

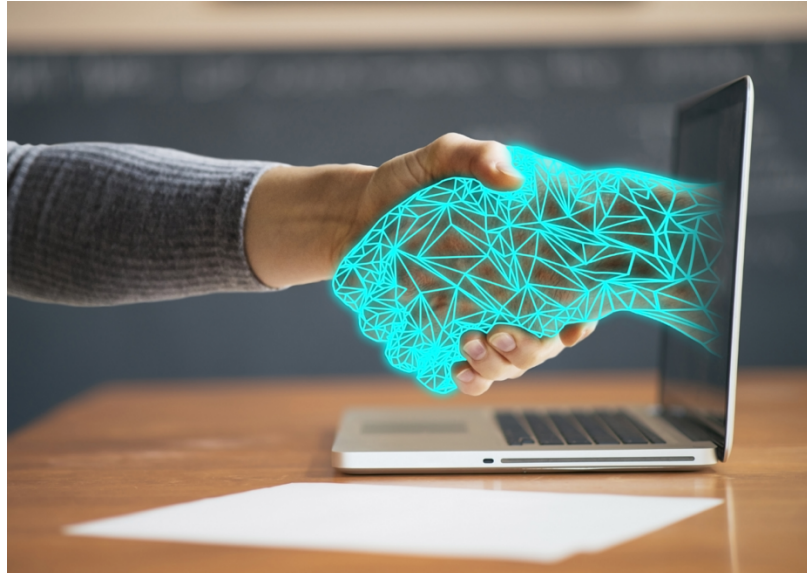


THE UNIVERSITY
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Data-Driven
Innovation

Building Back Better, Data-Driven Innovation and the Scottish Football Industry¹



Micro Briefing: Scottish Football Building Back Better

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¹ We are grateful for the support and co-operation given to this study from the four football clubs that participated in the study (Aberdeen, Heart of Midlothian, Hibernian, and Motherwell) and Scottish Football Association.

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Introduction³

1. Football is Scotland's most popular sport. It delivers in communities and connects with those on the margins of society on a scale that other sports fail to match. Football clubs are anchor institutions within Scottish communities. They do not exist in isolation from the broader forces that affect the people, communities, and countries in which they are situated- including the Covid-19 pandemic.
2. This series of micro briefings on the Scottish Football Industry have resulted from a Scottish Funding Council funded Data-Driven Innovation Initiative as part of the '[Building Back Better](#)' open funding call, helping to transform the City region into the data capital of Europe. The Scottish Funding Council has provided £75m funding to boost the Scottish university research, to contribute to the mitigation of effects of Covid-19 pandemic. The University of Edinburgh received £23.2m of these funds.
3. The data-driven approach to Covid-19 recovery and job retention in the Scottish football industry project was led by the University of Edinburgh's Academy of Sport⁴ in partnership with the Bayes Centre⁵.
4. The project was designed to (i) produce unique data sets that could help the Scottish football industry build back better from Covid-19 and (ii) demonstrate the potential of the University of Edinburgh's capability to inform and further support both the football industry and the broader sports industry.
5. The project consisted of three sets of data-driven activities: (i) an analysis of Scottish football sentiment and networks, generated through online communications; (ii) a spatial and demographic analysis of supporters and non-supporters; and (iii) a cataloguing of a Scottish football data set.
6. This micro briefing - ***Scottish Football Building Back Better*** - limits itself to a short overview of the impact of Covid -19 on Scottish Football and the key recommendations arising out of the research carried out between March and August 2021. This report is supported by a series of data rich micro-briefings including (i) Scottish Women's Football; (ii) International Engagement through Scottish Football Clubs; (iii) International Engagement and the European 2020/21 Football Championships; (iii) A Geo-Spatial Analysis of Scottish Football; (iv) 4 bespoke briefing papers for each of the partner football clubs Aberdeen, Heart of Midlothian, Hibernian and Motherwell; and (v) Fans, Influencers and Key Brokers: A Sentiment Analysis of Scottish Football.

Scottish Football and the Impact of Covid-19

7. The history of infections such as Polio, Spanish flu, AIDS, Ebola, SARS and Zika virus should have provided lessons for football and sport to develop more resilient operating systems. The 2014-2016 Ebola epidemic in Western Africa had various implications for sport. Athletes from affected countries were banned from competing

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in international competitions, including the 2014 Summer Youth Olympics in Nanjing, and the African Football Cup of Nations.

8. A study of three major sporting events that took place safely during the epidemic concluded that plans for early and rapid detection of the disease, constant surveillance in key locations such as stadiums and airports, and cross-sectoral collaboration would help ensure the safe staging of international sporting events. This was not the first study to point out that a preventive and anticipative attitude is effective in building resilience to infectious diseases within a sporting context. Furthermore, an essential feature of both a resilient health system and a more resilient sports system was public trust in both⁶.
9. Such health problems are unequally distributed across society with the poorer more likely to be chronically ill. According to one of Scotland's former Chief Medical Officers, there is a synergy between the virus and the socioeconomic environment in which many people live⁷. Health, sport, and football in Scotland have all been impacted by what the Marmot Review of Covid-19 referred to as the social gradient⁸. What impact has the pandemic had for example on the para football community, walking football groups, or women's football in Scotland in a year that saw the game for women go professional?
10. There was/is a need for football clubs to understand and quantify the impact that Covid-19 has had on both the immediate communities in which Scottish football stadiums in Scotland are located, but also the wider communities that are reached by the clubs. For example, how has the pandemic affected, for example, household purchasing capability⁹?
11. The 2020 Toronto Report 2020 to the *Commonwealth Ministers Advisory Board on Sport* (CABOS), one of the earliest reports to assess the early impact of Covid-19 within the sport context, stated that few countries were prepared for the pandemic as participation in sport and physical activity levels fell significantly.
12. Sports organisations responded quickly with "heroic volunteering", preventative health messaging, the repurposing of facilities for emergency shelters and food depots adapting to alternative technological driven business ways of working and innovative approaches to creating new activities in restricted environments, co-operating with governments and public health experts to develop safe return to sport guidelines and suggesting initial build back better guidelines¹⁰.
13. The European Commission's report on the economic impact of the pandemic on the sport sector referred to a wide range of impacts including broader economic changes,

⁶ Cannarella, C. (2020). Building pandemic resilience within sport systems: A case study of sport's response to the Covid-19 pandemic. Research Dissertation. Edinburgh: Edinburgh University.

