National Centre for
Academic and Cultural Exchange

HEIs' Engagement with the Arts and Cultural Sector: Evidence from the Knowledge Exchange Framework 2021 Narratives

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Executive Summary

Higher education institutions (HEIs) engage intensively with the arts and cultural sector through many activities including multiple channels of knowledge exchange (KE). However, the engagement of HEIs with the arts and cultural sector remains under-researched - particularly when compared to the intense investigation of the relationships between HEIs and industry more broadly, in particular the role of STEM (science, technology, engineering and mathematics) disciplines.

The rationale for this report lies in trying to address this significant gap in our knowledge by analysing how HEIs in England report their engagement with the arts and cultural sector through the current KEF exercise. This analysis is based specifically on a set of short reports that HEIs in England submitted to the government agency Research England, in the context of the first Knowledge Exchange Framework (KEF) exercise, carried out in 2021.

The analysis was carried out in two steps. First, in order to identify significant topics relating to engagement with the arts and cultural sector emerging from the KEF narratives, and to single out which HEIs discussed engagement with the arts and cultural sector more extensively, we performed an automated text analysis of the 117 KEF narratives. Second, we performed a more detailed analysis of the twenty HEIs which mentioned the arts and cultural sector most often in their KEF narratives, in order to identify what kind of KE activities they performed with, or involving, the arts and cultural sector, and how they evaluated their engagement.

Engagement with the arts and cultural sector was mentioned by many HEIs in the three sections of their KEF narratives (Institutional Context; Local Growth and Regeneration; Public and Community Engagement) and, as we discovered, it was also discussed differently in each context.

In the Institutional Context sections of the narratives, for example, words used typically referred to different artistic and creative subjects and infrastructures, suggesting the centrality, in these instances, of arts and culture to those institutions. In the Local Growth and Regeneration sections, we found that words used often referred to specific creative activities (musicians, performing, studios, textiles, creative economy, creative sector), with a strong emphasis on digital (digital, digital innovation, digital technologies, digital skills, digital industries, digital creative), suggesting, in turn, their centrality in local growth and regeneration.

In the Public and Community Engagement sections, words often referred to the activities, events and structures that for universities are often synonymous with public and community engagement.

Different HEIs mentioned engagement with the arts and cultural sector with varying degrees of intensity. Those that did so the most, perhaps unsurprisingly, tended to belong to the KEF ARTS

cluster. (See Table 1 for a breakdown of the different Clusters). Of the 20 HEIs that most frequently used words relating to KE with the arts and cultural sector, 11 (out of a total of 12) were part of the KEF ARTS cluster, while the remaining were in cluster M (5), cluster E (2) and cluster J (2). The HEIs in the KEF STEM cluster discussed the theme of KE with the arts and cultural sector the least.

Of those 20 HEIs, we also found that17 mentioned arts and culture sector engagement as a key part of their institutional mission. Hence, by looking at the use of words relating to KE with the arts and cultural sector, we have identified a group of HEIs that consider engagement with the arts and cultural sector a strategic priority.

Through a qualitative analysis of these twenty KEF narratives, we identified three main areas of engagement of HEIs with the arts and cultural sector that can described as follows:

- provision of direct support for businesses, including both support for existing businesses and for the creation of new businesses;
- provision of support tailored more towards individuals, both in relation to increasing and widening access to education in the arts and related fields, and in relation to helping facilitate careers in the arts and cultural sector;
- artistic or cultural activities that create a broader impact on society and the economy including all forms of local regeneration activities as well as engagement with any communities outside the HEI.

In the KEF narratives, it is often difficult to disentangle discussion of engagement with the arts and cultural sector from discussion of engagement with the creative industries more generally. However, for all the forms of engagement above, we have been able to identify examples of engagement specifically with the arts and cultural sector.

HEIs use both internal and external evaluations, employing a variety of quantitative and qualitative approaches to evaluate their KE. We note that HEIs have made a lot of effort to provide quantitative estimates of their impact and to identify appropriate indicators. This effort suggests that HEIs are aware of the value that policymakers place on the provision of quantifiable impact indicators. Some HEIs mentioned that the collection of these indicators was also useful for their internal evaluation of their own KE activities.

Key recommendations

From our analyses, a number of important considerations emerge that may be useful, in particular for readers of this report who are working within HEIs, either within specialist areas such as Knowledge Exchange, including Public and Community Engagement or indeed in other areas. These might include: Communications, as well as those leading on civic issues or wider cultural

and social leadership. Some of our suggestions here below are likely to be of relevance to academic and researchers thinking about their own Knowledge Exchange activities.

Encouraging HEIs to find ways to discuss their KE engagement with the arts and cultural sector: As our analyses have shown, the KEF narratives demonstrate wide ranging engagement of HEIs with the arts and cultural sector. However, some questions do persist. It is not possible, for example, to ascertain, through this particular exercise, whether the HEIs that did not specifically mention KE with the arts and cultural sector had no engagement to report, or whether, as seems more likely, they simply did not prioritise it within the KEF context. Similarly, many HEIs do not emphasize their engagement with the arts and cultural sector, preferring to refer more generically to engagement with the creative industries and/or digital industries - even when significant examples of engagement with the arts and cultural sectors can be found.

HEIs could more adroitly use their KEF narratives to provide a more comprehensive picture of their KE engagement, including engagement with the arts and cultural sector - as distinct from more general engagement with the creative industries or with the digital economy. Whilst quantitative indicators used in the KEF may not be ideally suited to capturing many forms of KE with the arts and cultural sector, KEF narratives do however present a very good opportunity to report this form of engagement.

Continue to combine narrative descriptions with quantitative indicators: Whilst quantitative indicators are useful for evaluation purposes, they also necessarily provide only a partial view of the impact of KE. Therefore, a combination of narrative description supported by quantitative indicators still seems the most appropriate way to demonstrate impact. Moreover, the sheer variety of KE activities that HEIs perform when engaging with the arts and cultural sector suggests that it is perhaps not appropriate to ask HEIs to stick to a set of predetermined quantitative indicators.

Use evidence collected from the KEF narratives as best practice: The indicators collected in this report can provide a useful initial overview of best practices for HEIs looking for indicators that could help them to showcase their performance in knowledge exchange with the arts and cultural sector. Additionally, the forms of knowledge exchange mentioned in the KEF narratives could provide examples and best practices for HEIs seeking for ways to expand their engagement with the arts and cultural sector.

Exploit the rich information in the KEF narratives further: KEF narratives are a rich source of information about HEIs' KE activities and they could be mined further for information about many aspects of KE. Further analyses could be applied to a greater number of KEF narratives, to delve into specific issues - for example, the factors that enabled the success of KE with the arts and cultural sector could be investigated, as well as the most frequent organisational forms used for successful projects.

1. Introduction

1.1. About NCACE (National Centre for Academic and Cultural Exchange)

NCACE is led by **TCCE (https://www.theculturecapitalexchange.co.uk/areas-of-work/ncace/)** and funded by **Research England (https://www.ukri.org/news/national-centre-to-fulfil-sectors-knowledge-exchange-potential/)** . Its key purpose and mission is to facilitate and support capacity for Knowledge Exchange (KE) between Higher Education and the arts and cultural sector across the UK, with a particular focus on evidencing and showcasing the social, cultural, environmental, as well as economic, impacts of such activities. NCACE began as a four-year initiative in 2020.

The centre works across the following four key areas to help realise, communicate and evidence the potential of Knowledge Exchange with the arts and culture sector. Its activities are open to all HEIs and to those working in the arts and cultural sector. The following is a short synopsis of each area of activity.

Brokerage, Collaboration Support and Networking

NCACE is concerned with creating positive ecologies and environments in which to foster excellent Knowledge Exchange and collaboration between Higher Education and the arts and cultural sector and to support ambition around the wider potential and impacts for such work. Each year we produce an annual event as well as various information/networking sessions and an Ideas Pool.

Skills and Capacity Development

NCACE provides space and network capacity to support and develop KE staff, academics with a keen interest in developing social impacts, as well as arts/culture sector workers who wish to develop partnerships with universities. WE are doing this through workshops in collaboration with the Clore Leadership Foundation as well as our Knowledge Impacts Network (KIN).

Evidence Building and Impact Development

NCACE's Evidence Bank addresses the need for more and better evidence and analysis specifically about the extent, nature, drivers and broader impact of KE and collaborations between HE and the arts/cultural sectors. It is made up of three interrelated strands: Evidence Cafe, Evidence Repository and annual workshops on key themes such as Placemaking.

Showcasing and Communications

To showcase models of good practice in KE with the arts and cultural sectors from universities across the country both in our evidence bank and other online resources including bulletins, blogs and through the promotion and dissemination of NCACE activities programme via a range of social media platforms across the partnership.

1.2. The Knowledge Exchange Frameworks and HEI's engagement with the arts and cultural sector

Higher education institutions (HEIs) engage intensively with the arts and cultural sector through the many activities of HEIs, which often rely on multiple channels of knowledge exchange (KE) (Hughes et al., 2011; Fisher, 2012; Leighton and Mitchell et al., 2018; Sigal, 2021). Additionally, these exchanges generate a multiplicity of impacts on many different stakeholders including artists, researchers, policy makers and more (Comunian et al., 2013; Draux and Szomszor, 2015; AHRC, 2016; NCACE, 2021).

Despite this, the engagement of HEIs with the arts and cultural sector remains under-researched - particularly when compared to the intense investigation of the relationships between HEIs and industry more broadly, which often focuses on the role of STEM disciplines (Crossick, 2006, 2009; Olmos-Peñuela et al, 2014). Considering in particular the extent to which HEIs are structuring their operations in order to effectively engage in KE, the focus of most of the literature so far has been on HEIs' efforts to set up structures to support engagement with industry in general, either lacking a specific sectoral focus or specifically targeting high tech, manufacturing and knowledge-intensive services. These include technology transfer offices specialised in the negotiation of research and consultancy contracts and the sale of intellectual property rights, and structures facilitating the set up of spinout companies (such as equity capital funds and agreements with external venture capital funds) (Bozeman, 2000; Geuna and Rossi, 2011). Some attention has also been paid to HEIs' engagement in regeneration projects and their contribution to local economic development (Boucher et al., 2003; Arbo and Benneworth, 2009). The practices and processes through which HEIs engage with external stakeholders have also been analysed in the context of general engagement with industry (Perkmann and Walsh, 2006; Perkmann and Salter, 2012; Ankrah and Al-Tabbaa, 2015).

So far, only limited attention has been paid to HEIs' efforts to engage with the arts and cultural sector specifically, including what kind of structures, practices and processes they are developing in order to do so (see **NCACE Report (https://ncace.ac.uk/wp-content/uploads/2021/09/Sigal-Sarah-Knowledge-Exchange-HEIs-and-the-Arts-and-Culture-Sector.pdf)** Sigal, 2021, for a review of the fragmented literature on the topic of engagement between HEIs and the arts and cultural sector). The rationale for the present report lies in trying to address this significant gap in our knowledge by analysing how HEIs in England describe their engagement with the arts and cultural sector through the current KEF exercise. This analysis builds upon a set of short reports that HEIs in England submitted to the government agency Research England, in the context of the first Knowledge Exchange Framework (KEF) exercise.

