

Institution: University of Liverpool

Unit of Assessment: 33 Music

1. Unit context and structure, research and impact strategy

1.1. Overview

It was a strong claim in 2014, and even truer today, that Liverpool's Department of Music is flourishing as a hub for musicological research from a broad range of methodological perspectives. An ambitiously interdisciplinary approach has been at the core of our research and impact strategy, moving our research significantly beyond the 'classical-popular' binary latent in the historical merger of the former Department of Music and the **IPM** (Institute of Popular Music). Our post-2014 growth in size, scope, and ambition is reflected in:

- the appointment of seven new colleagues with interdisciplinary specialisms, one supported by a Leverhulme Early Career Fellowship
- significant investment by the University, resulting in substantial new research facilities (c. £700K specifically for music facilities as part of a building refurbishment project) and a 400-seat public-facing concert hall, the **Tung Auditorium**, currently under construction as part of the £22m Yoko Ono Lennon Centre development. This is transformative in terms of the unit's research ambitions, providing industry-standard facilities for the realisation of outputs and public engagement, allowing us to develop additional research collaborations and partnerships, enabling impact, and supporting excellence in research and research-connected teaching
- the establishment of the Department as a centre for excellence in interdisciplinary research, with particular strengths in audiovisual media (increasingly praxis-oriented), cultural musicology, music analysis, music heritage, music industry, and popular music studies
- strong and expanded collaborations with key partners, demonstrating our commitment to achieving impact from our research and consolidating the potential outlined in 2014. This has enabled, among other things, our contribution to Liverpool's successful bid to become England's first and only UNESCO City of Music, and to the Liverpool City Region Music Board.

The vibrancy of our environment comes from our shared interest in cutting edge approaches and from the breadth of activity: the range of methodologies; disciplinary, sub-disciplinary and interdisciplinary perspectives; and musical materials. Our sustainability is founded upon a commitment to the advancement of this environment as a collaborative interdisciplinary hub

engaged in significant partnerships (locally, nationally, and internationally), and to developing a community of scholars shaping the future of music studies.

1.2. Structure and Research Centres

The Department sits within the School of the Arts in the Faculty of Humanities and Social Sciences. Within the Department are two research centres: the established **IPM**, to which the majority of submitted staff are affiliated, along with staff beyond Music; and the newer **Interdisciplinary Centre for Composition and Technology (ICCaT)**, where the Department's practice-researchers are primarily active. Alongside these formal centres are emerging interdisciplinary clusters of activity, especially in the areas of music theory and audiovisual media. The clusters intersect productively with the interests of the two centres, for instance in work on music analysis beyond western notation or multimedia composition.

Most colleagues contribute towards the aims and activities of the **IPM** (even if not via their primary specialism), as a centre supporting research in the interdisciplinary field of popular music studies. For example, **Spitzer** (a specialist on Beethoven and music and emotion) has written on Arcade Fire, while **Forkert-Smith** (an analyst of twentieth-century western classical music) has published on Suede. In addition to work on analysis and aesthetics, IPM-affiliated colleagues and postgraduate research students (PGRs) work on music industry and technology, music heritage and identity, and creative practice (including composition and audiovisual media production).

Established in 2017 to foster interdisciplinary and technology-focused collaborations, **ICCaT** emerged from our Open Circuit Festival of new music, which has attracted more than 3,000 visitors and hosted over 50 public events since its inception in 2014. Other colleagues contribute to the work of the core ICCaT group of composers and performers, including those beyond Music, as illustrated by the collaboration between Music and Architecture on an audiovisual ceramic installation in the 2019 Open Circuit Festival.

1.3. Strategy and Vision for Innovative and Impactful research

1.3.a. Strategy 2014-20

The central role of interdisciplinarity and collaboration in our research and impact, demonstrates our commitment to the four central elements of our strategy since 2014:

1. encouraging and supporting activity that transcends distinctions traditionally informed by methodology, disciplinary, or repertoire (**1, 2, 3, 4**)
2. developing mechanisms that support such activity (**1.2., 1.4., 3.1., 4.1.**)

3. integrating such activity at all levels, from PGR recruitment to staffing profile, collaborative projects, and funding/facility priorities (2)
4. actively developing partnerships and collaborations to enhance such activity (1.5., 3, 4.2., 4.3., 4.4.).

Our research environment has matured to the extent that all colleagues have a role in enriching and developing it, and researchers can thrive and contribute productively to an inclusive environment, irrespective of individual interests or personal circumstances. Together, we have consolidated the potential outlined in 2014 to build links within the Department and across and beyond the institution, including outside academia, and to achieve impact from our research, particularly through strong, sustained collaborations with key partners. Examples of these efforts and their outcomes are provided by the two impact case studies selected for submission.

1.3.b. Post-REF2021 Strategy and Vision

Our vision for research beyond REF2021, having firmly established our identity and seen the Department's contours emerge clearly since REF2014, is to take the discipline forward in innovative and impactful ways. We are well-placed to realise this vision, so our future strategy is focused on:

1. further developing our potential to achieve high-quality impact, especially by investing in strategic partnerships across the Liverpool City Region, and connecting that work with national and international partnerships
2. prioritising activities relating to external grant capture in order to develop our ideas for research and impact more rapidly and substantially
3. further honing the strategic function of our research centres, establishing them as international hubs for interdisciplinary research.

1.4. Developing and Supporting Interdisciplinarity

To deliver our strategic objectives of enhancing and supporting the inherently interdisciplinary nature of our research activity, we have invested in several new appointments that bring new areas of interdisciplinary research expertise to the Department while actively growing already-established areas (see 2.1.).

As structures supporting interdisciplinary activity, the **IPM** and **ICCaT** offer opportunities to develop strategic partnerships and collaborations across and beyond the institution. For instance, **ICCaT** researchers' compositions featured at an Ada Lovelace Day in 2019, collaborating with the Liverpool Women in Science and Engineering event series and the Royal Liverpool Philharmonic Orchestra (RLPO). Likewise, **IPM** researchers staged community workshops and a public

exhibition centred on the archives of the IPM and Liverpool's leading photographic gallery, the Open Eye Gallery, as part of the IPM's ongoing heritage-themed work.

