UKRI/RCUK Strategic Support to Expedite Embedding of Public Engagement with Research (SEE-PER) Final Report

UCL – Ingrained

(2017-18)

The SEE-PER programme

The UKRI Strategic Support to Expedite Embedding Public Engagement with Research (SEE-PER) call sought to help enrich and embed cultures within HEIs where excellent public engagement with research (PER) is supported, valued, rewarded and integrated within institutional policies and practices. The first year of this programme ran from October 2017 to October 2018. Two types of approach were funded:

'Embedding change' proposals that sought to enhance and embed an institution's approach to supporting PER, building on the learning from the Beacons for Public Engagement, RCUK PER Catalyst and Catalyst Seed Fund programmes:

- Birkbeck College, University of London, led by Professor Miriam Zukas
- Heriot-Watt University, led by Professor Gareth Pender
- Keele University, led by Professor David Amigoni
- London School of Hygiene and Tropical Medicine, led by Professor Dame Anne Mills
- NERC Centre for Ecology and Hydrology, led by Dr Nick Wells
- University of Lincoln, led by Professor Carenza Lewis
- University of St Andrews, led by Professor John Woollins

'Challenge' proposals which addressed a specific challenge in supporting PER effectively, and which expanded the existing knowledge base about 'what works' in effectively supporting PER:

- University of Brighton: developing and incubator model for finding and fostering new community-university partnerships, led by Professor Tara Dean
- University College London: exploring how to make PER fundamental to the university's efforts to address global societal issues through cross-disciplinary research, led by Professor David Price
- University of Bath: examining the challenges associated with training and professional development for public engagement, led by Professor Jonathan Knight
- University of Southampton: tackling barriers to professional development in PER and developing a robust educational framework for such activity, led by Professor Simon Spearing
- STFC Laboratories: investigating the take up and provision of PER training, led by Dr Neil Geddes

In May 2018, the SEE-PER projects were given the opportunity to apply for a second year of funding to embed and expand upon work done in the first phase. Ten of the twelve projects received funding to extend for a further 12 months, and the programme concluded at the end of 2019.

UKRI appointed the NCCPE to co-ordinate this work, ensuring learning was shared across the projects, and that evaluation was used strategically to inform and assess the value of the SEE-PER initiative.

Further learning from the SEE-PER initiative can be found in the 'Support Engagement' section of the NCCPE website.

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Executive Summary

Overview

The Ingrained project (INGRAINED) provided a unique opportunity for UCL to bring together its Public Engagement Unit (PEU), its flagship Grand Challenges (GC) programme and primary research to examine how we can make public engagement (PE) fundamental to the university's efforts to address global societal issues through cross-disciplinary research. INGRAINED comprised four main objectives:

- 1. Creating mechanisms to apply PE learning to high-level institutional strategy focusing on cross-disciplinary approaches to addressing global problems.
- 2. Addressing the gap in culture and practice between professional services staff delivering PE and academics who generate knowledge from publicly-engaged research.
- 3. Consulting both local communities and researchers on how PE can apply local experience to global questions.
- 4. Piloting innovative PE approaches prior to embedding them in institutional research strategy.

Highlights and learning from INGRAINED

Working through INGRAINED the project team found the following to be some of the key take home messages:

- There is a large demand for initiatives that involve communities in research.
 INGRAINED has highlighted that demand is much greater than previously anticipated and UCL can work harder to provide mechanisms to include community organisations in research where appropriate.
- There are **challenges to encouraging academic researchers to embrace community engagement**. Any mechanisms to increase community engagement also need to meet the needs of researchers.
- Matching and supporting people takes (a lot of) time. Through the project, we have created a structure to ensure that each team involved in INGRAINED can work together effectively and create meaningful relationships but more can be done to create more systematic mechanisms for engagement.
- PE requires commitment at the highest level. For other HEIs, we would recommend
 that any similar initiatives be undertaken only when there is commitment at the most
 senior level and only by a team which encompasses key actors drawn from those who
 lead on global and local engagement from both a professional services and academic
 perspective.
- Systematic funding will enable HEIs to put PE at the heart of research. Consideration of how dedicated funding can be directed to build partnerships between researchers and local communities will help to embed PE into research practice where applicable.

1. Introduction

This report provides a comprehensive overview of INGRAINED, which was awarded £60k In October 2017 from the Strategic Support to Expedite Embedding Public Engagement with Research (UKRI SEE-PER) call. Professor David Price, UCL Vice-Provost (Research), was Principal Investigator. This activity sought to address the challenge of embedding public engagement culture and practice into UCL's high-level institutional strategy and decision making, and involved members of the Public Engagement Unit (PEU) team within UCL Culture working alongside colleagues in the Office of the Vice Provost Research (OVPR) and the Department of Science and Technology Studies (STS). We specifically examined: how community involvement could be built into the infrastructure and governance for the UCL Grand Challenges (GC) programme and our research strategy more broadly; how to make the outputs and outcomes of UCL research, via the GC programme, relevant and accessible to local communities; and how we can build greater evidence and knowledge of how local communities and different stakeholders can inform the GC research agenda.

1.1 Aims and objectives

Specifically, this project examined how we can make public engagement (PE) fundamental to the university's efforts to address global societal issues through cross-disciplinary research by:

- Creating mechanisms to apply PE learning to high-level institutional strategy focusing on cross-disciplinary approaches to addressing global problems.
- Addressing the gap in culture and practice between professional services staff responsible for delivering PE strategy and academics who generate knowledge from publicly-engaged research.
- Consulting both local communities and engaged researchers on how PE can apply local experience to global questions and be embedded throughout the research life cycle.
- Piloting innovative PE approaches identified through consultation with local communities and engaged academics prior to embedding them in institutional research strategy.