These 117 reports (henceforth called 'KEF narratives') were submitted by 117 HEIs funded by Research England. Each KEF narrative is divided into three main sections, containing information about: (i) the overall institutional context (IC) of the HEI, detailing how the HEI supports KE in general; (ii) the engagement of the HEI in local growth and regeneration (LGR); (iii) the involvement of the HEI in public and community engagement (PCE). The analysis was carried out in two steps. First, in order to identify significant topics relating to engagement with the arts and cultural sector emerging from the KEF narratives, and to single out which HEIs discussed engagement with the arts and cultural sector more extensively, we performed an automated text analysis of the 117 KEF narratives. Second, we performed a more detailed analysis of the twenty HEIs which mentioned the arts and cultural sector most often in their KEF narratives, in order to identify what kind of KE activities they performed involving the arts and cultural sector, and how they evaluated their engagement.

1.3. The Knowledge Exchange Framework

The Knowledge Exchange Framework (KEF) was launched by Research England in 2017, in response to the call for further information on how the research undertaken at HEIs - oftentimes with external partners - has served the economy and society for the benefit of the public, business and communities[1]. This work was led by the Higher Education Funding Council for England (HEFCE) following a commission from the Minister of State for Universities, Science, Research and Innovation, with Research England later assuming responsibility in April 2018 due to its commitment to KE policy and funding.

Overall, the aim of the KEF is to ensure that public funding into KE activities is as efficient and effective as possible. This hopes to be mutually beneficial for both the HEI themselves, to better understand and improve their performance, and for the multitude of partners involved in the collaborative activity, providing more information on how to access and contribute towards expertise.

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[1] Knowledge exchange framework (https://re.ukri.org/knowledge-exchange/knowledge-exchange-framework/) - UKRI

Alongside the Research Excellence Framework (REF) and Teaching Excellence Framework (TEF), the KEF hopes to provide a more complete view of the assets and outputs of HEIs across the country. The information underpinning KEF2021 was based on knowledge exchange data collected by HEIs between August 2016 and July 2019. The outcomes of the first KEF exercise were published on March 31st 2021[2].

To organise the KEF submissions, each HEI is grouped into a 'cluster' of institutions which share similar characteristics (e.g. amount of research undertaken, dominant disciplines within the institution) (Coates Ulrichsen, 2018). This grouping hopes to ensure a fairer comparison between the institutions. Table 1 below summarises the clusters and their characteristics[3].

Table 1. Overview of KEF Clusters for 2021 Submission

Cluster	Summary of Characteristics	Institution Members Examples
ARTS	Specialist institutions covering arts, music and drama (as defined by a very high concentration of academic staff in these disciplines). A range of sizes of institutions, although many are relatively small and specialist.	Guildhall School of Music and Drama, Royal Northern College of Music, The Arts University Bournemouth, University for the Creative Arts
E	Large universities with a broad discipline portfolio across both STEM and non-STEM generating excellent research across all disciplines. Significant amount of research funded by government bodies/hospitals; 9.5% from industry. Large proportion of part-time undergraduate students. Small postgraduate population dominated by taught postgraduates.	Coventry University, Liverpool John Moores University, Oxford Brookes University, Manchester Metropolitan University, University of Northumbria, Goldsmiths College
J	Mid-sized universities with more of a teaching focus (although research is still in evidence). Academic activity across STEM and non-STEM disciplines including other health, computer sciences, architecture and planning, social sciences and business, humanities, arts and design. Research activity funded largely by government bodies/hospitals; 13.7% from industry.	Birmingham City University, University of Sunderland, Staffordshire University, The University of East London, Roehampton University
M	Smaller universities, often with a teaching focus. Academic activity across disciplines, particularly in other health domains and non-STEM. More research activity funded by government bodies/hospitals; 14.7% from industry.	Bath Spa University, The University of West London, The University of Winchester, University of Suffolk, York St John University

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[2] https://kef.ac.uk/dashboard
[3] The source of information for this table is: https://kef.ac.uk/dashboard

STEM	Specialist institutions covering science, technology, engineering and mathematics (as defined by a very high concentration of academic staff in these disciplines). Often high amounts of excellent research, particularly in bioscience & veterinary and engineering.	London School of Hygiene and Tropical Medicine, Royal Agricultural University, The Royal Veterinary College, Harper Adams University
V	Very large, very high research intensive and broad-discipline universities undertaking significant amounts of excellent research. Research funded by a range of sources including UKRI, other government bodies and charities; 10.2% from industry. Significant activity in clinical medicine and STEM. Student body includes significant numbers of taught and research postgraduates.	King's College London, Newcastle University, The University of Birmingham, The University of Manchester, The University of Southampton, The University of Oxford
X	Large, high research intensive and broad-discipline universities undertaking a significant amount of excellent research. Much of the research is funded by UKRI and other government bodies; 8.5% from industry. Discipline portfolio balanced across STEM and non-STEM although less clinical medicine activity. Large proportion of taught postgraduates in student population	Birkbeck College, Keele University, The University of East Anglia, The University of Leicester, The University of Sussex, University of Durham

The KEF2021 exercise is composed of two parts. The first is a metrics exercise, where the performance of individual HEIs in several areas of KE (called 'KE perspective') is measured using a set of quantitative indicators. The seven KE 'perspectives' are:

- Research partnerships
- Working with business
- Working with the public and third sector
- Skills, enterprise and entrepreneurship
- Local growth and regeneration
- IP and commercialisation
- Public and community engagement

These perspectives include a decile score, which has been calculated from a three-year average drawn from a range of metric data[4] and is then displayed on the KEF dashboard. This quantitative data is aggregated from information which is collected by universities for other purposes, such as the annual Higher Education Business & Community Interaction Survey (HE-BCI), rather than requiring a submission of specific statistics. This data is calculated at the level of the HEI, rather than divided by specific schools, faculties or subjects.

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[4] For further information on the metric source data: https://kef.ac.uk/notes

Second, each HEI is requested to submit a narrative statement to factually summarise and evidence their mission, strategic priorities, activities and areas of strength. These narrative statements are split into the three sections: the general institutional context (IC) of the HEI, detailing how the HEI supports KE more broadly; the engagement of the HEI in local growth and regeneration (LGR); and the involvement of the HEI in public and community engagement (PCE). The narratives are around 5-6000 words long, with narratives submitted by 117 HEIs.

2. Data and methodology

The analysis for this report was carried out in two steps.

First (Step 1), we performed an automated text analysis of the 117 KEF narratives, with the purpose to identify significant topics relating to engagement with the arts and cultural sector within the narratives and to single out which HEIs discussed engagement with the arts and cultural sector more extensively.

Secondly (Step 2), we selected the twenty KEF narratives which, according to the analysis performed in Step 1, were most pertinent to arts and culture themes. We performed a qualitative analysis of these texts in order to identify the nature of their engagement with the arts and cultural sector, and the approaches they used to evaluate their engagement.

For the automated text analysis (Step 1), our methodology began by preparing the dataset for the analysis. The dataset consists of a set of 117 text descriptions provided by HEIs. In the automated text analysis literature, the entire set of texts to be analysed is called the *corpus*. The corpus has been analysed through different automatic content analyses via a lexicometric approach (i.e., based on words counted). This approach systematically explores the content of a large number of texts via statistical analysis of the words.

The lexicometric measures provide some indexes of lexical richness, which make it possible to assess how adequate the corpus is to be processed by automatic text analysis methods. A corpus can be considered adequate when the type/token ratio is less than 20% (in our case, it is 3%) and the hapax percentage less than 50% (in our case, it is 43%). The measures reported in Table 1 show that the corpus analysed is adequate[5].

Table 2 - Lexicometric measures of the corpus

Total occurrences (Token)	N	600,552
Number of distinct forms (Type)	V	18,938
Type/Token ratio	(V/N)*100	3.153
Hapax percentage	(V1/V)*100	43.009

The corpus was pre-processed (i.e., prepared for the analyses) as follows. Uppercase letters were replaced with lowercase letters, since the software distinguishes between upper and lowercase

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[5] To calculate these measures, the corpus has been pre-processed only by replacing uppercase letters with lowercase ones.

and considers the same word as different when written with the capital letter or not. The *multiwords* (i.e., meaningful sequences of words) with frequencies ≥ 10 were identified automatically, by detecting the repeated sequences of words in the corpus (e.g. an adjective followed by a noun, as in "creative industries") and lexicalised (i.e., considered as a unique textual unit). The multiwords thus identified were then checked manually to make sure that they were meaningful. From the overall set of words thus created, we manually selected a list of words and multiwords pertaining to KE with the arts and cultural sector. These words are shown in the following word cloud (Figure 1). These words constitute the dictionary we use in order to analyse the extent to which the theme of engagement with the arts and cultural sector is discussed in the KEF narratives, and to single out which KEF narratives display a more prominent use of these words (Section 3 of this report).

Figure 1. Word Cloud of the words pertaining to the arts and cultural sector. Dimension of words is proportional to their frequency in the corpus

In Step 1, in order to analyse the data, we started from the list of words pertaining to KE with the arts and cultural sector (as shown in Figure 1), observing their use within the documents. We analysed these to establish which were the main 'themes' emerging within the different sections

of each narrative document - Institutional Context (IC), Local Growth and Regeneration (LGR), Public & Community Engagement (PCE) - by means of co-occurrences analysis; we then analysed which words pertaining to engagement with the arts and cultural sectors were used more frequently in each section of the documents, by means of lexical correspondence analyses (Section 3.1). Finally, we identified which KEF narratives displayed a more prominent use of these words , by means of the Term-Frequency Inverse Document Frequency (TFIDF) index (Section 3.2).

For the qualitative analysis (Step 2, presented in Section 4), we adopted the following methodology. First, we selected the twenty KEF narratives that, according to the analysis performed in Step 1, were most pertinent to arts and culture themes. Secondly, we read and coded these KEF narratives in order to identify the nature of their engagement with the arts and cultural sector, and the approaches they used to evaluate it.

3. HEIs' engagement with the arts and cultural sector: emerging evidence from the automated text analysis of KEF narratives

After selecting the list of words pertaining to KE with the arts and cultural sector (i.e., our 'dictionary', shown in Figure 1), we explored how these words were used within the texts. Firstly, we analysed what were the main 'themes' emerging in the different parts of the KEF narratives - Institutional Context (IC), Local Growth and Regeneration (LGR), and Public & Community Engagement (PCE) - by means of co-occurrences analysis. Then, we analysed which words pertaining to engagement with the arts and cultural sector were used more frequently in each part, by means of lexical correspondence analysis. Finally, the KEF narratives which displayed a more prominent use of words pertaining to arts and culture (according to the aforementioned list) have been identified by means of the Term-Frequency Inverse Document Frequency (TFIDF) index.

3.1. Main 'themes' emerging in each part of the KEF narratives

In order to identify particular 'themes' emerging from a certain text, we used similarity analysis. Similarity analysis allows us to map the co-occurrences of words, that is, how many times certain pairs of words appear close to one another in a text. Groups of words that frequently appear close to each other can be said to constitute a 'theme'. We carried out this analysis separately for all of the three narrative sections in which each document is partitioned - Institutional Context (IC), Local Growth and Regeneration (LGR), Public & Community Engagement (PCE)[6].

Institutional Context (IC)

The Institutional Context (IC) sections of the KEF narratives contained 70,471 occurrences (total number of words) and 6,472 distinct forms. These sections tend to be, overall, shorter than the other two sections (LGR and PCE) and in fact, the total number of words they include is smaller. Here, we can observe that there are several groups of words that tend to occur together in the texts, and that these have to do with several main themes; to visualise these themes more easily, the groups of frequently co-occurring words are shown in Figure 2 with different background colours. In the figure, the dimension of each word is proportional to its frequency (i.e., larger words occur more often in the texts), and the thickness of each line is proportional to the strength of the association between the words (i.e., thicker lines indicate words that more often

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[6] The analysis was performed using the Iramuteq software, and a combination of the Iramuteq and Gephi packages for the graphical representations. Gephi allows us to select the key terms (pertaining to arts and culture) that have been identified within the map of word co-occurrences, and to show their relationships.

co-occur together). The figure only shows the words that occur more than 60 times. Additionally, for increased readability, words that do not contribute substantially to the comprehension of the figure (e.g., words like *world, based, summary, significant, year*) have been eliminated from the figure. The largest groups of words relate to the HEI and its objectives (green background), the general activities of research and KE (yellow background), students and skills (pink background).

