed me to better understand what I wanted and, especially, what I did not want," he explains.

It was whilst studying that Chabal could take stock of all that the game had given him. "During this period on the benches of the school I really realized what high level sport had brought me. Most striking was my ability to think differently, without barriers or preconceived models," he says.

The skills and awareness he learnt through rugby, in particular the importance of teamwork, are highly applicable for his life in business today, he says. "Becoming an entrepreneur after playing rugby professionally really made perfect sense," he adds.

Championing sustainability

As important in business as it is in sport, Chabal also reflects on lessons in sustainability. For him, rugby can play an important role in

"Sport is important for self-development; team sport is important for learning to live together; and collective 'combat' sport is important to learn respect and discover others."

responding to climate change. He thinks the sustainable development of the sport is essential both to minimise rugby's environmental impact but also to promote more responsible practices at a broader level, among fans.

He suggests that rugby can play its role in numerous ways. From improving infrastructure around the sport, to promoting greener food choices in stadiums, using renewable energy, or reducing fans' travel to grounds, there are numerous emerging examples of the positive action clubs and unions are taking to make their activities more sustainable.

He also sees an important role for the sport in minimizing waste, championing its own local and sustainable investments and, crucially, leading on education and awareness campaigns about the environment. "Sport and sporting events, such as the RWC, provide important opportunities to address broader issues in our society," he explains.

For Chabal, this all comes down to harnessing the power of the sport as a collective force for good which can inspire wider changes. Reflecting on his own personal journey, Chabal says rugby helped him to come out of his shell as a shy teenager – he came to the game late at 16 – and helped to give him drive and direction.

"Rugby built the introverted teenager that I was and gave him a place, a purpose and meaning," he says. "Sport is important for self-development; team sport is important for learning to live together; and collective 'combat' sport is important to learn respect and discover others."

Building bridges and the future fan experience

With his home nation gearing up to host this year's RWC 2023, Chabal now sees an opportunity to harness these positive influences with a much wider audience. He thinks France's hosting of this year's competition can have a significant impact in bringing disparate communities together behind a collective team effort.

"When the RWC takes place in a country, that creates a sense of national pride and a strengthening of cultural identity. Citizens from diverse backgrounds can come together to support their national team, and celebrate their shared heritage," he says. "Sport has the power to build bridges between communities."

Sports competitions like the RWC can transcend differences and help to forge positive relationships, he thinks. For example, showcasing a national team composed of players from different cultural and ethnic backgrounds helps highlight the diversity of those playing which in turn encourages the recognition and mutual respect of different communities.

Equally important, though, is how the sport can encourage tolerance between fans. By bringing people from all the world to France, the RWC offers communities a unique opportunity to promote mutual understanding. To maximize its positive impact, rugby need to ensure these efforts to promoting diversity are sustained beyond the event, he says.

Looking towards the future fan experience, he sees several major

changes on the horizon for the ways in which fans experience and engage with the sport brought about by technological, social developments and environmental issues. One of the ways in which he thinks rugby will grow and extend its role in new communities is through rugby sevens.

"The growth of the sevens game can allow rugby to reach far beyond its 'natural borders' into new markets around the world," he says. With interest from new rugby nations across Asia, in Africa and South America, rugby sevens can offer an important entry point for new fans which in turn can build rugby's profile and spur more positive and lasting effects.

“Replicating these in-person experiences for spectators watching at home represents another opportunity for development particularly with new technology, such as VR, which can augment the viewing experience wherever fans are in the world.”

New experiences for watching at home

Replicating these in-person experiences for spectators watching at home represents another opportunity for development particularly with new technology, such as VR (Capgemini, 2020), which can augment the viewing experience wherever fans are in the world. The technology has already been adopted in other sports, such as football^{47 48} (soccer).

Via VR headsets, the in-stadium atmosphere can be simulated for fans at home allowing them to experience the game from multiple angles, including from a player’s perspective, and to stream studio analysis of match highlights. This experience could also be supplemented by live analytics accessed via VR or on smart phones which could reveal a player’s speed and smart ball statistics, such as spin efficiency.

Elsewhere, an adaptation of [Mastercard’s Sonic Trophy](#)⁴⁹ – unveiled at the women’s RWC in 2021 and which immortalised live action audio from games including live commentary - could be commercialised to enable fans to relive big matches at home . Awarded to the Player of the Match for all 2021 RWC games the Trophy offered a unique way to celebrate.

The trophy is inspired by the Kaikaranga - a female Māori leader - and was awarded to those who demonstrated the same qualities on the pitch. A similar concept could be experienced by fans at home, capturing or livestreaming the stadium atmosphere and in doing so inspiring young athletes across the globe.



“In sports, such technology has recently been integrated, facilitating ‘phygital’ visits that enable someone to feel present when they are not physically there.”

35%

of sports fans now watch sports and interact with friends on the same screen simultaneously.

Another area of exciting development includes telepresence robots. These are robots controlled by computer, tablet or smartphone which allow people who interact with the robot to view and hear its operator, while the operator can view what the robot is ‘looking at.’ In sports, such technology has recently been integrated, facilitating ‘phygital’ visits that enable someone to feel present when they are not physically there.

Developed initially in education and professional settings, Awabot have expanded into sports, making matches accessible to fans unable to travel⁵⁰. For example, in France, this technology has been pioneered by Olympique Lyonnais and later used by the French Women’s National rugby team. It enabled hospitalised children to meet and join heroes behind the scenes. Telepresence robots could be further developed and commercialised to immerse wider fan audiences in pitch side views of matches and changing room celebrations.

Using technology to bring fans together

COVID-19 forced sports to re-think fan engagement and the fan experience. One solution, ‘watchalongs’, where fans can spectate on live matches via social media whilst simultaneously listening to live reactions and analysis from pundits and presenters is one growth area.

35% of sports fans have now watched sports and interacted with friends on the same screen simultaneously (Capgemini, 2020). Social influencers are developing this concept further.

Developments in social media over the past decade have helped the sport to grow and reach new audiences. Fans now stream matches on Twitter, engage with clubs via Facebook and interact with rugby players via Instagram and TikTok – also the official partner for the 6 Nations. Social media has helped to democratise the sport for new audiences.

On Instagram, TheRugbyGuy^{51 52} has 238,000 followers^{52 53} and 5.7 million TikTok likes. Known as ‘king of the goose step’, Jarryd Harris has created rugby-related content with Saracens and New Zealand and has met former players, including former Wales RWC captain Sam Warburton and Scotland legend Stuart Hogg.

In the community, rugby can also use new technology to bring fans together in different ways. Innovative examples from other sports, such as Canada’s National Hockey League where technology has enabled ‘replica matches’ to be projected onto pitches using real-time ball and player tracking, could enable more fans to engage, also reducing travel demands.