This project was particularly timely as UCL was both revising its overarching institutional Research Strategy and reviewing its approach to embedding PE in its flagship GC programme. In particular, we wanted to further enhance the GC programme through ensuring that it reflects publics' concerns about, and interests in, complex global problems by better relating them to their local circumstances and contexts. We therefore had a unique, and time bound, opportunity to draw on PE practice and learning in order to influence UCL institutional strategy at the highest level.

The proposal specifically addressed Public Engagement with Research (PER) through the UCL GCs, which brings together cross-disciplinary expertise from across UCL with knowledge and partners from other sectors to address pressing societal problems. INGRAINED focused on the recently-established Grand Challenge of Transformative Technology (GCTT), which was created following a 2015 review of the GC programme, which also emphasised the importance of achieving impact through, amongst other things, public engagement and engagement with community groups. This provided a specific opportunity to develop a PER strategy for GCTT, based on evidence, best practice and pilot activities, which supported new means of public and community engagement. Our intention is now to apply this to the broader GC programme.

1.2 Planned strands of activity

The project had five core strands of activity:

- Scoping exercise with GC steering committee academics to identify:
 - a) potential relationships between local contexts and global research questions and
 - b) the most relevant target local communities.
- A participatory research project, led by researchers from UCL's Department of Science and Technology Studies (STS), to explore local communities' views on PER and specifically with problem-oriented, cross-cutting research programmes.
- A literature review of relevant PE and STS evidence, and report on best practice in PER at UCL and elsewhere with a focus on identifying practice relevant to cross-disciplinary problemoriented research.
- Piloting a programme of PE activities based on the findings of the above strands for the GC programme, and in particular how PER can be embedded at each stage of the research cycle.
- Developing UCL GCs PER strategy and consulting on a final draft with the UCL and other local communities.

1.3 Intended outcomes

As set out in the project proposal, our intended outcomes were to:

- Evidence the value of PER in helping to feed into and shape strategic and high-level decision making, and in particular cross-disciplinary research strategy at UCL.
- Secure institutional buy-in to this approach and expand it first to all of the other GCs and more broadly to wider institutional strategies.
- Demonstrate the value of effective approaches to PER and activities in HEI strategic high-level decision making to the broader HE sector.
- Make conclusions and recommendations for PER in cross-cutting problem-based research more generally.
- Offer conclusions and recommendations on how to establish dialogue and partnerships between those responsible for devising and delivering PER strategy and academics engaged in public engagement-focused practice and research.

1.4 Context: PER at UCL

This project built on ten years of institutional public engagement activity and experience of developing the GC programme at UCL; we describe here the institutional context in more detail.

1.4.1 UCL Public Engagement Unit

In 2008 UCL was awarded funding under the Beacons for Public Engagement programme. Since 2012, the PEU has been internally funded as a strategic UCL activity, and is now situated within UCL Culture. 2018 marked the 10th anniversary of the establishment of the PEU at UCL set within the broader sector-wide context of a decade of culture change work looking at the relationship and interactions between higher education and society. PE is a key component of UCL's 20-year strategy, UCL 2034 (https://www.ucl.ac.uk/2034/), which states that "we recognise our responsibility to contribute effectively to society and our local community and encourage a dialogue that will inform our activities" and confirms our ambition to be "an accessible, publicly engaged organisation that fosters a lifelong community". PE is considered essential to achieving UCL's core mission of transforming how the world is understood, how knowledge is created and shared, and how complex problems are solved.

In 2017, we used the NCCPE's EDGE tool to reflect upon UCL's current support for engagement, we have identified dimensions where engagement is embedded within the organisation (i.e. in its **Processes**: Support, Learning and Recognition; its' **Purpose**: Mission; and **People**: Staff and Students). However, there are also dimensions where there are opportunities to move from 'gripping' to 'embedding' (i.e. in its **Purpose**: Leadership and Communications; and **People**: Public). These are areas where positive differences can be made, and, with high level strategic support, sustained. Thus, it was these specific areas where we felt INGRAINED could assist us.

The PEU remains one of the largest internally-funded PE teams in the UK with seven members of staff. The PEU works to embed PE within UCL through funding opportunities, training schemes, high profile public events and bespoke support for departments and UCL staff and students. This work comes together in an annual awards ceremony, hosted by the Provost and celebrating the public engagement efforts of all UCL staff and students. The strength and breadth of both the PEU and the work it undertakes is greater in 2017 than it has ever been. Through a process of consultation with staff and students we have recently updated the UCL Public Engagement Strategy (https://www.ucl.ac.uk/culture/resources?nid=633) which identifies four strategic aims for the period 2017-2020:

- Enable UCL to become a global leader in listening to communities and engaging with public groups
- Champion a culture of public engagement across UCL
- Enable the UCL community to be effective in public engagement activity
- Put UCL at the centre of London conversations, creating London-wide impact and being a good neighbour

The strategy characterises UCL's distinctive approach to PE through: 1) A focus on collaborative models of engagement; 2) Involvement of diverse public groups, particularly those whose voices are heard less often; 3) A spirit of experimentation from which learning can emerge. In this way, UCL aims to play a leading role in creating a culture of sharing knowledge and experience of PE within the HE sector and beyond.

1.4.2 UCL Research Strategy

PE is also a core component of the draft 2019 UCL Research Strategy which states that we "seek to maximise the public benefit resulting from our research, including by furthering academic disciplines and scholarship, enhancing our cultural contribution and engaging in public discourse". Delivering impact for public benefit is one of the strategy's three key aims; PE is also key to the strategy's crosscutting theme of responsible research.

1.4.3 Grand Challenges

The UCL GC programme was introduced in 2008 to initiate and support cross-disciplinary research activity that addresses global problems. The UCL Research Strategy recognises the distinctive position of UCL in terms of its scale, breadth of expertise, and potential for cross-disciplinary collaboration. The GC programme was introduced as a way to allow disciplinary experts to work together to address pressing societal issues. The programme is designed to bring distinct expertise, methodologies, and viewpoints together to tackle issues in the six GC areas: Global Health, Sustainable Cities, Cultural Understanding, Human Wellbeing, Justice & Equality and Transformative Technology. The programme brings together

cross-disciplinary research communities to address issues under each of these GC areas, and supports researchers to translate their findings into impacts, including both academic outputs (peer reviewed papers, grant applications, etc.) and engagement beyond academia (so that findings from cross-disciplinary activity inform policy, industry and the wider public).