A further key mechanism for fostering interdisciplinary collaboration, as well as a research community of staff and postgraduate students, is the Department's 'Tuesday Research and Impact Forum'. This series of weekly events not only attracts visits from external speakers but acts as a forum for discussion on a range of issues pertaining to research and impact, including themed discussions across individual specialisms, and presentations on work-in-progress. Also supporting collegial connections, a 'Research and Impact Colloquium' is held every June: all staff present on their current research and impact plans, receiving input on a current research challenge from colleagues and PGRs. 2020's colloquium focused on grant capture, with visiting speakers and workshop sessions to develop individual plans.

Colleagues work collaboratively across the institution to support interdisciplinary work. Examples include collaboration with:

- Modern Languages and Cultures on memory and wellbeing (**Cohen**)
- The Management School on music industry (**Flynn**)
- Computer Sciences and Health and Life Sciences on the recent establishment of the Applied Music Research Lab (**Coutinho**).

We also contribute to the Faculty's Digital Humanities and Social Sciences research theme and to two institutional themes: Heritage, within which Music is particularly well-represented, and Starting Well, Living Well, Ageing Well.

1.5. Strengthening Civic Engagement, Forging Partnerships and Enabling Impact

A key driver and inspiration for research and impact activities is our strong connection to the Liverpool City Region. This connection—contributing significantly to the University's Civic Engagement agenda—has been a distinctive feature of the **IPM's** activity since its establishment in 1988. **ICCaT's** Open Circuit Festival has helped ensure that since 2014, civic engagement has become firmly embedded in research across the Department. A renegotiated institutional partnership with the RLPO, for instance, has matured to yield opportunities for the realisation of research outputs (premieres from **Hackbarth**, **Fairclough** and PGRs) and of impact through research-informed events. Alongside numerous talks and events, this latter category notably includes *Within You, Without You*, a major concert produced by **Jones** and staged at Liverpool's Philharmonic Hall. Telling the story of George Harrison's discovery of Indian music, it introduced the heretofore unknown and uncredited Indian musicians on 'Within You, Without You.'

Colleagues are integrated with local creative and cultural sectors, and are frequently invited to contribute and advise in various capacities, informing outputs and achieving impact. Such collaborative activity is predicated on the Department's longstanding involvement in the City Region's cultural environment. This is exemplified by **Jones'** membership of the City's Beatles Legacy Group, founded following the City Council commission report he co-authored on the Beatles' legacy, and the significant role he and **Cohen** played in Liverpool's winning bid to achieve UNESCO City of Music status (2016). These two developments are strategically significant for the City Region, offering considerable opportunities for the development and promotion of music and music industry. They led to the establishment of the Liverpool City Region Music Board (2018), with **Tackley** and **Flynn** appointed members thereof, showing how possibilities for civic engagement with and through research are shared within the Department, especially with new colleagues and (in the case of **Flynn**) ECRs.

The potential to create impact from the Department's position within the city's cultural ecosystem is a feature of our two impact case studies. It also underpins ongoing work, including **Flynn's** research on the effects of the pandemic on Liverpool musicians, and **Um's** collaboration with the Liverpool Sound City Festival. Um's research enhances the international dimension of the Department's civic engagement and impact activity, by nurturing connections between Sound City, Zandari Festa in Seoul, and Beijing's Modern Sky festival. Colleagues have also capitalised on institutional partnerships with Tate Liverpool and National Museums Liverpool to create mutually beneficial projects based on interdisciplinary research. These include **Fairclough's** new composition/improvisation created as a response to a Fernand Léger exhibition, and performed at Tate Liverpool at an event relaunching the University's partnership with the organisation.

The Department's research interests are woven into the University's Lunchtime Concert series, which regularly attracts capacity audiences and, since the March 2020 lockdown, an average of c.2900 online viewers per concert. The series enables public presentations of compositions and performances, essential for practitioner-researchers, including performances of new work by **Tsang** and his regular collaborator, Canadian pianist David Braid. Other concerts inspired by staff research include a Ligeti Quartet performance of **Turowski's** composition 'SQ2' (2019), and a performance of **Fairclough's** new work for trombone and electronics (2016). This research-led and collaborative programming strategy will be further developed in the new **Tung Auditorium** from September 2021, offering a unique and accessible series in a top-specification venue. This will not only enable public-facing research dissemination and impact, but make a unique contribution to Liverpool's musical/cultural offer - further evidence of the Department's Civic commitment.

1.6. Making our Research Openly Accessible

The Department's approach to public programming is an excellent example of our commitment to making research accessible beyond academia. Other examples include an exhibition, blog and podcast series on European jazz (**Tackley**); AudioGuide software, a program for descriptor-based manipulation of audio, freely available online including the source code (**Hackbarth**); large openly accessible data sets arising from research in music psychology, such as ratings of emotion for music pieces (**Coutinho**); and **Jarman's** work as subject editor for the multi-disciplinary open access journal *Cogent Arts & Humanities*.

Biannual research meetings with individuals offer opportunities for all colleagues engaged in research to discuss the dissemination of outputs via open access. All are encouraged to apply for open access funding and to place work in our institutional repository (Liverpool Elements), respecting any embargo. Colleagues maintain an up-to-date list of publications with accessible links (e.g DOIs) for the departmental website. The majority have an ORCID ID to maximise distribution of open access publications.

1.7. Supporting a Culture of Research Integrity

Our researchers engage with the University's Research Ethics frameworks when designing and delivering projects. Applications for ethical approval cover various areas, particularly popular music studies and music psychology, and utilise the ethics codes published by various disciplines, such as those of the British Forum for Ethnomusicology. Applications are scrutinised at School or University level depending on risk levels. All submitted staff are involved in this review process, while **Coutinho** is a member (since 2016) of the central University Ethics Committee. Training in research ethics and research integrity is provided by the University (REF 5a, 2.6) and the Department runs dedicated ethics training workshops for its PGRs. The international research of staff and PGRs, much of it conducted across Asia, means that the Department has expertise in ethical issues spanning a range of social and linguistic environments.