⁷ Burns, H. (2021). Let's start preparing for the next pandemic once this is over. *The Scotsman* 25 February 2021, p21.

⁸ The Marmot Review (2020). [Build back fairer: The Covid-19 Marmot Review](#). London: The Health Foundation. [retrieved 4 March 2021].

⁹ McLaughlin, M. (2021). Covid deaths higher near Scottish football grounds. *The Times*. 12 March 2021, p11.

¹⁰ University of Toronto Centre for the Study of Sport Policy Report (2020). [The Implications of Covid-19 for Community Sport and Sport for Development](#). November 2020 [retrieved 4 March 2021].

reduced governmental income, cancellation of events, reduced sponsorship money, reduced member financing, reduced sports broadcasting income, reduced sports tourism income, and reduced production and retail of sporting goods and equipment due to the closure of production facilities and retail trade. It warned that wider economic changes were likely to impact in a variety of ways. It pointed to the likelihood that the demand for goods and services would be reduced due to unemployment, reduced working hours and/or fear of infection. Export slumps could arise due to a lack of transport facilities and lower demand. Supply could be considerably affected by lockdown and social distancing measures, thus affecting employment across the sector both in the short- and long-term.

14. It is worth briefly commenting upon the scale, reach and importance of football to Scotland. Football should be recognised more for the contribution that it makes to the unofficial social contract in Scotland and beyond Scotland because of the international reach that Scottish football and Scottish clubs have in different parts of the world. *The Social Return on Investment from Football* has been calculated it as being worth £1.25 billion to Scottish society¹¹. The UEFA- funded study suggests that football contributes £200m directly into the Scottish economy, £300m worth of social benefits and £700m worth of health benefits.
15. The lockdown in response to the pandemic started in March 2020. Between 2014-15 and 2018-19, matchday revenue increased from £39m to £102m, broadcast income increased from £21m to £45m, and commercial revenue jumped from £43m to £65m. A new Sky Sports five-year domestic broadcasting rights deal was expected to deliver a 20% increase in revenue by the end of 2020/21¹².

	2018/19	2017/18	2016/17	2015/16	2014/15
Matchday	£102m	£93m	£68m	£42m	£39m
Broadcast	£45m	£56m	£38m	£23m	£21m
Commercial	£65m	£57m	£75m	£46m	£43m
Total revenue	£212m	£206m	£181m	£111m	£103m
Wages and salaries	£137m	£126m	£105m	£74m	£66m
Wages / revenue ratio	65%	61%	58%	67%	64%
Average attendance	15,965	15,890	14,058	9,658	8,637

Figure 1 The value of Scottish football (2020)

¹¹ Scottish Football Association (2018) UEFA Social return on investment report - <https://www.scottishfa.co.uk/media/4961/sfa-uefa-grow-pp-screens-mar19-web.pdf> [retrieved 5 March 2021].
Mclaughlin, C. (2018). Football worth 1.25bn to Scottish society. <https://www.bbc.co.uk/news/uk-scotland-46020676> [retrieved 5 March 2021].

¹² The Value of Scottish Football (2020) report was launched on 20 May 2020- <https://www.scottishfa.co.uk/media/6435/briefing-paper-the-value-of-scottish-football.pdf> [retrieved 4 March 2021]

16. Football is Scotland's most popular sport. It delivers in communities and connects with those on the margins of society on a scale that other sports fail to match. Football clubs are anchor institutions within Scottish communities. They do not exist in isolation from the broader forces that affect the people, communities, and countries in which they are situated. Scottish football's reach and impact extend far beyond what is immediately obvious both in direct and indirect economic and societal terms. As one club director pointed out, football clubs are at the heart of their local communities and fund thousands of supplier businesses across Scotland which in turn secures employment for tens of thousands of people¹³. In the words of the Chair of Scotland's Sustainable Growth Commission, "I can think of no other business, institution or organisation with the communication reach of football. Every week it dominates swathes of broadcast media, social media, and crucially, public discussion"¹⁴.
17. Since the advent of the first lockdown period the Scottish Government and Sportscotland, the national sports agency, have provided guidelines for the Scottish sports ecosystem. The SFA has worked with Scotland's football communities and, amongst other things, produced a series of roadmaps to guide a return to Scottish football. Figure 2 is illustrative of one such roadmap issued on the 2nd of April 2021¹⁵.



Figure 2 April 5-26 Covid-19 return to football update 2021

18. The advent of Covid-19 impacted not just football clubs, but the communities and local authorities in which they are located and reach. The pandemic has: brought into question the resilience of systems, raised the need for reliable data, exposed inequities within and between countries, and increased the need for national and international multi-lateral partnerships such as those with the United Nations (UN), the World Health Organisation (WHO), the Union of European Football Associations (UEFA) and The Federation Internationale Football Association (FIFA)¹⁶. FIFA's [Covid](#)

¹³ Wilson, A. (2020). Football must be the foundation of stone as we rebuild. Nutmeg No 18, p17.

¹⁴ Wilson, A. (2020). Football must be the foundation of stone as we rebuild. Nutmeg No 18, p17.

¹⁵ See [SFA \(2021\) Return to Football Road Map. April](#). [retrieved 6 April 2021].

¹⁶ In April 2020 UEFA in response to the Covid-19 challenge faced by football clubs across Europe released around £3.7 million to each of the 55 member associations including the Scottish Football Association (SFA). The SFA also received around £400,000 from (FIFA). The official statement read: "FIFA will release all operational funding due to member associations for the years 2019 and 2020 in the coming days as the first step of a relief plan to assist the football community impacted by the COVID-19 pandemic".

Relief Plan specifically states that the impact of the disease on global football is too big for any one single stakeholder to mitigate against¹⁷.

