

Impact template compilation

This document contains 4 examples of impact templates produced within each of the four main REF panels. These templates are chosen from the highest scoring departments, and provide useful insights into how high performing departments chose to frame their support for public engagement

The templates are:

Panel	Unit of Assessment	HEI
A	2: Public Health	University of Bristol
B	7: Earth systems and environmental sciences	University of East Anglia
C	22: Social Work and Social Policy	LSE
D	35: Music	University of Southampton

Institution: University of Bristol

Unit of Assessment: UoA2: Public Health

a. Context

Research in this Unit of Assessment is undertaken within a single organisation, the School of Social and Community Medicine (SSCM) at the University of Bristol (UoB). SSCM staff work seamlessly across over-arching *research groups*, focusing on: genetic and molecular epidemiology, aetiological epidemiology, primary care, public health and health services research. Major cross-cutting *research themes* include mental health, infection, cancer and cardiometabolic health. SSCM *centres* include the MRC Integrative Epidemiology Unit (IEU); the Avon Longitudinal Study of Parents and Children (ALSPAC) birth cohort study; and the centre for Development and Evaluation of Complex Interventions for Public Health Improvement (DECIPHer). Our aims are to conduct research with clear impacts on the health and well-being of patients and the population, utilising basic and methodological science approaches and addressing issues of importance to policy-makers, practitioners and the public.

The main non-academic users and beneficiaries of our research are:

- **Members of the public** through health promotion, disease prevention and screening, including: teenagers through smoking uptake prevention, pregnant women through dietary advice and the general public through reduced mortality and morbidity and increasing involvement in research
- **Vulnerable members of society** via early identification of threats to future health including: care practices to reduce infant mortality; improved identification and referral of victims of domestic violence; and reduced access to lethal suicide methods
- **Patients** through the implementation of research to reduce morbidity and mortality including: optimised timing of antiretroviral therapy for patients with HIV; and information enabling men to make an informed choice about prostate cancer screening
- **Third sector** by providing the evidence to inform disease prevention strategies including: the Samaritans' suicide media reporting guidelines; and the Foundation for Sudden Infant Death Syndrome (now the Lullaby Trust) for infant care advice
- **National and international health policy makers** by providing evidence to inform policies, including those of: the World Health Organisation (WHO); UNICEF; the United Nations; the UK government; the Medicines and Healthcare products Regulatory Agency (MHRA); the Human Fertility and Embryology Authority; and NHS bodies such as the National Institute for Health and Care Excellence (NICE), and the National Screening Committee.

Main types of impact and how these relate to our research activity

Our aim is for our research to deliver impact in a wide range of areas, particularly on:

- **Health and welfare** including: decreased suicide mortality through reduced access to medicines, poisons and bridge jumping locations; improved quality of life through increased rates of second eye cataract surgery; and reduced teenager smoking uptake through a school based, peer led intervention.
- **Public policy and services** through our research informing WHO policies to reduce global pesticide suicides and intimate partner violence; the WHO/UNICEF Baby Friendly Initiative to promote breastfeeding; and UK legislation to (i) improve the quality of infant death investigations (incorporated into the Children Act 2004); and (ii) reclassify cannabis from category C to category B. Our research underpinned the recommendation that one-two servings of seafood per week is beneficial during pregnancy and a change in the Human Fertility and Embryology Authority guidance on the number of embryos that should be transferred during IVF treatment. Since 2008, Unit staff have led or contributed to 11 NICE clinical/ public health guidelines and our Mixed Treatment Comparisons (MTC) methodology has been used in 59 of 129 NICE Technology Appraisals.
- **Practitioners and services** via our research leading to: increased and more timely primary care referrals of patients with the most commonly presenting cancers; increased referral of victims of domestic violence; and the Kennedy Committee adoption of the Bristol approach to the investigation of unexpected infant deaths, resulting in a major change in the way medico-legal agencies interact to improve the quality of services for bereaved families.

- **The economy** through our research leading to millions in pounds of savings for the UK and other economies including: preventing the non-evidence based implementation of prostate cancer screening in the UK, with consequent avoidance of primary and secondary care costs; and the development and application of statistical approaches that have shown, for example, that C-reactive protein was not causally related to cardiovascular disease, thereby preventing futile lines of subsequent medicine development.

b. Approach to impact

How staff interacted with key beneficiaries to maximise impact

Our most impactful research has resulted from a strong commitment to knowledge exchange and translation with academics *working directly with the beneficiaries of research*, from study inception to policy implementation. Patient and Public Involvement (PPI) has been of key importance, both through long-standing groups including DECIPHER's 'ALPHA' (Advice Leading to Public Health Advance) and ALSPAC's 'TAP' (Teenage Advisory Panel), as well as increasing involvement of individuals as partners in research projects such as 'Protect' (Prostate testing for cancer and Treatment). Many staff are chairs or members of international and national policy and other health-related groups, enabling us to understand the challenges faced by patients, clinicians, schools, voluntary organisations, Local Authorities, Royal Colleges, clinical commissioning groups (CCGs) and policy makers, and ensure our research takes these into account. Key examples are:

a) Preventing domestic violence – interactions to identify impactful research

Feder, a practising GP and professor of primary care, met with third sector organisations to discuss the health impact of domestic violence and engaging healthcare professionals in an issue which they generally avoided. This stimulated research demonstrating that domestic violence is considerably more common than previously thought, evidence of its hazard to health as well as social well-being, and a randomised trial ('IRIS': Identification and Referral to Improve Safety) that showed substantial improvements in victim identification, referral to specialist services and improved quality of life. The intervention is now being commissioned across the UK.

b) Avoiding harm from unrestrained prostate cancer screening – interactions to develop policy

A UoB group, led by *Donovan*, was: commissioned to provide the evidence underlying the policy decisions in 1997 and 2010 by the National Screening Committee (NSC) not to encourage PSA- testing; worked with an NSC committee to produce information materials for men and GPs to support the policy; and was commissioned to provide evidence about the harms of diagnosis and treatment through specific sub-studies within the ProtecT randomised controlled trial (RCT).