2. People

2.1. Strengthening and Developing Interdisciplinary Expertise

The 18 Category A submitted staff (16.42 FTE) are all based in the Department and include 5 Professors, 2 Readers, 5 Senior Lecturers, 5 Lecturers and a Leverhulme Research Fellow. Of these, 7 are female and well represented at senior levels, and 5 are international and 5 are BAME. The Department also comprises visiting and honorary research fellows, and non-research staff (including full-time, permanent lecturers and technicians, and instrumental tutors).

Since 2014, six permanent full-time research-active colleagues have been appointed (**Coutinho, Flynn, Tackley, Tessler, Tsang, and Turowski**), including a new Head of Department from 2016 (**Tackley**) and three ECRs (**Flynn, Turowski and Singh- a Leverhulme Early Career Fellow**). They have contributed to a 46% growth in the size and scope of the Department, and reflect our strategic commitment to fostering impact and an environment that encourages diverse and interdisciplinary approaches to music research. They also bring new areas of research expertise to the Department (music psychology, jazz, music and sport, composition for digital games), while actively growing already-established areas (notably music industry and practice-led research).

Appointments in the latter area have further enabled the strategic development of **ICCaT** and its international networks, illustrated by the collaborations of **Tsang** and **Turowski** (Section 4). These appointments also mean that that audiovisual media is (a) now firmly secured as a distinctive departmental strength, with nearly half the Department's staff and several PGRs working on AV media in some form, and (b) more praxis-based than our primarily theoretical focus in 2014.

Tessler and **Flynn** were appointed to strengthen the Department's expertise in music industry studies, supporting Jones, Leonard, Strachan and Um. Their appointments: (a) confirm the Department as an international centre of excellence in the field; (b) support the expansion of two MA programmes (Music Industry and Classical Music Industry, the latter in partnership with the RLPO); and (c) facilitate growth in the number of PGRs working on music industry. **Tackley** was appointed to extend the Department's interdisciplinary specialism in popular music studies, bringing expertise in jazz history and culture, and enhancing our concentration on heritage as a key research theme. **Coutinho's** work in music psychology is equally interdisciplinary, bringing new collaborations with health and life sciences.

As a Leverhulme Fellow specialising in ethnographic research on boxing and hip hop, **Singh's** research builds on the Department's strengths in popular music ethnography and brings a new emphasis on music and sport, perfectly suited to strengths in the University and the city in which it sits.

2.2. Building a Flexible and Dynamic Research Community

The Department's proactive approach to staff development results in an environment that supports a dynamic and responsive research community within which individuals are nurtured. The progression of individual researchers is regarded holistically, with a keen eye on their particular needs. The goal is to foster a community of researchers who are valued for their contributions, supported in their plans, and connected productively with other researchers in and beyond the Department, at every stage of their career.

2.2.a. Supporting New Staff and ECRs

All new starters engaged with research are encouraged to contribute as soon as possible to the Tuesday Research and Impact Forum, ensuring that they are quickly integrated into the research community. They are given lighter teaching loads throughout their probation period (normally three years) to ensure they retain sufficient research time. Evidence of the effectiveness of our support for ECR development is provided by the 2019 promotion to Chair for **Forkert-Smith**, an ECR in REF2014. Furthermore, ECRs participate in dedicated School and Faculty networks, integrating them within a larger research community, and offering them tailored research and impact support. A dedicated University research fund supports ECRs and staff returning to work after personal leave (the ECR and Returners Fund). One example is Flynn's recent award for research on black musicians in Liverpool.

For postdoctoral researchers, access to training and mentoring accords with the UK Concordat to Support the Career Development of Researchers, and includes the University's Prosper initiative, preparing postdocs for a wide range of careers. Postdocs working on projects supported by the University's Knowledge Exchange scheme (**Cohen, Um, Coutinho**) and AHRC cultural engagement scheme (**Cohen**), have benefited from additional training in public engagement and impact (Mangaoang, Waldock, Lin). All postdocs are supported to gain experience of organising research and impact events, such as the international Sonic Memory symposium (2018) organised by Waldock with support from an Institute of Musical Research award.

2.2.b. Progressing Research Careers and Developing Sustainable Leadership

Since REF2014, the Department's bespoke research mentoring programme has been further honed, on the basis of two egalitarian principles:

1. all staff may be active researchers, whether or not they are on research-active contracts
2. staff have variable levels of experience in all areas of research activity, independent of formal seniority.

Thus, in a development from 2014, the mentoring programme is now open to all staff, regardless of contract, supporting the ambitions of all colleagues to participate in research communities. Moreover, mentors are now identified according to expertise in the area under focus for the mentee, enabling a flexible and strategic approach to development across different areas of research activity. Examples of our success in developing and expanding sustainable leadership across a wide spectrum of musicological research include:

- the appointment of **Tackley** (Jazz) as Head of Department, expanding the Professoriate consisting of **Cohen** (Popular Music) and **Spitzer** (Analysis/Aesthetics)
- the 2019 promotion to Chair for **Forkert-Smith** (Analysis) and **Fairclough** (Composition)
- recognition of others whose expertise is important to achieving our aims, such as **Hackbarth** (appointed Director of **ICCaT** and promoted to Senior Lecturer in 2018)

Developmental conversations about promotion and progression are embedded into the Personal Development Review process with the Head of Department. This ensures maximum institutional support and a holistic view of an individual's workload, priorities, training needs and career goals. During 2020, to develop sustainable leadership, PDRs were also undertaken by Fairclough, Jarman and Forkert-Smith.