19. Both Scottish society and the government need to fully grasp football's unique role in communities to ensure that Scotland transforms the loss of Covid-19 into a better future not just for football but for clubs, communities, and Scotland's international standing. Local councils and key stakeholders in the private sector should work closely with football clubs in their immediate geographies to support those most deprived in our communities.
20. Understanding the impact of Covid-19 on Scottish football is in the interest of not just the football industry. Many questions have arisen from the situation caused by this pandemic¹⁸. How do you simultaneously manage fan expectations, minimise operational disruption, and plan for a future that, in both the short- and long-term, may not look anything like the past? Can new technologies and online channels help engage fans during suspended or modified league operations? Can these changes be used to attract new fan bases to the game? What is the consumption or engagement patterns of new fandom types? With the pandemic looking likely to be with us for some time, the entire sports ecosystem will need new ways to deal with threats to financial and business continuity arising from disrupted cash flows, legal and insurance challenges, and the possible impacts on longer-term attendance and engagement.
21. Finance is a key issue in Scottish football. For the most part, Scottish clubs operate in a very resource constrained environment. One of Scotland's leading observers of Scottish football, including Scottish football finances, has pointed out that the structure and governance of the SPFL was itself detrimental to Scottish football's response to the pandemic, contributing to resultant damage to the game¹⁹. In responding to Covid-19, the immediate challenge for the SPFL and other leagues focused upon how its rules were to be enforced, but exceptionally this also included the format by which winners (and losers) were to be determined and the accompanying financial arrangements.
22. The Scottish football ecosystem is likely to suffer from a potential long-term pandemic impact. At the same time, the uncertainty of Brexit is also being worked through by the industry. Football governing bodies, competition organisers, clubs, owners/investors, players, recreation outlets, broadcasters, sponsors, suppliers, and fans can all expect impacts across multiple organisational and strategic plans.
23. The Deloitte's Sports Business Group (DSBG) review of the impact of Covid-19 on the Sports Industry raises a few concerns²⁰. Seven pillars of operation are highlighted all of which are reflected in the challenges that Scottish football has faced.

¹⁷ FIFA Covid 19 Relief Plan (2020) was officially launched on 29 July 2020- [Football Fights Covid FIFA Media release 20 July 2020](#). [retrieved 4 March 2021].

¹⁸ Deloitte (2020). [Understanding the impact of Covid-19 on the sports industry](#). [retrieved 5 March 2021]. For an assessment of Covid -19 on Scottish Championship Club see McMenemy, I (2020). Hope and despair in the season from hell. *Nutmeg* No 17: September 2020, pp52-56. See also Grix, J. et al (2020) The impact of Covid 19 on sport. *International Journal of Sports Policy and Politics*. Published online 27 November 2020.

¹⁹ See Stephen Morrow (2021) - For the Good of the Game? Resolving an Existential Crisis in Scottish football

²⁰ Deloitte (2020). [Understanding the impact of Covid-19 on the sports industry](#). [retrieved 7 March 2021].

24. **Competitions and calendars:** Postponement, cancellation, and the re-organising of events and competitions looks set to alter the football calendar over the years beyond the pandemic. The potential for innovative changes to existing formats is a possibility, but Scottish football is unlikely to return to an old norm quickly, if at all.
25. On 8 April 2020, SPFL asked clubs to vote on a resolution that would give the authority to end the Championship, League One and League Two seasons on a points-per-game basis²¹. Some clubs publicly opposed the resolution, namely those clubs that were at the time chasing league titles or facing relegation. The health of those involved and the financial impact of not carrying out key contractual obligations (particularly those with broadcasters) was a factor that influenced SPFL thinking²².
26. At the time, there was no unified UEFA solution with regards to how the respective National European Leagues should approach the end of this season. UEFA asked the leagues to confirm whether their seasons would be completed or cancelled by 25 May 2020²³. The short-term implications for Scottish football resulted in forced relegation, qualification to European competitions being decided upon by positioning in the league at a certain point of time, and the shortening of the off season because of the number of positive Covid-19 cases in Scotland at the time. This also affected the longer-term availability of players with a subsequent knock-on effect on the 2020/2021 season²⁴.
27. In February 2021, the suspension of Scottish football below the SPFL was approved against a backdrop of new Covid-19 strains and rising infection rates. Following a meeting with the former Minister for Public Health Sport and Wellbeing, Mairi Gougeon, a temporary suspension of all football was agreed, encompassing all predominantly part-time tiers of Scottish professional football²⁵. On the 4th of March 2021, a restart to the Scottish League One and Two season was approved from the 20th of March, but at the time of the announcement the SPFL Board remained unconvinced that a 22-game season was realistic²⁷.
28. One of the founders of Glasgow City voiced concerns about the disruption to women's football in Scotland because of Covid-19 and the inequity of the decisions between men's professional football and women's professional football. For Glasgow City, the postponement of the Champions League match against Wolfsburg meant the

²¹ Article 60 of the SPFL's articles of association ensures that such resolution would require a minimum of 75% of Premiership clubs (nine in total), 75% of Championship clubs (eight in total) and 75% of League One and Two clubs combined (fifteen in total) to vote in favour of it. Gov.UK (2021) [The Scottish Professional Football League](#). [retrieved 18 March 2021].

²² Roan, D. (2020). [UEFA asks European Leagues for decision on domestic seasons by 25 May](#). BBC Sport. [retrieved 18 March 2021].

²³ Roan, D. (2020). [UEFA asks European Leagues for decision on domestic seasons by 25 May](#). BBC Sport. [retrieved 18 March 2021].

²⁴ Fowler, C. (2020). [Scotland ROCKED by six call-offs as Stuart Armstrong tests positive for Covid, duo forced to isolate and trio ruled out by injury](#). The Scotsman. [retrieved 17 March 2021].

²⁵ SFA (2021). [Suspension of Scottish Football update - 1 March 2021](#). [retrieved 27 March 2021].

²⁶ These included SPFL League One, SPFL League Two, Scottish Women's Football Premier Leagues One and Two, Highland League, Lowland League, East, West and South of Scotland Leagues, Scottish Junior FA Leagues, and the North Caledonian League

²⁷ See BBC (2021) <https://www.bbc.co.uk/sport/football/56274639>- 4 March.

club lost out on the competition prize money and the revenue from the ticket sales of the high-profile event. The cancelling of the season has arguably had more impact on the women's game. With a budget, just a fraction of that enjoyed by Wolfsburg, competition, especially European, is a vital income stream for the clubs that qualify for UEFA women's tournaments. The abrupt end to the 2019/2020 season, the inconsistent resumption of women's football, the inequity of representation on the board of the SFA²⁸, along with other factors, has resulted in the fact that many sponsorship deals have been put on hold for lack of consistent football matches²⁹.