How the Unit supported and enabled staff to achieve impact from their research

We support staff to publish their research in the most prestigious academic journals and to join guideline and policy committees. We prioritise engagement with professional and public user groups to share research ideas and findings. We have 'new media' and 'communications' managers to publicise research findings, leading to our research being presented on: the Channel 4 science series 'Brave New World', fronted by Professor Stephen Hawking and Sir Robert Winston; Channel 4's 'Embarrassing Bodies' (primetime audience 3.5 million); and BBC Radio 4's 'You and Yours'. We support staff to attend the SSCM 'Maximising impact' course and the University's Media Training course, and to apply for impact awards such as the annual Vice-Chancellor's Impact Award, won in 2013 by *Fleming* and *Blair* for cot death prevention research.

How the Unit made use of institutional facilities, expertise or resources

We have been supported by, and are integral to, the success of the Bristol Health Partners (Bristol HP) - a formal academic health sciences partnership between the three Bristol NHS Trusts; local CCGs; Bristol City Council and the city's two Universities. The collaborative environment provided by Bristol HP has encouraged academics, commissioners, clinicians, patients, providers and public health and social care practitioners to form Health Integration Teams (HITs), to develop NHS-relevant research programmes and drive service improvements. Seven HITs are led by UoA2 staff, including: Avoiding Hospital Admissions; Sexual Health Improvement; Reducing the NHS Burden of Respiratory Infections; Addictions; Self harm; Chronic Kidney Disease and Supporting Healthy

Environments. A recent innovation has been joint SSCM-Bristol CCG Management Fellowships, providing protected time for CCG managers to work with SSCM researchers.

The UoB Centre for Public Engagement supports and promotes public engagement with research across the University. Staff have given public lectures and supported the University's biennial city centre research celebration, which featured the 'ALSPAC Discover' event in March 2012. The Centre issues a monthly 'Engager's Digest' communication notifying staff of forthcoming events and training, and has a website for public information and interaction. The UoB Knowledge Transfer Partnership (KTP) manager has supported a partnership between Unit staff and the Meningitis Research Foundation to provide a more complete picture of the experiences and needs of meningitis survivors, leading to the production of an aftercare booklet for patients and carers.

The commercial spin-off company (DECIPHer-IMPACT', *see section c*) was set up with a £20K 'Enterprise Development Award' from the University's Research and Enterprise unit, as well as company law training from the 'SETsquared' partnership (a collaboration between the universities of Bath, Bristol, Exeter, Southampton and Surrey, [see www.setsquaredpartnership.co.uk/](http://www.setsquaredpartnership.co.uk/)).

c. Strategy and plans

A key priority of the UoB Research and Enterprise Strategy is 'to develop a portfolio of high-impact research, working across and between disciplines, to answer important societal questions and contribute to the social, political, environmental and economic well being of the region, the UK and the wider world'. A 2006 strategic aim of the predecessor Department of Social Medicine was 'to enhance the impact of our research locally, nationally and internationally'. This was continued in the 2010 SSCM research strategy, and developed in our 'Knowledge Transfer and Research Impact Strategy', which aims to 'maximise the knowledge translation and impact of SSCM research to improve patient and population health, health care delivery, health policy and the public understanding of science'. The strategy advocates working 'directly with the beneficiaries of the research, from study inception to management, dissemination and implementation', and encourages academics to 'regard our research participants as partners to conduct research *with* rather than people to conduct research *on*.' We appointed a Research Impact Director, Professor Hay, with responsibility for developing knowledge exchange and translation, and ensuring integration of research impact into SSCM research procedures. Our strategy encourages staff to improve relationships with beneficiaries by: promoting successful case studies at SSCM research meetings and on the SSCM website; promoting impact as an integral part of research project management; working with the University towards integrating impact with staff appointment and development processes; and providing information and support for staff to access funding to develop research impact. Four key approaches support and assist staff to achieve the strategy:

a) Developing new and existing research impact through closer working with beneficiaries Researchers are encouraged to develop and interact with PPI, professional, commissioning, policy making, and third sector groups to discuss the clinical and policy implications of their research from inception to publication, and to optimise knowledge transfer.

b) Increasing the reach of existing impact and identifying new beneficiaries

We will: extend our successful 'peer-leader' approach in reducing the uptake of smoking in teenagers to other risky behaviours (such as the use of alcohol) and to new beneficiaries in Europe, India and the United States; overcome geographical and gender boundaries for the improved recognition of domestic violence in primary care (to new areas of the UK and men); lobby the Royal College of Ophthalmologists to ameliorate the risk of rationing second eye cataract surgery in response to current austerity-driven reduced NHS resources; and incorporate clinical algorithms into primary care electronic medical records to automatically alert GPs to the possibility of diseases such as common cancers in adults and urinary tract infection in children.

c) Developing knowledge transfer and research impact capacity

We will continue to make senior staff appointments (e.g. *Feder's* domestic violence group) that will lead to high impact research. We will develop expertise by drawing on existing resources, such as DECIPHer's Knowledge Exchange and Transfer Officer and the knowledge transfer group in the MRC IEU. Through staff review and mentoring, we will encourage staff to engage more fully in PPI activities and accept invitations to join Government Advisory and policy making committees. We will support staff applying for funding opportunities such as the NIHR Knowledge Mobilisation Research Fellowship Scheme and to receive University support via: the Enterprise and Impact Development Fund'; the 'New Enterprise Competition'; the Academic Business Fellows; the Research Commercialisation and Enterprise Education teams; and the 'SETsquared Business Acceleration' scheme.

d) *Learning from existing success*

We will build and learn from our successes, including three exemplars summarised below:

- i) Implementing research findings using spin out companies: 'DECIPHer-IMPACT' is a University owned, 'not for profit' company with an annual turnover of £240K employing a Chief Executive Officer and Operations Officer, providing licensure and quality assurance to maintain fidelity to the 'DECIPHer ASSIST' smoking uptake prevention intervention. To date 25 licences have been issued to health bodies in England and the Channel Islands and another for the whole of Wales.
- ii) Harnessing the global reach of the internet: IVFpredict is a low cost (49p), online tool, giving global access to couples wishing to obtain rapid, accurate probabilities of successful pregnancy and live birth following assisted conception therapy (see <http://www.ivfpredict.com/>). The website has had 5.7 million visitors (to 22 October 2013) since its launch in January 2011.
- iii) Securing research funding to implement research findings: Following the success of the 'IRIS' domestic violence trial, *Feder* has secured funding for 'IRIS – strengthening impact' (IRISimp) - an implementation vehicle to mainstream the IRIS model into general practices across the UK.

