

Institution: Solent University
Unit of Assessment: 24 (Sport and Exercise Sciences, Leisure and Tourism)
<p>1.1 Unit context and structure, research and impact strategy</p> <ol style="list-style-type: none"> 1. A key aim of Solent University's 2015-2020 strategy was to be "research informed and research active as a platform for our teaching". In the 2020-2025 Strategic Plan, headed by a new Vice-Chancellor and supported by the newly appointed Pro Vice Chancellor for Research and Knowledge Exchange, research is at the core of Solent's future direction. Unit of Assessment (UoA) 24 is one of the University's most established research areas, and the 2021 submission builds upon the previous submission to UoA26 in 2014. The 2014 submission focused on the Health, Sport and Exercise and Science research cluster and the Lawrie McMenemy Centre for Football Research. As the University pursued strategic growth in this UoA, these areas have developed and expanded into the themes outlined below, and the number of FTE submitting in 2021 has increased by 216%. 2. Since 2014 the Faculty of Business, Sport and Enterprise has been re-configured into the School of Business and Law and the School of Sport, Health and Social Sciences, and Biomedical Science and Nursing have been introduced into the portfolio. For the current submission, the research outputs, impact case studies and research activity are aligned to the following themes: <ol style="list-style-type: none"> i) Health and Wellbeing ii) Inclusion in Sport and Leisure iii) Enhancing Sport Performance 3. As outlined in the institutional level environment statement (paragraph 14), Solent's 2015-2020 strategy set a number of aims. These have acted as the driver for research development in UoA24, and are discussed in turn below. <p>1.2 Establishing a strong focus for research and innovation</p> <ol style="list-style-type: none"> 4. Several research focused activities have been adopted to ensure a change in culture to support the growth of the UoA. This has included the development of research groups, an increase in the number of academics on a research trajectory and aligned to the University's academic research career pathway, increased bidding activity, and support for research from the Research Office, including provision of research development opportunities and workshops. <p>1.3 Development of cross-institutional research groups</p> <ol style="list-style-type: none"> 5. The Lawrie McMenemy Centre has expanded and several new research groups have formed. These comprise established researchers, doctoral students and early career researchers (ECRs), providing opportunities for cross-disciplinary discourse and support for doctoral students and ECRs through collaboration and dialogue. The research groups enable academics to work collaboratively and foster an interdisciplinary approach around the key themes, supporting the development of outputs, funding applications and PhD supervision. <p><u>Lawrie McMenemy Centre for Football Research</u></p> 6. The Lawrie McMenemy Centre for Football Research focuses on football education, research and consultancy and aligns to the <i>sport and leisure theme</i>. The Centre has established links which provide expert support for the football industry and students, as well as professional development of football. Elliot, Magrath and Powis supported an impact case study through their focus on inclusion in football, while Webber provides an academic understanding of the political economy of football and Turner is working on safe standing and inclusive spaces for fans. <p><u>Mind-Body Connections Research Group</u></p> 7. This is a multidisciplinary research group that explores mind-body connections and links to the theme of <i>enhancing sport performance</i>. Its goal is a holistic approach to the

evaluation of the human experience in an ecologically valid and translatable manner. The group considers varying aspects of human function. An example is research comparing the relationship between brain function and behaviour in healthy populations and those with Parkinson's disease, and the evaluation of interventions to optimise cognitive function. This group includes researchers from Psychology, Sports Psychology, Neuroscience, Physiology, Biomechanics and Biomedicine. It also supports seven PhD students and seven ECRs.

[Solent University Realist Research Group](#)

8. This group, led by Harris, brings together researchers interested in realist evaluation. It focuses on synthesis and research and contributes to the *inclusion in sport and leisure* and *health and wellbeing* themes. The group has been involved in evaluation projects such as the [Local Area Coordination Isle of Wight Evaluation](#). It has strong external networks, including links with stakeholders such as the 2018 'Evaluation in sport, leisure and wellbeing; the power of knowledge exchange' funded by the Leisure Studies Association (LSA) and attended by groups such as Solent Mind, Youth Sport Trust and SportEd. This group supports three PhD students and an ECR.