29. The points raised by the Glasgow City CEO included; (i) that the nation's top female players were ordered to stop training and playing while Scotland's male Premiership and Championship clubs were allowed to carry on playing through the winter spike in coronavirus cases; (ii) that Scottish girls, more generally youth, were not getting the opportunity to watch their heroes; (iii) that the momentum from Scotland's qualification for the 2019 FIFA Women's World Cup would be lost; and that (iv) women's football had no voice on the board making decisions regarding football's response to Covid-19.
30. For many of Glasgow City's peers, the situation is substantially more complex. Women's soccer has boomed across Europe over the last decade, driven in part by improved performances by national teams, a growing interest in Women's World Cups, and to some extent the belated interest of major men's clubs in the women's game³⁰. Many of the clubs have expressed hopes that the momentum gained over the last twenty years for women's football will not be affected by Covid-19. It has been a voiced concern that the Covid-19 climate could lead to a lost generation of female players³¹.
31. **Operating models:** Disruption will push some clubs and organisations to think about transition to new operating models that they may have already been considering. Others may be forced to adapt - whether they've been planning to or not, whilst many will see this as an opportunity to transform. The pandemic has also shown that Scottish Football has had to adjust its professional football structure based on maximising the sport's potential within a new context. Wage cuts, delayed payments, less activity during the football transfer windows, continuing to reach out to communities but with reduced budgets and income for the community foundation arms of clubs, having to plan for training bubbles, social distancing, crowd restrictions, and a cut in the pipeline of content to capture fan engagement has all meant that football clubs have had to revisit operating models to survive.
32. **Commercial relationships:** How can ecosystem members support and strengthen relationships with broadcasters, sponsors, and partners amid the difficult legal and financial implications of an abrupt shutdown such as that which faced by some

²⁸ See BBC (11 Feb 2021). [SFA asked to release FIFA money earmarked for women's football](#). BBC Sport. [retrieved 14 April 2021].

²⁹ Smith, R (2020). Women's football was having a moment; then the clock stopped. NY Times. 11 April 2020. [retrieved 14 April 2021].

³⁰ Smith, R (2020). Women's football was having a moment; then the clock stopped. NY Times. 11 April 2020. [retrieved 14 April 2021].

³¹ PA Media (2021). Glasgow City chief Laura Montgomery thinks Scottish Women's clubs is the Covid-19 climate could lead to lost generation of female players. Sky Sports. 18 March 2021. [retrieved 14 April 2021].

Scottish leagues during the 2020/21 season? Such questions were asked of all Scottish clubs as the financial impact of the pandemic became more apparent.

33. Scottish football along with other sports were asked to quantify the loss in income due to Covid-19. As of November 2020, Rangers, Aberdeen, and Celtic released their accounts for the 2019/2020 season, outlining the scale of losses suffered through the impact of Covid-19 restrictions on matchday income, hospitality, sponsorship, and other revenue streams. Celtic's revenue fell by £13 million³², Aberdeen projected a £5 million loss³³ if fans did not return, and Rangers claimed to have lost £10 million in terms of income³⁴. The scale of the financial impact of Covid-19 on Scottish football for the current season at November 2020 was estimated to be more than £100m.
34. **Fan engagement:** How will teams, owners, and sponsors re-think the fan experience? What does “fan experience” mean if there are no fans in the stands? Will the shutdown increase focus on more virtual one-to-one relationships? Finally, will the fluid football fan be more discerning about whether they buy season tickets or prefer pay-per-view options?
35. Football matches without supporters according to one Scottish Football Director are soulless experiences, which left this way would have serious implications for the willingness of broadcasters to keep money flowing into the game. The attendances during the pandemic have generally been limited to directors, players, scouts, and the press³⁵. Clubs have attempted to fill the void of material for fans by providing streaming services, often through their own website TV channel or through YouTube.
36. The break with fans in the stadiums has had at least two consequences; (i) it has served to reinforce the importance of football clubs in and for communities whether this is taken to mean community as locality, as social network, or as a form of communion football in and around stadiums firmly captures all of these and (ii) it has given rise to a worry that the break with attending football matches has broken a habit that will need considerable efforts around fan engagement and virus safety checks for stadium attendance to reach pre-virus levels. The return to pre-virus football attendances in Scotland was set as August 10th, 2021, by the Scottish Government.
37. The pandemic has only accelerated the realisation that football clubs in the future will have to work hard at maintaining, refreshing, and engaging with fans both in old and new ways as the game in Scotland moves forward.
38. **Investment:** Given the exposure and liquidity issues of the rapid shutdown, should football organisations and individual investors be diversifying their portfolios across regions or leagues? Is it the time to prepare for future acquisitions or broader portfolios of partnerships between clubs? Would consideration be given to alternative

³² See BBC (29 Oct 2020). [Celtic: Scottish champions announce fall in profit and revenue due to Covid-19](#). BBC Sport. [retrieved 18 March 2021].

³³ Smith, T. (2020). [Aberdeen chairman Dave Cormack wants fan return not 'handouts' as club makes loss](#). BBC Sport. [retrieved 18 March 2021].

³⁴ See BBC (2 Nov 2020). [Rangers post £15.9m loss, with revenue up 11% to £59m](#). BBC Sport [retrieved 21 March 2021].

³⁵ Westcott, R. (2021). The silence of the fans. Nutmeg No 19: March 2021, pp136-139.

sources of finance which might help to safeguard football in the short term, without compromising the medium and or long-term future of the industry.

39. A club's ability to sustain and boost investment and revenue streams has been severely tested over the period of the pandemic. The Deloitte Football Money League Reports annually track the ability of clubs, including Scottish clubs to sustain and diversify revenue streams. The ability to diversify revenue streams has the result of reducing the risk or dependency on any one significant income stream such as gate receipts. While philanthropy might not be a regularly recorded and recognised income stream in football club accounts³⁶, nonetheless, it has made a much-needed contribution to the ability of clubs to cover some of the costs brought about by the pandemic.
40. A challenge to many Scottish football clubs getting back to playing was the cost of testing players, coaching staff, officials, and others involved in ensuring any games are played in a virus-free environment. Some estimates have suggested that Covid-19 testing kits could cost clubs £4,500 per week, an additional cost that was beyond the reach of many clubs in Scotland³⁷. Furthermore, this is unrealistic as you move down the pyramid of Scottish football.
41. The James Anderson Fund specifically for Scottish football is but one example of additional philanthropic funding being invested in Scottish Football. While the same investor has invested in specific Scottish football clubs before, notably Heart of Midlothian, this Covid-19 focused funding package has three main objectives.