These goals will be implemented through the energy of our staff and supported by infrastructure including the NIHR CLAHRCwest, which will work closely with the West of England Academic Health Sciences Network (WEAHSN) to provide a coherent and well-resourced structure for PPI and capacity for implementation of research evidence, service improvement, health improvement and wealth generation. The cross-faculty UoB Elizabeth Blackwell Institute for Health Research provides support for knowledge transfer and translation, particularly at the interfaces between established and emerging disciplines, and collaborations with industry, clinical practitioners and patients. Recent examples include partnerships with industry to develop liquid phase microbial sampling techniques for large population based studies and point of care tests for infections.

Many research programmes and projects currently underway will lead to future impact, including: the ProtecT and CAP (Cluster RCT of testing for Prostate Cancer) trials (already identified as impactful, and likely to significantly further influence policy-makers, clinicians and patients when they report outcomes in 2016); a number of primary care and mental health RCTs; and the MRC IEU's research into causal effects of modifiable phenotypes identified and elucidated through the Mendelian randomisation approach pioneered in Bristol. This will have impacts through translation to phase III randomised trials, and elucidation of mechanisms through which genetic variation influences human health and hence the identification of new drugs, drug targets and interventions to improve public health. We also host six NIHR Programmes for Applied Research Grants (infection, cataract, cancer diagnosis, domestic violence, suicide and telehealth), findings from which will be readily translatable into clinical and public health practice.

Institution: University of East Anglia

Unit of Assessment: 7 – Earth Systems and Environmental Sciences

a. Context

The School of Environmental Sciences is in the Faculty of Science at UEA and is located in the Norwich Research Park, which is a partnership between UEA, the Norfolk and Norwich University Hospital and four independent research institutes. The School's mission is to conduct world class research into the functioning of the Earth System, how this System responds to both advertent and inadvertent human influences, and how these changes affect society and human well-being. We bring this knowledge to bear on social and political processes of public understanding, policy deliberation and formation, thereby contributing to more effective environmental management at all scales. In pursuit of this mission, we have built lasting relationships with a wide variety of stakeholders many of whom function as co-producers of knowledge. As a result, our research has had a significant and enduring public impact over the course of four decades.

The School's research is guided by two over-arching principles: the promotion of research that harnesses combinations of natural and social science disciplines to yield insight into environmental challenges (i.e. *inter-disciplinarity*); and the promotion of research that is shaped and guided through interactions with interested non-academic partners (i.e. *co-production*). Our reach and influence is exemplified in the range of actors and institutions with whom we interact, for example:

- International science advisory/assessment panels: e.g. the Intergovernmental Panel on Climate Change (IPCC) and United Nations Environment Programme (*Global Temperature Data, Global Carbon Budget and Halocarbon Case Studies*);
- EU regulatory authorities and policies: e.g. the European Environment Agency (EEA) and the EU Water Framework Directive (*Catchment Management Case Study*);
- UK Parliamentary Committees: e.g. Science and Technology Committee; the Environmental Audit Committee (*Sustainable Adaptations Case Study*);
- National UK Government departments and non-departmental public bodies: e.g. the Environment Agency; Defra; Met Office (*Ecosystem Services Case Study*);
- Large business organisations and SMEs: e.g. South West Water; Gardline;
- Non-governmental authorities and regulatory bodies: e.g. RSPB; the Brazilian Forestry Code (*Biodiversity Conservation Case Study*);
- Civil society organisations at a range of scales: e.g. the 'Transition Towns' movement;
- General public and media institutions: e.g. BBC (*Global Carbon Budget Case Study*).

During 2008-2013, the School's research has had impact on *natural and managed environments* (both directly and indirectly), on *public policy and regulation*, on *economic growth* (with a special emphasis on sustainability), on *quality of life and cultural services* and on *wider society* (through the creation and promotion of platforms and processes for public reflection, learning and deliberation about environmental policy choices). As our Case Studies demonstrate, this impact has been achieved at local (e.g. Norfolk), national (UK), regional (EU) and global (UN) scales.

b. Approach to impact [Note UEA researchers in bold]

Our ethos of co-produced research (outlined above) means that the School's research is rarely just 'delivered' to its policy, business and public audiences on completion. Rather, we interact with these audiences at each relevant stage, from research scoping, definition and design, through to completion and application. Through this approach, our scientists frequently engage in face-to-face interactions with businesses, civil society organisations and with senior policy-makers inside and outside government. This engenders the mutual trust and respect that is critical for effective knowledge exchange. The contribution of our work to the UK Government's first National Ecosystem Assessment and the subsequent White Paper is a good example of this commitment in practice (*Ecosystem Services Case Study*), building as it does on decades of environmental economics research and knowledge exchange. Further examples of our approach are described in the following three categories:

i. Policy: The School's long-earned reputation for engagement with the environmental policy community (in London, Brussels and through the United Nations), enables our research to impact

Impact template (REF3a)

more directly on policy. For example, the School has a long tradition of its scientists serving on expert international environmental assessment panels. This started with the first Scientific Assessment of Stratospheric Ozone Depletion in the late 1980s, and was followed by the IPCC and the Millennium Ecosystem Assessment. This has continued through the period 2008-2013 with the Fifth Assessment Report of the IPCC [four Lead or Convening Lead Authors: **Adger** (until 2012), **Le Quere**; **Osborn**; **Warren**] and The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) [**Watson, R.** Interim Chair, 2010-2013]. The contribution of the School to the IPCC over each of its five assessment cycles covering the period 1990 to 2013/4 is a powerful demonstration of how the overall weight and impact of our work on subsequent climate policy negotiations has been cumulative. Over these five assessment cycles, the School has provided a total of 20 Convening Lead or Lead Authors, plus another 31 Contributing Authors and Review Editors. Seventeen members (12 still active during 2008-2013) of the School were recognised for their 'significant contribution' to the IPCC's award of the 2007 Nobel Peace Prize.

No other university department in the world has made such a sustained and substantial contribution to the IPCC.