Figure 2 - Co-occurrences of the most frequent words (≥60) in the Institutional Context sections.[7]
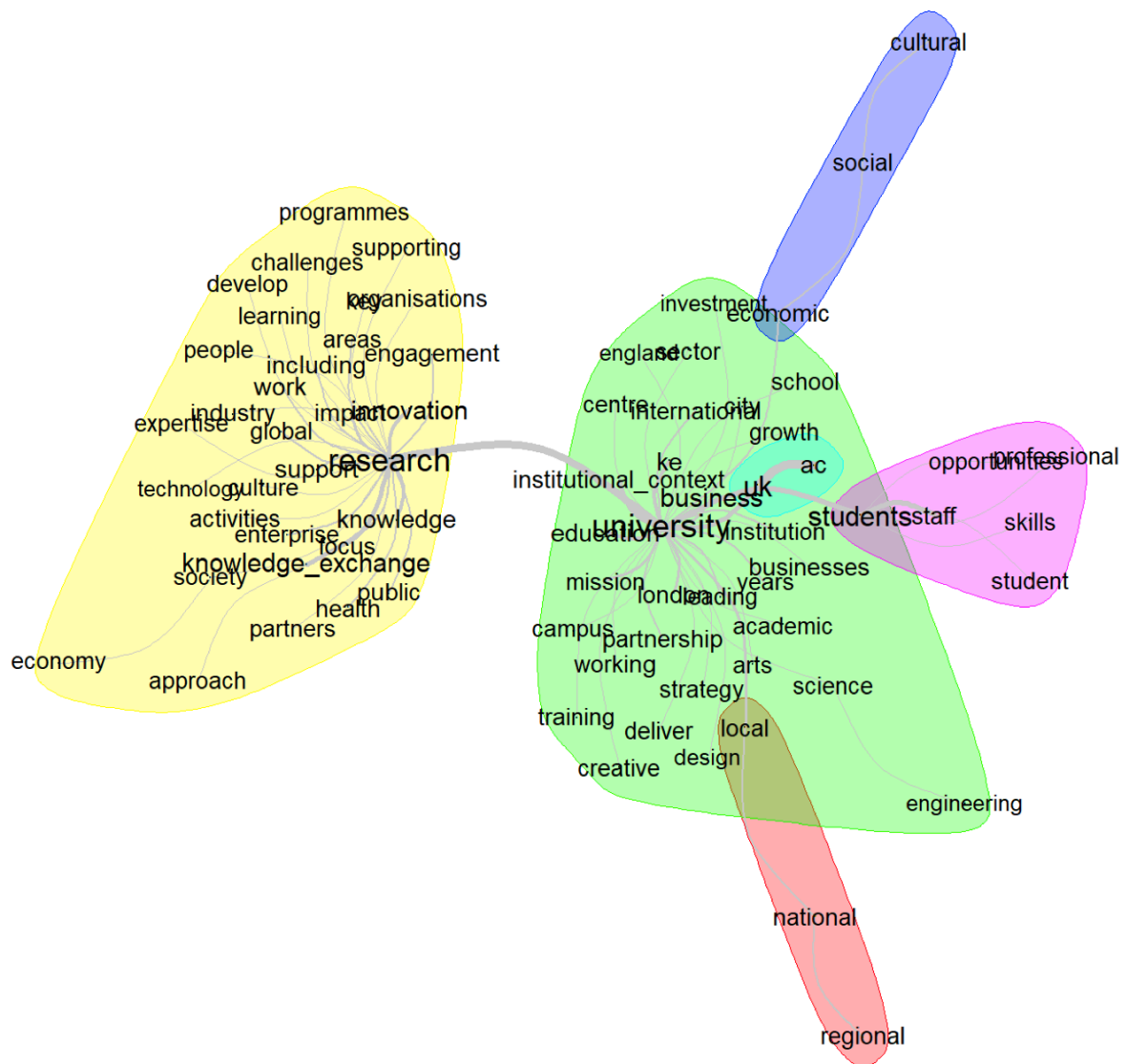
If we select only the words pertaining to arts and culture within these groups (Figure 3), we find that these words are not strongly connected to each other. The only group of words connected to each other refer to academic disciplines (arts-humanities-social sciences-performing arts-theatre-music-drama), suggesting that in the IC sections of the documents, arts and culture is mentioned as part of the HEIs' subject offering. The other arts and culture words are isolated, suggesting that they are mentioned mainly in connection with other themes, rather than being a theme in itself.

Figure 3 - Co-occurrences of key terms pertaining to arts and culture in the Institutional Context sections

Local Growth and Regeneration (LGR)

The Local Growth and Regeneration (LGR) sections of the KEF narratives contain 242,636 occurrences (total number of words) and 12,268 distinct forms. These sections tend to be considerably longer than the Institutional Context sections. Here, we can observe that there are several groups of words that tend to occur together in the texts, and that these have to do with several main themes; to visualise these themes more easily, the groups of frequently co-occurring

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words are shown in Figure 4 with different background colours. Like in Figure 2, also in Figure 4, word dimensions are proportional to their frequency, and the thickness of the lines is proportional to the words' association. For increased readability, the figure only shows words that occur more than 103 times, and words that do not contribute substantially to the comprehension of the figure (e.g., words like *key, led, based, start*) have been eliminated. The largest groups of words concern the university and its objectives (red background), the support activities implemented in relation to local growth and regeneration (orange background), the localities that are targeted by these initiatives (blue background).

Figure 4 - Co-occurrences of the most frequent words (≥103) in the Local Growth & Regeneration sections.
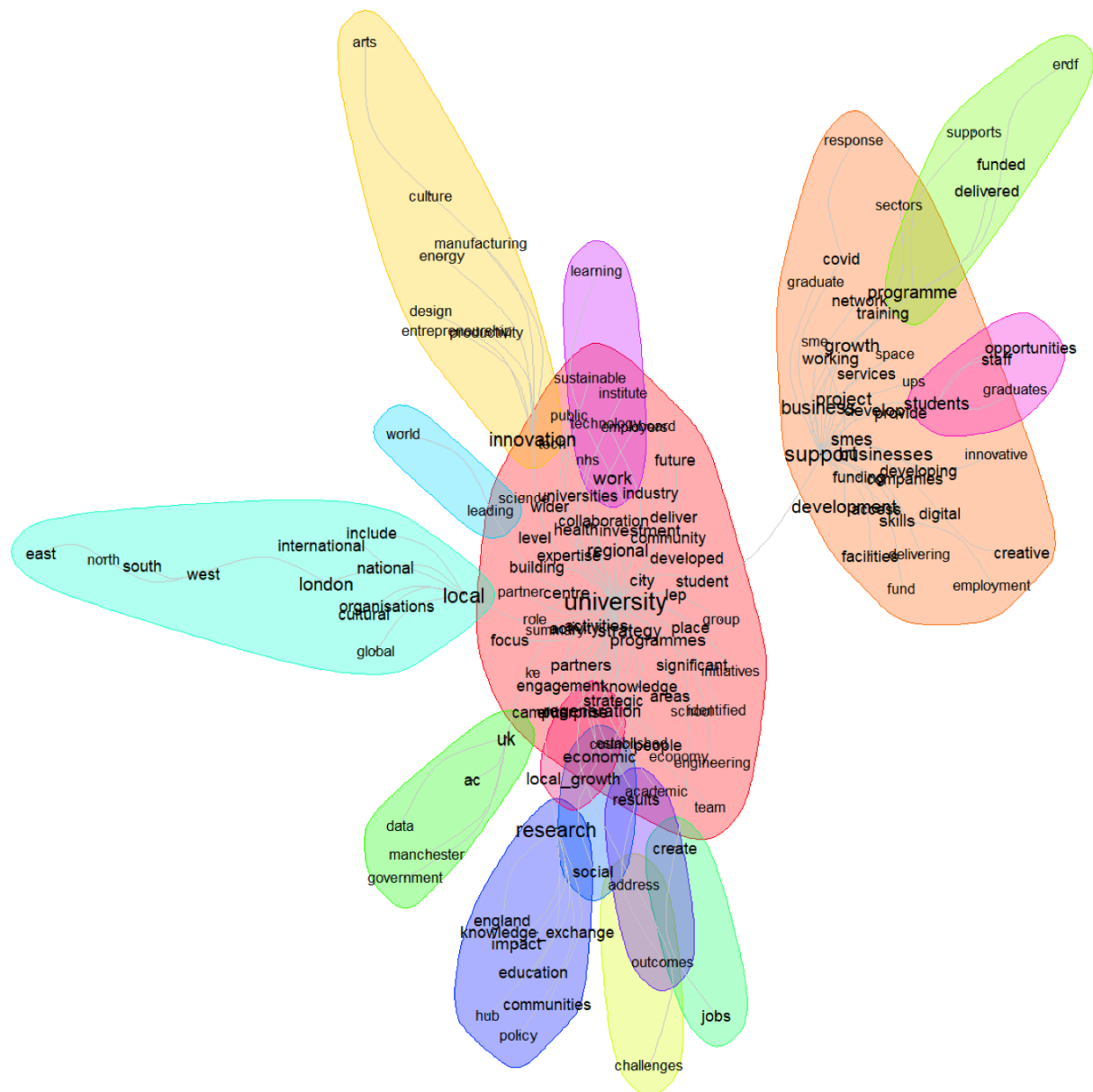
If we select only the words pertaining to arts and culture within these groups (Figure 5), we find that some of these words are connected, indicating that they co-occur together in the text and therefore they are likely to be discussed as a specific theme.

These groups of connected words refer mainly to specific types of creative activities: creative-cultural industries-creative economy-digital; film-television; fashion-studios; dance-music; arts-venue-culture; cultural-heritage-culture mile-gallery. This suggests that specific creative activities in relation to digital, fashion, dance, music, arts and heritage, are discussed by some HEIs as instrumental for local growth and regeneration.