As the programme has developed, we have seen strong communities of researchers established for each of the GCs and a growing and embedded culture of cross-disciplinary collaboration. This phase has also seen the establishment of relationships with, amongst others, the Lancet and Springer Nature, which have provided routes for cross-disciplinary research teams to publish in high impact academic journals. The second phase of the GC programme (as described in the revised UCL Research Strategy) is characterised by an increased focus on external engagement and a greater emphasis on societal impact as an ultimate aim.

1.5 Reflections on proposed aims, activities and intended outcomes

INGRAINED was an ambitious project, in keeping with the ambitious aim of the SEE-PER programme to create conditions where PER can thrive. Although our aims and objectives did not change during the life of the programme, our strands of activity did. Rather than the planned linear development of five strands activities that we outlined in the bid, owing to time constraints our activities ran in parallel. This also enabled greater cross-fertilisation between parallel activities. The project had the additional challenge of feeding into the development of institutional strategies, which had their own timeframes and decision-making structures.

An additional aspect of INGRAINED, which wasn't included in the proposal, was a piece of work being led by the PEU team asking the UCL community to contribute to the establishment of Top Ten Targets for Public Engagement at UCL by 2028, presented to the Provost in March 2019.

2. Project Inputs

Working with the NCCPE in November 2017 we devised a logic model for the project, which helped to articulate the project inputs. Table 1 outlines the inputs for our project.

Table 1: Project inputs

Funding (UKRI)

Staff time (Principal and co-investigators)

Researchers' time (those involved in PE projects)

Community group members' time

Existing PER activities and resources – Beacon Bursary and Grand Challenge funded projects

Time of those involved in focus groups

Prior research and knowledge

Existing contacts

The INGRAINED team is comprised of staff from four areas across the university drawn from both an academic department and professional services staff whose core function is to support the research environment and/or public engagement (i.e. GC, PEU, OVPR and STS). Although there are overlaps across our work streams, we have never formally worked together in this way before. As a team, we

have been regularly meeting to plan and deliver INGRAINED. The space provided by this project has enabled conversations to flourish and for each of us to explore wider overlaps with our work.

2.1 Reflections on project inputs

Unfortunately, at the start of the project we experienced a challenge with a key input: staff time. We were unable to hire a second postdoctoral researcher as we requested as no one applied for the post when advertised. As the time scales for this project were tight, it was not feasible to advertise for long or re-advertise. After some deliberation, the team decided to proceed with just one researcher. We compensated for this by hiring the Research Associate at 40% FTE instead of 20% as originally requested.

The core team were committed to this project, and we successfully drew upon others' expertise within the university when needed (for example we worked with UCL Student Union Volunteering Services to promote the project to community groups).

In the summer of 2018, the PEU team were approached by academics from another university who were undertaking a piece of research about leadership and public engagement (funded by UKRI). We saw this as an opportunity to build upon the work of INGRAINED, so the participants recruited for the study were staff who were linked to the GC programme – to help the project team understand perceptions and experiences of PE within the GC programme. This was an additional resource subsequently incorporated into the project.

Furthermore, several community groups added their own resources above what had been requested (e.g. extra refreshments and pro bono use of rooms in some cases). The spare resources from the project budget were reinvested and used to boost the co-production events.

3. Assumptions

With regards to the wider context of this project, we have learnt a few things which have challenged our initial assumptions.

There is a **large demand for such initiatives to involve communities** from outside the university in research. All in all, we had underestimated the interest in INGRAINED from outside the university. Despite the tight timescales of the call for community partners, we had 21 expressions of interest to be involved in the programme, which resulted in four community organisations working with teams of researchers on the pilot public engagement activities. By means of both the systems and procedures we set up to promote and match community partners and engaged researchers, we have become of aware of the breadth of motivations for community partners to be involved with the university. This theme was explored further with the STS research element of the project.

There are **challenges to involving researchers who want to explore PE**. Some of the community groups had specific ideas of who they wanted to work within UCL and it took time to establish those relationships. We only had a small pool of researchers involved in the pilot engagement activities, which limited the opportunities for cross-engagement requested by the community partners.

Matching and supporting people takes (a lot of) time and requires mechanisms. As a project team, we spent time planning the infrastructure of the INGRAINED, thinking through the whole process and

considering what support might be needed and when. We were conscious that the community organisations involved would, almost certainly, have different ideas, needs and requirements to the research community. This thinking space was crucial. We have created agreements and mechanisms for ad hoc support (available from the UCL Public Engagement Unit for both researchers and community organisations). As a result, we have created a structure to ensure that each team involved in INGRAINED can work together effectively – and create meaningful relationships.

We need to allow for flexibility within pilot programmes. The processes of engagement in the pilot projects took many shapes and forms (site visits, meetings, debates/discussions) and the outcomes from the pilot activities were therefore also varied (i.e. research questions may be generated through the dialogue, new student projects may be identified, existing research findings may be challenged and discussed, different sets of data may be brought together, networks created, funding bids etc). We need to be flexible and responsive to support such collaborations.

4. Activities and outputs

The logic model we devised through working with the NCCPE, helped to articulate the project activities, summarised in Table 2 and described in more detail below.

Table 2: Project activities

Building networks
Developing strategy documents
Small grant projects
Research
Advice and steering groups
Learning and evaluation

4.1 Public engagement pilots

In December 2017, we opened a call to both local community groups and UCL's researchers with the broad aim of exploring interest in these differing parties working together under the research theme of "Transformative Technologies". We found that when we promoted the opportunity outside of the university, we had more interest from community partners than initially anticipated (21 expressions of interest received).