1.4 Establish a strong focus for research and innovation in each school

9. The numbers of FTE contributing outputs to UoA24 has grown substantially year on year, with 46 outputs submitted to REF2021. These were selected from 77 outputs submitted by researchers for external review, in accordance with the University's Code of Practice. The UoA has been supported by the development of more formal structures within the School, such as the School Advisory Group for Research (SAGR). SAGR comprises research active academics who represent all programme areas. It is committed to: (1) supporting and developing research themes; (2) supporting an integrated and interdisciplinary research culture; (3) reviewing research bids; (4) supporting the development of impact case studies; and (5) organising key research events. Other measures to support research within the ambit of the UoA include research development workshops run by the Research Office in collaboration with experienced academic staff, and an annual two days/nights research retreat, facilitated by the School Research Lead and Dean. These retreats, which are held off campus, support academics to write, as well as to provide support to each other.

1.5 To improve our external reputation for research and innovation

10. Across the three themes, researchers have worked with a range of external organisations, as described below.

Health and Wellbeing

11. Researchers in the UoA have contributed to expert groups to advise the UK Chief Medical Officer on muscle strength guidelines (Steele and Fisher). Steele was subsequently appointed as Principal Investigator for UKActive's Research Institute, while also continuing to work part-time at Solent. This appointment resulted from ongoing work with the Institute, including collaboration on two randomised trials examining community-based resistance training interventions. This ongoing collaboration has provided opportunities for Steele and Fisher. Researchers whose work aligns to this theme also have collaborations with Southern Health NHS Foundation Trust, as well as with other domestic and international higher education institutions (HEIs) including: The Open University, Leeds Beckett University, Manchester Metropolitan University, University of Suffolk, Kent University, University Hospital of Southampton, University of Southern Maine, German Sport University Cologne, and Technical University Berlin. These collaborations will also support the sustainability of research within this UoA beyond 2021. In addition, researchers have a presence on editorial boards, including as managing editor and section editor for physical activity for health for both Registered Reports in Kinesiology and Communications in Kinesiology (Steele) and the editorial board for the Journal of Evolution and Health, guest editing for Frontiers in Neuroscience (Duncan) and external funding body reviewers including the Swiss National Science Foundation.

Inclusion in Sport and Leisure

12. This theme includes academics researching the social science area of sport and leisure. This includes the work of Elliot, Magrath and Powis with the internationally recognised organisation, partly funded by the FA, 'Kick It Out'. The research was used to develop an evidenced approach to tackling diversity in the football industry. Their work was incorporated into the Equality and Diversity in football award, which has led to greater awareness in issues of equity and diversity in the football industry. This partnership forms one of the impact case studies for this UoA submission. Within this theme a number of researchers are working on issues on equity and diversity in sport, including Powis working with UCLAN on disability sport and classification, and Magrath working on LGBTQ+ people's experiences in sport. Magrath is also equity and diversity lead for The Football Collective, a dedicated network of people bringing critical debate to football. Webber is a member of the Political Studies Association of Sport and Politics group and sub editor of the Football Collective. Addie is a member of the Leisure Studies Executive Committee, while Turner is co-convenor of the BSA Leisure Research Group. There are now several ECRs who are developing their research specialisms in this area, including gender and transgender athletes' experiences of sport and leisure, and Freirean approaches to designing sport development. These ECRs are supported by the growing networks and events held at Solent. For example, in 2019 Solent hosted the International Sport and Discrimination conference. Solent University will also host the 2021 Leisure Studies Association Annual Conference, with the organising committee comprising researchers from UoA24. The theme of the conference is Leisure Identities, with a strong focus on understanding issues of inclusion in an era of austerity. These activities enable a research environment which celebrates and foregrounds the research in this theme and the growth of the Unit within and across the University.