“‘Exergaming’ - technology-driven physical activities commonly in the form of video games - could allow fans to simulate core skills in their favourite sport.”

Gaming

Finally, the future fan experience is not limited to spectatorship or playing the game in-person. ‘Exergaming’ - technology-driven physical activities commonly in the form of video games - could allow fans to simulate core skills in their favourite sport.

Fitness Boxing, for example, involves performing punching and dodging manoeuvres, and has sold over a million copies around the world. It includes a choice of customisable coaches and difficulty levels tailored to the user’s needs. Rugby could develop exergames whereby fans perform passing, kicking, and jumping motions to perfect their skills.

Exergames could also have leader boards, allowing friends to compete. Alternatively, friends could join forces and complete challenges, embodying rugby’s team spirit whilst keeping active. Similar games might also be physically set up at fan parks, allowing all ages and abilities to test their skills by tackling inflatables, or passing balls through targets.

Alternatively, participation could take the form of Esports. Latest trends suggest Asian audiences watch and play more esports (Capgemini, 2020), and higher shares of people in RWC nations Chile, Portugal, and Romania also play video games (Statista, 2023). The imminent release of ‘Rugby 24’ from Nacon is an opportunity to drive rugby participation beyond physical, structured participation.

With licence for 130 international and club teams and players, fans can play as their favourite teams and superstars. Friends can team-up or compete against each other online: fans can even take their country to RWC glory. With developments in video game graphics and enhanced authenticity of gameplay, consumers can experience rugby esports like never before.

“Rugby now has an opportunity to expand immersive fan experiences, both in stadia but also in the community or at home, whether by bringing fans together in new spaces, or through new technology.”

4.4. Looking ahead

Rugby’s global fan base is growing, facilitated by its expansion into new demographics and markets. Rugby now has an opportunity to expand immersive fan experiences, both in stadia but also in the community or at home, whether by bringing fans together in new spaces, or through new technology.

Such infrastructure can grow the game whilst simultaneously reducing the need to travel in response to climate change or access. Whilst there could be barriers to physical participation for some fans, exergaming provides fans a healthy way of simulating the core skills of the game and growth of esports enhances rugby’s potential to reach participants around the globe.

Whilst for some there is no replacing 70,000 roaring fans on matchday, rugby should explore avenues to reach new fans and increase inclusivity. This can further enhance interest in the sport, grow its audiences in diverse and inclusive ways, and ensure more people have access to and can benefit from the power of the game.



Using rugby to inspire wider positive change



A firm fixture of the French national team since her debut in 2012 until her recent retirement, Safi N'Diaye is one of the world's best and her country's most prolific female rugby players.

Three appearances at the RWC for France – including being named as part of the RWC Dream Team in 2014 – three Six Nations Championships, two Grand Slams, and having twice been nominated as 'World Player of the Year', N'Diaye's flair has inspired people both on and off the pitch.

Having now hung up her boots, and with her country hosting this year's competition, she sees a unique opportunity to drive home the positive messages about the significant impact rugby can bring to individuals and communities, and the wider role the sport can play in helping to bring people together.

Playing to the home crowd

With the prospect of France hosting this year's RWC 2023 Safi N'Diaye is filled with real pride and excitement. She sees RWC 2023 as a golden opportunity to grow the game in new

communities but crucially to inspire and unite people behind the sport.

"This year's RWC is going to be an extraordinary event for all French people and for all rugby fans," she says. "France has shown over many years that it's a land of rugby, especially in the south. But the fact that the RWC will be throughout the country offers a real chance to reach new areas and inspire some lasting changes."

Following a turbulent political year in France, she hopes hosting the competition can act as a catalyst to bring disparate communities together. "A competition like the RWC can unite people, can show them that we're all wearing the same shirt, under the same flag, and striving for the same outcome – that's really important right now," she says.

With the French national team having never won the RWC but currently in the form of its life, she's also hoping for something exceptional. She'll be watching from the side-lines as part of the organising committee but first and foremost as a fan. Whatever the eventual outcome, she believes the six-week long event will attract new followers to the sport she loves.

"We'll see young people, boys and girls, who want to emulate the

"France has shown over many years that it's a land of rugby, especially in the south. But the fact that the RWC will be throughout the country offers a real chance to reach new areas and inspire some lasting changes."

success of their French rugby heroes. That's really important for future generations," she adds.

A catalyst for change

One of the transformative ways in which N'Diaye has seen the positive forces of rugby deployed is through innovative programmes which empower young, disenfranchised people in France. Through her club, Montpellier Hérault Rugby (MHR), and the Nazareth Institute, she has worked to pioneer a specific programme using rugby to inspire change in others.

This initiative revolves around the Inter ITEP national challenge^{53 54} - an unmissable, annual rugby event for hundreds of young people from all over France who have social or behavioural challenges. The tournament has been going for over 15 years and through it, young participants learn about the notions of fair play, respect and living together.

Whether it's through the national event or by creating a weekly workshop for young people, N'Diaye says the project helped participants to better manage their feelings, operate within rules and learn self-confidence and self-respect.

"More than I ever could have imagined, this work has shown me how the values of rugby can help to inspire and engage young people and help them to better integrate into society. Partly this is using rugby as a vehicle to help people succeed; partly it's about helping them cope when they fail" she says.

She reflects on the amazing experiences and 'second family' rugby has given her, as well as the core values of camaraderie and respect it taught her. "When we play, we talk about having a mission - of course to win matches, but also to show, through rugby, that anything is possible," she says.

For her, Rugby provides those who play it constant learning opportunities. That means learning from mistakes, but also committing to training and to games and pushing herself to her limits. "I've always given my absolute all to succeed, but if I don't get there, I still know it's not for want of trying - I'll have given it 150%," she adds.

New horizons and new audiences

The growth of the women's game throughout N'Diaye's career also embodies the idea that anything is possible. From her beginnings in the sport, where she remembers being asked about how games worked or whether the rules were the same as for the men's, she has been part of a movement which has helped transform its image.

"I've seen the evolution of women's rugby in its entirety, and its global reach," she says. "When I was little, you couldn't watch matches on the TV, I didn't have female rugby role models like today. That created a barrier. Nowadays the landscape for women's rugby has changed completely."

N'Diaye believes that more professional and formalised structures in France need to be put

in place in order to further grow the game. This means players being properly contracted and supported by a professional set-up. She looks to England for inspiration, for these structures, but also for its role models, like fellow Mastercard Ambassador, Maggie Alphonsi.

Now retired from playing, N'Diaye now wants to use her position to help the game evolve for the next generation of players and fans. "I still think I have lots of things to do in rugby. Yes, I won't be on the pitch with the ball, but I will be around to help and support the team and that's also going to be really important," she adds.