With respect to national and European policy, our scientists have served as Special Advisors to Parliamentary Select Committees [**Liss**], to the National Ecosystem Assessment and the Defra/Treasury Natural Capital Committee [**Bateman**] and as members of Departmental Advisory Councils [**Bateman, Liss; Watkinson; Watson, R.**] and Government Foresight Panels [**Adger; Barclay; Liss**]. We also regularly submit written and oral evidence to UK Governmental and non-governmental review bodies such as Defra, DECC, the Marine Climate Change Impacts Partnership and Parliamentary Committees (e.g. Environmental Audit, Science and Technology, International Development, Energy and Climate Change), as well as to the devolved UK Administrations and EU bodies such as the European Parliament [**Bond**], the European Commission [**Jordan**] and the EEA [**Jones**].

ii. Business: The impact of our work on business and commerce is secured through building our environmental consultancy capability and developing new business services and networks. The **Adapt Low Carbon Group**, headquartered on the Norwich Research Park, has grown directly out of the School's enterprise and research activity in the low carbon sector between 2007-2010 [**Powell; Tovey**]. Adapt has worked with Broadland District Council to help secure £10.2m funding from the Government's Eco-towns Programme, with a local company (Green Energy Options) to establish the Visible Energy Trial in Norfolk households [**Hargreaves**] and with a consortium of businesses (including IBM UK Ltd) to win a £1.6m EPSRC grant with Loughborough University to develop and trial new smart home energy technologies. Building on our meteorological expertise [**Dorling**], the School has developed and hosted *WeatherQuest Ltd.*, a company that offers state-of-science weather services to the BBC, Aviva (the global insurer) and others, with a total revenue of £2.5m between 2008-2013. The impact of the School's research on local authorities, business and commerce has also been developed by Knowledge Exchange grants: for example the NERC-funded Valuing Nature Network [**Bateman**] which includes over 1200 business and policy members; the Defra-funded Wensum Alliance [**Hiscock**]; and petrological analyses for volcanic risk assessment, which was subsequently embedded into a new monitoring strategy for the Montserrat Volcano Observatory [**Barclay**]. Other consultancy work undertaken within the School (valued at £1.7m during the REF period, over and above the grant income detailed in REF4) has cultivated relationships extending the impact of the School's research.

iii. Public and Media: Our approach to impact recognises the value of engagement with members of the public. The School has been a major resource for the *CUE-East Beacon for Public Engagement* run by UEA 2008-2012, one of only four such Community Engagement centres in the UK. CUE-East engagement awards have been made to **Brimblecombe** and **Dorling**. Our scientists have extended the reach of their work through such public ventures, for example in relation to land and water management options in East Anglia (*Catchment Management Case Study*) and to public attitudes to climate engineering [**Vaughan**] and marine climate impacts [**Chilvers**]. Research in the School's Science, Society and Sustainability Group into how the public engage with environmental science and express their policy preferences has been used in the development of Government guidelines on public consultations (for example, relating to Defra's ecosystem services approach) and in informing governmental public dialogue on science and technology (in research projects for BIS and Sciencewise). The School's impact has also been

Impact template (REF3a)

furthered through the appointment (since 2003) of a Communication and Engagement Manager in the Tyndall Centre for Climate Change Research (headquartered in the School). Through this, the reach of the Centre's research has extended worldwide in relation to mitigation and adaptation.

The Centre receives over 6,000 unique web visits monthly and has 6,300 Twitter followers. The School's scientists appear regularly on national and international television and radio networks to convey their research to mass audiences. Two recent examples – both broadcast in August 2012 – being on volcanic processes and risks [**Barclay**] on BBC1's *Volcano Live* and on severe weather forecasting research [**Renfrew**] on BBC1's *The One Show*.

Flexibility, Facilities, Capabilities: The School's size and interdisciplinary outlook brings opportunities for exploiting new impacts of our research. For example, our long-standing work on global carbon budgets enabled us to take the lead (from 2007 onwards) in publishing the annual Global Carbon Project budget, now recognised worldwide as the primary authoritative source for global carbon budget information (*Global Carbon Budget Case Study*). Our cross-disciplinary research in the area of volcanic hazards and societal risk, built-up over nearly a decade, enabled us to respond rapidly after the May 2006 eruption on Montserrat to secure a NERC Urgency Grant to complete a rapid response survey of the affected areas. The long-term investment in our atmospheric chemistry facilities, and the development and retention of associated world-class expertise, have enabled the School to make unique contributions to the detection, and subsequent monitoring of policy implementation, of new trace gas substances such as powerful perfluorinated and hydrofluorocarbon greenhouse gases (*Halocarbons Case Study*). Similarly, the School's Stable Isotope Laboratory has enabled the development of a novel methodology for atmospheric nitrate detection in air, soil and water samples, and has led to significant amounts of contract work to guide the development of new Defra policy on nitrate concentrations. The co-development of a variety of decision-support tools has meant that our research is being used directly in a variety of decision-contexts – e.g. the UKCIP09 weather generator used in the UK's National Climate Change Risk Assessment [**Jones; Goodess**]; ISO guidelines (ISO/DIS 17402) have standardised the use of cyclodextrin 'smart molecules' [**Reid**] to support the assessment of soil quality under the EU Soil Thematic Strategy (COM(2006) 231); a web-based aerosol model developed [2007-2011; **Clegg**] for Met Office applications; the Community Integrated Assessment System used by UK DECC for climate policy advice [**Warren**].

Research Staff and Graduate Students: The School's ethos of co-produced research inspires some of our early or mid-career research staff to secure temporary secondments inside Government Departments or other non-academic institutions. This fosters research-policy relationships and widens our impact culture; for example, a policy internship to the *National Assembly for Wales* in 2012 [**McDougall**] and an industrial secondment to *EDF Energy* in 2012 [**Rau**]. The School runs an annual PhD showcase event at 'The Forum' in central Norwich which allows PhD researchers to share their research directly with members of the public. Our PhD students won a Silver Medal for their '*Climate Change Garden*' at the **2008 Chelsea Flower Show** and won *NERC's Environmental Young Entrepreneurs Scheme* in 2011/12. The School has been successful in securing funding for CASE and other externally-funded PhD studentships enabling graduate-level research to be co-developed with non-academic beneficiaries, such as the Met Office, Centre for Ecology and Hydrology, Centre for Environment, Fisheries & Aquaculture Science, WeatherQuest, and the Worshipful Company of Insurers.

c. Strategy and plans

The School is in a strong position to build on its successes in converting world-class environmental science and social science research into usable knowledge. At the heart of our strategy for impact is a continuing commitment to the principles of co-production and inter-disciplinarity.