Enhancing Sport Performance

13. University investment has enabled the building and equipping of a state-of-the-art Sports Complex (2019), nursing simulator suite, and biomedical laboratories. These specialist facilities have supported those working in the research groups, for example the *Mind-Body Connections Research Group*, as well as researchers in psychology, for example Neil on Auditory and Memory. In 2021, the British Association Sport and Exercise Science (BASES) [student conference](#) will be hosted by Solent with the theme of equity and diversity and inclusion in sport science. The BASES student conference is organised by researchers who are submitting as part of this UoA and was awarded to Solent due to researchers' active involvement in BASES (Wright and Mosely are both members of BASES and are BASES accredited; Hawkey is Deputy Chair and a Director BASES, and chairs the BASES Division of Biomechanics and Motor Behaviour and the Biomechanics Interest Group (BIG)).
14. The work of those submitted in UoA24 is grounded in this robust research environment and the development of ECRs is placed at the heart of the theme to enable growth beyond REF2021 towards future REF submissions, thus enhancing the sustainability of research in this UoA.

1.6 Maximise our external research income

15. Details provided below in section 3 at 3.2

1.7 Recruit and retain excellent colleagues

16. Since the previous REF a targeted and strategic approach to academic recruitment, including fostering the growth in the number academics with a doctorate has led to increased research capacity within the Unit. Key to this have been the University's support for staff to undertake doctoral studies, and the strategic recruitment of academics with PhDs and a record of strong research outputs. Most of these appointments have taken place at the ECR stage. This move to including research-related criteria in advertisements

and questioning at interview for academic roles reflects a shift for Solent University. It resulted in 10 out of the 18.41 FTE submitted to UoA24 being appointed to academic/research positions since 2015.

1.8 Recognise and reward excellence

17. The introduction of the career pathways in 2018 supported academics to pursue their research ambitions, including through an annual round for promotions. The research pathway has ensured that academics to have time to focus on research-related activity, which has increased outputs, enabled the development of research groups and allowed time to develop research bids. It has, therefore, placed increased value on research in the School and University more widely. All researchers submitting to UoA24 are on the research pathway, in accordance with the Solent REF Code of Practice.

1.9 Future Aims for 2020-2025

18. The UoA submission has developed considerably since 2014, and for the next REF cycle the focus will be on building on the gains of recent years to maintain the sustainability of the research culture to ensure that it continues to grow. Specifically, this will include:

- Embedding a positive and inclusive research culture through supporting academics' research activities. This will include providing more opportunities for collaborative research through effective research groups, enabling policies and processes
- Growth of UoA submissions for biomedical research and nursing to broaden the research profile at Solent and support submission to relevant UoAs in future REF exercises
- Support, showcase and celebrate academics' research activity: for example, through the Emergence of Research Coffee Morning and Research Group Seminar Series
- Increase the number of academics involved in internationally excellent or world leading research
- Increase the number of bids submitted and income from research and research-related activity: for example, through optimisation of the use of Research Office support, training and development, the growing strength of the research groups, and the increased use of peer review systems in the development of bids
- Establishment of a UoA Lead to meet regularly with the new Faculty Research Strategic Lead and convene UoA research meetings to facilitate cross-disciplinary sharing of ideas and external partnerships to address real-world issues

2. People

19. This section reflects on how the Institutional and School strategies to support the development of researchers have been implemented in respect of researchers aligned to UoA24. This also includes consideration of recently recruited ECR academics who are not submitted to UoA24 in this REF cycle, but who demonstrate the ongoing growth and direction of travel within the research culture and research base for the Unit and reflect the ambitions to continue to grow UoA24 for future REF submission.

2.1 Research Career Pathway

20. The University career pathways, launched in 2018, include a research pathway for academics, with clear objectives aligned at all career stages. Academics on the research pathway have research aligned through Performance Development Reviews (PDRs) and through increasing research capacity, and each receive 300 hours in their Academic Work Plan to support research activity. This reflects a cultural shift to allow academics time for research as well as signalling the University's intention to support research development. In addition to including clear objectives aligned at all stages of career development, the research pathway is intended to be agile and flexible. As such, academics can apply to join the research career pathway annually.