Image is the property of Green Gazelles Rugby Club

Rugby and the environment

5.1. Key findings

- ➔ Rugby can play a positive role in responding to climate change, leading by example and creating wider pro-environmental changes among fans
- ➔ Emissions modelling indicates that most emissions from rugby are related to supply chain impacts and fan travel in particular (an initial estimate of emissions for RWC 2023 in France suggests 640,000 tonnes of carbon will be generated)
- ➔ World Rugby was one of the first international federations to sign the UN Sports for Climate Action Framework and in January 2022 launched the World Rugby Environmental Sustainability Plan 2030, an ambitious strategy to reduce its environmental impact
- ➔ Looking towards the decade ahead, many clubs around the world have committed to achieve net zero carbon neutrality
- ➔ As traditional rugby nations, such as Fiji and Tonga face the direct effects of sea-level rise, and other rugby nations are pumelled by extreme weather events, the effects of climate change are beginning to directly impact the game⁵⁵
- ➔ Aligned with rugby's core values, the sport can play a key role in responding to the climate emergency in the years ahead

“The power of rugby to engage and inspire players and communities, and in alignment with the core values, there is an opportunity for rugby to show leadership which in turn will help to further grow the game for generations to come.”

5.2. Rugby's role in responding to climate change

As the world wakes up to the scale and challenges posed by climate change, environmental sustainability across the wider sporting world has gained prominence in media and policy debates. Through its activities and engagement with fans, rugby can have a significant impact on the environment and society at large.

Sustainability in sport speaks to the moral responsibility for protecting the environment, and a social responsibility to lead by example through good governance, accountability, and positive tangible actions. Rugby has a role to play in minimising its own carbon footprint, but also in shifting attitudes, behaviours, and social norms among those who follow the game.

This section explores the current state of environmental sustainability in rugby, providing examples of sustainable practices from various rugby clubs worldwide, and highlights the upcoming environmental considerations for the RWC 2023 in France. It also reflects examples from other sports, which rugby can learn from.

Ultimately, responding to the global challenge posed by climate change is not rugby's alone. Yet though the power of the sport to engage and inspire players and communities, and in alignment with the core values, there is an opportunity for rugby to show leadership which in turn will help to further grow the game for generations to come.

“The climate crisis is arguably the biggest challenge facing humanity and our planet's fragile ecosystems. It is affecting all areas of our lives and with it, our ability to play the sport we love.

“Although the climate and environmental impact of rugby and all its associated activities is relatively minor compared with other sectors, it is our moral responsibility to be strong advocates for environmental and social responsibility and show leadership through accountability, positive action and good governance.

“Following extensive work and consultation, we are very proud to be presenting our Environmental Sustainability Plan 2030. It is both a statement of intent and a tangible roadmap for tackling the environmental sustainability issues that both affect our sport and are affected by our sport.

“It is the beginning of a meaningful and exciting journey for all involved in rugby to play their part in tackling climate change, inspiring fans and our member unions to act and achieve our shared ambition to be a responsible sport.”

– Sir Bill Beaumont, World Rugby Chairman (Jan 2022)

“The UN Framework has five principles: to undertake systematic efforts to promote greater environmental responsibility; to reduce overall climate impact; to educate for climate action; to promote sustainable and responsible consumption; and to advocate for climate action through communication.”

Direct effects, tangible actions

Rugby is played by over 10 million people in 120 countries, with over 500 million fans. Many of these people, from diverse countries, are already experiencing environmental changes, caused by climate change, leading to extreme weather events which pose a risk to people’s lives, livelihoods, communities, and access to resources.

For example, The Solomon Islands, Fiji and Tonga - all compatriots of the international rugby community - are at significant risk already from climate change due to their low-lying coastal areas. As the UN Environment Programme highlighted in 2018, [climate change is wiping out the secret to Fiji’s international rugby success](#)⁵⁶.

Former Fijian rugby star and climate spokesperson, Eroni Sau – ‘The Fijian Sledgehammer’ - has used interviews to express regret that areas where he played rugby as a boy are already under-water. Whether for island nations in the South Pacific, or much larger ones like Australia or Italy suffering heatwaves, climate impacts are [transforming rugby](#)⁵⁷.

World Rugby acknowledges climate change affects all aspects of society and within that rugby communities around the world. In 2019 it was among the first organisations to sign the United Nations Sports for Climate Action Framework, committing itself to long-term sustainability goals through a structured plan to tackle climate challenges.

The UN Framework has five principles: to undertake systematic efforts to promote greater environmental responsibility; to reduce overall climate impact; to educate for climate action; to promote sustainable and responsible consumption; and to advocate for climate action through communication.

World Rugby has committed to reducing the environmental footprint of its activities; as well as delivering and supporting sustainable tournaments and promoting sustainability through education and advocacy. Its aim is to halve its emissions by 2030, without relying on offsetting.

World Rugby’s Environmental Sustainability Plan 2030 aims to take relevant and credible steps to minimise negative environmental impacts, whilst also adopting positive sustainable actions for change. To tackle environmental sustainability, World Rugby have focused on three areas:

- Climate Action (addressing the carbon footprint of rugby);
- Circular Economy (addressing single-use plastic, waste and short-life materials);
- Natural environmental protection (addressing how rugby can sustain healthier environments, wherever it is played).

World Rugby also contributed to the development of and is a signatory to the Sport for Nature Framework⁵⁸ supported by UN Environment, International Union for the Conservation of Nature, and the International Olympic Committee.

5.3. Initiatives in place

While rugby clubs are starting to recognise the importance of embedding sustainability in their strategies (see Munster Rugby case study), the sport is still in the early stages of adopting comprehensive environmental initiatives. Nonetheless, several clubs and governing bodies have taken positive steps to integrate sustainable practice into their operations.

Clubs and associated organisations are making a difference in a variety of ways: through climate education and empowerment initiatives, engendering pro-environmental changes among players and fans; and through direct actions in stadia, for example moving to renewable energy generation, conserving water, and reducing waste.



"We are determined to play our part and create a legacy for future generations. These initiatives provide us with a roadmap and a support network on our sustainability journey."

600+

solar PV panels installed at club's stadium in Cork.

In Ireland, Munster Rugby is one of only two rugby clubs in the world to have signed up to the UN Sports for Climate Action and Race to Zero frameworks.

These are science-led initiatives through which the club commits to reduce its carbon emissions by 50% by 2030 and achieve (net) zero by no later than 2040.

They have undertaken multiple actions across different areas including improving how it measures its carbon footprint, across scopes 1, 2, and 3. The exercise has allowed the club to identify hotspots where emissions are highest, revealing that 85% of its emissions are travel related (70% from fan travel).