Objective – 1	Objective -2	Objective – 3
Ensuring Scottish Women's Premier League 1 and 2 Clubs are the main beneficiaries so they can retain professional staff, players and key club infrastructure during an extended period of inactivity.	Support SWF to offset some of the short-term revenue losses, which include broadcast/ commercial income and gate receipts, and retain a lean staff that could continue to support and deliver a professional service to member clubs.	Optimise the ability of girls' and women's football to navigate the COVID-19 pandemic without significant setback to the progress made in recent years.
Outcome £112,500 was split evenly between 8 SWPL 1 clubs with each club receiving £14,062.50 £62,500 was split evenly between 10 SWPL 2 clubs with each receiving £6,250	Outcome £75,000 was directly invested into SWF.	Outcome £62,500 was directly invested into SWF so that affiliation fees for around 200 teams could be reduced by 75% for the new season, ensuring clubs can continue to participate and the positive momentum in girls' and women's football continues.

Figure 3 James Anderson Covid Support Fund for Scottish Football (2021)

42. Former Scottish politicians urged Scottish football to use the Baillie Gifford partner's credibility as an opportunity to attract "more moral" investment and that Anderson's

³⁶ This would be when compared to other sectors including alternative sport models in other countries such as the USA.

³⁷ Walker, A. (2020). [Andy Walker: Surprise investment in Scottish football should be welcomed with open arms](#). Sky Sports [retrieved 22 March 2021].

investment could be seen as a catalyst to attract new philanthropic investment³⁸. The Anderson fund provided vital funding for Scottish Women's Football (SWFL) in a year that saw the game for women go semi-professional. To date, the James Anderson Fund has provided £437,500 with £275,000 into clubs and £162,500 into the SWFL based on three outlined objectives³⁹.

43. **Digital Workplace:** Giving a remote workforce access to scalable, secure, virtual systems may require new investments in digital, technological, and cyber services. Prior to Covid-19, the Deloitte Media Trends Survey suggested that 25% of consumers watched live-streamed and recorded video of others playing video games each week⁴⁰. For Millennials and Gen Z, it was about 50%. Since the Covid-19 pandemic began, these numbers have held firm, with audiences predominantly watching how-to-videos, game walkthroughs, professional gamers, athletes live streaming their play and eSports competition. Many professional athletes have stayed connected with their fans by streaming and commenting on their own video game-play with the cancellation of live sports. The Premier League launched the inaugural ePremier League Invitational competition during the lockdown. According to Nielsen Sports, the final between Trent Alexander-Arnold (Liverpool) and Diogo Jota (Wolves) attracted three million viewers on Facebook and 394,000 viewers on YouTube, demonstrating a 275% rise in viewership from the opening round to the final. The phenomenon of playing, streaming, watching, and socialising within video games may continue to grow and expand when lockdowns and restrictions are eased⁴¹.
44. Within the Scottish context, football clubs are seeing their facilities benefit through a new funding scheme such as that between the Scottish Football Partnership Trust (SFPT) and *Shared Access*, the wireless infrastructure operator that works alongside major Mobile Networks Operators (MNOs). Alongside the rollout of a 5G mobile network, *Shared Access* and the Scottish Football Partnership Trust suggest that the total level of investment could reach £5m over the next five years. *Shared Access* has proven how this model can work in England, Ireland, and Wales. Scotland can benefit from a grassroots investment to future proof both sporting talent and geographic connectivity⁴².
45. The advent of increasing investment, opportunities and challenges arising out of the use of digital technology both in the workplace and in the football, industry provide both challenges and opportunities for Scottish football.
46. **Stadia and Venues:** How does the current crisis affect the needs of arenas and stadiums in the short- to medium-term? Have venues been used to support the response of governments and society to COVID-19? Have such outlets been compensated? How can venues be better utilised, including for new and different

³⁸ Pattullo, A. (2020). [Henry McLeish hopes James Anderson can help attract 'more moral' investment to Scottish football](#). The Scotsman [retrieved 21 March 2021].

³⁹ Scottish Football Partnership and Trust (2020). Covid-19 Support for Scottish Women's Football. [December 2020 Report](#). [retrieved 22 March 2021].

⁴⁰ Deloitte (2021) [Digital Media Trends Survey](#) 14th Edition [retrieved 29 March 2021].

⁴¹ Deloitte (2021). [COVID-19, Football & Digital: 2020/21 Season & Beyond](#). [retrieved 23 March 2021].

⁴² Hislop, J. (2020). [Joint scheme set to bring investment to football clubs across Scotland](#). [The Edinburgh Reporter](#) [retrieved 22 March 2021].

content, in the future? What happens if we must continue without crowds or a reduced capacity of crowd?

47. Both stadia and venues have been affected, but unlike sports centres in Scotland, few football venues if any have been used to support efforts to roll out the vaccine. The Glasgow Rangers Europa League fixture against Bayer Leverkusen on 12th March 2020 was the last match to be played in front of a full-capacity crowd in Scotland before sports events were cancelled⁴³. Clubs such as Peterhead FC, although not alone, made 29 staff redundant, thus impacting club operations including the club's greater community work⁴⁴. Emergency funding negotiated through the Scottish Government has been commented upon earlier with a total of £11.35 million made available to ensure that clubs could bridge the gap in revenue until spectators could return safely to sports events in significant numbers⁴⁵.
48. *Summary Statement:* Looking at the period between March 2020 and July 2021, the Covid-19 crisis was unsurprisingly top of the agenda for football club and leaders, with primary concerns around reduced financial resources to invest and innovate. Like all industries predicated on events and mass gatherings, the unprecedented health crisis brought about by Covid-19 has impacted the football market at its very core. This has been particularly the case for Scotland which has a higher dependency rate on gate revenue than many if not all other European countries.
49. The impact of Covid-19 is likely to remain with football into the 2021-2022 season if not longer. Indeed, all clubs will have to periodically organise themselves in the management of social distancing within the stadia. This will undoubtedly mean retraining of staff- an extra cost to an already depleted budget. Most reports suggest that Covid-19 has revealed systemic weaknesses within both the football and the wider sports sector, which makes a scenario of imminent recovery a challenge. The industry is in for a longer period of recovery and reorientation. Few football clubs in Scotland were prepared for such a pandemic. The football financial model, characterised by short-termism and fragile cash flows, has been severely tested by the health crisis by forcing football to draw on limited reserves.
50. The importance of football clubs as community assets should not be underestimated. It is critical to not only understand the impact of Covid-19 on the communities which the clubs engage with, but also the attitudes of football fans in response to what the clubs are offering, how the clubs are engaging with their fans, and if they could do more. The case for data driven innovation and the way in which it can support the football industry build back better has perhaps never been stronger.