In the years ahead this strategy will benefit from a number of institutional developments at UEA. These include the recognition of "*Impact, Enterprise and Engagement*" as specific promotion criteria, and the roll-out of new in-house training for research staff in line with the national Researcher Development Framework domain D3 'Engagement and Impact'. Examples include modules on 'Pathways to Impact', 'Blogging for Researchers', 'Generating Impact from Intellectual Property'. UEA is also investing in a new £15M *Enterprise Centre* on the Norwich Research Park site, as well as embedding Business Development Managers and annual pump-priming funds for enterprise activities. A number of impact funding streams are now available from the University.

Impact template (REF3a)

The Associate Deans for Enterprise and Engagement in each Faculty have an annual budget of £30k to pump prime small scale enterprise activities. Further internal funding has been made available for a proof of concept fund (£120k pa) and a strategic fund (£450k pa) distributed at the discretion of the Universities Enterprise Executive. In addition the Norwich Research Park will be investing £1.8M on impact over the next few years. The CUE-East Beacon for public engagement will continue through a new Community University-Engagement Office at UEA which the School will continue to reach out with its research to regional audiences.

At School level, several new plans to support this strategy are in train. These include adjustments to criteria for staff sabbaticals to specifically include activities that will further promote and exploit previously undertaken research and the appointment of experienced impact specialists to the internal research grant sift panel. The School is sufficiently large and flexible in its staffing arrangements to absorb short or long-term secondments of staff to work with stakeholders or to serve on international assessment panels. Several of our existing Case Studies show great promise for on-going impact and will be carefully nurtured. We have also identified five 'incubator impact case studies', areas of current research that have the potential for much greater impact in the future and which we will nurture. UEA has recently allocated a £70k *Impact Accelerator Award from NERC* to help nurture such activities, with the offer of a phase II award of £200k now also received.

Ultimately, however, research impact can neither be managed nor guaranteed through performance criteria or institutional structures alone. It emerges from the combination of high quality research and motivated, perceptive and innovative staff, together with a dose of serendipity. Inducting new staff into the School's culture of high quality inter-disciplinary research, of working closely alongside engaged stakeholders and of being articulate and passionate about communicating research, is the best strategy for success. Our research environment is conducive to nurturing this culture and our existing high profile research impacts will inspire the next generation of researchers and students

Institution: London School of Economics and Political Science

Unit of Assessment: 22: Social Work and Social Policy

a. Context

The Unit has a long history of engagement with policy makers and a wide range of users, as well as successful impact of different types. Our research involves and targets user groups, beneficiaries and audiences at all levels: **international and supra-national** (including the European Commission (EC) and Union (EU), IMF, World Bank (WB), OECD, World Health Organisation (WHO), and overseas governments); **national** (government departments including Work and Pensions (DWP), Environment and Climate Change (DECC), Health (DH) and Home Office (HO), Parliament, and bodies such as the Equalities and Human Rights Commission (EHRC), National Audit Office (NAO), Office for National Statistics (ONS), think tanks, professional associations and NGOs); and **local** (e.g. local authorities, NHS trusts, community groups in the UK and overseas). All the Unit's six research groups (Development, Disadvantage, Health & Social Care, Criminal Justice, Population, and Families & Children) have conducted research with significant impact in varying ways. By way of illustration:

Influencing legislation and policy: In the field of Disadvantage, the Unit's work included contributions to the Pensions Commission (resulting in the 2007 and 2008 Pensions Acts), the DWP Pensions Client Board (overseeing implementation), and the development of an Equality Measurement Framework for the Equalities Review, subsequently adopted by the EHRC for its first triennial review (2010). In the Health and Social Care area we would highlight the Unit's work on long-term care funding policy and the national strategies for dementia and mental health (see ICSs), and the health services research that led the UK Government to drop price competition in the NHS and also to fundamental reforms to prescription medicines coverage in Greece. In the area of Families and Children the Unit's work in the field of child protection led to an invitation to conduct an official review and to wide-ranging policy changes (see ICS), and the idea of the pupil premium, developed to include children from low-income families *and* looked after children, was taken forward and implemented by the Government.

Influencing the work of professions, others: In the Population field the ESRC-funded Modelling Ageing Populations to 2030 (MAP2030) influenced the actuarial profession and informed wider government policy in the areas of health, pensions, family and long-term care (see also *Health & Social Care*), and was endorsed by Andrew Dilnot, Chair of the Commission on Funding of Care and Support, who said 'Without the contribution of the researchers, [we] would have felt far less confident in making the recommendations that we did'.

Stimulating policy debate: In the Criminal Justice area the innovative 'Reading the Riots' study (see ICS) provoked widespread debate and led the Home Secretary to announce a review of police 'stop and search' practices; work with the Runnymede Trust led to discussions exploring prison social relations and race equality policies, and with the National Offender Management Service (NOMS)/Commission for Racial Equality (CRE) to research findings feeding into the Independent Advisory Group Race Review. **Developing new measures:** In the area of disadvantage, the independent review of fuel poverty for DECC led to the official measure of fuel poverty being changed as recommended (see ICS). **Capacity building:** In the Development field, research assisted capacity building of NGOs in Bangladesh, sex worker community organisations in India (to work more effectively with police, politicians, local clubs); and local churches and community-based organisations in Zimbabwe (to build 'HIV competence'). Research on Danish social housing led to the UK's National Communities Resource Centre (NCRC) being set up, providing training to over 5,000 community group members a year, with strong links to the Unit.

Improving public understanding, public engagement: Work by the Health and Social Care group contributed to public understanding in a number of areas, including: family care for older people (BBC *Living Longer*); the likely costs of supporting people with mental and physical care needs (Radio 4 *You and Yours*) and dementia (*Today*); and on antibiotics (*Time* magazine and CNN). In addition, an interactive 'Care Calculator' was developed for the BBC website. *Reading the Riots* had a significant media presence, including two BBC *Newsnight* 'specials' and a verbatim drama (see ICS).

Impact template (REF3a)**b. Approach to impact**

The Unit places high importance on public engagement as well as scholarly research. The overall approach of the Unit, across all research groups, involves: (i) ensuring high quality research is conducted to maximise potential for impact; (ii) significant involvement with users throughout the research process (e.g. participation in high level committees, evidence to select committees/advisory groups, active dissemination via meetings with and presentations to government, professionals and third sector organisations), and (iii) broader long-term public engagement, dissemination via public events, mainstream and specialist mass media, social media, and blogging, and continuous follow through to maintain engagement.