2.2.c. Enabling Research and Impact Through Diverse Mechanisms

Workloads, including research leave, are managed by the Head of Department, with 40% of time over a year allocated to research for research-active staff. The Department invites permanent post-probation staff at all career stages, regardless of the term or fraction of their contract, to apply for a semester of research/impact leave after six semesters of teaching. Additionally, teaching and/or administrative responsibilities are strategically rearranged for staff completing a significant output, making a substantial contribution to impactful activities, or applying for time-sensitive grants. For example, a 12-month period of leave enabled **Spitzer** to complete his 2020 monograph. To support their research activity, colleagues can apply for School-level financial support in the form of the Research Development Initiative Fund (RDIF – see 3.2.b.).

All staff, irrespective of contract type, are invited to participate in the end-of-year Research and Impact Forum, to meet biannually for individual research and impact reviews, and to contribute to the Tuesday Research and Impact Forum. Impact workshops and presentations are a prominent part of the latter, helping to ensure its embedding across all research in Music, from the projects of PGRs to those of senior researchers. This has generated projects that will develop into the case studies for the next REF, and the Department has invested in new partnerships to facilitate this. For example, its partnership with the lobby group, UK Music, which represents every part of the UK recorded and live music industry, enabled **Flynn's** research on the effects of COVID-19 on the City Region's music industries. The research informs the strategic decisions of the LCR Music Board and has led to a UKRI funding application.

To further enable impact, staff participate in the University's annual 'Making an Impact' week, which showcases best practice and provides a forum for discussion. The Faculty Impact Forum provides regular workshops, guidance and support for impact, and the Faculty Impact Officer

works closely with the Department to develop impact projects. Additional support for our impact case studies has been provided by one of the Faculty's eight dedicated impact postdoctoral assistants, funded through HEIF.

Research and impact are also enabled by the Department's commitment to research-connected teaching at all levels, recognising the importance of teaching for both disseminating and informing research. All research-active staff now have a teaching profile that connects directly to their area of research expertise; a principle extending to future curriculum development. In PGT provision, our strategic aim of strengthening and expanding areas of research strength, including music industry studies, led to new staff appointments and a new Classical Music Industry MA from 2017. Two new MA programmes (in Beatles Heritage and Audiovisual Media) under development for 2021 will fully integrate existing research specialisms offered across the Department, and facilitate strategic growth of these areas by attracting further new appointments and PGR applications.

2.3. Supporting, Nurturing and Integrating the Next Generation

Strategic efforts to strengthen the Department's PGR community have paid off, putting us at the forefront of developing the next generation of research leaders. We have established a successful practice of targeted recruitment of excellent external applicants, and early identification and encouragement of promising internal applicants. Since 2014, the number of research students has gradually increased (Fig. 1), now representing an international community (Fig. 2).

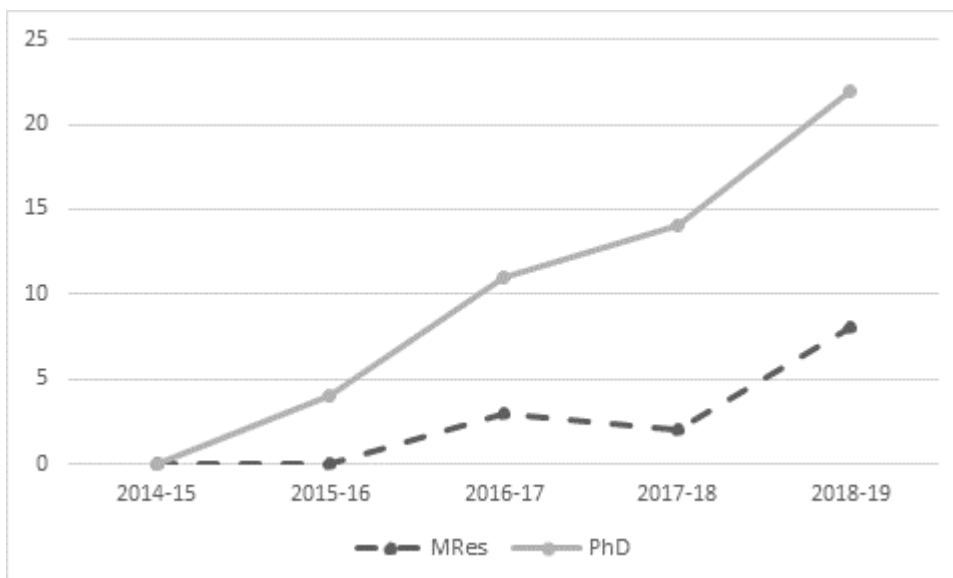


Figure 1: Number of research students, 2014-2019

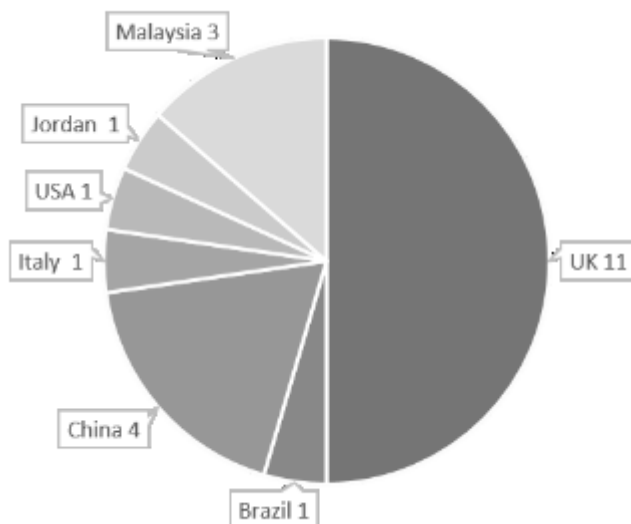


Figure 2: International distribution of PhD students (n=22), 2020-21

Support for students begins at proposal stage, developing applications through collaboration with potential supervisors to ensure quality and fit. Once registered, they are supported through institutional and cross Faculty mechanisms, including the Faculty's engage@liverpool programme [REF 5a: 3.5], a network promoting interdisciplinary approaches and the Department's tailored training and development processes. The latter help to develop a sense of community among our PGRs. They meet weekly for training on all elements of research, focusing particularly on subject-specific elements, mentored by the Department's Director of Postgraduate Research. Progress is monitored at an annual student colloquium, where all students present work-in-progress to a Department-wide audience.