Figure 5 - Co-occurrences of key terms pertaining to arts and culture in the Local Growth & Regeneration sections
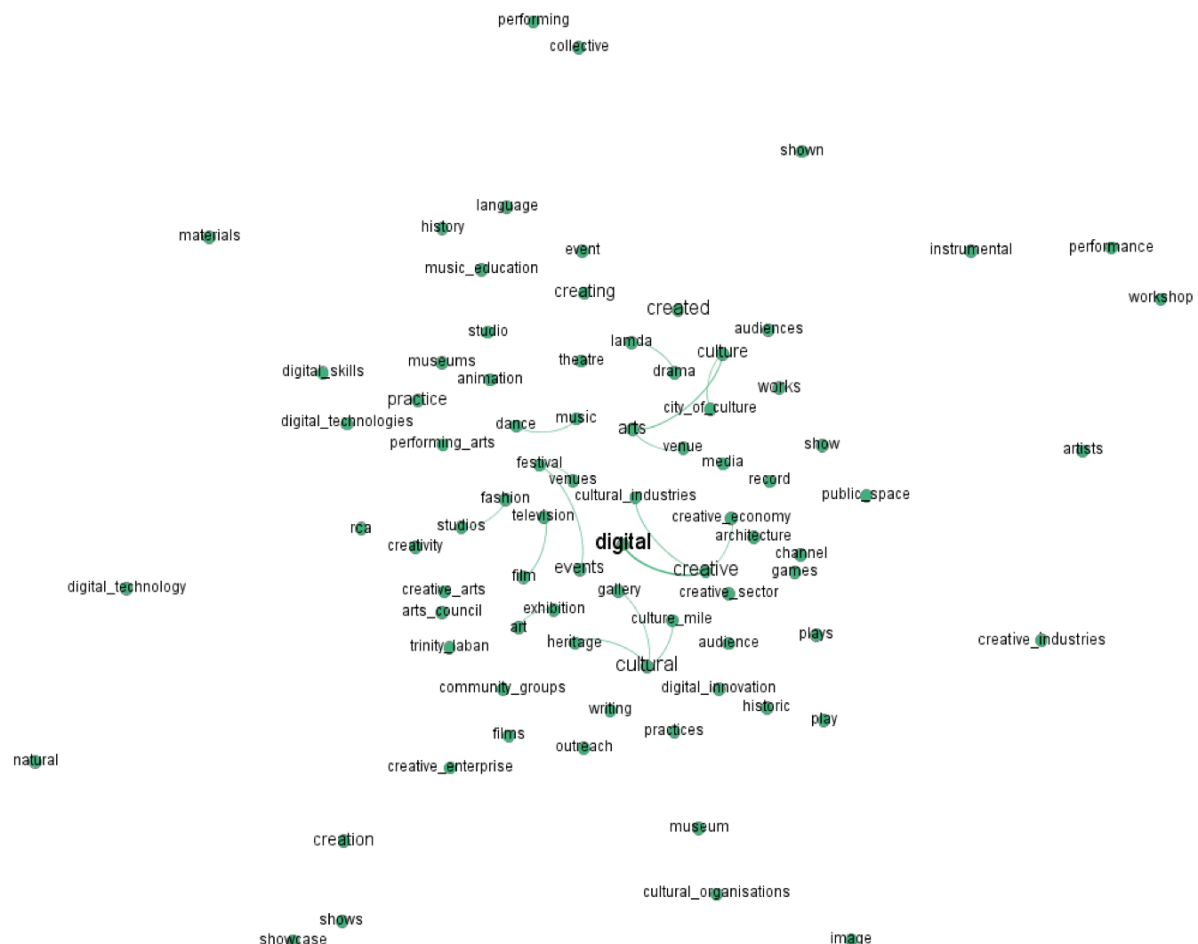
Public and Community Engagement (PCE)

The Public and Community Engagement (PCE) sections of the KEF narratives contain 252,086 occurrences (total number of words) and 12,140 distinct forms. These sections tend to be, on average, of similar length as the Local Growth & Regeneration sections, and longer than the Institutional Context sections. Here, we can observe that there are several groups of words that tend to occur together in the texts, and that these have to do with several main themes; to visualise these themes more easily, the groups of frequently co-occurring words are shown in Figure 6 with different background colours. As in the previous Figures 2 and 4, also in Figure 6, the word dimensions are proportional to their frequency, and the thickness of the lines is proportional to the words' association. For increased readability, only words that occur more than 103 times are shown in the figure, and words that do not contribute substantially to the comprehension of the figure (e.g., words like *year, provide, led, wider, world*) have been eliminated The largest groups have to do with public and community engagement in general (orange background), the universities' research and engagement activities (light green background), the universities' objectives and stakeholders (dark green background), students and skills (pink background), children, young people and schools (yellow background).

Figure 6 - Co-occurrences of the most frequent words (≥103) in the Public & Community Engagement sections.
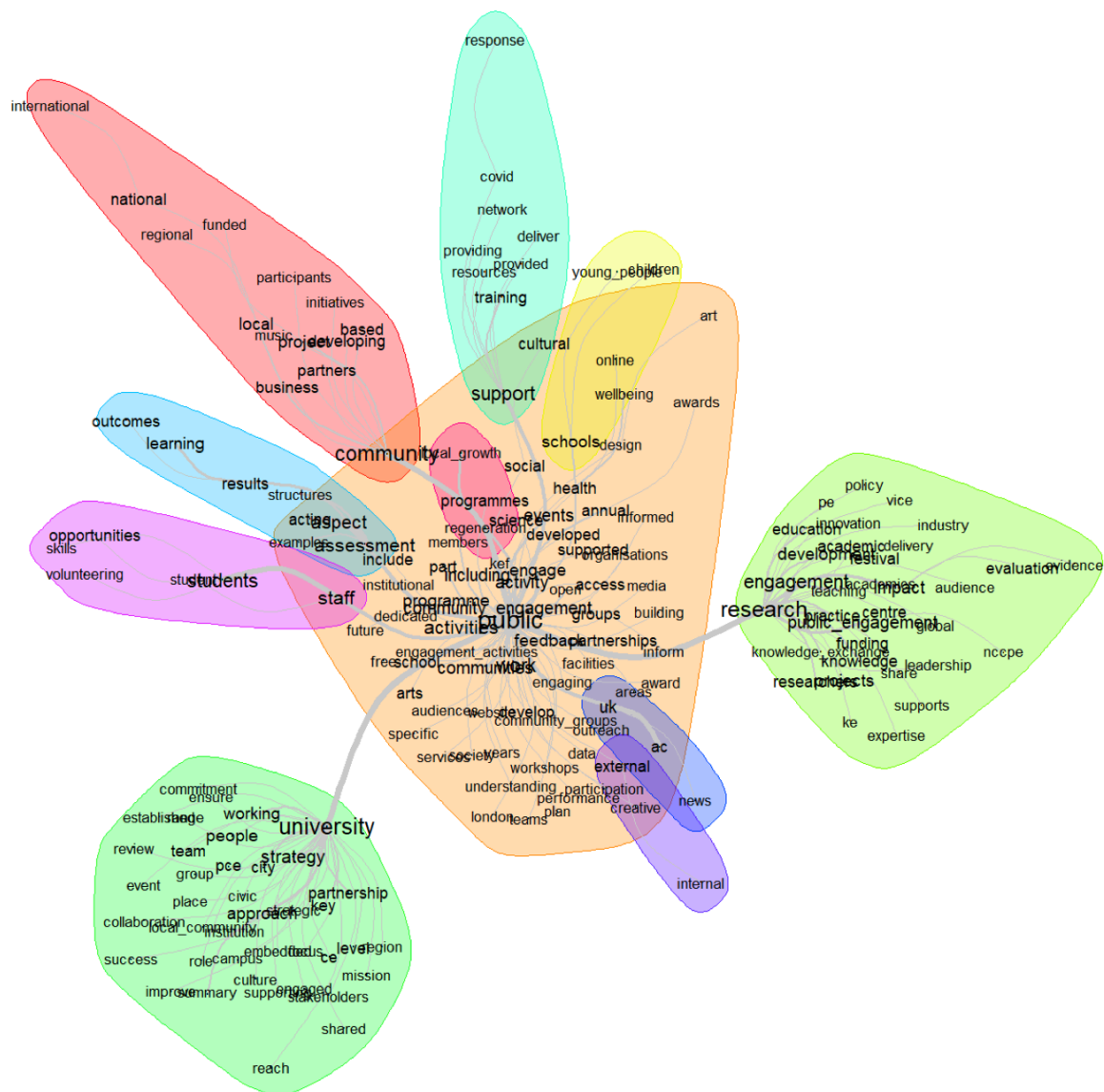
If we select only the words pertaining to arts and culture within these groups (Figure 7), we find that some of these words are connected, indicating that they co-occur together in the text and therefore they are likely to be discussed as a specific theme. The connections between these words however are fewer than in the Local Growth & Regeneration section.

We note that these groups of connected words refer mainly to various forms of public engagement: literary-festival; literature-natural-history; perfomances-exhibitions; film-television; musical-theatre; arts-venue-cinema-Tate Exchange-humanities-social-sciences; events-writers-festival of ideas-new audiences-venues-digital skills. Unsurprisingly, in this section engagement with the arts and cultural sector is discussed in relation to public engagement activities.

Figure 7 - Co-occurrences of key terms pertaining to arts and culture in the Public & Community Engagement sections
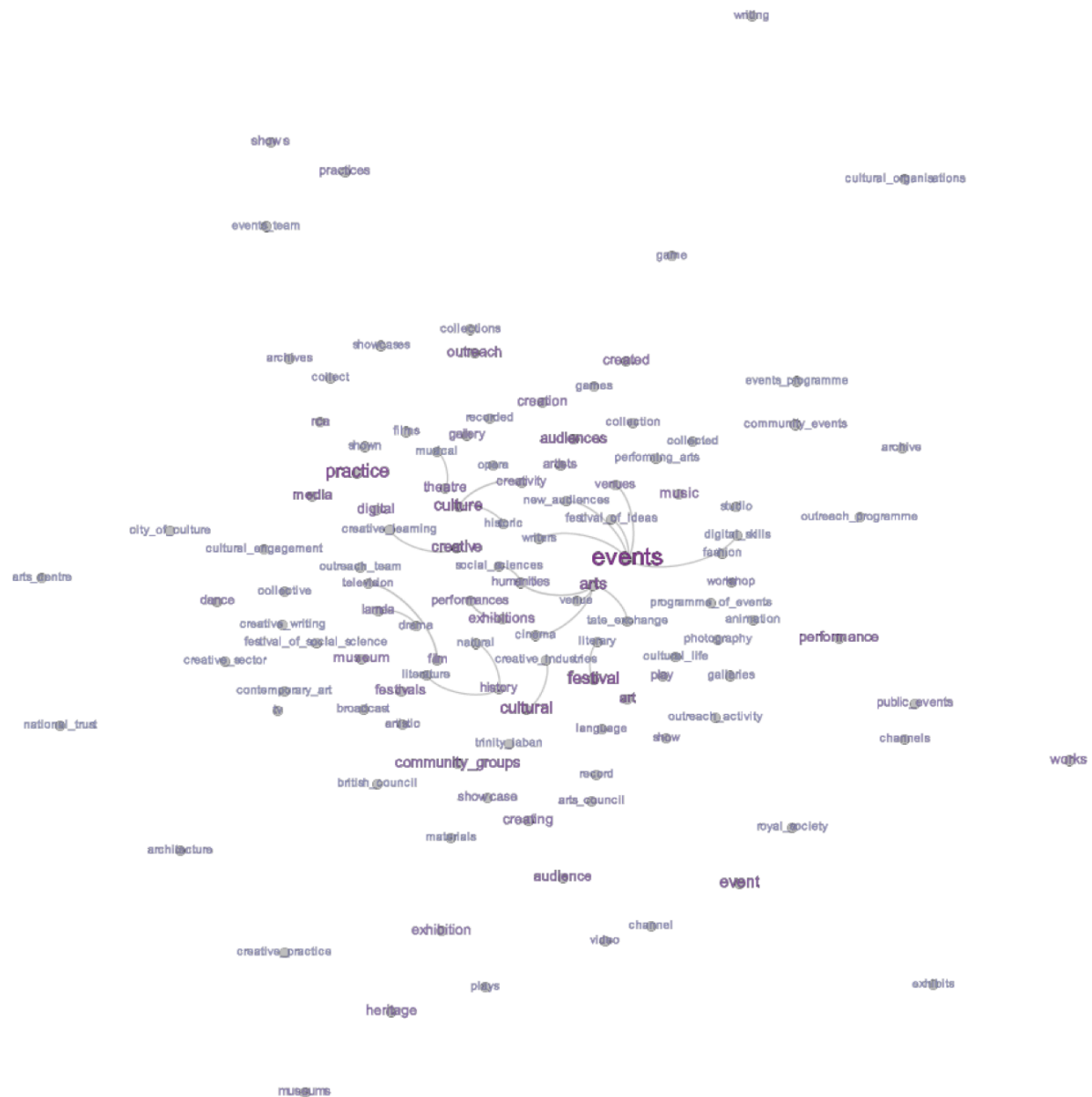
3.2. Which words relating to engagement with the arts and cultural sector were used in each part of the KEF narratives?