Four community partners were then selected to take part in INGRAINED. Applications were judged against a) the extent to which their interests aligned with one of GCTT's five themes (food, disability innovation, social impacts of new technology, data for good and nature-inspired engineering); b) capacity to get involved within the parameters of the project timeline and resources and c) alignment with the organisation's existing or planned activities during the lifetime of INGRAINED. The four community organisations selected (The Calthorpe Project, Dragon Hall: Soapbox, Sustrans and Kings Cross and Brunswick Neighbourhood Association) represented diverse London communities and were interested in a broad spectrum of GCTT themes.

In January 2018, we held a match-making event, bring together selected community partners and engaged researchers from a range of disciplines aligned to the GCTT and interested in working together on this societal challenge. The match-making event was attended by 20 people.

The four community partners were supported to work collaboratively with individual or small teams of UCL researchers piloting engagement activities. We provided space and time for conversations, and to allow for engagement activities to emerge. For example, the Calthorpe Project worked with a multidisciplinary team of researchers from the Slade School of Fine Art, the Bartlett Development Planning Unit and the Faculty of Engineering, planning an event called *Food Futures*, while the community project Sustrans was matched with a PhD student from the Faculty of Engineering, who worked with them to explore research scoping out apps that can be used to engage young people on their transport options in the built environment.

4.2 STS Research

The STS Research is summarised as follows:

A comprehensive literature review of PE and community/university partnerships, which was scoped around upstream PER practice and governance. STS also conducted a range of qualitative research in parallel to the PE activities to assess responses to PE from both the UCL researchers and community partners involved. This included 15 qualitative interviews with academics working in scientific research, comprising:

- one-on-one, face-to-face (except 2 telephone) in-depth semi-structured interviews
- 11 researchers working in a 'global challenge' field, either sustainable cities or transformative technologies, including doctoral, mid-career and professorial scholars
- four researchers involved in the INGRAINED PE pilot work
- topics covered included research aims, research responsibilities, orientation towards societal-problem research strategy, the role of the public in research and social impacts of technology

In addition, STS ran focus groups with 97 community participants, comprising:

- discursive events held at community venues
- a diversity of civil society organisations in terms of their focus on age, gender and interest.
- topics covered included perceptions of the role and functions of universities, research ethics, technology futures and sources of funding for scientific research and technology development

4.3 UCL Research Strategy

Informing the development of the 2019 UCL Research Strategy was identified as a key output of INGRAINED. The development of the strategy during the course of the project allowed emerging insights to inform the strategy's consideration of the role of PER in its three aims: enable and empower diverse research leadership; cross boundaries to increase engagement; and deliver impact for public benefit. The impact of INGRAINED on the draft Strategy can be seen in particular through the following objectives:

- **Extend the reach of UCL GC** through a greater emphasis on external engagement, including community stakeholders.
- Encourage our research to thrive beyond traditional boundaries, which includes commitments to "support engagement with different communities" and to "cross boundaries between varied forms of social engagement", including drawing from the UCL community's specialist skills and expertise in engaging with civil society and the public.

- Foster open and engaged research.
- Stimulate societal impact through cross-disciplinarity and collaboration, including
 commitments to "foster public collaboration in research to benefit communities", and
 "benefit London and our local community".

4.4 Summary of project outputs

The project outputs have been summarised in Table 3.

Table 3: Summary of project outputs

Project team UCL network
Informing the development of the UCL Research Strategy
Matchmaking event for researchers and community groups
Four public engagement pilot projects lead by community groups
15 interviews
97 community participants in Focus Groups
UCL Focus group on leadership (linked to UKRI research)
UCL interviews on leadership
Feed into Top Ten Targets for PE in 2028
Feed into GC Strategy and Action Plan

5. Outcomes and impacts

The outcomes and impacts of the project are summarised in Table 4 (using the framework provided by the NCCPE) and discussed below.

5.1 Public engagement

The UCL PEU team has drawn extensively on learning from participation in INGRAINED to feed into the development of a vision and targets for PE at UCL for the next decade. In particular, this work is building on insights from INGRAINED in order to consult widely and consistently with both internal and external stakeholders, including a series of focus groups and individual conversations with key UCL academics and professional services staff.

The Engagement Team has specifically examined how to build greater evidence of local communities informing GC's research agenda, how community involvement should be built into infrastructure and governance and how to make the outputs of GC research relevant and accessible to the local community. The initial (draft) Top Ten Targets for Public Engagement at UCL set out how GC themes could be used to frame an overarching narrative at both global and local level in terms of our PE work. A number of targets were proposed, including continual review of the focus of GC topics and themes by co-producing with global and local stakeholders a set of broad research questions or themes applicable to both the global and the local.

Since the production of this report, the Engagement Team were given leeway to develop an ambitious new UCL Public and Community Engagement Strategy 2020-2027, due to be approved in Autumn term 2020 (See Section 6. Sustainability for fuller details).

5.2 STS research

The STS research found that the community groups expressed a range of views on the overall research objectives of universities and their role in solving the challenges of today. Overall, the research found that there was an appetite from community groups to engage more with universities around their research agenda and INGRAINED has opened the door to further discussion of how this might practically be achieved. These views have fed into project team conversations and been taken up within the relevant institutional processes with a view to influencing the way the GC programme might think about future involvement of community groups in helping to co-produce the choice of priority themes and shaping wider UCL research policy. We hope to further reflect on this research in the context of wider moves to mission-driven research and innovation in the UK and EU.

5.3 UCL Grand Challenges and Research Strategy

Applicants for GC funding have always been encouraged to identify external partners, groups who would be beneficiaries of the results of the academic collaboration, and this has been emphasised to a greater degree in recent years. The draft research strategy includes an objective for 'responsible external engagement', research that is relevant to, inclusive of and engaged with those it affects. The experience of working with community groups in INGRAINED will be used to develop a model that encourages early engagement, with the aim of increasing the relevance of GC collaboration to the groups they are working with. Where possible this should include co-design and co-production approaches to research for societal problems.