Data Driven Innovation and Building Back Better

51. Building back better requires lessons to be learned: (i) by national response teams led by the Scottish Government about the total contribution that football can make, and (ii) by football itself about how it reacts through the crises, how it recovers from the

⁴³ McLaughlin, M. (2021). [Covid deaths higher near Scottish football grounds](#). The Times [retrieved 21 March 2021].

⁴⁴ Walker, P. (2020). [Scottish Parliament committee urges more help for Scotland's football clubs](#). Insider.co.uk [retrieved 19 March 2021].

⁴⁵ Gov.scot (2020). [Emergency funding for football](#). [retrieved 19 March 2021].

impact of the crises, and how it develops and uses its own data driven innovation to be more resilient and proactive in relationship to different stakeholders, perceived or otherwise in Scottish football.

52. Society and government need to fully acknowledge and support the unique role that football clubs play in the community to help ensure that Scotland transforms the effects of Covid-19 into a better future⁴⁶. Clubs are at the heart of their own local communities, they fund thousands of supplier businesses across the country which in turn secures employment for tens of thousands of people.
53. COVID-19 has challenged public health providers, governments, citizens, corporations, and the institutions and organisations of civil society in unprecedented ways. The virus continues to spread in many parts of the world, in ways that are incompletely understood, often confounding the public health measures and lockdowns that have been put in place. Every day brings a new report and raises a new question. Until a reliable vaccine was/is found and effectively distributed widely and equitably this pandemic will continue to be part of the public agenda not just in Scotland but in many parts of the world.
54. Ideally, future planning for subsequent waves of Covid-19 or the next viral pandemic will build on the learnings from previous waves and include strengthened support for not just football, but sport and physical recreation as crucial components of population health and a key part of public health preparedness. There are reams of evidence to show a connection between such interventions and physical and mental health, in terms of both protection from illness, the development of resilience, and rehabilitation from mental or physical illness.
55. A crucial lesson from the pandemic has been to recognise the importance of social relationships and networks, particularly within underserved communities. Football clubs are well placed to be at the heart of these conduits of influence but the way in which football clubs both recognise the extent of their own networks and the way in which these networks work is fluid and requires constant work.
56. One of the lessons of Covid-19 is that clubs, organisations, and stadium owners have all had to rethink the world of fan engagement. Advances in data innovation, sports technology and the development of capable stadiums are all part of this future. Football authorities are beginning to see stadiums in communities as a gathering place not just for great sporting spectacles but for innovation, education, knowledge exchange and advancing well-being but more needs to be done.
57. Football in Scotland is a community asset with significant reach, and yet its total value socially, culturally, economically has yet to be fully grasped or realised by Scotland. The Covid-19 crisis has shaken the foundations of many of the things that people take for granted, including football people and football communities. It has provided a window of reflection, the possibility of step-change innovation that might not have been conceivable under normal circumstances.

⁴⁶ Wilson, A. (2020). 'Football must be the foundation stone as we rebuild'. Nutmeg Issue 18: December 2020, pp14-17.

58. A crisis often provides the potential for a level of creativity and innovation that if capitalised upon could help shape the future in a more resilient and equitable way.
59. Football alone is not the solution to public health or other national and or international crises, nor should it be. However, football organisations have proven to be valuable allies in conveying relevant public health messaging and other pandemic prevention measures. Critically, they have proven to be effective at reaching vulnerable groups and those who are harder to reach through traditional channels.
60. It would have been useful to record, audit and ensure recognition of the role of football organisations in the pandemic response, including the collection of data on the collective impact of these interventions. Football was relatively active in identifying costs or loss of income associated with the pandemic but less proactive in public relations terms about the collective work of football in communities throughout the pandemic.
61. One lesson from the pandemic has been the extent to which data has driven narratives, outcomes, responses and hopes for building back better from Covid-19. Football has had to comply with Scottish Government interpretations of how the virus behaves and the means of containing and subsequently responding to it. Data driven narratives have guided football through this pandemic. Data driven decision making and innovation are stated aims of Scottish football authorities.
62. Scotland is a relatively data rich country. The sources of national and local data that inform decision-making processes in Scotland are relatively well developed. Scottish sport has access to private, public, and third-party sources of data. Different parts of the Scottish sporting ecosystem collect their own data, but data sharing is an unequal landscape in terms of capability, capacity, and the ever-changing skills. No specific open data lab or sports lab has been established to serve the needs of the Scottish Football Industry.
63. The opportunity for greater data collaboration to support of the Scottish Football Industry both on and off the pitch is with us. The opportunity and capability to help Scottish Football maximise the use of available technologies and the use of data for business is big. It would be a missed opportunity if the football industry did not tap into the investment, knowledge capability, and knowledge exchange created by the Data Driven Innovation Programme.
64. Critically, football fans are happy to provide clubs with information about themselves. Clubs that act on the preferences of fans will increase customer loyalty. Looking ahead, clubs need to maximise a more personalised approach not just to hold on to current fan bases, but also to attract more people to be associated with the club. The point of any purchasing transaction, especially ticketing, is a crucial opportunity of engagement for clubs.
65. Delving into sentiment analysis and the social and demographics of a club's fan base, season ticket purchases, and the impact of Covid-19 upon the different communities of football supporters and potential football supporters helps to understand the needs and wants of audiences. It also provides information about Covid-19 affected communities and real data that can inform more socially sensitive season ticket

pricing or packaging that takes account of the potential loss of disposable household income that is available to purchase season tickets.