To analyse which words pertaining to engagement with the arts and cultural sector were used more frequently in each part of the KEF narratives, we used lexical correspondence analysis.

Lexical correspondence analysis[8] is used to create a map of the key terms, by representing how

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[8] The analysis was performed using the SPAD software package.

strongly the words pertaining to knowledge exchange with the arts and cultural sector are associated with each one of the three sections of the KEF narratives (Institutional Context (IC), Local Growth & Regeneration (LGR) and Public and Community Engagement (PCE)). The analysis builds on a matrix of (words x sections), representing how many times a word appears in each section of the document. The analysis has been performed with all the words contained in the corpus (frequencies $\geq$ 5) but projecting only the words pertaining to knowledge exchange with the arts and cultural sector (frequencies $\geq$ 10).

This map, shown in Figure 8, provides a graphical representation of the contents and their association with each section of the documents[9]. The closer two words are in the graph, the more strongly they are associated. Different colours are used to categorise words according to how strongly they are associated with each other (clustering).

Each section label is located near the words with which it is most associated:

- Public and Community Engagement (PCE) with word cluster 4, shown in blue;
- Local Growth and Regeneration (LGR) with word cluster 3, shown in purple;
- Institutional Context (IC) with word cluster 2, shown in red.

The biggest cluster of words (1, shown in green), central in the graph, contains the most common key terms among the three sections (e.g., cultural sector, creative industry, performance…). From this analysis, we can see that the words pertaining to knowledge exchange with the arts and cultural sector tend to differ across the three sections. In the Institutional Context sections (red), words mainly refer to different artistic and creative subjects (music, drama, performing arts, literature, history), and structures (orchestra, arts centre, museum, archive, college of music). This suggests that, in this section, arts and culture are mentioned in relation to their role within the university.

In the Local Growth & Regeneration sections (purple), words mainly refer to specific creative activities (musicians, performing, studios, textiles, creative economy, creative sector), with a strong emphasis on digital (i.e., digital, digital innovation, digital technologies, digital skills, digital industries, digital creative). This suggests that creative activities more broadly are considered to play an important role in local growth and regeneration.

In the Public & Community Engagement sections (blue), the words refer to the activities, events, structures that universities can rely on for their public and community engagement.

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[9] In technical terms, the map shows the first factorial plane of the lexical correspondence analysis words X sections. It is the projection of key terms pertaining to arts and culture with frequency $\geq$ 10.

Figure 8. Map of key terms associated with each section of the KEF narratives
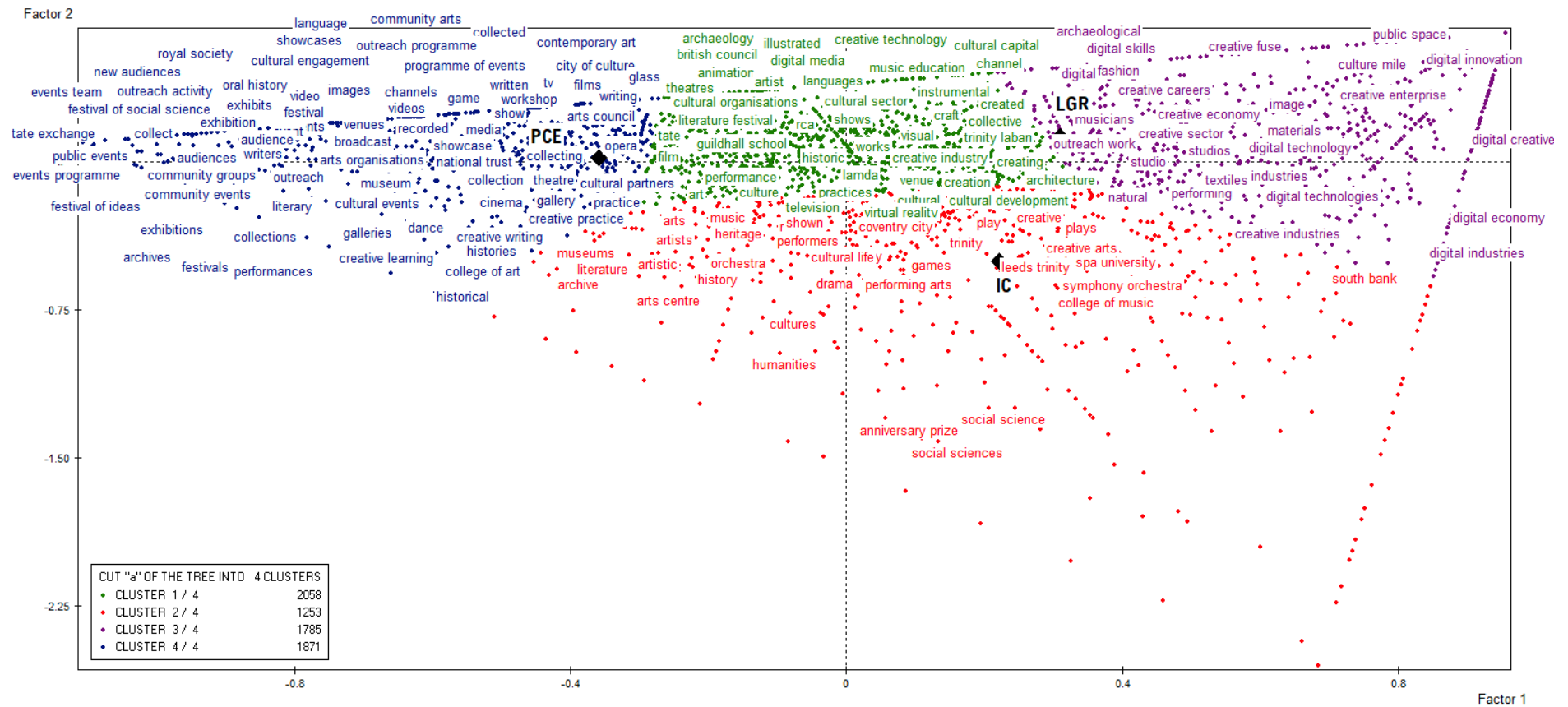
3.3. Which KEF narratives displayed a more prominent use of words relating to engagement with the arts and cultural sector?

In order to identify which KEF narratives mostly used words relating to engagement with the arts and cultural sector, we computed an index called Term Frequency Inverse Document Frequency (TFIDF). TFIDF[10] is a fundamental statistic that, applied to textual analysis, which allows us to evaluate how a single document (i.e., part of a corpus) is more relevant than others with respect to a theme defined by a list of words - in our case, the list of words and multiwords pertaining to knowledge exchange with the arts and cultural sector.

Application of this index allows us to sort the KEF narratives according to their relevance with respect to search keywords (i.e., the list of words and multiword pertaining to arts and culture). Table 3 below shows how much each KEF narrative is pertinent to the theme of knowledge exchange with the arts and cultural sector. The KEF narratives are ordered according to their TFIDF index, in decreasing order; this means that the higher the value of the TFIDF index, the more the theme of knowledge exchange with the arts and cultural sector is present in the narrative.

As we might expect, most of the HEIs that have a high value of TFIDF index in relation to words pertaining to KE with the arts and cultural sector belong to the KEF ARTS cluster; whereas the universities that belong to the KEF STEM cluster tend to appear at the bottom of the table, meaning they discuss the theme of KE with the arts and cultural sector the least.

Table 3. The 117 KEF narratives ordered according to their use of words pertaining to knowledge exchange with the arts and cultural sector (with the top 20 indicated in yellow)

ID	University	Cluster	TFIDF index
10008017	Trinity Laban Conservatoire of Music and Dance	ARTS	2,63
10007825	Guildhall School of Music and Drama	ARTS	2,33
10004511	The National Film and Television School	ARTS	1,61
10003758	LAMDA Limited	ARTS	1,41
10000571	Bath Spa University	M	1,39

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[10] TFIDF= tf*logN/n, where the first factor (tf - term frequency) measures the number of occurrences of a term, while the second factor (idf - inverse document frequency) is the logarithm of the ratio between the number of documents in the corpus (N) and the number of documents where that term is present (n). We use the normalisation by fragment, where the normalisation factor is given by the square root of the sum of the TFIDFs of all the word types in the fragment, even those not included in the query. In this case, the actual total length of the fragments in terms of words is considered.

10007165	The University of Westminster	E	1,23
10004775	Norwich University of the Arts	ARTS	1,23
10007777	Royal College of Art	ARTS	1,20
10007816	The Royal Central School of Speech and Drama	ARTS	1,13
10004048	London Metropolitan University	J	0,97
10007776	Roehampton University	J	0,93
10007162	University of the Arts London	ARTS	0,91
10000385	The Arts University Bournemouth	ARTS	0,89
10007137	The University of Chichester	M	0,88
10007778	Royal College of Music	ARTS	0,87
10008640	Falmouth University	M	0,85
10005127	Plymouth College of Art	ARTS	0,81
10007823	Edge Hill University	M	0,79
10003614	The University of Winchester	M	0,77
10007801	University of Plymouth	E	0,73
10007147	University of Hertfordshire	E	0,69
10001478	City, University of London	E	0,69
10007154	University of Nottingham	V	0,68
10007760	Birkbeck College	X	0,68
10007780	SOAS University of London	X	0,67
10007802	The University of Reading	X	0,67
10007167	The University of York	X	0,66
10004180	The Manchester Metropolitan University	E	0,64
10003678	Kingston University	E	0,64
10007837	Royal Northern College of Music	ARTS	0,59
10007713	York St John University	M	0,58
10003956	Liverpool Hope University	M	0,58
10006840	The University of Birmingham	V	0,58
10007157	The University of Sheffield	V	0,57
10007149	The University of Hull	X	0,56
10007148	The University of Huddersfield	E	0,56
10007159	The University of Sunderland	J	0,54
10007150	The University of Kent	X	0,54
10007158	The University of Southampton	V	0,54
10007139	University of Worcester	J	0,53
10007768	The University of Lancaster	X	0,53
10007774	The University of Oxford	V	0,52
10007791	The University of Essex	X	0,51
10006842	The University of Liverpool	V	0,51

10004930	Oxford Brookes University	E	0,50
10007843	St Mary's University, Twickenham	M	0,50
10004797	The Nottingham Trent University	E	0,49
10007151	The University of Lincoln	E	0,48
10007788	The University of Cambridge	V	0,46
10007796	The University of Leicester	X	0,45
10001143	Canterbury Christ Church University	J	0,44
10007144	The University of East London	J	0,43
10007799	Newcastle University	V	0,43
10001726	Coventry University	E	0,41
10003270	Imperial College of Science, Technology and Medicine	V	0,41
10005790	Sheffield Hallam University	E	0,41
10007140	Birmingham City University	J	0,41
10002718	Goldsmiths College	E	0,40
10007155	The University of Portsmouth	E	0,40
10003863	Leeds Trinity University	M	0,39
10007156	The University of Salford	E	0,38
10007166	The University of Wolverhampton	J	0,37
10007143	University of Durham	X	0,37
10007850	The University of Bath	X	0,37
10007145	University of Gloucestershire	J	0,37
10004351	Middlesex University	E	0,35
10007786	The University of Bristol	V	0,35
10007152	University of Bedfordshire	E	0,35
10001282	University of Northumbria at Newcastle	E	0,35
10000886	The University of Brighton	E	0,34
10014001	University of Suffolk	M	0,34
10007848	University of Chester	J	0,34
10000824	Bournemouth University	E	0,34
10007795	The University of Leeds	V	0,33
10007811	Bishop Grosseteste University	M	0,32
10003861	Leeds Beckett University	J	0,32
10007785	The University of Bradford	E	0,32
10007789	The University of East Anglia	X	0,32
10007161	Teesside University	J	0,31
10007851	University of Derby	J	0,30
10006566	The University of West London	M	0,30
10007160	The University of Surrey	X	0,30