The new insights gained through INGRAINED have been particularly valuable in helping the project team to understand the interests and needs of community groups, as well as the appetite for this form of engagement. As discussed above, this learning has informed and been reflected in the draft 2019 UCL Research Strategy, and we anticipate considerable longer-term outcomes to emerge from the increased emphasis on the value and importance of PE, and the strategic commitment to PER reflected in the Research Strategy.

The accompanying Research Strategy Implementation Plan, currently in development, will include specific actions to further enhance and embed PER, specifically under the work programmes to implement the four objectives listed in 4.3. These actions will be co-developed with the PEU team and informed by views from the wider UCL community, and are likely to include the following:

- Explore how to provide more support for through civic and public engagement, citizen science, patient involvement, and co-design and co-production of research.
- Enable researchers to engage in other areas of practice that, for example, support ecosystems, deliver public services or produce creative outputs and ensure that these are valued as research activity and impact.
- Identify existing barriers to PE and seek to address these.
- Further develop an active, reciprocal culture of engagement as a means to enrich our research.

Table 4: Overview of INGRAINED impacts

SEE-PER Outcomes/ impacts	Priority for your project?	Evidence captured of progress	Key learning
Shared understanding of PER and its value to research	Y	- INGRAINED project team planning meetings - Insights and understanding captured through STS interviews currently being undertaken with researchers and members of the GCTT steering group.	- The planning meetings brought together staff from across the university (PEU, STS, GC and OVPR) who work on research strategy and external engagement, to share their understandings and experience
PER is embedded in strategy and therefore is supported more effectively across the institution	Y	- Submissions to formal consultation on draft 2019 UCL Research Strategy were informed by INGRAINED and will reflect much of the learning, questions to pursue and project and strategy proposals The final draft Strategy and the developing Implementation Plan have been directly informed by INGRAINED	- Collaborative project team involving academics and professional services staff is bringing valuable learning and suggests we should commit to future planning and increasingly aligned strategic work.
Engaged leadership		- VPR was PI on the project and has overseen the development of the 2019 Research Strategy with an increased focused on public engagement with and coproduction of research - PEU's 'top ten targets' work endorsed by UCL Provost	
More effective governance structures for PER	Y	- PER feeding into the GCTT, the chairs of the GCTT attending the match-making event and	- It is key to engage members of the GC steering group

		have been supportive of the co-creation process	
PER recognised in reward and recognition, leading to staff promotions which recognise their PER work			
Improved provision of effective and appropriate CPD for PER			
Increased skills to do PER well	Υ	 Understanding community needs and timelines Understanding different interpretations of Transformative Technologies 	
Improvement in the quality of PER activity	Υ	- Four pilot PER projects	- Support needs to be flexible and responsive to different needs and requests
Staff motivated to participate and get involved in PER	Υ	 Nine engaged researchers involved in pilot public engagement projects. Insights and undertaking captured through STS interviews being under taken with researchers and members of the GC group. 	- Within the pilots, researchers spoke about getting involved to make / widen their contacts; scope out interesting ideas linked to their research; explore partnership working
Increased recognition of support for PER, and an increase in the take up of this service			
Communities have raised awareness of opportunities to work with university, and participate in PER activity	Υ	- Community partners' response to open call (21) - Insights and understanding captured through STS focus groups being under taken with community partners	

Longer term partnerships as a platform for public engagement	Υ	 Four community partners linked to UCL through INGRAINED 	
Increased public understanding of the relevance and value of university/ies	Y	- Community partners' response to open call (21) - Insights and understanding captured through STS focus groups being under taken with community partners	
More partnerships with external organisations, based on a shared understanding of mutual benefit	Υ	- Number of community partners working on INGRAINED (4)	
PER embedded into research strategies and into grant applications	Υ	- Links made with UKRI funded research project undertaken by Dr Richard Watermeyer	
Results used to inform future planning/ decision making/ funding	Υ	- Development of PER strategy for GCs - UCL Research Strategy implementation plan to include actions for enhancing PER - Top Ten Targets for Public Engagement at UCL for 2028	
Improved efficiency enabling more people to get involved			
Other – please specify key outcome areas for your project not captured above			
Development of networks and connections within the institution	Υ	- PEU/STS are working together outside INGRAINED, where PEU are feeding to new MSc module on PE PEU and GC team are working more closely together to develop more joint projects	- Bridging theory and practice in the institution

within hi who are initiative develope result of feeding i governa of Bright - Present story of Engage o - continu	ect with others igher education running similar es We have ed networks as a this project — into review of nce at University con tation of the INGRAINED at conference 2018 uing to identify onference and essemination
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6. Sustainability

Following the completion of the initial PE activities, and the accompanying research, the project team has begun to embed the learning from INGRAINED into strategies and tools to enable UCL researchers to better engage with community partners. This work is ongoing and included the following key elements

6.1 UCL Public and Community Engagement Strategy 2020-2027

The Foundations: Leadership, clarity and strategic vision for public engagement

UCL has established its reputation for being nationally and internationally sector-leading in public engagement by consistently taking an innovative approach and in order to maintain this reputation it must continue to innovate and adapt. The learning from INGRAINED, as well as from ongoing wider consultation across UCL, has been applied to the development of the UCL Public and Community Engagement Strategy 2020-2027, due to be approved in Autumn Term 2020. This learning can be seen within both the 4 Strategy Principles (see below) and within the 16 Aims of the Strategy (the 8 most relevant of which are set out below).

The Strategy Mission is: To empower every member of UCL staff, all our students and our alumni community to deliver positive societal impact, locally and globally. Importantly, the strategy in its entirety is being presented as a living document (rather than a fait accompli) which will evolve over time in response to internal and external community need and context and ongoing dialogue with partner amongst whom Communities and the Agencies which support them, locally and globally, feature explicitly.