PGRs are central to the vitality of the Department's research environment through their active participation in funded research projects and various research events. For example, Costabile (PGR) collaborated with **Coutinho** on 'Interface Soundscapes' exhibited at the Tate Liverpool and at the University, while Anderson (PGR) worked with **Flynn** on his COVID-related music industry project. Along with visiting and postdoctoral scholars, our PGRs regularly attend, contribute to and chair the Tuesday Forum. Examples include a visiting student from the University of Athens, Georgia, speaking on the Athens drag scene; and "double features," where students and supervisors present on their respective research, fostering a reciprocal exchange of ideas.

The School and Faculty have dedicated competitive funding schemes to support PGRs with conference attendance, training, fieldwork, events-organisation, and work placements. The latter scheme has afforded placements for six of our PGRs since 2014, including at the RLPO, FACT and Tate Liverpool. Students are regularly offered teaching experience in the form of undergraduate seminars to support modules. Late-stage PhD students and postdoctoral

researchers are invited to share their research with undergraduates, enabling them to refine ideas and gain experience in research-led teaching, supporting career development. Several students have subsequently used this experience to acquire HEA Associate Fellowship.

Departmental support for PGRs and their research-career development has resulted in publications of books drawing on their doctoral research. Recent examples include monographs by Maloy (2020), Mangaoang (2020), Thompson (2019) and Wolfe (2019), and Hall's co-edited volume (2019). There have also been prestigious appointments, including University Lectureships (most recently, Millea's 2020 appointment at Northampton) and Fellowships (including a four-year appointment at Oslo for Mangaoang [2017]).

To ensure the sustainability of our PGR community, students at all levels are fully integrated into the Department's research culture through various initiatives, such as the institutional Undergraduate Research Scheme (URS). Several colleagues have benefited from this scheme, which offers students a paid placement working alongside academics on their research, thereby developing research skills and encouraging research ambition among the Department's most junior scholars. For example, two students developed digital resources for public engagement focused on the IPM archive, as part of a research collaboration with the Department of Modern Languages and Cultures (Shaw/Cohen). The effectiveness of such initiatives is evident in the progression of undergraduate and PGT students to doctoral research, with more than half our current PhD cohort comprising former undergraduate and/or postgraduate students from the Department.

2.4. Addressing EDI and Staff Wellbeing

Sensitivity to equality and diversity, and to the wellbeing of staff and students, is embedded throughout the Department's strategy, policies, procedures, and culture. The University's Equality Framework covers a range of issues, including staff recruitment, retention and progression, and ensures significant autonomy over working hours and location [REF 5a: 3.1]. The University's Flexible Working Policy is available to all staff and several colleagues use this to ensure their workload is appropriately managed given caring responsibilities, disability, religious observance, or other circumstances. For example, during the census period two research-active colleagues took both Adoption and Shared Parental Leave, each taking six months consecutive leave.

The institutional Code of Practice ensures that robust governance arrangements are in place for all of our REF processes. The Departmental UoA Governance Group is committed to the principles of transparency, consistency, accountability and inclusively. It is also gender-balanced, includes one ECR member, an EDI rep, and an independent observer, with all members having completed Advance HE EDI training.

Locally, our Strategic Plan ensures that research is conducted within a transparent, inclusive, and supportive Departmental culture in which diverse contributions are valued. For instance, distributing responsibility for research governance and annual staff appraisal across several members of staff offers colleagues a variety of avenues through which to raise any individual concerns they may have in relation to these areas, as well as opportunities to receive a rich array of feedback and advisory input. Staff wellbeing and EDI matters are actively supported in part by the use of the Tuesday Forum, the Thursday Postgraduate Research Forum and regular Department meetings, all of which function as places to discuss relevant issues. Visiting speakers to the Tuesday Forum have been invited specifically to address wellbeing

The interdisciplinary research on identity politics and wellbeing in which many colleagues are engaged has driven their active contribution to EDI initiatives, and to networks supporting staff and research students with certain protected characteristics. For example:

- **Jarman** (vocality/queer theory) - Steering-group member, UK network Equality, Diversity and Inclusion in Music Studies; founding board member, national LGBTQ+ Music Study Group; member of the University's LGBT+ Network
- **Tackley** (race/identity) - commitment to issues concerning Black British history and public engagement (see impact case study); member of several external BAME networks

A commitment to gender studies, evident in their research publications, drove several colleagues to join the School's Athena SWAN and EDI Committees (**Cohen** was the School's Athena SWAN lead [2016-2019]), and to engage with gender through externally facing activities. For example, staff organised events (*Women and Music: A Liverpool Story Retold*) in collaboration with the RLPO, while Leonard presented a keynote at the *Exploring Gender Dynamics in the Music Industry* conference (University of Groningen). Other EDI presentations include **Singh's** virtual seminar on ethnomusicology and decolonisation (University of California, Santa Barbara, November 2020).

Section 3. Income, infrastructure and facilities

3.1. Investing in Infrastructure and Facilities

The Department has attracted significant investment from the University within the census period, a major commitment to the sustainability of our research activities. By greatly increasing the provision and operation of the facilities available for music research, this investment creates exciting opportunities for future development.

Opening in September 2021, the 400-seat **Tung Auditorium** is under construction as part of the £22m Yoko Ono Lennon Centre, with an additional £3m specifically for the auditorium. The management of the auditorium will be within the Department of Music, the express aim being to connect it with research activities. Developing the approach to programming pioneered by our Lunchtime Concert series, research will drive the artistic programme; additional institutional funds are being made available for this. Equipped with state-of-the-art audiovisual and surround sound capabilities, the Tung will provide a professional environment for composition and performance projects, enabling the commission and premiere of new work by the Department's researchers. The new facilities will greatly benefit the research output of **ICCaT**, while offering all our researchers an excellent basis for public engagement and impact activities. We will be able to build more actively on collaborations with local organisations, particularly our partnership with the RLPO, whose specialist contemporary music Ensemble 10/10 has been at the heart of the Open Circuit Festival. This Festival and Lunchtime Concerts are currently funded by the School of the Arts with a combined budget of £32K.