10007164	UWE Bristol	E	0,28
10007806	The University of Sussex	X	0,28
10006299	Staffordshire University	J	0,28
10007771	London School of Hygiene and Tropical Medicine	STEM	0,28
10007146	The University of Greenwich	E	0,27
10007163	The University of Warwick	V	0,27
10007141	The University of Central Lancashire	E	0,27
10004078	London South Bank University	J	0,27
10007775	Queen Mary University of London	V	0,26
10007842	University of Cumbria	M	0,26
10004063	London School of Economics and Political Science	X	0,26
10007782	St George's, University of London	STEM	0,24
10037449	University of St Mark and St John	M	0,24
10003957	Liverpool John Moores University	E	0,24
10007138	The University of Northampton	J	0,23
10000291	Anglia Ruskin University	E	0,21
10007798	The University of Manchester	V	0,21
10000975	Buckinghamshire New University	M	0,21
10007792	The University of Exeter	X	0,21
10007784	University College London	V	0,20
10007767	Keele University	X	0,20
10003645	King's College London	V	0,20
10004113	Loughborough University	X	0,19
10040812	Harper Adams University	STEM	0,19
10007773	The Open University	E	0,19
10000961	Brunel University London	X	0,18
10007759	Aston University	E	0,18
10001883	De Montfort University	E	0,16
10003324	The Institute of Cancer Research	STEM	0,16
10007779	The Royal Veterinary College	STEM	0,13
10080811	Hartpury University	STEM	0,13
10003958	Liverpool School of Tropical Medicine	STEM	0,13
10007822	Cranfield University	STEM	0,11
10007832	Newman University	M	0,10
10005545	Royal Agricultural University	STEM	0,09

4. Evidence from the top 20 KEF narratives discussing a greater engagement with the arts and cultural sector

In order to identify the nature of HEIs' engagement with the arts and cultural sector, and the approaches they used to evaluate it, we focus on the twenty HEIs which discussed KE with the arts and cultural sector the most. In Step 1 of the analysis (automated text analysis), we manually identified words relating to arts and culture present in the KEF narrative reports, and we computed which HEIs mentioned these words the most. The list of HEIs, and the TFIDF index measuring the extent to which the theme of knowledge exchange with the arts and cultural sector is present in each narrative, are presented in Table 3.

By focusing on the twenty KEF narratives which had the highest values of the TFIDF index, corresponding to the HEIs listed in the first twenty rows of Table 3 and highlighted in yellow, we are selecting those narratives that most frequently include words relating to knowledge exchange with the arts and cultural sector. Hence, we are focusing on those HEIs that have discussed this theme more prominently in their KEF narratives.

By undertaking further qualitative analysis on these twenty narratives we aim to build a picture of the activities of those HEIs that are most intensely involved with this form of knowledge exchange - or at least, those HEIs that are most interested in discussing it – and for which, presumably, such KE is more strategically important. It is very likely that there are other HEIs that engage in arts and culture related KE, but which have decided not to focus on it in their KEF narratives, reflecting the fact that it might not be a strategic priority for those HEIs, or for whichever part of the institution is responsible for preparing the KEF submission. We note that the 'top twenty' narratives belong to institutions that are, for the most part, included in the KEF ARTS cluster (11 of the 12 institutions in the KEF ARTS cluster are included among these top 20). However, there are also several in cluster M (5), cluster E (2) and cluster J (2).

Qualitative analysis of the narratives was undertaken using Nvivo software[11]. We tried to identify the following themes within the narratives: (i) the forms of knowledge exchange with the arts and cultural sector reported by the HEIs; (ii) the approaches taken to evaluate knowledge exchange; (iii) the indicators used to evidence engagement. Initially, a free coding approach was used, which led to the identification of a large number of different categories. Subsequently, the first-order categories were aggregated into second-order categories that captured more general themes. The following sections will discuss the findings from this analysis.

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[11] NVivo - About (https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/about/nvivo)

4.1. KE with the arts and cultural sector as part of the university's mission

Most of the twenty HEIs mentioned KE with the arts and cultural sector as being part of their institutional mission. Institutional mission statements referring to engagement with arts and culture or with the creative industries more generally were present in 17 of the 20 narratives. They were present in all the KEF narratives submitted by HEIs in KEF cluster ARTS, as could be expected. They were also present in 6 out of the remaining 9 narratives submitted by HEIs in the other clusters (M, E, J). Hence, we have identified a group of HEIs that consider engagement with the arts and cultural sector a strategic priority. This confirms that the selection process of these cases was suitable in order to identify HEIs that are particularly interesting and relevant for our purposes.

4.2. Forms of KE with the arts and cultural sector

Our qualitative analysis of the 'top twenty' KEF narratives led us to identify three main areas of engagement of HEIs with the arts and cultural sector:

- *Direct support for businesses*, including both support for existing businesses and for the creation of new businesses, and for businesses in the creative industries as well as in other sectors

- *Support that is tailored more towards individuals*, both in relation to increasing and widening access to education in the arts and related fields, and in relation to helping facilitate careers in the creative industries

- *Creating broader impact on society and the economy through artistic and cultural activities*; this is a broad area, comprising all forms of local regeneration activities as well as engagement with any communities outside the HEI, including collaborations and partnerships with arts and culture organisations.

We discuss each of these areas in turn. We use the term 'creative industries' rather than 'arts and cultural sector', since this is the preferred term used in the KEF narratives. We note that in the KEF narratives, it is often difficult to disentangle discussion of engagement with the arts and cultural sector from discussion of engagement with the creative industries. For example, some KEF narratives talk about 'creative businesses' in a broader sense to comprise businesses created by artists, as well as by creative businesses in the digital sector (e.g. computer programming,

software publishing, game design) and other creative professional services such as architecture[12]. To better highlight the relevance of these forms of KE for the arts and cultural sector, in Tables 4, 5 and 6 we have included examples drawn from the KEF narratives that appear to be more directly aimed at the arts and cultural sector rather than at the creative industries more generally.

Direct support for businesses

Table 4 lists the key forms of KE mentioned by HEIs in relation to the theme of support for businesses, which takes a variety of forms. Some support includes the provision of premises, facilities and services connected to business - from incubators aimed primarily at newly created businesses, to accelerators or workspaces/studios and manufacturing facilities for already existing businesses that are trying to grow. Some support includes funding for businesses, or help in accessing external funding; such as venture capital (VC) (usually provided through connections with external VC funds) and specific funding schemes for professionals in the creative industries - some provided directly by the HEI, others provided by external funders. Other forms of support involve workshops and mentoring programmes, the placement of staff in industry and joint PhDs with industry. Another form of support is the provision of services to businesses, usually paid for. This includes consultancies, as well as the provision of technical and other services for example for the film and music industries.

There are some forms of engagement with business that involve joint projects rather than consultancies. These tend to have broader objectives and benefit the HEI as well as the business, and sometimes even other stakeholders like students or local communities. Finally, a number of HEIs focus on supporting new business creation on the part of their staff and students by providing space, funding, mentoring and guidance, and entrepreneurship training to potential entrepreneurs.

We note that the KEF narratives are often not very specific in relation to the types of businesses these activities are directed to, although, due to the specialisations of these twenty HEIs - many of which are specialised in the arts, or have an important presence of arts departments / faculties within their organisation - we expect that many of the businesses they work with will be in the arts and cultural sector, and sometimes in the creative industries more broadly. The examples singled out in Table 4 refer to support for businesses that is directly relevant for the arts and cultural sector.

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[12] DCMS Sector Economic Estimates Methodology - Definitions (https://www.gov.uk/government/publications/dcms-sectors-economic-estimates-methodology/dcms-sector-economic-estimates-methodology)

Table 4. Types of support for business

Themes	Forms of KE with the arts and cultural sector	Examples
Supporting business	Accelerator, workspace, studio, manufacturing facilities	Bath Spa University: In 2020, The University opened The Studio - a centre for innovation, research and enterprise in the heart of Bath. The Studio provides a space for local micro-businesses, Bath Spa University students, academics and graduates to work on projects and ideas which focus on creativity and technology University of the Arts London: Grow-on studios for more established businesses are provided at Trampery Fish Island Village, including: co-working and showcase space, an innovation micro-factory, and a Sustainable Fashion Accelerator, creating Europe's largest fashion campus
	Digital business incubation programme	Falmouth University: Launchpad is Falmouth's flagship programme for local regeneration. Acting as both an incubator and an accelerator, it creates new high-growth tech companies. It starts with market-led challenges set by leading industry partners such as BBC Studios, Sony Interactive Entertainment and Amazon Web Services
	Incubator	Guildhall School of Music and Drama: The Creative Entrepreneurs is a creative enterprise start-up scheme that has incubated almost 60 performing arts businesses since its launch. Training focuses on sustainable and innovative business models, with most businesses having a social purpose Royal College of Art: The RCA's flagship InnovationRCA incubator works with start-ups and communities to embed design led solutions, social innovation and creative brands in daily life
	Funding and guidance for professionals working in creative fields	Trinity Laban Conservatoire of Music and Dance: The Conservatoire offers bespoke resources to support creation of artistic work and ease the path of that product to market: cash commissions, high-specification creation space and equipment, practice-based expertise,

		and advice on production marketing and audience development
		Norwich University of the Arts: The university leads on the Creative Sector Group, which connects businesses to new funding streams. They have led and co-developed successful bids to government, bringing funding for the Digital Creative sector to Norfolk and Suffolk.
	VC and other funding for businesses	University of the Arts London: The London Fashion Fund is an independent investment vehicle established with £520k of pump prime funding for 10 fashion/tech SMEs, and attracting £1.2m of private sector, VC and angel investment
	Support for businesses	Norwich University of the Arts: They university developed the Creative Internship programme – a centralised delivery of a graduate training scheme for creative SMEs which enabled 45 businesses to grow their teams
		University of the Arts London: In 2015, UAL secured £4.8m from the European Regional Development Fund to deliver the 3.5 year Fashioning Technology Emerging Futures (FTEF) business support programme - in partnership with CENTA and London Borough of Hackney, as well as £7.8m funding from the GLA and Fashion District partners - to create a fashion manufacturing and training hub in East London
	PhD programme in collaboration with business	Central School of Speech and Drama: The university provide Collaborative Doctoral Awards with industry bodies and cultural institutions, including the National Theatre Black Play Archive and Association of British Theatre Technicians
	Staff placements; 'pracademics'	Central School of Speech and Drama: Central embeds academic staff in industry; 45% of academic staff currently hold fractional positions to facilitate industry collaborations (as designers, choreographers, curators, directors, movement directors, acting coaches, NHS trust dramatherapists, and visual artists).
Providing services to	Consultancy for businesses	Norwich University of the Arts: NUA offers design consultancy through the Ideas Factory. Integrated into

businesses and others		student learning, projects range from Fine Art commissions to Interior Design.
		Winchester School of Art: Consultancy services are offered by the university - for example, providing historical advice on the television series The Last Kingdom and a Heritage for Heroes initiative which works with veterans to identify the wellbeing benefits of archaeology.
	Provision of services	National Film and Television School: Each year, the School utilises its staff, students and graduates skills and expertise to develop professional production projects in partnership with leading partner production companies. Recently the School has produced work for Sky, BBC and Film 4.
	Purposeful engagement with business	Central School of Speech and Drama: Academic staff engage with over 1110 external organisations, translating work for varied audiences and engaging publics as presenters and guests on over 20 BBC radio and television programmes, as well as other national and international media outlets (i.e., Sky News, TRT News, CCTV-China), and journalistic outlets both general (The Guardian) and specialist (Sight & Sound, Exeunt, Total Theatre, The Stage).
Enabling staff and students to set up new businesses	Entrepreneurship training and support for students	LAMDA: In partnership with Audible UK, the GNR8T programme was created in part for students to devise and produce their own audio plays; to date eight plays have been produced and made publicly available through Audible UK. Trinity Laban Conservatoire of Music and Dance: The Conservatoire offers guidance and training on how to operate a creative business, both within curricula and through the careers and alumni services. In 2019, it introduced an Innovation Award scheme which offers final year undergraduates seed funding and mentoring from prominent industry figures to develop a creative business proposition with criteria emphasising contribution to local productivity and social and economic return.