4 x Strategy Principles:

- **Listen and respond** we will prioritise creating a culture and environment in which all voices can be heard and listened to, especially those voices which have often been marginalised or drowned out by others.
- **Collaborate** we will co-create across the 5 partners the engagement blueprint of the future. The P&CE Strategy will be a living document built over time, responsive to all 5 partners' input and to changing external and internal global and national context.
- **Equity and inclusion** will inform how we think and how we act across all strands of the strategy. We commit to acting on the data, evidence and recommendations* which already exist around how we can dismantle institutional, systemic and structural barriers to engagement for specific communities (both inside and outside UCL).
- **Experiment** we will approach public and community engagement with the same curiosity-led approach we applies to UCL research and teaching. We will also share what we learn about how to work with others to achieve more with government (national and local), UKRI and funders, the HE sector and beyond.

*See in particular Common Cause Research, Building Research Collaborations between Universities and Black and Minority Ethnic communities, 2018 https://www.commoncauseresearch.com/report/

See below for 8 of the 16 Strategy aims which have been particularly influenced by our experience of the Ingrained project:

- Articulate clearly and consistently UCL's local and global long term engagement priorities
- Ensure communities- internal and external feel listened to, valued and represented
- Create a collaborative space for thought leadership in engagement
- Improve our capacity to evaluate the difference we make for communities
- Co-produce & deliver with our partners UCL's long-term engagement priorities
- Create a university whose engagement opportunities are easy to navigate & accessible for all
- Expand our practice to ensure we act as a respectful, inclusive and ethical partner
- Challenge and address non-inclusive culture and practices

Monitor, evaluate, reflect and learn

To build a culture of PE at UCL we need a robust institutional level evaluation framework (both quantitative and qualitative in nature) for UCL PE activity linked to the global and local.

Putting evaluation at the heart of our institutional approach to PE has the potential to radically transform the stories we can tell about UCL's impact on society — and highlight that we are doing it in partnership with communities both global and local. It will also catapult us into a leadership position in terms of our ability to share our learning around PE and societal impact within the national and international higher education sector and with civil society, public and private sector players. Evaluation will also highlight when and where we may need to reset our direction of travel, avoiding PE complacency or stasis and keeping UCL ahead of the PE pack.

6.2 Development of draft 2019 UCL Research Strategy and Implementation Plan

The development of the 2019 UCL Research Strategy, was submitted to UCL Council in January 2019, and was directly informed by the emerging insights from INGRAINED. As noted above, the accompanying Implementation Plan is now being developed, a number of specific actions to help further embed PER across UCL. This includes consideration of additional support and incentives that may be required, and how best to enable broader culture change. The Office of the Vice-Provost (Research) is providing specific resource to support the implementation of the 2019 Research Strategy and will report annually on progress against the Implementation Plan, thus ensuring a sustainable approach to implementation and to monitoring actions and change.

6.3 Grand Challenges Action Plan

The learning from INGRAINED is also being imbedded into the work of the GC programme, and the updated Terms of Reference for the GC Working Groups clearly set out an important step change: "Following GC's first phase (2009-2016) priority function as a catalyst of novel cross-disciplinary interaction, in its second phase (2017 – present) GC is now characterised by an emphasis on societal impact as the ultimate purpose of the programme. GC will support the UCL Culture Manifesto's vision of opening UCL to different public groups, fostering researcher creativity through co-design of research questions and co-production of new knowledge. GC will work with UCL Public Policy in order to identify and develop external engagements and partnerships responding to the needs of policy makers and practitioners."

An action plan of how this step change will be implemented in both the short and long term is included below.

Short term changes

THEME	ACTION
Transparency	 Publish a GC strategy which incorporates PER Publish the GC Working Group membership and terms of reference Publish the GC small grant timetable and protocols
Inclusion of a range of voices and representation	 Identify relevant community stakeholders for each relevant GC Invite community stakeholder to submit views on GC priorities Ensure GC respond to these views creating dialogue with community partners Ensure that community stakeholders are compensated for their time Draw upon work being undertaken by Centre for Coproduction in Health
Share learning	 Provide examples and case studies of ways in which GC funded projects embed PE at different stages of the research lifecycle Continue the network of INGRAINED co-investigators group (and add explore the opportunity of adding external stakeholders) Create an informal, ideas-focused GC 'critical friends' group Explore opportunities for further collaboration between GC, the PEU Team and STS department
Evaluation	 Change mind-sets using evaluative thinking to encourage those running projects to think about next steps and future opportunities Emphasise the potential for follow up actions with community partners in the evaluation of GC funded projects

 Develop systems to evaluate funded GC projects (in general and specifically with regard to PE engagement and impact generation), and share learning between them
• Identify future possibility for researchers involved in GC, thinking about their next steps and journeys

Long term changes

THEME	ACTION
Transparency	Greater transparency in GC processes and governance
Inclusion of a range of voices and representation	 Greater evidence of a range of local community voices in framing GC research themes and questions
Share learning Local-Global	 Establish mechanisms to facilitate GC research-led partnerships linking local to global challenges
Evaluation	 Embed a culture of evaluation in GC, with a focus on the value and benefit of bringing in different perceptions (across disciplines and communities) to solving global questions
Impact	 Place UCL at the forefront of PER, providing routes to REF
Collaboration	 Maximise opportunities to align GC strategy with UCL Culture strategy, and to draw from emerging thinking and research in STS and beyond

7. Final Thoughts

Higher Education is increasingly being asked and expected to respond to both global and local contexts and societal priorities – and there is much evidence that the sector as a whole has a strong commitment and desire to respond in a meaningful way. INGRAINED has crystallised for us what we already suspected; that a meaningful response to this challenge and opportunity requires a willingness to commit to institutional and system-wide transformation rather than just a tweaking of existing systems and structures.