2.2 PGR Completions

21. Within the Unit there have been two doctoral completions during the REF period. The recruitment to the doctoral programme during the review period has been increasing

modestly, with eleven doctoral students currently registered in the UoA and further planned support for increased recruitment including institutional investment in a bursary scheme.

2.3 PGR support

22. Postgraduate students are supported by a supervisory team with up to three supervisors who must have a minimum of two completions. PGR students are further supported by the Research Office and the Doctoral Researcher Development Programme (DRDP). The DRDP includes induction (milestones and research integrity) and the University also subscribes to doctoral researcher development training delivered through five modules forming part of the University of East Anglia virtual online training. Students are also supported through more formal processes, such as annual monitoring and review, which is conducted by members of the School Doctoral Review Panel.

2.4 Researcher Development Programme

23. The Researcher Development Programme (RDP) is intended to help researchers at all stages of their research careers and is designed around the following broad thematic areas; developing your research, funding your research, communicating your research, professional development, and doctoral supervisory training. The RDP sessions and resources are open to doctoral students as well as academic staff, promoting a collegiate and inclusive researcher environment. A new researcher development plan, implemented in 2020, offers further support for the development of individual research plans and promotes discussions about any support needed to grow. This is supported within the UoA by the Unit Lead and School Research Leads and contributes to the sustainability of research growth within UoA24.

2.5 Staff Development

24. Since 2014, there has been a significant investment in staff development in the School, for example through the provision of support for attendance at conferences and other research professional development events. Academics within the UoA have been supported to attend and present their research both nationally and internationally, and examples include the International Sociology of Sport Conference (Turner), the European Association for Sociology of Sport Conference (Elliot, Webber, Magrath, Szerovay), the International Association for Critical Realism Conference (Harris), the BASES Annual Conference (Mosely, Wright), the North American Sociology of Sport Association Conference (Turner), the American College of Sport Medicine Conference (Steele), the Early Career Scientist Symposium (Moody), and the Vista Paralympic Conference (Powis). Support for academics' study for a PhD at Solent (or elsewhere), which is a central tenet of the University's 2015-2020 strategy, enabled three academics aligned to the UoA to complete PhDs during the period. More broadly across the School, since 2014, 29 academics have been supported to complete their PhDs, demonstrating a commitment to the development of research active academics.

2.6 Research Mentoring

25. A research mentoring programme organised through SAGR has been implemented to support researchers and is open to those at any stage of their career.

2.7 Equity and Diversity

26. The Unit has reviewed the approach to equality and diversity in accordance with the Solent REF Code of Practice. In REF2021, four FTE academics (21% of the submitted researchers in the Unit) are female. While this remains a small proportion of the overall submission, it represents a substantial increase on 2014, which included no women. A key research theme of the Unit focuses on inclusivity in relation to gender, LGBTQ+ and race, and an Associate Professor in Equality and Diversity was recently appointed within the School. The School is committed to furthering and embedding equality and diversity principles across the researcher profile. The proportion of female staff submitted is now closer to the sector average for researchers in sports science (HESA 2018/19 data 36%

female). This is an area which this UoA will focus on, through mentoring and as part of the wider University equity and diversity strategy (see paragraph 34 in the institutional level environment statement).

3. Income, infrastructure and facilities

27. While income generation remains a challenge for UoA24, the career pathways strategy and the development of research groups mean that the infrastructure supporting researchers and their expertise are both growing and will enable future successful bids.

3.1 External Funding

28. For the period 2013/14 to 2018/19, the Unit generated £77,000 in funding returned to HESA. A summary of research bids is provided below, which shows a trajectory towards more bidding. This is supported by adopting the following approach:

- 1) Working with the Research Office at an early stage
- 2) Collaborative bidding through the research groups
- 3) Collaborative bidding with external partners (HEIs and local partners)
- 4) Utilising facilities and infrastructure

29. This area has been identified as a priority for development of the UoA. The current research profile of those in UoA24 and the thematic focus will enable a more strategic approach to research income for the next REF.