On energy, the club has installed 644 solar PV panels at its Musgrave Park stadium in Cork helping to reduce

Munster's overall demand from the grid and avoid carbon emissions. On sunny days its PV panels will have the capacity to power the entire Musgrave Park campus: one of the largest renewable energy initiatives of its kind at an Irish sports stadium.

The club has also upgraded its lighting to LEDs, including floodlights at both its Musgrave Park and Thomond Park stadiums. Lowering the energy output of its floodlights from 248kW to 144kW is helping the club to achieve a further 42% energy reduction.

On travel, Munster's company car fleet is quickly transitioning to fully electric and they have also installed electric vehicle chargers in staff homes. The team are also tracking and measuring fans' travel behaviour, allowing them to design more sustainable solutions such as organised buses to stadiums and a walking campaign to shift transport choices for the 2023/24 season.





Image by Adrian (Pexels)

"Our aim is to be a leader in climate action in Ireland and in rugby globally, creating a legacy for rugby which we can pass onto future generations."

To reduce water usage and waste, Munster has partnered with ONA to provide filtered water refill stations across its properties. This is also being rolled out to fans, to ensure they use reusable bottles, and a scheme gifting its Supporters Club members with reusable coffee cups is helping to further reduce waste. Waterless urinals are installed at Thomond Park.

Philip Quinn, COO and Head of Sustainability at Munster Rugby, explains: "Rugby clubs have a special responsibility to raise awareness within communities and to facilitate fans to make more sustainable choices when enjoying and participating in rugby. At Munster we recognise that our actions can lead to a ripple effect, positively contributing to wider society and towards national and global climate targets."

"Our aim is to be a leader in climate action in Ireland and in rugby globally, creating a legacy for rugby which we can pass onto future generations. We intend to develop a cohesive sustainability strategy to link all our objectives and campaigns together into an easy to follow narrative, including all three pillars of sustainability – environmental, social and economic."

The club asserts that passionate fan-player and fan-fan connections can be extremely powerful in harnessing positive collective action when funnelled in new and exciting ways. Under the Munster motto - 'to the brave and the faithful, nothing is impossible' - it intends to take a lead and showcase how rugby can respond to the climate emergency.

Using rugby as a vehicle to shift public behaviours

One of the most effective ways in which rugby can demonstrate its commitment to the environment is by using its platform to change behaviours and attitudes among players and fans. By showing leadership, and educating followers on actions required to reduce emissions, the sport can have a positive, cascading ripple effect within communities.

Today, some clubs organise environmental awareness campaigns, tree planting initiatives, and beach clean-ups, fostering a sense of responsibility and care for the environment. 'The Highlanders', a super rugby team based in New Zealand, have shown commitment

to the environment by taking part in community tree planting campaigns and education sessions.

According to the UK's Centre for Climate Change & Social Transformations, one of the most impactful ways to reduce individual carbon emissions is to switch diets and go meat-free. In the UK in 2018, '[The Green Gazelles](#)'⁵⁹, the world's first all-vegan rugby club, was founded. It currently competes in 7s competitions with the aim of raising awareness of the benefits of a plant-based diets.

Transport is another key problem carbon emitter and efforts have been taken by clubs to encourage more sustainable transportation to matches and events which have gained traction. Some clubs have

partnered with public transportation services to provide shuttle buses on match days, reducing the number of individual car journeys and associated emissions.

Saracens playing in England's Premiership, has partnered with organisations to raise awareness about climate change, encouraging fans to use public transport to reach their stadium.

Efforts clubs are taking to promote pro-environmental behaviours are being reinforced by organisations such as Pledgeball, which uses the power of the sport to engender changes and is helping to achieve widespread carbon reductions through collective action among fans (see case study).



**CASE STUDY: ENGAGING FANS BY
PLEDGING TO MAKE A POSITIVE
ENVIRONMENTAL IMPACT**

“To engage the public on the serious question of climate change, different approaches are needed to connect climate change with the values of pre-existing communities.”

– Dr Mark Doidge
and Jenny Amann,
Loughborough University

Pledgeball is a research-driven organisation, based in the UK but operating internationally, that rallies sports fans to bring about changes to help to preserve the planet.

Supporters make lifestyle pledges, like reducing their meat consumption or reducing food waste, via the Pledgeball website.

At its heart, Pledgeball recognises that tackling climate change requires collective action. It sees the value in sport in driving these collective changes by encouraging and empowering groups to act collectively, be they as sports fans, teams competing, or even as groups of parents supporting their children’s sports teams together.

Initially conceived by Katie Cross, and further researched by Dr Mark Doidge of Loughborough University, now Pledgeball trustee, and his PhD student Jenny Amann, the team behind the initiative recognise that group action can be an important

motivator. It can offer support, encouragement, as well as a dose of healthy competition to bring about sustained changes.

The subsequent peer-reviewed research that now underpins Pledgeball highlights that the bonds between people that sport creates make it an ideal route to achieve intractable behaviour changes. As Doidge and Amann state, “To engage the public on the serious question of climate change, different approaches are needed to connect climate change with the values of pre-existing communities.”

Over the past two seasons, Pledgeball has worked with English Premiership Rugby Club Bristol Bears. Each season, the Bears select between four and six fixtures as Pledgeball fixtures which involves the club incentivising fans to make environmental pledges by offering prizes, such as signed shirts.

In the lead-up and during the game, the club encourages pledging over its media platforms and in the stadium itself, and communicates with fans about the cumulative



CASE STUDY: ENGAGING FANS BY PLEDGING TO MAKE A POSITIVE ENVIRONMENTAL IMPACT

effect their collective pledges have made to overall emission reductions. They also support awareness-raising campaigns through a 'Go Greener' fixture.

More broadly, Pledgeball is helping to interest the media in the role sports like rugby can play in response to climate change. The team have worked with Climate Outreach – climate change communications experts – to devise optimal approaches for communications and engagement. Across other sports, its 'Green Football Weekend' reached 30 million people.

To date and across all sports, over 110 000 pledges have been made through Pledgeball, which is an estimated reduction in emissions of 22 608 319 kg of CO₂e. Already in 2023, 4 200 people have pledged. Pledgeball's vision is now to instigate wider social shifts across rugby by engaging more fans in the issue of sustainability and the best routes to take action.

Leading by example through rugby facilities

Another way rugby can take a lead in responding to the climate crisis, is through direct actions taken at its

energy-sapping stadia and training grounds. Moving away from fossil fuels, towards renewable energy can play a significant role in improving a club's environmental footprint and steps have been taken to invest in renewables.

Leicester Tigers in England installed solar panels on their stadium roof, reducing their carbon footprint and energy costs. In Ireland, through a major installation of solar panels on the roof of Munster Rugby's stadium, on sunny days the team hopes to be able to power the club's total energy needs.