High quality research is supported through the availability of cutting-edge research training, the existence of cross-disciplinary research expertise, generous sabbatical leave (see REF5) the opportunity for flexible teaching commitments, and support for secondments. In particular, Research Centres provide an infrastructure of support staff, events, web-presence, out-reach activities and secondment opportunities.

User involvement is facilitated by LSE and the Unit's status as a forum for major public lectures, colloquia, workshops, conferences and seminars. Our Research Centres (Centre for Analysis of Social Exclusion (CASE), LSE Health and Social Care (LSEHSC) and others) have dedicated seminar series involving research users, as well as conferences (including (bilingual) e- conferences) and policy dialogues (e.g. via European Observatory). Further user involvement has been facilitated via funding from LSE's Higher Education Innovation Fund (HEIF) (over £700,000 was awarded to three research groups) supported activities that brought practitioners and researchers together to address key practice issues and associated evidence, and to run thematic seminars (e.g. at NCRC (see section a) and national social care conferences). It also supported development of on-line tools to allow users to undertake their own graphical analysis of inequality between groups. An active advisory group of carers and service providers assists with identifying health and social care research questions, reviewing proposals, research tools and outputs to ensure accessibility to non-academic readers. A social care research phone app is in development.

Broader public engagement is enabled via a range of activities, including extensive dissemination of research via reports, executive summaries for lay audiences, leaflets, newsletters, (upgraded) web presence and podcasts (e.g. on child protection). We place increasing emphasis on social media such as Twitter and research group blogs (e.g. LSEHSC) for knowledge exchange. LSE has an impact officer, and developments and experiences around knowledge exchange and impact are shared with the Unit. The press office supports dissemination, and the Unit has a strong presence in LSE policy, politics and impact blogs. Book and report launches are supported and promoted by the LSE's public events team, and appear as video and audio podcasts. LSE Research Online, the institutional repository for research outputs is utilised. One measure of success is that there have been over 1,000 mentions of the Unit in the press and over 800 references to the work of individual members (2008-12). Examples of our approach include:

Disadvantage: High level committee members included Hills on the Pensions Commission and DWP Pensions Client Board; and Power on the DECC Green Deal Panel. Glennerster was specialist adviser to the House of Lords Select Committee on Public Services and Demographic Change. Evidence was given to the Public Accounts, Work and Pensions, and Communities and Local Government Select Committees; and to official consultations (e.g. on child poverty measurement and benefit take-up statistics). Long-term engagement with policy officials and analysts led to exchange of knowledge and development of theoretical ideas (e.g. with the Equalities Review, EHRC and Government Equalities Office). Active dissemination included seminars with users (e.g. CASE Welfare Policy and Analysis Seminar series (with and sponsored by DWP)); briefing meetings (e.g. with the Prime Minister, Chancellor of the Exchequer, Cabinet Ministers; senior civil servants; ONS). Engagement with EU Commissioners and EC officials (GINI project, see REF5) led to presentations at the European Parliament and to the EC; policy briefs and policy papers were prepared for DG Employment in relation to their 2020 targets.

Presentations were made to annual practitioner conferences of the National Housing Federation, Chartered Institute of Housing, Institution of Civil Engineers, National Energy Action and Child Poverty Action Group.

Health & Social Care: LSE Health and Social Care was awarded Queen's Anniversary Prize in 2009 for Higher and Further Education for 'applying research to the advancement of global health and social care policy'. Mossialos chaired the EU/IMF/ECB/Greek Government Task Force on reforming the Greek NHS, with recommendations leading to reforms in health insurance, primary care and pharmaceutical pricing. Glennerster and Knapp were members of the Advisory Committee on Resource Allocation for the Secretary of State for Health. Knapp was specialist adviser to the House of Lords European Committee; Fernandez specialist adviser to the House of Commons Health Committee; and McGuire adviser to the NAO on stroke, and member of the NICE Guidance Committee for Treatment of Diabetes. Evidence was given to the Health and European Select Committees and Lords Committee on Public Services and Demography, on long- term care, mental health, unpaid care, free personal care, and housing assets (with *Population*). High level dissemination also took place (e.g. to Czech Republic ministers on sustainable long- term care systems and psychiatric hospital closure). Presentations on the financial crisis and health system financial sustainability were given to the EU Social Protection Committee and 2013 WHO Ministerial Conference; and the Swedish Government conference and European Parliament policy seminar on antibiotic development (see ICS).

Criminal Justice: High level committee members included Newburn on the Science Advisory Council and Science Strategy Board of the HO and HMIC 'stop and search' inquiry; Phillips on the Independent Advisory Group on NOMS/CRE Race Review and NOMS Equalities Advisory Group; and Shiner on the Advisory Council on Misuse of Drugs polysubstance working group. Newburn gave evidence to the Home Affairs Select Committee on 'Reading the Riots' (see ICS). There was active dissemination to user groups on procedural justice and legitimacy (Jackson), with briefs provided to the Stevens' Independent Commission on the future of policing; and presentations to user groups including the HO, Eurostat and EC.

Families & Children: Following her review of child protection (see ICS), Munro was appointed to the College of Social Work, England and as advisor to the Royal Commission of Inquiry into Child Protection, Australia. She gave evidence to parliamentary committees (Education; House of Lords Committee on Adoption Legislation) and was UN Rapporteur on Human Rights. West gave evidence (on school admissions and equity) to the Education Committee and Academies Commission. There were briefings and presentations to politicians, civil servants, professional groups (e.g. teachers, social workers, psychiatrists), and think tanks on: child protection (Munro); education policy (Exley, West); and family policy (Lewis, J.). There was involvement with users via workshops with Local Safeguarding Children Boards; and meetings with DfE and campaigning groups (e.g. Comprehensive Future) on attitudes to school choice (Exley).

Development: Lewis, D. was a member of the British Organisation of NGOs in Development advisory group on regulation; and contributor to the Parliamentary Human Rights Group / International Bangladesh Foundation. He was a member of the UK Collaborative on Development Sciences delegation to Bangladesh and worked with local policy makers/researchers on a research framework to underpin government plans for climate change. Hall was a member of the WB advisory group of the G7 pilot programme to conserve Brazilian rainforests.