3.2 Bid Development

External Bids

30. Since the previous REF exercise, 28 research and consultancy bids have been submitted from within the UoA. Successful bids included Magrath on *Investigating the experiences of LGBT soccer fans (Inclusion in Sport and Leisure theme)* and Moody, *Microbial Degradation of Marine Plastics, (Health and Wellbeing theme)*. While many externally submitted bids have not been successfully funded, the increase in submissions demonstrates growth in research capacity and trajectory. This will be a key area of focus for the next REF cycle, aligned to the new research strategy 2020-2025, and supported through further development of the research groups as well as the external collaborations discussed in 4.1 below. The development of research groups and the SAGR has included the implementation of internal peer review in the bid development stage, supported by the central bid support provided by the Research Office, building depth and breadth of researcher development in the bidding and funding landscape.

Support for Researcher Development in Income and Bidding

31. The Researcher Development Programme supports researchers across the University. As indicated in 2.4 above, it includes workshops designed to support researchers through the bidding process. In addition, internal support for research has included support for seed funding bids. Researchers have benefitted from internal Starter, Accelerator and Catapult funding. This internal funding has supported researcher development within the UoA, on a range of topics such as gender in sport, community health, coaching, haptic communication for dancers and brain activity during goal oriented tasks in older adults (Steele, Wimshurst, Michailidis, Duncan), and with a particular focus on supporting the work of researchers at an early stage of their careers across the period.

3.3 New Sports Building

32. The new sports building (completed in 2018) offers opportunities for researchers in UoA24 through supporting the themes of *Health and Wellbeing* and *Enhancing Sport Performance*. The £28 million Solent Sports Complex includes a number of specialist facilities in two sports halls, such as sports clinics for sport therapy students, a teaching gym and performance analysis technologies. Both the *Health and Wellbeing* and *Enhancing Sport Performance* themes benefit from these facilities, which enable researchers in UoA24 to plan sustainable research projects and develop more collaborations. Thus far, the new sports building (which also houses a conference room and offices for testing) has been used in research within the *Enhancing Sport Performance*

theme. For example, a workshop was held for High Performance Athletes to educate them about slow paced breathing and stress, and Duncan and Mosley are currently preparing the related publication.

3.4 BASES accredited labs

33. The physiology laboratory is accredited by BASES and was used for some of the research included in REF (Wright, Mosely, Fisher). The physiology and biomechanics labs are regularly used for testing with external clients. Clients include Swindon Town FC, Hampshire Cricket and Runners and Cyclists. This has also led to income generation which has been used for research support (e.g. equipment, conferences): examples include Southampton FC £26,870.40; and equipment such as an Anti-Gravity treadmill and Body Composition Pod. This again provides a sustainable approach to building future resilience of research in the UoA.

3.5 Biomedical and Nutrition Labs

34. Biomedical laboratories support teaching and research in biomedical science and nutrition, which are new areas to the School as outlined in section 1.1 above. Equipment includes spectrophotometers for analytical biochemistry, PCR and gel electrophoresis running/imaging systems for molecular biology, and a range of microscopes for cell biology and pathology. These facilities support the work of Moody, Baldock and Taraban. As noted in section 1, this research will be developed into a sustainable submission for a relevant UoA in future REF cycles.

3.6 Research Hub

35. Academics in this UoA were able to access to the Researcher Launchpad for meetings, seminars, workshops and networking.

4. Collaboration and contribution to the research base, economy and society

4.1

36. The nature of the cross-disciplinary research of this UoA is underpinned by the drive to engage with and promote long-term and meaningful partnerships and collaborations with researchers in academia (locally, nationally and internationally), community enterprises and other bodies. Researchers within the Unit have excellent connections with local groups, which have been discussed above in relation to the research themes. While some of these connections are well established, others are in the formative stages and the Unit will continue to develop and grow these to support further collaborations and enable greater contributions to the economy and society. The introduction of the University's civic charter in 2020 will also help guide these collaborations.