Practice-research in the Department has recently benefited significantly from the £3.2m refurbishment of the Gordon Stephenson building. It includes £700k expenditure on specialist facilities and equipment, adding:

- the 'Hub' rehearsal/performance space with grand piano and full sound and light rig
- a recording studio for multichannel electronic music composition with large live room offering space for performance
- a games research room
- 10 practice rooms with new pianos, including two grands
- a Composition Research Studio, facilitating work with surround sound.

Designed for disabled access and supported by two dedicated technicians, from one in 2014, these facilities have particularly benefitted **ICCaT** researchers, enabling compositions involving live electronics and the realisation of multimedia works, including **Turowski's** collaboration with the Ligeti Quartet, while providing a venue for research meetings and symposia.

Research on jazz and popular music has benefitted from investment into new facilities for the unique **IPM** archive, incorporating extensive collections of sound recordings and paper-based materials, including the records of the International Association for the Study of Popular Music (IASPM). The largest music archive in North-West England, it is professionally managed by the University's Libraries, Museums and Galleries service, a new development since 2014 that has facilitated its increased use for research purposes. It has been relocated to newly refurbished spaces close to the Department, improving access for staff, PGRs and visiting researchers. This

has enabled the groundwork for an ambitious new project involving the Department's newly established record label, Redbrick Records, which will provide a basis for disseminating research and creating impact using tracks from the archive. It is the latest in a series of post-2014 IPM projects using the archive for research-led public engagement and impact. Strategically aimed at making the archive publicly accessible, these projects have yielded exhibitions, documentaries, digital resources, and performances produced collaboratively with external organisations.

3.2. Securing Support and Income for Research and Impact

The census period has seen a 2,500% increase in the Department's annual external research income. Sustaining and developing this trajectory is one of our post-REF2021 strategic priorities (1.3.b.), hence the Department's recent grant capture workshop funding workshop (1.4.), and our prioritisation of requests for research leave that have income-generating components in the plan, particularly as PIs of larger grants. Income from a combination of external and internal sources has supported our research and impact, and helped us meet the Department's strategic aims of developing interdisciplinary research and impact, frequently through nationally and internationally collaborative projects.

3.2.a. External Funding

The increase in research income reflects the Faculty's ambitious programme of events and initiatives to develop and support funding applications, and the mentoring and support provided by the Department and School to potential applicants (1.4). **Singh's** Leverhulme ECR Fellowship (£175k), for example, resulted from an internal management process involving rigorous selection and support for the most competitive candidates (at Department, School and Faculty levels), followed by dedicated and tailored support to develop and strengthen the bid. An exhibition on the project is planned for the **Tung Auditorium** in 2022.

Cohen's AHRC Cultural Engagement award, matched by an award from the University's Knowledge-Exchange Partnership scheme (£26k total), enabled public engagement with the IPM archive. Resulting outputs included a public exhibition, a weekly broadcast on BBC Radio Merseyside, a 90-minute Bay TV documentary, and a 'Concert from the Collections' in the University's Leggate Theatre (2017). A further public engagement project emerged, based on the archive's collection of Latin American political song, and supported by an award from the Northern Network for Medical Humanities Research (Shaw/Cohen, 2019).

Our research has benefited from colleagues' roles as Co-Is on externally funded projects. For example:

- **Turowski** and **Cohen** are Co-Is on partnership projects supported by the Canadian Social Sciences and Humanities Research Council, and led by Concordia, Montréal. The 3-year 'Technologies of Notation and Representation' project (Can\$200k total) provides ECR **Turowski** with an international network to develop his work on music and gaming. The 7-year 'Ageing, Communication, Technologies' project (Can\$3m total), supported the Department's Sonic Memory symposium (2019) and Cohen's *Troubling Inheritances* project, enabling a deep collaboration between music scholars in Europe, North America, and Australia.
- As Co-I for the AHRC Songwriting Studies Network (£30k total), **Jones** collaborated with Birmingham City University on international events involving scholars, industry workers and practitioners, and will lead an IPM Songwriting symposium in 2021.
- **Strachan** was Co-I on the Arts Council funded 'Syndrome' with Mercy and the Hive Collective (£53k), an innovative electronic music and audiovisual media collective, resulting in installations being exhibited across the UK and in Japan.

Research and impact activities have also been supported through commissions. For example:

- Support from Arts Council England, the British Council and ERASMUS enabled **Fairclough** to stage performances of his work in Brazil, Russia and Prague in collaboration with high-profile artists (pianist Joanna MacGregor; percussionist Joby Burgess; composer/singer Laura Bowler).
- **Hackbarth** received a prestigious commission for Ensemble Orchestral Contemporain, which included a residency at L'Institut de Recherche et Coordination Acoustique/Musique (IRCAM) for a composition performed in Europe, the USA and Australia (£8.5k).
- Support from the Canada Council and the Casalmaggiore Festival enabled **Tsang's** ongoing collaborations with pianist-composer David Braid.

The Department benefited from £20k acquired through membership of the HEFCE-funded Ensemble+ consortium led by the Royal Northern College of Music (RNCM). This funding enabled us to equip a room with state-of-the art technology for real-time interaction between composers, performers and musicologists across different institutions. We particularly envisage the possibilities to work with RNCM performers (building on established connections with RNCM's PRISM Centre for Practice and Research in Science and Music), and to provide an analytical component within discussions of performance, developing a successful 'analysis live' model where **Forkert-Smith** and colleagues have worked with ensembles in Lunchtime Concerts to offer analytical interpretation of works performed.