Multiple rugby clubs have also implemented recycling programs and waste reduction strategies. In New Zealand, the Crusaders have been actively recycling plastic, glass, and cardboard waste generated during matches and training sessions for a number of years. They have also introduced reusable cups to reduce single-use plastic waste.

Supporting the circular economy, Rugby World Cup Sevens 2022 in Cape Town, South Africa, activated a recycling initiative that converted stadium waste into a component of concrete building blocks that were in turn used to help build social housing in the region.

Twickenham Stadium in England have trialled 'Lyfecycle', 'self-destructing' plastic cups, as a part of the 'Define Your Legacy' campaign. This aims to tackle the issues of sustainability particularly the damage caused by plastic pollution from the sports industry. The cups deconstruct within two years, leaving behind no microplastics or toxins.

Elsewhere, to preserve precious water supplies, clubs such as Western Province Rugby in South Africa have introduced rainwater harvesting systems to irrigate their pitches and reduce reliance on municipal water. As awareness grows of the importance of these actions, more clubs around the world are likely to follow suit.

Waste from the sport is also being reduced thanks to organisations like SOS Kit Aid, World Rugby's kit collection and redistribution partner. The charity distributes second-hand and unused new rugby kits to disadvantaged youngsters. Already it has recycled over £6m worth of kit, diverting it from landfill and saving over 1500 tonnes of CO₂ emissions.



Learning from other sports

In football, the stand-out example of Forest Green Rovers (FGR) – an EFL League 2 team based in the UK – shows what is possible in terms of embedding sustainability within a club. Recognised by FIFA as the world's greenest club, from the organic pitch the team play on to the renewable energy that powers the floodlights and the vegetarian food fans eat, FGR live and breathe sustainability.

CASE STUDY: HARNESSING THE POWER OF SPORT FOR A GREENER PLANET – FAIR PLAY FOR PLANET

“Being certified with an FFPF label provides a benchmark giving sports entities concrete steps to improve their environmental performance.”

– Julien Pierre, former Clermont Auvergne Lock and FFPF founder

In France, international rugby great, Julien Pierre, is using the power of sport to drive positive environmental changes in clubs at all levels.

Since retiring from the game, the former Clermont Auvergne Lock, has used his rugby profile and passion for ecology to set up 'Fair Play for Planet' (FFPF), a social and solidarity economy company.

Established in November 2020 in cooperation with ADEME – the French Agency for Ecological Transition – FFPF is the first-ever 'eco-label' which certifies the commitments of clubs, events and sports sites to the environment. It

aims to allow sports organisations to grow sustainably and act responsibly to people and planet.

Being certified with an FFPF label provides a benchmark giving sports entities concrete steps to improve their environmental performance. The FFPF encourage practical, efficient and measurable changes. There are three levels of label, depending on the action taken, and clubs apply to renew their 'label' every two years.

Julien says that it was his upbringing that made him aware of the issues and led him to develop the FFPF.

“I grew up in an exceptional environment: the wildlife park of Les Sables d’Olonnes. Being close to animals pushed me very early to



**CASE STUDY: HARNESSING THE POWER
OF SPORT FOR A GREENER PLANET –
FAIR PLAY FOR PLANET**

“I have transposed the notions of respect and commitment that I learned in my childhood and throughout my whole career as a professional rugby player.”

– Julien Pierre, former Clermont Auvergne Lock and FFPF founder

respect nature and the living being. I have transposed the notions of respect and commitment that I learned in my childhood and throughout my whole career as a professional rugby player.

“During all these years on rugby pitches, I had the chance to play with the best players, to play in the best clubs, to win titles, and to wear the French team jersey. I realised that sport has a particular place in our society and that athletes are often seen as an example for young generations. By creating the FFPF label, I chose to be an actor for change,” he adds.

Already FFPF have succeeded in convincing big clubs across rugby, football and handball in France, including Olympique Lyonnais, Racing Club de Strasbourg, and ASM Clermont-Auvergne, to join. But Julien speaks with pride about the organisation's work with local and amateur sports organisations. Currently 50 organisations and individuals are signed up. Between

10% and 15% have not been awarded the label, no facilities have been awarded the 3-star label, only 2 facilities have been awarded the 2-star label (Section Paloise and Olympique Lyonnais) and the majority have been awarded the 1-star label.

“Sport plays a key role in our society, and the voice of sportsmen and women is extremely important these days. I believe that professional sport has a duty to set an example, while amateur sport has an extremely powerful educational and awareness-raising role to play for young people the world over,” he explained.

Longer term, they want to reach more clubs and players both in France and beyond. For Julien, the most important step to achieving this is for individuals involved in sport at all levels to understand the role it can play in helping to drive positive changes within organisations and beyond.

5.4. Men's RWC 2023 and environmental considerations

As one of the largest and most-watched sporting events globally, the RWC 2023 presents an excellent opportunity to promote sustainability and raise environmental awareness on a grand scale. In its mission statement, it sets out a vision of the 2023 tournament having 'the lowest impact on the climate and biodiversity' and 'the highest social impact.'

Key environmental projects included as part of this year's tournament include:

IMPLEMENTING A LOW CARBON TRANSPORT PLAN

France 2023 has been implementing a green mobility plan across the stakeholder ecosystem to prioritise low-carbon mobility:

- Teams: All journeys under 5.5 hours cannot be taken via air as per tournament policy. Teams will take regular commercial train lines to move around France for most of the journeys, including New Zealand from Lyon to Paris ahead of the opening match or Uruguay from Avignon in the south to Lille in the North to face hosts France.

SETTING AN EXAMPLE AND INSPIRING FANS

- Fans have been sent regular updates from tournament official sponsor SNCF and railway operator to incentivise train for in-country mobility
- Robust public transport plans are implemented in collaboration with host cities to prioritise public transport for travel from city to stadium
- France 2023 is offering a car sharing platform for fans to go to the stadium

“France 2023 will also present participants with medals made from recycled materials, such as old electronic items collected from rugby clubs and the public.”

CARBON ABSORPTION AND OFFSETTING SCHEMES

As the international event brings together teams and fans from across the globe, France acknowledges this environmental impact particularly of air travel by fans and teams and is committed to its mission by reabsorbing its carbon impact. Through the use of specific emissions calculations for air travel (approved by the ADEME), France will select a selection of certified programmes for carbon absorption worldwide. All tournament stakeholders will push the scrum in the same direction starting with France 2023 committing 1M€ to the programme, World Rugby contributing 200k€ to absorb teams, media and tournament guest programme’s emissions and the Lyon Metropolis offering 400k€ for inbound fan travel in their region.

RECYCLING AND SUSTAINABLE WASTE MANAGEMENT

France’s aim for the RWC is to minimise and manage what waste is produced in a sustainable way. In order to facilitate this, a number of specific sustainable waste recovery protocols have been identified such as setting up a sustainable waste collection and recovery system.