Population: Murphy was a member of the Mortality Research Working Group of the Board for Actuarial Standards and the BPS/ONS Expert Advisory Panel for National Population Projections. He presented findings of the MAP2030 project to the International Longevity Centre, the Association of Consulting Actuaries; an Experts' Seminar on Ageing and Long-Term Care Needs, the Chair of the All-Party Parliamentary Local Government Group Enquiry into services for older people. Coast's work on the concept of the household led to her participation in a WB meeting, and workshops with the French national statistical agency and the ONS. As a result of her work, Leone led a sub-group of the international, multi-agency working group Countdown to 2015, which succeeded in including abortion as a policy indicator of progress toward the Millennium Development Goals.

Impact template (REF3a)

c. Strategy and plans

Across all research groups our goal first, and foremost, is to ensure that high quality research is carried out so maximising the potential for impact.

Key issues: We will highlight key issues across our groups relating to: poverty and inequality in relation to welfare state restructuring; ageing populations; costs and funding of long-term care, including dementia; reforms of health care systems and pharmaceutical costs; criminal justice, particularly as regards minorities and inequalities; relationship between families, children and the state; and the evidence base for social development policy. Our approaches to impact (see section b) will be sustained and developed.

User involvement and engagement: Users will continue to be involved in different ways, from as early as possible in the research process, and contacts and networks increased. User engagement and dissemination will be sustained and enhanced (e.g. CASE and LSEHSC seminars). A priority area is the LSEHSC and NHS Confederation seminar series involving the transfer of policy knowledge from Europe to England. Dissemination will be enhanced by greater use of open access reports and lay summaries. New web-sites will be developed (e.g. for a patient research network). Public events, professional conferences and workshops to exchange knowledge will continue. Collaborative work on communicating findings to users will be further developed with user groups; and use of social media (blogs, Twitter, videos, webinars, apps) and policy magazines (Eurohealth, EuroObserver) extended. Capacity building activities targeting stakeholders (e.g. regulators, professionals, commissioners) will be increased. Two-way secondments between government departments, local authorities, third sector groups and the Unit will be further encouraged. A new LSE-funded study is seeking to understand the value of 'knowledge' of different types to potential research users as a platform for training researchers.

Mechanisms to support impact: Toolkits for achieving impact will continue to be developed and reach extended via knowledge brokers, intermediaries, think tanks, service users, practitioners and third sector groups. A matrix of knowledge exchange methods, developed with HEIF funding, will be expanded to help train researchers, identifying appropriate exchange methods for individual projects, laying down pathways to impact, and deciding how to implement and resource them. The remit of the Unit's research committee will be extended to oversee engagement and impact strategies and to integrate and build on innovations developed in Research Centres and elsewhere to maximise impact. LSE is increasing support for the core activities of research centres to facilitate further and improved impact-related activity. It will also be awarding further HEIF bid-fund grants (£100-£300,000) to support research that is likely to have measurable impact.

Institution: University of Southampton

Unit of Assessment: 35 Music, Drama, Dance & Performing Arts

a. Context

Music at Southampton has a strong culture of public engagement and established routes for achieving impact, particularly in cultural life and cultural sector economic activity but also in education and health. The main non-academic user groups for our work are:

Music audiences Our research achieves cultural impact by enhancing audience experience: engaging new and existing listeners with challenging contemporary composition and unfamiliar historical music, and convincing them to reconsider familiar music in new ways.

Performing musicians Our work influences professional practice amid performers, who use critical editions and contextual studies by Southampton musicologists, perform works by our composers, and adopt performance practice approaches pioneered by Southampton researchers. This activity generates economic impact directly (e.g. sale of scores and editions) and by furnishing essential material for profit-making activity (professional performance, teaching). Some projects achieve cultural impact for amateurs and/or schoolchildren, who learn from cutting-edge research in performance practice, gain knowledge of unfamiliar musical repertoires, and experience feelings of community and well-being through musical activity.

Arts producers (e.g. festivals, concert halls, opera houses, radio/recording companies, television). Our research in performance, composition and musicology influences the professional practice of arts administrators and creates economic impact for their organisations via sales of CDs, tickets, and other profit-making activity in the cultural sector.

Heritage bodies and heritage tourists Our musicological and performance research affects curatorial practice in the heritage sector; generates economic impact through enhanced visitor numbers; and achieves cultural impact through enhancing heritage visitor experience.

Hearing-impaired users of cochlear implants Our research on composition for cochlear implantees has created music and software that helps these users regain or learn the ability to follow and enjoy music after substantial hearing loss.

b. Approach to impact

Our approach since 2008 has emphasised robust development of networks and partnerships, to create impact on non-HE organisations and to access new beneficiaries; a staffing policy that supports practice-led research with significant cultural impact; the integration of textual and practice-led strands of research to leverage public performance opportunities in support of academic writing; and development of resources for impact activity.

Networks and partnerships Strong relationships with external partners allow us to influence their professional practice and to develop routes to new audiences. Immediately prior to the assessment period (2005-7) we hosted the first-ever AHRC Fellowship in Impact Assessment, held by Pinnock (formerly Arts Council England). His work helped develop our understanding of impact and how construction of collaborative relationships can be used. We created research-based institutional partnerships with the National Trust, Jane Austen's House Museum, Chawton House Library, The National Early Music Centre, Sound Intermedia, and the London Sinfonietta, among others; all involve formal collaboration on the delivery of research projects or training, allowing us to embed our research in their activities in a sustainable, long-term way. Further partnerships have sprung from staff relationships: staff members play key roles as musical or artistic directors for theatres (Scott: National Theatre), festivals (Stras: Brighton Early Music Festival; Kenny: York Early Music Festival) and performing groups (Chandler: La Serenissima; Kenny: Orchestra of the Age of the Enlightenment; Oliver: Workers Union; Shlomowitz: Plus Minus; Rice: Brabant Ensemble; Stras: Musica Secreta; Headley, Atalante). We have strong ties with major recording labels (Stapleton - Edition; Kenny, Rice, Everist - Hyperion; Chandler - Avie), media producers (BBC R3 and R4), concert halls and opera houses (Glyndebourne, Wigmore Hall, Opéra Comique, WNO). These organisations both use our research and enable our contact with beneficiaries. Relationships established over time and involving consultancy and performance create trust, so that external partners are willing to work with us to achieve our impact goals. Kenny's partnership with York festival and NCEM, for example, were key to her *Venus and Adonis* project, where research into child actors in 17th-c music theatre led to engagement of 'community Cupids', local schoolchildren used for touring performances, and to schools workshops and learning packs. Partnership within

the University has similarly provided routes to new audiences: teaming up with the Institute for Sound and Vibration Research, for example, was key to the Composition for Cochlear Implantees project, producing substantial benefits for patients from the ISVR-located South of England Cochlear Implant Centre.