3.2.b. Internal Funding

Competitive internal funding, including research leave, has been strategically deployed to support cultural engagement, generate impact, and for pump-priming purposes. For example, **Coutinho's** award from the internal Wellcome Trust Institutional Strategic Support Fund (£15k) supported a project developing a new music-based intervention for depression conducted with NHS Northwest, Merseycare, MIND Wirral, the Brain Charity, and the Liverpool Clinical Commissioning Group. Following a successful pilot, the project is moving towards clinical trials. An award from the University's Industrial Strategy Challenge pump-priming Fund (£15k) supported **Cohen's** collaborative research on music, memory and ageing with Lisa Shaw (Modern Languages and Cultures), enabling her work on a jointly authored book for healthcare professionals and carers (2020). **Um's** award from the University's Knowledge-Exchange Voucher Scheme (£10k) enabled collaboration with Modern Sky, Zandari Festa, and Liverpool Sound City (1.5.), and resulted in a film (Um, Lin, Sawyer 2019) screened to industry professionals.

The School of the Arts' competitive Research Development and Impact Fund (RDIF) has supported a wide range of research and impact activities (£61k over the period). **Fairclough**, for example, used ERASMUS and RDIF funding to develop a reciprocal partnership with Prague Academy involving collaborative compositions and performances. In 2019, new compositions from both institutions were featured in concerts in Liverpool and Prague co-funded by both institutions. A RDIF award enabled **Tackley** to develop partnerships and public engagement in the run up to the 'Rhythm and Reaction' exhibition based on her work on Black British jazz.

3.2.c. PGR and Postdoctoral Funding

Our strategic, sustained effort to support PhD applicants and students (Section 1.3a) has increased income through successes in scholarship funding, with colleagues working closely with potential applicants who have a strong affinity with the Department's research strengths to develop their proposals. Since 2014 there have been 6 fully-funded studentships from the AHRC-funded North West Consortium Doctoral Training Partnership (£360k), with additional scholarships coming from international sources, including National University of Ireland, University of Reykjavik, University of Jordan and the Malaysian government. Successes with competitive internal scholarships include those from the Duncan Norman Scholarship Fund and Tung Foundation Scholarship Fund. We regularly host visiting research students and postdoctoral researchers supported by external funding; for example, Lauro Meller (Federal University of Rio Grande do Norte, Brazil, who published a book on Iron Maiden based on his fellowship) and Manlin Wang (Communications University of China). Following c. £20K refurbishment, PGRs and postdoctoral researchers can have a desk in the Department, so they are demonstrably part of the Department.

4. Collaboration and Contribution to the Research Base, Economy and Society

Our collaborations, networks and partnerships with academic and non-academic stakeholders have been driven by a strategic commitment to the development of interdisciplinary and cross-repertoire research, and to research that contributes to both the world-leading aspirations of the University and the development of the Liverpool City Region. This has resulted in contributions to the research base and wider society, and has had significant and transformative impacts. In line with our staff development strategy, it been achieved by ECRs as well as senior staff, and by female and international staff.

4.1. Research Centres as Vehicles for Local, National and International Collaboration

Our research centres provide a central mechanism for fostering research collaboration internationally, nationally and locally, and for supporting new and developing strategic partnerships, with a focus on each centre's core research themes. For example, **Cohen, Turowski and Jones**' role as co-applicants on international partnership/network projects (3.2.a.), led to their organisation of international **IPM/ ICCaT** workshops and symposia, and to creative and interdisciplinary outputs co-authored and co-edited with international colleagues. At **ICCaT**, support from external organisations enabled the international creative collaborations of **Hackbarth** and **Fairclough** (3.2.a).

The contributions of the IPM and ICCaT to national and international research communities have fostered and depended on a strong culture of local collaboration, including extensive research collaboration within the institution (e.g **Fairclough's** [ICCaT] practice-based collaboration with Worth, 2019; and numerous publications co-authored by IPM researchers).

4.2. Developing Impact and Enriching the Research Environment

We are committed to collaboration with non-academic users and beneficiaries, and to exchanges between academia and business, industry, public and third sector bodies. Commonly, we work closely with these stakeholders, from the planning of events and projects through to completion and evaluation. This has benefited a broad range of users, including public institutions, artists, audiences, and community groups. The Department's research centres have been central to this process, enabling our prominent role in advancing the cultural elements of the University's Civic Engagement strategy, and resulting in successful cultural and policy impacts.

Due to its close connections with the Liverpool City Region and the music industry, the **IPM** is well-placed to respond to national and international priorities and initiatives in impactful ways, for example in the contribution of IPM researchers to the 2016 Beatles Legacy report on the value of

the Beatles to the local economy and to the consequent Beatles Legacy Group. The group's recommendations have been incorporated into the Work Programme of Liverpool City Council. The Department's international collaboration and impact have extended well beyond these two case studies, as illustrated by various **IPM** projects especially. One example is **Um's** leadership of the *K-Pop on the Global Platform* project supported by the Korean Foundation for International Culture Exchange (KIFE). Based on collaboration with Universities of Vienna and Hildesheim, the project resulted in a report commissioned by KIFE (Um et al., 2019). **Leonard** engaged an audience of international music industry delegates in her research on gender and the music industry, through a keynote presentation for Nova Scotia Music Week (2015), prompting a public commitment by the organisation to improve equity in the industry, as demonstrated in its 2016 annual report.

The Department's membership of UK Music's Academic Partnership since 2018 has strengthened research collaboration with industry by broadening the range of guest speakers visiting the Department, providing presentation and performance opportunities for staff and students at industry events, and facilitating and supporting connections with industry for research bids and projects. Work is underway to develop the collaboration with the RLPO's Ensemble 10/10 as a year-round residency in the new **Tung Auditorium**, where future Open Circuit events will take place, ensuring that the work of ICCaT becomes embedded in the musical life of the city.

A further example of collaboration with non-academic users and beneficiaries is provided by **Coutinho's** work on music and depression (3.2).

4.3. Engaging Diverse Communities and Publics

Our approach to impact and public engagement has been strategic, but also flexible enough to take advantage of emerging opportunities. It is designed to enable all our researchers, from PGRs and ECRs to professors, to engage with a broad and diverse range of communities and publics, from the world's media still obsessed with The Beatles to small communities of jazz fans, in ways that both draw on and generate impactful research.