66. Football, like Scottish society, has burgeoning inequalities by, *for example*, gender, geography, generation, capability that existed before Covid-19 struck but have been exposed further by the pandemic. The social and demographic analysis of the season ticket postcode data only served to enforce the reality that the finances to support the purchase of season tickets in Scotland are uneven. Both football and Scottish society have a role to play in making Scotland a more equitable and happier place. Something that Scottish football recognises but needs further support to maximise the capability of football as a community asset.
67. One of the lost messages amongst the impact of the Scotland vs. England match at Wembley and the Euro 2020 Scotland contribution was that families kept apart during the pandemic and, most importantly, generations of families, started talking about great Scottish football moments. The wins here are less important than the fact that football was helping to facilitate conversations, contact, and the social networks that have been affected profoundly by Covid-19. Scottish television (STV) estimated that one in five Scots, at least 19% of the population, will follow the championships on TV alone. More than 20 million people in the UK tuned into watch the Scotland vs. England game.
68. The partner clubs Aberdeen Hearts, Hibs and Motherwell FC all recognised that the state of the economy affects the ability of supporters to maximise access to what the club has to offer. It is vital that the club listens to what the fan base and potential fan base are saying and whether the attitude of fans towards the club's activities are seen positively, negatively, or simply in a neutral way. It is essential that clubs know who the key people in their communication network are and in certain circumstances reach out to them and develop formal and informal strategic alliances. All of the clubs recognised the importance of being sensitive to the current context and all the clubs were sensitive to how the fans would react to 2020/2021 season ticket campaigns. Football and football fans have not been immune from the unprecedented political, economic and health environment created by this pandemic.
69. Everyone needs to learn lessons.

Recommendations and Observations

70. The 2020 Toronto Report 2020 to the *Commonwealth Ministers Advisory Board on Sport* (CABOS) was not the only international review to draw attention to the fact that few countries were prepared for the pandemic. The European Commission's report on the economic impact of the pandemic on the sport sector referred to a wide range of impacts, including broader economic changes, reduced governmental income, cancellation of events, reduced sponsorship money, reduced member financing, reduced sports broadcasting income, reduced sports tourism income, and reduced production and retail of sporting goods and equipment brought about by the closure of production facilities and retail trade. It pointed to the likelihood that the demand for goods and services would be reduced due to unemployment, reduced working hours and/or fear of infection.

71. The Scottish football industry and the sports industry in general across the UK was unprepared and significantly impacted by the Cov-d-19 pandemic. This is not the first study to point out that a preventive and anticipative attitude is effective in building resilience to infectious diseases within a sporting context. The Scottish football industry followed Scottish Government guidelines but in future more time needs to be given to the football authorities to be able to assist communities even more.
72. *Football is a pillar of connection in and beyond Scotland.* It is also a resource that has responded to the pandemic and has proven to be an effective resource across Scottish communities. Football's understanding of the communities it works in has been both challenged and enhanced by the pandemic. Community football organisations have played a key part during the pandemic and have been part of the support package serving the needs of local people.
73. There is a big difference between preparedness, readiness, and response. The idea that preparedness has a beginning, and an end date is false. Whether it be Sars in 2002, H5N1 in 2004, H1N1 in 2009, Mers in 2012, ebola in 2013, Zika in 2019 and Covid -19 in 2019 there is a relentless temporal regularity. Preparedness and readiness are a constant, it does not end and needs to be part of the fabric of Scottish society including football and sport as it looks to the future.
74. The Scottish football industry has a higher dependency upon gate receipts than any other European country. Few football clubs in Scotland were prepared for stadia closures presented by the pandemic. A football financial model, characterised by short-termism and fragile cash flows, has been severely tested by the health crisis by forcing football to draw on limited reserves.
75. A traditional monetisation model for the football industry is often based on audiences, events, reach, and impressions, while a community-based monetisation model is driven by, for example, storytelling, conversations, access, and direct-to-consumer commerce. Understanding Scottish football communities better has the potential of developing a much more communities focused model that could unlock powerful new ways to produce, distribute, and measure football engagement and relationships based upon what fans and communities, including online communities want.
76. The need to remain flexible, innovative, agile, and responsive is a key observation, and lesson from the pandemic for football organisations and sport in general.
77. A crucial lesson from the pandemic has been to recognise the importance of social relationships and networks, particularly within underserved communities. Football clubs are well placed to be at the heart of these conduits of influence but the way in which football clubs both recognise the extent of their own networks and the way in which these networks work is fluid, require constant work and remains a work in progress.
78. The extent to which football clubs have remained connected and provided alternative forms of interaction with communities and the fan base in part has depended upon the digital capacity and capability of the football club to afford and embrace digital technology. The capacity and capability across the football sector to do this remains unequal.

79. The capacity and capability of clubs to cater for the fluid needs of the football fan requires much stronger relationships to be built between fans and clubs. Evidence from observed fan behaviours shows fans forging new relationship with footballers facilitated by technology. These fans also clearly unify and move as a community when provoked by social issues that align with their values.
80. A necessity to recognise and embrace change in the future may require clubs to cater much more for fans that may want to consume football but not necessarily attend matches in the stadium to the same extent. One of the effects of the pandemic has been to raise concerns about how safe and quickly fans will return to stadiums or prefer pay-per-view to consume football. A football habit has been broken and it will take time to repair.
81. Clubs that are investing in technology to create a virtual stadium at least acknowledge that many of their fans may never visit in person.
82. The extent to which football clubs in Scotland realise or maximise the extent of their reach or potential international engagement remains a work in progress. All of the four clubs partnering in this study had different international engagement profiles and patterns.
83. In some cases, the international profile and following of individual players was greater than the clubs in any given week.
84. Football clubs have a significant amount of knowledge to exchange, including positive stories to tell. A key finding from the social sentiment and network analyses was the positive way in which football fans engage with clubs about social issues that matter to the football communities. Football clubs need to get much better at exchanging knowledge with fans and communities in at least three different ways: online, offline, and with key partners that can facilitate this such as universities or technology companies.
85. The timing of engagement with football communities needs to be more of a seven day a week operation rather than having spikes of activity in and around match days.
86. The analysis of social media sentiment of football club activity supported the observation that sentiment is driven by off-field events. This is the opposite of conversation volumes, which are match driven. Unexpected match results are a caveat.
87. Starting and sustaining meaningful conversations fosters an engaged online community. Over the period of the analysis, Motherwell FC were the most effective at this and the effect was seen for other clubs in the season ticket campaign launches.
88. The leveraging of *Player Folk Appeal* has yet to be fully realised. Players are not appearing as key content drivers around each club, despite their large followings. This could represent an untapped online resource and in some cases a means of international engagement.