For other HEIs, we would recommend that any similar initiatives be undertaken only when there is commitment at the most senior level and only by a team which encompasses key actors drawn from those who lead on global and local engagement from both a professional services and academic perspective. We have learned that the value in bringing together practitioners and those who research engagement is invaluable in achieving new insights.

For funders and policy makers in engagement, the clear recommendation is to consider how funding streams for partnership and relationship building between academics and community partners can be established and grown to support the work that individual HEIs are committing to.

For the NCCPE, we thank them for their support for the SEE-PER call and would ask them to highlight opportunities for us to discuss our experience, and learn from others who are at a parallel stage in their institutional PE journey.

8. Case Studies

8.1 INGRAINED Public Engagement Pilots

In December 2017, the INGRAINED team identified four community partners willing to work with us to help us develop pilot approaches to engaging communities in our <u>Grand Challenges Transformative</u> <u>Technologies programme</u>. We had an open mind on what format these engagement activities might take – but were keen to carve out space and time for collaboration. This case study documents what happened within these pilots, and provides a take home message from each project, summarised as lesson learnt.

8.1.1 Dragon Hall

Dragon Hall is a charity focused on the inclusion of socially excluded young people in digital and tech spaces. They became involved in the INGRAINED programme because of an initial interest in the concept of smart cities and how they could use technology to both reconnect young people with their local communities and support them to become smart citizens. Dragon Hall approached INGRAINED enthusiastically, with ideas for engagement and existing ideas of who they wanted to work with at UCL. However, despite exploratory conversations with three different parties at UCL, a partnership didn't materialise. Instead Dragon Hall used INGRAINED as a chance to carve out time and space for them to reflect on their work – and to consider a medium/ long term strategy for the charity. Central to this was some internal research that explored the needs of the young people that they work with.

Through the funding from INGRAINED, Dragon Hall then went on to develop, deliver and hone a social action programme which enables young people to explore how they can use technology to resolve social issues.

The training takes a blended approach that can be tailored to different needs and contexts (from an eight-hour session to an eight-week course). Over 200 young people have taken part in this programme since it was created in April 2018.

As a result, Dragon Hall has developed a range of beneficial partnerships with other community groups, schools and businesses, has secured significant ongoing funding as part of the Mayor's Digital Talent Fund and developed the charity's strategic vision by using non-formal education and technology to enhance young people's experiences in three core areas: positive mental health; addressing issues around crime and securing employment in digital, media and technology.

Dragon Hall is keen to explore further opportunities with UCL researchers, to see how they could be involved with developing and measuring the impact of this structured programme.

Lesson learnt from taking part in INGRAINED: Don't fret if partnerships don't emerge, take time and space to reflect.

8.1.2 Sustrans

Sustrans a charity that makes it easier for people to walk and cycle. They are engineers and educators who connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute. Sustrans works in partnership with communities and local authorities to find solutions to local problems and make the case for cycling, using robust evidence.

The team involved in INGRAINED focus on community-led street design projects which work with local residents and school children to identify areas for improvement, in terms of air quality, road safety, public space and seating, green space and improved opportunities for walking and cycling.

Before taking part in INGRAINED they had done some engagement work in Barking and Dagenham with Professor Nick Tyler's team (at UCL) which used physical maps to find out how residents travel around their area and what could be done to improve it. They wanted to use the INGRAINED opportunity to explore how they could do this digitally.

INGRAINED matched Sustrans with a PhD student from engineering, who worked with them to explore their needs and undertake some research scoping out apps that can be used to engage with young people about transport options in the built environment.

The PhD student presented the scoping research and Sustrans are keen to move their ideas and inspiration on, by developing an app. They are keen to continue work with UCL, but with other department with researchers who have skills and expertise around technology and working with young people, and have approached the PEU at UCL to explore funding options (in and external to UCL) that would support this kind of project.

Lesson learnt from taking part in INGRAINED: Bring in others to help you follow up and scope out your ideas.

8.1.3 Calthorpe Project

The Calthorpe Project is an inner-city community garden and centre where people grow and learn together, taking care of each other and the environment. Specifically, it exists to improve the physical and emotional well-being of those who live, work or study in Camden and surrounding areas.

The Calthorpe project became involved in INGRAINED to make connections with UCL to help with their Living Lab project. The Living Lab is a new addition to the Calthorpe Project, which has been up and running since 2016/17. It integrates micro anaerobic digestion with on-site food growing using raised beds, polytunnels and hydroponics. Food waste from the on-site community café is digested to produce biogas is (used for cooking and extending the growing season) while the liquid fertiliser by-product supports plant growth. Food harvested supplies the café to close the loop. It has been attracting a new audience of people interested in sustainability as well as engaging regular visitors and volunteers. So far, it seems to be complementing other activities on site and extending the Calthorpe's reach into the community. Unlike commercially-driven solutions, its focus on small- scale, community-based, grassroots innovations enable collective development of new social, ecological, economic, intellectual and technological solutions and the sharing of skills and ideas with other community food initiatives in London.

INGRAINED enabled the Calthorpe project to continue existing links that they had with UCL (i.e. Bartlett Development Planning Unit, Engineering) but also establish new links and connections. A new

partnership was created with two researchers from the Slade School of Fine Art. The Calthorpe hosted a series of workshops linked to sausage making, and was home to an art installation, which they had to spent time and effort maintaining after the workshops. Although this project did not directly align with the Calthorpe's existing programme, it did enable them to offer a different event and activity to their beneficiaries.

Lesson learnt from taking part in INGRAINED: Not all partnerships are mutually beneficial! Think about what you give and get from working with others – and how projects fit into a bigger picture.

8.1.4 Kings Cross and Brunswick Neighbourhood Association

KCBNA aims to: reduce health inequalities in King's Cross through enabling the local community to improve their health and wellbeing; enable those at risk of social exclusion to develop their potential and improve their opportunities to access education, employment and training; reduce isolation, vulnerability and fear of crime and promote a sense of belonging among all residents; and to promote good community and race relations, social cohesion and celebrate the value of diversity in the local population.