In addition to the organising committee’s sustainable sourcing plan, reducing single waste plastics through ecological alternatives, reusable cups, biodegradable containers and implementing a communication campaign to educate around sustainability will be in place. France 2023 will also present participants with medals made from recycled materials, such as old electronic items collected from rugby clubs and the public.

Continuing to make an impact on and off the pitch



Dan Carter is a true legend of the game. The top international points scorer in Test rugby and the most capped New Zealand Fly Half of all time, Carter played in 112 matches for New Zealand winning the Rugby World Cup twice.

Having retired from professional rugby in 2021, Carter has since transitioned from 'rugby superstar' to 'rugby dad', supporting and coaching his children's team. In partnership with UNICEF, he has also established the inspiring 'DC10 Fund' to help kids everywhere to dream big and achieve their goals as well as being a vehicle for health, education and empowerment. Working with communities in his neighbouring Pacific Islands, he sees a broader role for rugby too, in engendering wider societal and environmental changes. In the years ahead, he hopes rugby can take a lead in inspiring a cleaner, greener future for all.

Back in the community

Despite retiring from the professional game, Dan Carter is still very much active in rugby. Nowadays,

instead of playing in front of a 40,000 crowd, you'll more likely find him on the sidelines coaching his son's Under-8s rugby team, or even refereeing the odd game. It's an experience that is rekindling his early passion for rugby.

'I've really enjoyed it because it reminds me so much of my childhood and having my parents around, following me to games. Just that real sense of community. First and foremost, I love it for the smiles and energy you get from the kids who play; they just love it,' he says.

For Carter, rugby is 'one of the most accessible sports in the world for all shapes, sizes and ages.' Even his dad, aged 67, is still playing in the local Golden Oldies. 'At an age where a lot of people have retired from work, he's still working, he's still building, and a lot of that is because he's continued to play rugby and keep active,' he says.

Assessing the physical and mental health benefits

For physical as well as mental health, giving people access to rugby has huge benefits at all ages, he thinks. On mental health, Carter has been at the forefront of rugby campaigns to open conversations and improve support for players and rugby fans alike, including the #keeptheballgoing social media

"First and foremost, I love it for the smiles and energy you get from the kids who play; they just love it."

campaign and the annual 'Movember' event.

'Movember does great work around men's mental health and we started a global campaign of #keeptheballgoing, encouraging people to pass a rugby ball to three of their mates to check-in with them – and then pass on to three more friends – which went right around the world. It was a little reminder to say, 'I'm checking in on you', and, 'I'm here for you', Carter explains.

The landscape for using rugby to broach conversations about mental health has changed dramatically over recent years too, Carter remarks. Unlike the traditional image of rugby players as 'big staunch guys who bottle up their feelings', there is now much more openness about mental health at all levels of the game. This shift has been hugely positive, he thinks.

Another area where Carter observes exciting changes in the game in the years ahead – and which is helping to grow the sport's fanbase and give more players access to play - is women's rugby. He was part of the celebrations when New Zealand hosted the last women's RWC 2021 (held in 2022 due to Covid-19) and saw the effects it had.

'It was just huge. All of a sudden, my children changed posters on their wall to women's New Zealand rugby players. They took the men's posters down, and their favourite players were the likes of Ruby Tui and Portia Woodman-Wickliffe. It was a fantastic tournament, which

is only going to get bigger and better. It's great for women's sport and great for the sport more generally,' Carter says.

Championing a more sustainable future

Since retirement, Carter set up the DC10 Fund (after his playing number) in partnership with UNICEF for whom he has been an Ambassador over a number of years. The fund works to empower children and protect their rights throughout the world. A particular focus for this to date has been the South Pacific Islands, including rugby nations Tonga and Samoa.

'The Pacific Islands are our neighbours in New Zealand, so a lot of my teammates, a lot of the rugby community, are Pacific Islanders. They've given so much to the sport of rugby, so I wanted to support our Pacific Island brothers and sisters by giving back,' he explains. Whenever Carter visits these areas, rugby is never far away.

'Wherever I go, wherever I am, there's always a rugby ball. As soon as the kids get a rugby ball in their hands, they start kicking it, they start laughing, smiling, they start having fun. UNICEF's motto is that every child deserves the right to play; if that's the case they deserve to play rugby,' Carter quips.

Against stark statistics about childhood diseases, and in response to cyclones which have destroyed local communities, one DC10 initiative, 'The Wash Project' is

improving access to water, sanitation and hygiene facilities in medical centres and schools in the Pacific islands. It has already benefited thousands and is helping to inspire positive changes across generations in the Pacific Islands too.

Travelling to the island nations as part of this work has also brought Carter up-close to the effects of climate change and the visible impacts this is having on people's lives. Through his own fundraising efforts, he aims to support communities affected, but he sees a clear opportunity for the global rugby community to take and inspire pro-environmental action too.

'Rugby taking a lead on the environment would be hugely motivational. As a rugby player and custodian of the game, to know that the sport you love was thinking about future rugby players, continuing to build a legacy for the game in the years ahead; it would just be great to see rugby aspiring to be a global leader in that area and that of sustainability,' Carter says.



Key findings and recommendations



As the men's Rugby World Cup 2023 kicks off a seven-week celebration of the sport, we have highlighted the ways in which the game's core values of integrity, passion, solidarity, discipline, and respect help rugby to contribute to society beyond the white lines of the pitch and beyond the stadia lit up by the superstars of the men's game.

Through profiles of stars of the game and Mastercard global ambassadors, we have told compelling stories about how the people involved in rugby, have improved lives all over the world using the sport as a vehicle for change. But more can be done, and we hope these stories inspire others to pick up the ball and run with it.



Inspiring lasting change

The most powerful moment in Rugby World Cup history was Nelson Mandela's appearance at the 1995 final, won by South Africa, which was a moment of symbolic unity just few years after the official end of apartheid in the country. Mandela used rugby as an example of the benefit that sport can bring to society, and later said:

"Sport has the power to change the world. It has the power to inspire. It has the power to unite people in a way that little else does."

Bryan Habana vividly remembers that day at Ellis Park and cites it as the motivation for his own stellar career in rugby. He also reflected on the meaning of South Africa's Rugby World Cup 2007 victory to his compatriots, saying that it "gave them a sense of hope, gave them a sense of dignity, gave them a sense of what is potentially possible."



A sport for all shapes and sizes

The Mastercard global ambassadors we spoke to all highlighted the inclusivity of rugby, and this is often captured under the term 'a sport for all shapes and sizes'. Solidarity and respect underpin rugby as a culture and a community, as well as a place to learn new skills, and forge comradeship for all individuals, whatever their background.