Tackley's success in fostering such engagements contributed to her 2019 University of Liverpool award for Outstanding Contribution to Public Engagement, while **Jones** was shortlisted for the same award in 2018. His research on George Harrison and Indian Classical Music restored a 'missing piece' of the history of the Indian Classical Music diaspora and received global news coverage. He subsequently contributed his research insights to Liverpool's 50th anniversary celebrations of The Beatles *Sgt. Pepper* Lonely Hearts Club Band album, through public talks at high-profile venues.

Other colleagues have engaged audiences in their research through pre-concert talks, performances and media appearances. Examples of the latter help to illustrate the diversity of these audiences. Included are international audiences engaged through interviews for Chinese and Indian newspapers (**Um**, 2019; **Jones**, 2017) and German radio (**Jarman**, 2016), and national audiences engaged through appearances on national BBC television and radio (**Jones**, **Um**, **Tackley**, **Flynn**, **Leonard**) and national newspaper articles (**Jones**, 2017; **Forkert-Smith**, 2015). Providing evidence of the popular appeal of our research are appearances on *Bargain Hunt* (**Jarman**, 2018), *BBC Antiques Roadshow* (**Jones**, 2016), *Sky Sports News* (**Forkert-Smith**, 2014) and *Countryfile* (**Strachan**, 2015).

Museum and heritage professionals have been engaged in our research through several keynote presentations. They include **Leonard's** presentations at the first conference of the Nordic Network of Popular Music Museums (Trondheim, 2019), and at the National Science and Media Museum in Bradford, where she contributed to the development of new Sound and Vision Galleries opening in 2022. **Cohen's** research on heritage and wellbeing (with Shaw and Waldo) conducted in collaboration with care providers, led to a presentation to museum professionals participating in a conference at Liverpool's Victoria Gallery and Museum (2019). It showed the potential wellbeing effects of music archives for those living with dementia and age-related memory loss.

Work on music industries has likewise enabled relationships with audiences and research users, including the Musicians' Union and PRS (**Flynn**), the Music Managers' Forum (**Jones**), and **Um's** collaboration with Modern Sky, Zandari Festa, and Liverpool Sound City (1.5 and 3.2.).

4.4. Contributing to the Sustainability of the Discipline

Our commitment to sustainability in the discipline is evident through regular contributions to key networks and organisations, as well as hosting and contributing to significant events. We hosted the Annual Conference of the Royal Musical Association in 2017, featuring the most disciplinarily diverse programme and attracting the largest audience in the conference's 55-year history; we will host the IASPM UK/Ireland biennial conference in 2022. Additionally, the Department remains the 'home' of IASPM and custodian of the organisation's records.

Events are often explicitly interdisciplinary, such as the Sonic Memory symposium (2019), featuring specialists in the study of ageing and communications as well as music. Our researchers also engage regularly in interdisciplinary collaborations around University strategic research themes, being particularly active in respect to the Heritage and Starting Well, Living Well, Ageing Well themes. **Cohen's** collaboration with Shaw (Modern Languages and Cultures) has led to grants and publications on music, ageing and wellbeing, while **Coutinho's** Applied Music

Research Lab involves researchers from Liverpool's Faculty of Health and Life Sciences alongside therapeutic industry collaborators.

Contribution to the sustainability of the discipline is also evident in our editorial roles on 13 peer-reviewed journals serving international research communities. They encompass leading journals in the field, with a wide coverage of the discipline. Highlights include **Jarman's** Editorship of *JRMA* (2018-) and **Spitzer's** role as Editorial Board Chair for *Music Analysis* (2010-2019). Colleagues also serve as book series editors, often championing interdisciplinarity (**Cohen**, for instance, was co-editor of the *Bloomsbury Studies in Religion and Popular Music* [2014-2017]). The majority of submitted staff have taken on reviewer and editorial-board roles for academic journals and publishers, including work in fields beyond the discipline. **Jarman**, for instance is an editorial board member for the *Journal of Australian Feminist Studies*.

Additionally, the Department contributes to the research base through committee membership. **Forkert-Smith** is President of the Society for Music Analysis (2019-) and co-founder of the European Theory and Analysis Network, **Tackley** is Vice-President of the Royal Musical Association (2020-) and **Jarman** serves on the inaugural steering-group for a national network, EDI in Music Studies (2020-). **Cohen, Leonard, and Tackley** served as AHRC College Members during the census period, and others undertake reviews for a wide range of funding bodies, from the ESRC to the Science Foundations of Austria, Switzerland and Israel. Colleagues also sit on Advisory Boards for grants held at other institutions, and on conference panels and organising committees, including steering committees for EUROMAC (**Forkert-Smith**) and the international Rhythm Changes jazz conference (**Tackley**). Crucial for the future sustainability of the discipline is our work with PGRs (including PhD examining roles across the UK, Europe, and Australia), and contributions to postgraduate training (including **Spitzer's** residencies at Potsdam University and **Jarman's** work with a visiting student from Athens, Georgia).

Other forms of national and international recognition include Visiting Professorships (**Tackley**, Open University; **Cohen**, Griffiths and Turku Universities), Professorships in Residence (**Tackley**, EFG London Jazz Festival 2017) and numerous prestigious conference keynotes and invited presentations. **Spitzer** has presented keynotes at major international conferences including in Europe, Australia and the USA. **Jones** and **Um** presented at the Communication University of China; there are many other examples. Our research has also attracted external awards, including **Strachan's** monograph *Sonic Technologies*, awarded a Certificate of Merit at the Association for Recorded Sound Collections Awards for Excellence 2018, and **Tsang's** album *Corona Divinae Misericordiae*, nominated for a prestigious Juno award for Best Classical Album 2019. **Singh's** Leverhulme Fellowship project received the Marie Skłodowska-Curie Actions Seal of Excellence award for outstanding researchers (2019, Horizon 2020).

We are proud of how our research environment has matured and developed to support the diversity of ongoing, often interdisciplinary music research. This provides a strong foundation that will enable the Department to remain at the forefront of the discipline in the future.