Practice-led research Our staffing has emphasised the appointment of successful artists whose work features in high-profile contexts outside academia, generating significant cultural impact on audiences and economic impact for arts organisations. Institutional support - both material and intellectual - is here aimed at encouraging and enabling high research standards for work that by its nature engages with non-academic publics. Southampton was among the first established UK university music departments to bring international-level performance researchers into the department as fully active academic researchers. A particularly fruitful springboard has been the AHRC Fellowships in Creative and Performing Arts: we have supported 8 fellows under this scheme (more than any other UK Music department) and when the AHRC scheme was discontinued, we secured University funding to found the Turner Sims Professorships (see REF5), in order to mount new projects with Chandler and Headley and make new appointments for Chapman (for the National Trust collaboration 'The Making of the Modern Harpsichord') and Knoop (for new music projects with Shlomowitz and Finnissy). Composition is a longstanding Southampton strength in practice-led research, and staffing here emphasizes impact as well as research excellence: Finnissy's work is published, recorded and performed worldwide, and the assessment period saw new posts for active younger composers with excellent performance networks (Oliver, Shlomowitz, Seltz) as well as Turner Sims Professors Stapleton (jazz composition) and Brough (community music composition) whose extensive professional networks help us to extend our reach to new constituencies outside contemporary concert music audiences. **Integration of text- and practice-based research** We strongly encourage collaboration between colleagues with text- and practice-led portfolios to achieve impact (for example, a Kenny programme for York (2011), broadcast on Radio 3, used editions and research by Brooks). Our musicological research often concerns performance history or edition of works, and public performance embodying the research result is conceived as an essential outcome. Recordings and concerts accompany Stras's documentary research on Renaissance music; Everist's medieval project produced new editions and the first-ever recordings of *conductus*. Pinnock's critical edition of Purcell's *Fairy Queen* premiered at the Glyndebourne Festival and the Proms in 2009; revivals and new productions already include Opéra Comique (2009-10); Brooklyn Academy of Music (2010); Glyndebourne Festival (2012). All our work in heritage includes public performance - concert or workshop based - as a mode of communicating research insights, and several heritage projects also feature new compositions based on historical materials.

Resources and support Much research during the assessment period has been RCUK funded, requiring impact to be planned into projects from the outset, and providing resource for its implementation (e.g. Rice, Headley, Crouch, Everist, Drabkin). We have applied for funding specifically directed toward impact when available: for example, the AHRC-funded Composition for Cochlear Implantees included impact funding in the initial grant, and subsequently gained Follow-On funding for extensive workshops with cochlear implantees, training for hearing professionals, and online launch of the rehabilitation programme. Staff also fund-raised from external sources such as Arts Council - Kenny's *Venus and Adonis*, for example, gained £19K from Music4U, SHM Foundation, and the National Centre for Early Music. Internal staff research funds and retained contribution from grant income have been directed toward impact activities, for example, CD launch concerts, premieres, recording costs, digitisation of research material for public use, and other activities aimed at generating impact or increasing its reach and significance. The University's Turner Sims, a nationally significant arts venue, allows us to dovetail concert, publicity and research budgets to maximise impact for departmental projects, including through external/ touring promotion by Turner Sims.

C. Strategy and plans

We aim to achieve impact for musicology, composition and performance research by continuing and deepening relationships with our existing audiences and beneficiaries, and developing new strategies for emerging research projects. In the immediate future we plan to focus effort around areas of particular strength developed since 2008: early music, historical performance and heritage; new music creation; and music and health, especially work with cochlear implantees.

New areas of interest include community music, where previous activities by Finnissy (Contemporary Music for Amateurs) and new projects by Brough (including those with Southampton's new community choir, founded in 2012-13) will form the nucleus of future plans.

Strategy development We consider impact within the remit of Music's departmental research committee, chaired by the Head of Research and including a designated member with responsibility for impact and public engagement. Research Committee's published strategy states that we aim to support staff at all points in their careers in achieving impact, while maintaining a clear understanding of which activities should be considered general outreach instead. Strategy has been developed through the assessment period and to date has emphasised construction of partnerships and creation of an environment where impact-producing activity is recognised, valued and materially supported. Our future plans include further strengthening of support, and the development and implementation of mechanisms for follow-through and evaluation of impact.

Support and funding The Faculty of Humanities and University Research & Innovation Services provide four research support officers with expertise in events management, finance, contracts and partnerships, working with us to coordinate efforts with external partners and maximise impact for our work. We will continue to collaborate with support officers to construct robust impact plans for research funding bids, and to increase impact support mechanisms for projects not funded in this way. The University press office has worked closely with Music, for example ensuring national media coverage for Chandler's premiere performance of a lost Vivaldi concerto; we will continue to cultivate such publicity, which can be key to increasing cultural impact via increased knowledge of research insights, and to augmenting economic impact through better sales for concerts and recordings. Within Music, we have reorganized support provided by our Head of Performance Planning, an administrator whose brief now includes showcasing research projects involving staff and PGRs. We will continue to fund impact activities from Music's grant income; further funds are available from the Faculty of Humanities, and we will continue to apply for research council and other funding opportunities as they emerge. Staff will use research time (including sabbatical leave) for impact activities where appropriate, and the staff research development process described in REF5 (Environment) has been adjusted to include discussion of impact and how to achieve balance between core research work and measures taken to increase and evaluate its impact. In particular we aim to provide a strong research mentoring programme for research fellows, Turner Sims professors and other members of staff entering the University from freelance or non-academic career routes, to ensure that expectations about both research quality and impact are clear and that staff are properly supported to achieve both significant research insights and excellent public engagement for their work. Finally, although we feel confident of our ability to create valuable cultural, economic, and other impact for our research, we intend to construct stronger mechanisms for data capture and evaluation: though we have had administrative support for impact evaluation and data collection during REF preparation, our next task is to devise sustainable ways to collect and centralise information about our impact over the longer term.