4.2 HEI Collaborations

37. Researchers in this UoA have established several collaborations with national and international HEIs which support research. For example, 32 of the outputs submitted to this UoA are co-authored and reflect collaborations with other HEIs including, internationally; the Federal University of Goias (Fisher), the University of Pittsburgh (Baldock), Queensland University of Technology (Duncan), the German Sport University (Mosely), and the University of Jyvaskyla (Szerovay). In the UK, Collaborations include UKActive (Steele), the University of Sussex (Baldock), and UClan (Powis). These collaborations reflect the foundations of partnerships which will be utilised for continued research collaborations but will also support the strategy outlined in 3.1 to develop collaborative funding opportunities. For example, Duncan is currently collaborating with Kent University on a body of work focusing on mobile brain imaging and Parkinson's disease and through such collaborations will develop a sustained body of research and potential collaborative funding.

4.3 Health and Wellbeing

38. Since 2014, focus and priority has been given to the growth and development of researchers who align with UoA24. Depth of expertise and visibility of success achieved has and continues to be developed, with greater detail and information on the public facing website, celebration and promotion of success on local radio and through greater engagement by staff in research and knowledge exchange activities. An example of this is Steele, who was invited in 2018 to join the Chief Medical Officers' Expert Working Group (EWG) to review the 2011 CMO Physical Activity Guidelines for Adults. Steele has an extensive [range of networks](#) which support his research and the research of Fisher. Similarly, since 2014 Solent has supported the ABP Southampton Marathon. The Meet the Expert sessions run by academics as part of this event provide an opportunity to share research-based approaches to training for all. These events are free to attend and reflect examples of publicly sharing research through open access/seminars. Other examples of contribution to society in this theme include: Duncan, who has spoken about her work with the local University of the 3rd Age (group for 60+), has secured an Honorary Research Contract with Southern Health Foundation Trust, and was ranked top 10 internationally by Brain Products Germany for her published work, "*Validation of a multidirectional locomotive dual-task paradigm to evaluate task-related differences in event-related electro-cortical activity*".

4.4 Inclusion in Sport and Leisure

39. Solent research underpinned Kick It Out's "Equality and Diversity Awareness in Football Award", an educational programme which has trained over 70 football industry professionals since its launch in 2015. This is now a central component of Kick It Out's work. Turner's work on Safe Standing in football was included in [Standing at Football: A Rapid Evidence Assessment report](#), commissioned for DCMS. Magrath's research on inclusive sexualities in sport includes working with fan groups to explore issues of inclusion. This has appeared in the [HuffPost](#) and [Outsports](#).

4.5 Enhancing Sport Performance

40. Within the area of performance and wellbeing in sport, a greater sense of identity has begun to develop, with key areas of strength and academics with expertise being identified. This will enable a more strategic approach to the identification of key funding and PhD opportunities to further develop and expand this key theme for following REF cycles. Wright currently runs the BASES workshops (four annually) for new supervisees, supervisors and reviewers as part of the Supervised Experience Programme. This allows participants to become BASES Accredited Sports Scientists. Wright also has external collaborations with Blackburn Rovers FC and AFC Bournemouth. It is intended to develop these partnerships to provide more pathways to impact in this UoA in future.

4.6 Summary

41. UoA24 has been established as a cornerstone of the University's REF submission. It has continued to grow and develop through this REF cycle by adopting a targeted focus on the three core themes of Health & Wellbeing, Inclusion in Sport and Leisure, and Enhancing Sport Performance. This strategy has supported targeted investment and enhancement activity across the UoA in both recruitment and the development of staff, and investment in key infrastructure and resources. This has fostered an ambitious research culture, engaging competitively and collaboratively with the external research landscape. The Unit has built and grown productive research groups, underpinned by the School Advisory Group for Research, and is positioned advantageously to further capitalise on this growth in the future.