89. There is room for further collaborative efforts between clubs and star players. We do not see clubs using the power of players and the players' brands *to fully support* the marketing operations of the clubs. There needs to be a redrawing of the concept of players in social media being isolated individuals. They are part of a club, and both could work much more collaboratively to support each other's brand.
90. External Tweets can drive league-wide engagement (economies of scale). A league-wide Tweet in one of the weeks boosted positive sentiment across all four clubs.
91. Twitter networks are highly fragile to outside forces, and these can have a big impact on what conversations emerge through the network. Football clubs need to manage these situations carefully and have the skills to do so.
92. There is a danger of creating random Hashtags as they can be used by other clubs for their own means. This takes away the community structure. It is more useful to have a clear Hashtag relating to the club itself that cannot easily be manipulated.
93. **Scottish Women's Football:** SWPL engagement has increased rapidly over the period of analysis. There is still a gap between emotional engagement with SPL and SWPL clubs, but this gap is small, particularly during the season.
94. Not all SWPL clubs have men's and women's teams within the same club set up. Where this exists, there is potential for SWPL clubs to integrate to continue to drive engagement with football fans and cross-club communities. While some of the men's clubs have supported their counterparts, there is room for growth in the way that men's clubs support women's clubs within the same club set up, to communicate and support old and new fans and club loyalty.
95. Social media links between SPL and SWPL clubs can be leveraged to foster a larger online community engagement.
96. SWPL clubs should work harder with post-season engagement with fans as a way of fostering stronger relationships with the team. All clubs, including the top four most active were susceptible to major drops in end of season engagement. This indicates that SWPL clubs are not self-sustaining engagement levels post-season.
97. The four SWPL clubs that generated the highest levels of engagement were Rangers, Celtic, Glasgow City, and Hibernian.
98. The capacity of women's football to generate and make use of data driven innovation to support women's football in Scotland remains unequal when compared to the capacity of the men's game. This report has strived to start to address the case of data inequity across Scottish football.
99. **Football's Social and Demographic Differences:** There is a relationship between poverty, deprivation income and season ticket consumption. There is inequality based on season ticket data with the most deprived postcode areas the least likely to attend

or bounce back quicker. This has broader implications for season ticket pricing, fan engagement and fan demographics.

100. Any disconnect between the football club and its community has social implications for social capital, wellbeing, and happiness.
101. In the age of the fluid fan football clubs need to have a much more nuanced understanding of geography in terms where fans come from and could come from.
102. Spatial distribution helps us understand where core supporters are located, this has implications for policy makers, football club strategies and clubs, for example, considering stadium re-location.
103. Scottish football has a significant number of season ticket holders located in wealthy or affluent postcodes. This could also be precarious, if the habit of football is broken, does not recover and Scottish football continues to disproportionately depend upon gate receipts.
104. **International Engagement through Football:** The use of football to make a difference, carry a message, deliver statements on a scale that few other areas of public life can, should not be underestimated locally or internationally.
105. As Scotland's most popular sport the opportunity for football to enable a positive Scottish narrative beyond Scotland is a potential story of solidarity, innovative support, resilience, and connectivity between people regardless of geographic distance.
106. Scottish football clubs have a significant social media footprint internationally that could be developed further.
107. It is important to understand international fan engagement data. Rather than creating one piece of content and posting it to every platform, content might be tailored for each specific platform in the way users consume their content. These decisions are based on fan engagement data that should be analysed by the football clubs' social team.
108. The individual and collective international player profile of players at clubs has not been optimised as a means of international reach, dialogue, and co-operation between clubs and international communities. International player folk appeal has not yet been fully leveraged. International players could appear much more as key content drivers out with the UK for each club. This could represent an untapped online resource.
109. Elite women's football is global in nature. The leading territories from a revenue-generating perspective are globally spread and the 30 clubs generating the highest revenue (more than USD 1m) come from 13 different countries.
110. With the growth of the women's game accelerating at a time when social media is so prevalent, it provides a platform that can help drive interest if utilised in creative and innovative ways, including international reach of the SWPFL and the clubs.

111. Under devolution, foreign policy is a matter reserved to the UK parliament and government. But, like many devolved and regional governments, the Scottish Government has developed its own external relations. Harnessing its soft power, it has contributed to shaping foreign policy agendas and arguably shown leadership in areas of human rights and the sustainable development goals while forging stronger relations with some parts of the world. Football can further enable this agenda.
112. As part of these ongoing discussions that include but go beyond diaspora networks, sports tourism and attracting major sporting events, the Scottish Government and the Scottish Football Authorities should recognise and value much more how football, and sport, might boost dialogue, co-operation and international activities and relations. There is a great deal for Scotland to learn from. For example, what: Wales has done around sports diplomacy, Norway has done with the Norway Cup, France is doing with Sport En Commun, the USA is doing with sport through USAID, what Germany has done through football being part of the toolkit used by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and what the UK through the British Council has established through Premier Skills.
113. **Data Sharing and Analytics in Scottish Football:** In depth data analytics have been used extensively to enhance and inform on pitch performance but the extent to which football clubs in Scotland know how to activate the same amount of effort and knowledge to enhance business data analytics is critical. The capability to do this remains uneven both within football and between sports.
114. Scotland is a relatively data rich country. The sources of national and local data that inform decision-making processes in Scotland are relatively well developed. Scottish football has access to private, public, and third-party sources of data. Different parts of the Scottish sporting ecosystem collect their own data, but data sharing is an unequal landscape in terms of capability, capacity, and the ever-changing skills.
115. Collectively, this project validates the need for an independent Scottish Football/Sport Data Laboratory, which would use data to maximise the potential of Scottish football/Sport Industry⁴⁷.
116. No specific football data lab or sports lab has been established to serve the needs of the football/industry. This should be addressed.
117. Edinburgh University with investment can provide a data analytics service for the 21st century that could enable Scottish football and indeed other sports to better understand, for example, business analytics and the online, offline, local, and international communities that in this case Scottish football depends upon.
118. The need to remain flexible, innovative, agile, and responsive is an observation from the pandemic that holds true for both the men's and women's football in Scotland.

⁴⁷ One of the additional outputs from this project was the creation of a matrix of Scottish data sources that would support data driven decision making in Scottish sport.

Micro Briefings: Building Back Better, Data Driven Innovation and the Scottish Football Industry.

The Academy of Sport in partnership with the Bayes Centre have developed a series of micro briefings written in collaboration with partners from the Scottish Football Industry. They are intended to inform and contribute to enhancing the capability of Scottish football to learn from the Covid-19 pandemic and embrace the possibilities of how data-driven decision-making, innovation and sharing can support, for example, business data analysis and off-field data analysis.

It is envisaged that other micro briefings on Scottish football would include international engagement through football; social and demographic analysis of football season ticket holders; bespoke briefings for individual football clubs supporting the project; Scottish football building back better from Covid-19 and more.

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