	Funding arts and culture initiatives for staff and students	Guildhall School of Music and Drama: The School offers several internal funding streams: For example, staff can access Curriculum development funding, with projects often connecting to industry Seed-funding for projects, products or services that engage external partners, and/or demonstrate social impact.
	Graduate startups	Central School of Speech and Drama: Sustainable collaborations have been developed between staff, students, industry and the public. This builds on the performing arts workforce's freelance nature and the success of graduates who have established commercial, charitable, and social enterprises, from the largest UK theatre production companies (e.g., Delfont Mackintosh, Sonia Friedman Productions) to smaller, socially focused organisations.

Education and Careers Support for Individuals

Table 5 lists the key forms of knowledge exchange mentioned by HEIs in relation to the theme of support for education and careers. HEIs support peoples' careers by offering career advice and guidance to professionals, as well as professional development courses usually targeted at professionals in artistic and cultural fields - though some HEIs develop professional development courses based on artistic and cultural knowledge and skills aimed at a broader range of industries. Some HEIs develop curricula with industry in order to address skills shortages in the arts and cultural sector and more generally enhance the employability of their students. HEIs also facilitate their students' engagement with business in many ways, from industry placements and internships to opportunities to collaborate with businesses on specific projects. Some projects also aim to improve work conditions in the arts and cultural sector.

HEIs also facilitate the involvement of individuals in arts-based education, both by directly providing education aimed at the general public (for example through Massive Open Online Courses (MOOCs)) and by working with young people in various school and community settings, in projects that encourage them to consider an arts-based education and to develop experience of working with businesses. Some projects are aimed at widening access to Higher Education to a more diverse range of students.

Table 5. Educational and careers support

Themes	Forms of KE with the arts and cultural sector	Examples
Supporting careers in arts and culture	Career advice for professionals	LAMDA: 19 LAMDA graduates support access and widening participation; with first-hand knowledge of LAMDA's training, they share skills of theatre-making with young people and school staff members to support pursuit of creative careers
	Professional development for arts organisations and practitioners	University of Chichester: The Dance Department recently secured funding from Arts Council England to promote dance work by BAME, LGBTQ+ and women choreographers / dance artists and develop a programme of public performances aimed at showcasing the work of these under-represented groups. Guildhall School of Music and Drama: The School partnered on a 3-year collaborative UK/China backstage training exchange programme in Shanghai with the Royal Opera House, National Theatre, Shakespeare's Globe, Sadler's Wells, the China National Centre for Performing Arts and the National Theatre of China.
	Professional development from arts and culture to other sectors	Royal College of Art: Since 2016, the RCA delivered 5,400 learner-days via its innovation education programme of short courses and masterclasses on creative leadership, design thinking, service design, disruptive market innovation, visual and communication design, architecture, art and curating.
	Developing industry-led curriculum to address skills shortages and upgrading	National Film and Television School: Regularly, the School works with employers to identify skills shortages and develop targeted provision. Recent examples of this include developing a Post Production Supervision course with Netflix and HBO and a Casting course with the Casting Directors Guild.

	Facilitating students' engagement with business	Bath Spa University: Bath + Bristol Creative R+D project hosts the Creative Workforce for the Future, working with cultural organisations and companies across the region to connect them to exceptional talent from underrepresented backgrounds.
		Royal College of Music: The Creative Careers Centre (CCC) supports musicians in bridging the gap between student and professional life while adapting to the parameters of an increasingly competitive and complex music industry.
	Projects targeted at improving work conditions in arts and cultural sector	Central School of Speech and Drama: In conjunction with Ben Buratta/Outbox Theatre's 2019 And the Rest of Me Floats, 142 LGBTQ+ participants aged 14–25, took part in workshops exploring the themes of the play, focused on increasing queer and trans* representation within the industry.
Promoting art and creative education among general public, widening access	Arts-based MOOC	National Film and Television School: Two Massive Open Online courses have been developed, which more than 15,000 people undertake annually.
	Engagement with schools in activities related to arts and cultural sector	LAMDA: In the past three years, LAMDA has received major funding from the Esmée Fairbairn Foundation, John Lyon's Charity, and the Ashley Family Foundation to enable significant public and community engagement via drama workshops with local schools and in areas of low participation across the UK.
		University of Falmouth: The BA Photography programme partners with the National Trust to deliver a Schools Workshop in Cornwall. 25 undergraduates work with approximately 100 school children over 3 days, in isolated communities, developing on site photography workshops with National Trust Location Staff.
	Engagement with young people for art education – widening access	Arts University Bournemouth: Staff and students from the Dance department work in schools and the community working with children, young carers, over 60s and mixed-ability dance for SEN and disabled participants.

		Bath Spa University: The university hosted a Creative Writing in Schools programme which focussed on areas of low cultural engagement and high deprivation, working with a number of local schools to elevate creative confidence.

Creating broader impact on society & the economy through artistic/cultural activities

Table 6 lists the key forms of knowledge exchange mentioned by HEIs in relation to the theme of creating a broader impact on society and the economy through artistic and cultural activities. This is a very broad area that comprises a very diverse set of activities.

HEIs engage in a variety of partnerships and collaborations with businesses and with other types of organisations (e.g. public sector, charities) to carry out projects that have some degree of social relevance. These are not projects aimed to benefit only the partner itself (such as a business consultancy would be), but projects that benefit all partners and usually have some kind of broader social purpose, such as benefiting particular communities or vulnerable groups. Often these partnerships involve the health sector, or partners abroad.

HEIs perform many activities targeted specifically at local regeneration through arts and culture engagement. These include engagement in activities that have the specific objective to support local regeneration, as well as artistic and cultural activities involving local communities and local businesses. HEIs also perform activities directly aimed at a wider audience, such as events, exhibitions, festivals, performances, public lectures. Some HEIs engage the general public, or specific communities, in artistic and cultural activities. Some HEIs provide arts and culture-related services to the public, for example library services.

HEIs provide spaces and contents for people to engage in artistic and cultural activities. These include archives, galleries, museums, venues such as theatres, cinemas, art centres and other performance facilities. They also provide content that can be made accessible to people. Sometimes this is free of charge but some content is payable for e.g. via collections and creative content that can be licensed. Finally, HEIs engage in research and KE activities that aim to influence policy for the arts and cultural sector.

Table 6. Creating broader impact on society and the economy through artistic and cultural activities

Themes	Forms of KE with the arts and cultural sector	Examples
Collaborations and partnerships with creative industries and arts and culture organisations	Partnerships with arts and culture organizations	London Metropolitan University: Staff and students engage in events and performances beyond the academy, for example with Tate Exchange, London Festival of Architecture and more. For example, Theatre Arts students have twice participated in a public performance, Pecking Order, which resulted in the highest percentage of Tate Modern visitors to a Tate Exchange event. University of Westminster: Stakeholder partnerships include the Ceramics Research Centre-UK collaboration with Tate Exchange, which diversifies audiences for craft-based arts by engaging underserved communities in the production of art works, and the Regent Street Cinema's hosting of activities such as ballroom dancing in collaboration with the charity Open Age, which tackles the loneliness of elderly communities surrounding the central London campuses.
	Arts and culture projects targeted at specific vulnerable groups	Bath Spa University: The Great Margin was a community based project giving voice to writers and readers experiencing marginalisation and isolation. Plymouth College of Art: The college have a charity partnership with Jeremiah's Journey, a charity that works with young people who have terminally ill parents during the period of illness and after the family bereavement. This includes providing access to PCA's studios and engagement in arts and creativity.
	Arts-led engagement with health sector	Roehampton University: Research from the Dance department has led to an artistic and psychological intervention, 'Moving Kinship', which supports young-onset dementia sufferers and their family carers. Norwich University of the Arts: A project with Norfolk County Council aimed to improve mental health provision

		for young people by developing animated resources based on ASMR and Lo-fi HipHop.
Local regeneration through arts and culture engagement	Engagement with local communities in artistic and cultural activities	Winchester School of Art: The promotion of community wellbeing and regeneration regionally was developed through the Sensing Place project. This is an innovative community heritage venture with a focus on providing digital tools to help people from all walks of life study their heritage. Norwich University of the Arts: The Broads Landscape project connected different communities to the natural landscape through creative activity.
	Arts and culture-led local regeneration	Royal College of Art: RCA worked with FutureCity23, a cultural placemaking agency developing its cultural strategy in order to foster strong and sustainable relationships with local communities, businesses and local authorities as part of large-scale regeneration projects within the London Borough of Wandsworth. Guildhall School of Music and Drama: The Guildhall School is one of five core partners involved in an ambitious cultural and learning place-making project called Culture Mile, led by the City of London Corporate (COLC). The partnership combines the expertise and offers of the School and three other world-leading cultural organisations, including Barbican, Museum of London, and London Symphony Orchestra (LSO). University of the Arts London: UAL is a founding and Board member of the Kings Cross Knowledge Quarter, which brings together over 100 organisations spanning multiple disciplines, industry sectors and global networks to share knowledge and collaborate. UAL plays a major partnership role in the Knowledge Quarter, and the regeneration of the local area, acting as a dynamic source for creative talent , providing creative consultancy to local partners such as Google, Universal Music/Vivendi Group and the Institute of Physics, and acting as a hub for (social) innovation.
Engaging with the public or	Events, exhibitions, festivals	Bath Spa University: Creative writers at BSU participate in the Bath Childrens' Literature Festival and the Schools Without Walls project, which uses the children of local

specific groups- communities using arts and culture		primary schools to take up residency in the Egg Theatre to co-create festival events.
		Norwich University of the Arts: The East Gallery has shown 9 exhibitions since 2017, attracting 23,250 visitors. The gallery, offering free entry to the public, exhibits national and international artists, including Anthony Caro, Alfred Munnings, Eduardo Paolozzi and Cornelia Parker. In 2018, a plinth was installed on campus, exhibiting important works by Damien Hirst and Anthony Caro, bringing art into the conversation of the city.
	Performances	Bournemouth University of the Arts: The university supports the cultural life of the Dorset region through an annual programme of dance and theatre, including original devised work, bold revisioning of established texts and family-friendly classics.
		Roehampton University: Major public events have included the curation of Doing Time, the Taiwan pavilion at the 57th Venice Biennale, attended by over 100,000 international visitors, and awarded Asian Contemporary Art's 2019 award for curation; and experimental radio adaptations which reached an estimated 10.9m listeners through BBC Radio 4.
	Public lectures, writers in residence, conferences	London Metropolitan University: The University hosts a number of free public lectures, exhibitions and performances, including a Saturday morning lecture series in partnership with the London Society, a photographic exhibition celebrating the history of the East End based Brady Clubs, and an exhibition series featuring emerging Belgian architectural practices in partnership with Wallonie Bruxelles Architectures. Royal College of Music: An annual artistic programme of over 500 public concerts features the talents of the students, staff and internationally renowned artists based at the university.
	Arts practitioners supporting community engagement	University of Falmouth: The School of Art's specialist technical staff include award-winning practitioners, who support wider community engagement through bespoke partnerships and summer workshops.