The rapid growth of the women's game is a clear example of this success with player numbers swelling to 2.7 million women and girls around the world. In terms of spectators, the record for the biggest crowd at a women's game was broken twice in the past year; for RWC 2025 we anticipate that the final will see 82,000 fans flock to a sold-out Twickenham.

World Rugby reinforces inclusion as a key principle of the game, and rugby has also been breaking down barriers in relation to sexuality. Other examples of rugby's inclusivity are the growth of mixed ability rugby, deaf rugby, visually impaired rugby, and the work World Wheelchair Rugby is doing to promote and grow wheelchair rugby.

Paul Hunter likened rugby to "a brand under which various different forms of the game exist and can support each other." Going forwards, a focus on inclusivity offers elite and grassroots clubs the opportunity to bring the game to more diverse groups, and to grow the rugby family.

By 2027, we predict that all the top 10 ranked rugby nations will hold national festivals or competitions focused on participation of individuals with disabilities.



Creating healthier nations

With physical and mental health both key challenges across societies, rugby participation can contribute to keeping people more active and healthier. With so many adaptive forms, rugby is one of the most accessible sports to people of all ages, abilities, interests, and resources.

Although the health benefits exist, the spectre of injury and the perception of rugby as an injurious game, has always loomed large.

Almost all players around the world play at the community or grassroots level, and the risks of injury here have been consistently shown to be much lower than in the elite forms of the game.

Furthermore, there are ongoing extensive efforts by Unions and World Rugby to mitigate injury risk. This includes programmes like 'Activate' - an injury prevention exercise programme developed here at the University of Bath in partnership with England Rugby - which has been shown to reduce injury rates and is and is being rolled out across the globe.



A game for all ages

With changing population demographics, the opportunities and challenges for rugby are also changing. Attempts to grow the game have typically focused on bringing more young people in, but an ageing population creates new opportunities too. Maggie Alphonsi was clear that there should be a renewed focus on retention of players.

This may need thought about adapted forms of the game, but there is already a lot on offer, including mixed ability rugby, touch rugby and walking rugby. With Dan Carter's father still playing Golden Oldies rugby serves as an example that it is possible for some players to have extended playing careers even in the full contact version of the game.

In the future, providing a range of opportunities for people of all ages to play versions of rugby will help to grow the game and to contribute to positive physical and mental health.



Improving educational outcomes

Across the world, rugby is being used as a force for good to drive better educational outcomes and empowerment, in particular for young people. The ethos of rugby makes the sport an important driver for character building and education, instilling values of respect, tolerance, and discipline.

We found many examples of fantastic 'sport for development' programmes, but it can be difficult to quantify the impact of projects beyond powerful stories. Importantly, where programmes have been evaluated, there is strong evidence of the benefits of using rugby as a vehicle for change.

Portia Woodman-Wickliffe reflected on her visits to primary schools where the students remind her of her younger self, while Dan Carter always carries a rugby ball with him when visiting groups of young people and highlighted the joy that rugby brings. This ethos is reflected by RWC 2023's charity partner, Rugby au Cœur, and its mission for transformational social development to positively impact participants, communities, and wider society.

The international rugby community can use major competitions like the RWC to act as a springboard to help further empower disenfranchised youth, helping them to aim high and achieve more.



Evolving fan engagement

Integral to growing the positive impact of rugby around the world is to develop and evolve fan engagement. Over 800 million people around the world already follow rugby, more than 10% of the global population. New markets are developing in Asia, boosted by the success of RWC 2019 in Japan, and North America, with the USA hosting RWC 2031 and 2033, and the growth of the women's game is increasing and diversifying the sport's traditional fanbase.

Developing new technologies and engagement through social media content are enhancing and augmenting the fan experience and this will continue, with one eye on changing patterns of how new generations of fans consume sport. In the future, wherever people watch rugby they will do so in more immersive ways.

In stadia, this will include enhanced live analytics available to all; at home, this will include the roll-out of VR technology; and in the community, this could include experiencing matches together screened using player holograms.

Rugby must continue to innovate and to embrace opportunities to evolve the way it is experienced and this will underpin a growing global following.

Overall, rugby is well set to continue growing as a sport both on and off the field. World Rugby forecasts a further 10% growth in global followers and fans of the sport between 2021 and 2025. Meanwhile Mastercard's own research has predicted a 17% year on year increase in participation in Europe this world cup year, up from 24% of Europeans playing in 2022 to 28% in 2023.



Responding to existential climate threats

The biggest challenge facing global society is the changing climate. As part of this challenge, elite and community rugby are threatened by extreme weather events, with many already noticing the impact, and in particular the Pacific Islands. Rugby can play a key role as an enabler for pro-environment actions and we have seen many small-scale examples of initiatives from all over the world and tangible steps from World Rugby to embed sustainability into its operations and events.

Once more, the values of rugby are driving people's passion to deliver positive changes for communities. We see great opportunities in integrating new and exciting initiatives to create bigger, bolder and more consistent approaches to rugby's contribution to protecting our planet.

We can see examples of joined-up approaches in other sports and it is clear that rugby can take a lead by bringing its core values to bear and unleashing the power of the rugby community. In return, there are commercial benefits to positioning rugby as a sport that is fit for the future. Rugby is well-placed to take bold and proactive action to protect our environment and have an important impact on our planet's future.

We predict that by 2027, 50% of clubs in elite competitions around the world will be signatories to the UN Sports for Climate Action Framework each pledging ambitious actions.

As the effects of climate change begin to take hold and more people around the world experience direct impacts of extreme weather, the rugby community needs to use its profile and its position in communities to inspire quicker, bolder actions to mitigate and adapt to these challenges. Underpinned by the values of rugby which transcend our report, World Rugby, its member Unions and other stakeholders can help lead this charge and to put the sport at the forefront of this fight.