The organisation is very aware that new technologies are transforming our society and yet are very slow to be embraced by the over 60's and yet many feel increasingly socially isolated and socially excluded. They feel they have reduced opportunities to access even the essential services that they increasingly rely on with greater age, due to being digitally illiterate or feeling vulnerable and frightened to even try to use these technologies. They took part in INGRAINED to explore ways that elders from the diverse BAME communities can work with older people from the British White community to share skills, knowledge and perspective and reduce isolation and exclusion for all of us.

They ran a weekly session called the 'Super Connect' Club where corporate and UCL volunteers work with older people to help them develop digital skills at their own pace. They took part in INGRAINED to expand this existing programme and include many more BAME community members.

Through INGRAINED they met a range of different researchers from UCL and had a number of exploratory conversations - thinking about how their centre could feed into research taking place at UCL. For example, meeting research in Psychology looking to undertake action research around aging and loneliness. In the end, KXNBA worked with a team of researchers in the Institute of Global Health to run a focus group on the theme of technology and social connections to find out what their users need, and ideas for future services.

Lesson learnt from taking part in INGRAINED: Don't be afraid to talk to people about what you do and what to do, you never know what might come of it.

8.2 Stories of change: *Ingraining* the partnership between UCL and the Calthorpe Project, Marina Chang, Co-Chair of the Calthorpe Project (2018)

This not a story about a project, this is not a story about a workshop and art installation, this is not a story about INGRAINED. Instead this is a story about partnership and friendship between the Calthorpe Project and UCL. Rather than describe our (relatively) short involvement with INGRAINED and how it has allowed us to cement existing and build new relationship with UCL; I am going to use the opportunity to talk about who we are and how and what we deliver, as an organisation, has been shaped by our

involvement with UCL. We have rich skills and experience, passionate and personality – and this has been fundamental to our approach to partnership working.

The Calthorpe Project is an inner-city community garden and centre that exists to improve the physical and emotional well-being of those who live, work or study in Camden and surrounding areas. It endeavours itself to achieve its mission through three core objectives with activities and services designed to support these goals:

- Managing sustainable green space and community facilities providing a better local environment for all
- Developing people and their skills delivering services that improve the life chances of local residents
- Creating better social conditions provide opportunities for people to meet and take care of each other and the environment

The Calthorpe Project has been a champion for community organisations to engage with universities through a wide range of public engagement activities with UCL since 2009. This has included: *Food Junctions* during King's Cross Reveal Festival (2009/10), *Foodpaths* (2010), *Food Junctions Cookbook* (2011), *Sandwich Street Cafe* during the Bloomsbury Festival (2013), *Focusing on the Positive* (2014); and *Feeding London* (2014/15).

We have been keen to develop a genuine collaborative approach working with UCL and therefore have been actively involved in the entire cycles of these public engagement projects, including identification of local needs, working on grant applications, designing and implementing the projects, evaluation and wider dissemination to generate London-wide impact and beyond. Calthorpe strives to be good neighbour to UCL and vividly believes in a vision that the community is part of the university and vice versa. Part of our ethos is a commitment to supporting any experiments and innovation to create a learning community.

Through working with the already and newly formed intensive networks at UCL, through INGRAINED, Calthorpe has also encouraged and supported community participation to integrate research, education, transformative technologies, social enterprise and public policy into a coherent whole for change.

INGRAINED allowed us to run a series of workshops, working with artists from the Slade. This project was part of a wider programme: contributing to the *Calthorpe Living Lab*. *Calthorpe Living Lab*, marks another important milestone for the collaborative and creative journey together between The Calthorpe Project and UCL. As a community-based, small-scale, closed-loop system, *Calthorpe Living Lab* is both a site and an approach to a user-driven innovation built on a real-life environment with the participation and co-creation of users, partners, and other parties. Built upon the previous public engagement projects, *The Lab* combines micro anaerobic digestion with on-site food growing using raised beds, polytunnels and hydroponics. Food waste from the on-site community café is digested to produce biogas (used for cooking and extending the growing season) while the liquid fertiliser by-product supports plant growth in the garden. Food harvested supplies the café to close the loop.

Collaborating with UCL has challenged our thinking, pioneering a way to approach issues regarding food systems, urban systems and health systems from a more holistic and integrated way, and has allowed us to experiment and learning. Through demonstration of this closed-loop waste-energy-food model, Calthorpe has engaged extensively with UCL researchers and students as well as a wide range of public members including:

- Hosting several individual and student group visits from various departments including Civil,
 Environmental and Geomatic Engineering, Biochemical Engineering, Bartlett Architecture, Planning,
 DPU and Institute of Global Health, etc.
- Co-organising with UCL GC and Centre for Agroecology, Water and Resilience at Coventry University
 an innovative book launch event for Dr Robert Biel's new e-book "Sustainable Food Systems"
 published by UCL Press, which involved various community members and organisations for
 knowledge exchange and experience sharing.
- Collaborating with various research projects with UCL students and academic staff:
 - o An LCA based evaluation their closed-loop model incorporating urban agriculture, composting, vermicomposting and micro anaerobic digestion and a community café (with Bartlett DPU).
 - Design and build a low-cost digester using robust, lightweight materials (with Environmental Engineering).
 - Design and implement a health promotion intervention to tackle issues of physical health, mental health, environmental health and community health, etc. (with Institute of Global Health).
 - A trial project to compare organic and mechanical filtration methods for digested food waste (with Biochemical Engineering and Environmental Engineering).

Food is one of the most fundamental parts of our existence, and our relationship with food is reflective of our broader relationships in society. Concerns over health, food quality, social and ecological impacts, and the pressing financial crisis, have led communities to take action to control our food systems. The *Calthorpe Living Lab* uses food as a focal point for UCL researchers and students as well as wider publics bringing multiple benefits. We are looking forward to our next chapter working with UCL, and seeing what it brings.