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References

1. Ernst & Young. (2020). Rugby World Cup 2019: Review of outcomes.
2. World Rugby. (2020). World Rugby: Year in review 2019 – pages 68-69.
3. World Rugby. (2022). World Rugby: Year in review 2021.
4. Kitson, R. (2022, November 22). Georgia and Portugal prove tectonic plates of global rugby are shifting. *The Guardian*.
5. MadeAtUnit. (n.d.). Showcasing the contribution of UK universities to bold and impactful climate action.
6. University of Bath. (n.d.). Research portal: Keith Stokes.
7. University of Bath. (n.d.). "Crouch, Bind, Set" technique leads to safer rugby scrums.
8. University of Bath. Reducing injuries in youth and adult rugby union.
9. New Zealand Rugby. (2023, April 5). Transformative 10-year women and girls rugby strategy launched.
10. World Deaf Rugby. (2018). [World Deaf Rugby overview](#).
11. Vision Foundation. (2020, February 9). [Visually impaired rugby brings new life to an old sport](#).
12. World Rugby. (2023). [Colour blindness in rugby](#).
13. Rugby World Cup. (2023, May 17). France 2023 stands with LGBTQIA+ communities through its "Rugby is my Pride" programme.
14. Griffin, S. A., Perera, N. K. P., Murray, A., Hartley, C., Fawkner, S. G., Kemp, S. P. T., Stokes, K., & Kelly, P. (2021). The relationships between rugby union, and health and well-being: A scoping review. *British Journal of Sports Medicine*, 55(6), 319-326.
15. World Health Organization. (n.d.). [Mental health](#).
16. World Rugby. (n.d.). [Rugby ready: Lifestyle](#).
17. Maddison, R., Hargreaves, E. A., Jiang, Y., Calder, A. J., Wyke, S., Gray, C. M., Hunt, K., Lubans, D. R., Eyles, H., Draper, N., Heke, I., Kara, S., Sundborn, G., Aradnjus, C., Gao, L., Lee, P., Lim, M., & Marsh, S. (2023). Rugby Fans in Training New Zealand (RUFIT NZ): A randomized controlled trial to assess the effectiveness of a healthy lifestyle program for overweight men delivered through professional rugby clubs. *International Journal of Behavioral Nutrition and Physical Activity*, 20(1), 1-16.
18. Dong, E., Zhang, L., Choe, J., & Pugh, S. (2013). Rugby union among middle-aged American men: An exploration. *Leisure Studies*, 32(2), 219-228.
19. Tackle Your Feelings. (2023). [About the campaign: Take control of your mental wellbeing](#).
20. Zurich Ireland. (2016, November 21). [Tackle Your Feelings - Jack McGrath \[Video\]](#). YouTube.
21. New Zealand Rugby Union. (2023). [Headfirst: Rugby's mental wellbeing programme](#).
22. New Zealand Rugby. (2019, September 3). [Moment against silence \[Video\]](#). Facebook.
23. Scottish Rugby Union. (2023). [Mental wellbeing](#).
24. LooseHeadz. (2023). [Our mission](#).
25. Brave Mind. (2023). [Who are we?](#)
26. NHS Wales Powys Teaching Health Board. (n.d.). [Fancy getting active? Try walk and talk rugby!](#)
27. Neville, F. G., Franssen, K., Giammei, G., Haslam, S. A., Hunter, J., Mavor, K., Platow, M., Reicher, S. D., & Reynolds, K. (2019, June 28 – 30). [The day after you win the World Cup: The transformative power of international sporting success for social cohesion, intragroup interactions and health \[Oral presentation\]](#). 2nd International Conference on Social Identity in Sport, Stirling, Scotland
28. Hancock, M. G., Lyras, A., & Ha, J. -P. (2013). Sport for development programmes for girls and women: A global assessment. *Journal of Sport for Development*, 1(1), 15-24.
29. Adesida, B., & Sustainable Development Goals Fund. (2018). [The contribution of sports to the achievement of the sustainable development goals: A toolkit for action](#).
30. Terres en Mêlées. (n.d.). [Mission and impacts](#).
31. Terres en Mêlées. (n.d.). [Our major partners](#).
32. Harwood, C. G., Barker, J. B., & Anderson, R. (2015). Psychosocial development in youth soccer players: Assessing the effectiveness of the 5Cs intervention program. *The Sport Psychologist*, 29(4), 319-334.
33. School of Hard Knocks. (2023). [SOHK Schools Programme](#).
34. Académica Rugby. (n.d.). [Play and study program: Funded program for European university rugby players](#).
35. Move Sports. (2023, March 17). [Portugal Rugby Youth Festival: 15 years of rugby youth growth](#).
36. Move Sports. (2023). [Portugal Rugby Youth Festival: Previous participants](#).
37. Thomas, S. (2017, November 17). [The remarkable rise of rugby in Georgia, where players bleed for their country and have Wales in their sights](#). Wales Online.
38. Beyond Sport. (2023). [Rugby as a system of education](#).
39. Beria, U. (2019). [Negative numbers \[Film\]](#). 1991 Productions.
40. UNICEF. (2017, June 14). [A new feature film is being produced on the role of rugby in rehabilitative of children in conflict with the law](#).
41. World Rugby. (2019, September 11). [Global rugby family pledges record-breaking £2m to ChildFund Pass It Back initiative](#).
42. Gaul, S. (2006). Boys singing their hearts out: a school where choir is cool. *Boys in Schools Bulletin*, 9(2), 25-28.
43. Rugby World Cup. (2021, June 21). [Rugby for social development at the centre of transformational RWC 2023 Official Charity Rugby au Cœur](#).
44. Global Web Index. (2019). [Sports around the world](#).
45. Rugby Rucker. (2017, May 21). [Biggest average attendances in European rugby this season – top 20 revealed](#).
46. McCaskill, S. (2023, February 20). [NBA's AR tech lets fans add themselves into live games](#). SportsPro Media.
47. Sky Sports Premier League. (2019, November 26). [Jamie Carragher uses virtual reality to try and defend Riyad Mahrez's goal against Chelsea | MNF \[Video\]](#). YouTube.
48. Awabot. (n.d.). [To build your Human-robot relationship](#).
49. Mastercard News. (2022, October 7). [Mastercard presents sonic trophy to rugby World Cup 2021 player of the match recipients \[Video\]](#). YouTube.
50. Awabot. (2023, May 23). [Sport: Inclusion on every field thanks to telepresence](#).
51. The Rugby Guy. (n.d.). [Home \[YouTube channel\]](#). YouTube. Retrieved August 8, 2023
52. The Rugby Guy [@therugbyguy]. (n.d.). [Posts \[Instagram profile\]](#). Instagram. Retrieved August 8, 2023
53. Montpellier Hérault Rugby. (2018, June 22). [Challenge inter ITEP 2018: Au service d'un rugby inclusive \[Inter ITEP challenge 2018: At the service of inclusive rugby\]](#).
54. Action-Sociale. (n.d.). [Institut thérapeutique éducatif et pédagogique \(ITEP\) \[Educational and pedagogical therapeutic institute \(ITEP\)\]](#).
55. Campelli, M. (2021, November 25). [Rugby must harness its unique qualities to safeguard its future](#). The Sustainability Report.
56. United Nations Environment Programme. (2018, September 25). [Climate change is wiping out the secret to Fiji's international rugby success](#).
57. The Climate Reality Project. (2020, July 2020). [Dangerous play: Is climate change bringing an end to rugby as we know it?](#)
58. International Union for Conservation of Nature and Natural Resources. (n.d.). [Sports for nature framework](#).
59. Green Gazelles Rugby Club. (n.d.). [Welcome to the Green Gazelles](#).