	Community engagement in the arts	University of Chichester: Two Humanities research centres, the Chichester Centre for Fairy Tales and Fantasy and the South Coast Creative Writing Hub, aim to encourage creativity through engagement with the local community. The Centres provide for local writers, scholars, performers and artists, with regular public lectures, workshops, conferences and visits. Plymouth College of Art: Histories of the Unexpected and the Creative Associates programme have explored novel ways to share research with the public, including visualisations, sound installations, mapping memories and photography.
	Provision of arts and culture related services to the public	Bournemouth University of the Arts: The Dance course team delivered free online content to keep people moving and Creative Writing created daily monster poems and activities for children. University of Chichester: State-of-the-art equipment and facilities have been hired to the London Metropolitan Orchestra, Middleware Ltd Audio for recording & mixing of a new computer game, Chichester Festival Theatre Choir recording for a CFT production.
Providing spaces and contents for artistic and cultural activities	Archives, galleries, museums, collections	Bournemouth University of the Arts: The BUA Gallery is a resource for contemporary art and design in the South, bringing in internationally significant exhibitions, and curating new exhibitions. 29 exhibitions have attracted over 40,000 visitors and over 45 school groups a year. University of Westminster: The University of Westminster Menswear Archive started in 2016 in response to the needs of students and designers who were unable to view historically important examples of menswear; an area of fashion frequently neglected in exhibitions and galleries.
	Performance facilities, venues	LAMDA: In June 2017, LAMDA opened its new building, which now houses ten rehearsal studios, three public performance spaces, a state-of-the-art screen and audio suite, technical workshops and offices, and unites all of LAMDA's world-leading training and its world-renowned LAMDA Examinations on one campus in West London.

		Plymouth College of Arts: PCA became the new home for the city's only independent arthouse cinema, helping to create a sustainable future for the organisation.
	Licensing and distributing creative content	National Film and Television School: The School is becoming increasingly sophisticated in exploiting its archive to generate income through licensing and distributing the School's content. This has included distribution deals for films with companies including Shorts International, ARTE and Canal+ and Google.

4.3. Approaches to evaluating knowledge exchange with the arts and cultural sector

HEIs use both internal and external evaluations and a variety of quantitative and qualitative approaches to evaluate their KE.

External evaluations are used mainly for specific projects and activities, and they comprise a variety of methods. Quantitative methods are generally based on assessing the achievement of KPIs and benchmarking against other organisations or sector practices. Various types of quantitative indicators include improvement vis a vis past performance. There is no mention of counterfactual analyses. Qualitative methods are mentioned more frequently, and many HEIs report the use of surveys and feedback from participants / beneficiaries of KE in order to derive measures such as: general satisfaction; self-assessed achievement of targets or improvement as a consequence of the engagement; or to understand outcomes of various kinds (e.g. improvements in learning, health, cultural enhancement, changes in perceptions).

Internal evaluations are mentioned very frequently, and they are used both to evaluate specific projects and activities and to evaluate the performance of centres, departments and institutions. Also, there is an emphasis on qualitative methods complemented by quantitative indicators. There is extensive use of surveys and formal and informal feedback. HEIs report that they produce case studies, interviews, narratives to showcase the impact of KE.

4.4. Indicators used to demonstrate knowledge exchange performance

The KEF narratives mentioned a wide variety of indicators used to demonstrate KE performance. We have coded individual types of indicators, and subsequently analysed them by aggregating them according to the type of impact of knowledge exchange activities that they are designed to

capture. This way, we have identified five types of impact of knowledge exchange with the arts and cultural sector that HEIs attempt to demonstrate:

- Impact of KE on external organisations, comprising:
  - Support provided to organisations
  - Employment outcomes
  - Innovation and growth outcomes

- Impact of KE on localities, comprising:
  - Contribution to local economy
  - Contribution to industry

- Impact of KE on individual education and careers, comprising:
  - Training
  - Careers

- Impact of KE on culture, policy, health, environment, communities:
  - Public engagement activities, projects
  - Environmental outcomes
  - Health improvement outcomes
  - Policy outcomes

- Impact of KE on HEI activities, comprising:
  - Teaching-related outcomes
  - Research-related outcomes
  - Visibility and access of research and KE engagement
  - Financial outcomes

These types of impacts map quite well on the forms of knowledge exchange discussed in section 4.2. In fact, the activities of direct support for businesses tend to generate impact on external organisations. The support that is tailored more towards individuals generates impact on individual education and careers. The activities concerning creating broader impact on society and the economy through artistic and cultural activities tend to generate impact on culture, policy, health, environment, communities.

Impact is generated through a wide range of activities. In Table 7, we list the types of impact captured in the KEF narratives and the indicators that the HEIs have reported using for each of these. Of course, each HEI only reported some of these indicators, while the tables below report the overall picture that emerges from the analysis of twenty KEF narratives. The table shows that HEIs have provided a wide variety of indicators to substantiate their claim of having generated impact.

HEIs have made a lot of effort to provide quantitative estimates of their impact and to identify indicators that somehow capture the range of people and organizations that have been affected by their KE activities, the income that has been generated through their activities, the products and services that have been produced, the ways in which individuals have achieved career, education and employment outcomes, and even more general impacts on local economies, health and the environment. This effort suggests that HEIs are aware of the value that policymakers place on the provision of quantifiable impact indicators. Some HEIs mentioned that the collection of these indicators is also useful for their internal evaluation of their own KE activities.

The indicators collected in this table (which are likely to provide an incomplete picture, as it is based on an analysis of only 20 KEF narratives) might provide a useful initial overview of best practices for HEIs looking for indicators that could help them to showcase their performance in knowledge exchange with the arts and cultural sector.

Table 7. Evaluation of impact

Type of impact	Specific impacts	Indicators
Support provided to organisations	Business facilities	• Number of studios, workspaces
	Business support programmes	• Number of business support programmes • Number of applicants • Number of participants • Number and amount of prizes • Sponsorship received • Number of projects funded
	Organisations supported	• Number of organisations supported (different types: start-ups, entrepreneurs, social enterprises, public institutions, schools..) • Number of hours of support provided • Success rate (entrepreneurs who launched companies; survival of start-ups) • Investment received
Employment outcomes		• Number of student placements, apprentices, internships • New jobs created • Graduate employment rates • Number of staff and graduate start ups • Number of graduate projects
Innovation and growth outcomes	Adoption of ideas	• Number of users (of toolkits, frameworks, processes, recommendations and advice)
	Innovations	• Number of products developed, brought to market or tailored to specific users • Number of prototypes developed • Amount of match funding from industry • Amount of investment made by industry

	Organisational strategy outcomes	• Number of organisations reporting strategic change • Evidence of change in ways of thinking, strategies
	Business growth	• Increase in business turnover
Contribution to local economy	Attracting visitors and students	• Additional spend due to visitors attracted in locality • Additional spend due to students attracted to locality • Number of students attracted to locality
	Attracting businesses	• Number of businesses brought into locality • Amount of investment brought into locality • Increase in GVA
Contribution to industry	Contribution of graduates to industry	• Number of productions involving HEI graduates • Share of content involving HEI graduates
Training	CPD and other training courses	• Number of courses delivered • Number of participants • Number of hours of training provided • Number of awards gained • Increased diversity of participants
	Training, upskilling outcomes	• Increase in grades / increase in success rate due to training • Self-assessed progress against employability skills • Participants' satisfaction scores • Increase in participants' confidence, aspiration and skills
Careers	Individual career outcomes	• Number of students engaging with careers service • Student and graduate use of the projects in portfolios, CVs and cover letters • Increased diversity of students involved
	Onward journey of participants	• Share of participants progressing to education, training or employment • Number of students securing agents or development deals after training • Monitoring of achievements post-programme

		● Evidence of subsequent pitches/bidding for contracts
Public engagement activities, projects	Artistic and cultural outputs	● Number of events, performances, workshops offered, new plays produced ● Income raised ● Number of tickets sold ● Number of viewers, attendees, visitors ● Digital/online engagement ● Increased audience and participation in cultural offerings ● Increased diversity of performers ● Increased diversity of audiences
	Projects and community engagement	● Number of community participants in projects or activities ● Number of organisations involved ● Number of students involved ● Growth in number of participants ● Increased diversity of participants ● Participants' further engagement with HEI (for example increased student recruitment as a consequence of outreach activities)
	Cultural enhancement outcomes	● Increased engagement of participants with cultural activities ● Changing perceptions of participants in relation to value of art, design and creativity or other themes (e.g. perception of refugees)
	People helped - services provided	● Number of staff engaged in consulting ● Number of people receiving services ● Number of attendances to sessions / services
Environmental outcomes		● Achievement of environmental targets ● Awards of environmental compliance
Health improvement outcomes		● Improvement in physical health ● Improvement in mental health

		• Self-reported improvement in psychological wellbeing
Policy outcomes	Policy improvement outcomes	• Changes to policy programmes • Changes in perceptions and understanding of policymakers
	Use of research in policy	• Use of research in policy documents, consultations, reviews, policy programming • Participation in policy committees and hearings • Training and evidence provided to policy organisations
Teaching-related outcomes		• Number of programmes launched • Number of students on programmes • Growth in student recruitment
Research-related outcomes	Grants and projects	• Number and amount of grants received • Number of projects launched • number of collaborations with external organisations
	IP generation	• Number of trademarks
	Publications, conferences	• Number of publications, conference presentations
Visibility and access of research and KE engagement	Media and public recognition	• Social media posts - hits – comments • Number of visitors to websites • Number of media interviews • Number of articles in the press • Number of dissemination events • Number and types of awards received
	Networks created	• Development of networks of academics and practitioners (number of people involved) • Number of mentoring relationships created
Financial outcomes		• Income from KE activities

		- Growth in income - Income from sponsorship - Income from renting of facilities and equipment - Number and nature of organisations that have rented facilities and equipment

5. Conclusions

5.1. Summary of findings

Automated text analysis of KEF narratives

Engagement with the arts and cultural sector has been mentioned by many HEIs in the context of their KEF narratives, though with varying degrees of intensity. Words and multiwords pertaining to knowledge exchange with the arts and cultural sector have been mentioned more frequently in the sections discussing Local Growth and Regeneration and Public and Community Engagement; less so in the Institutional Context sections.

In the Institutional Context sections, HEIs have used these words in isolation, suggesting that arts and culture is mentioned in these parts of the documents mainly in connection with other themes, rather than as a theme in itself.

In the Local Growth and Regeneration section, some groups of words appear to be connected. These connected words refer to specific creative activities (e.g. film, fashion, dance, music, arts venues, cultural heritage), suggesting that these have sometimes been discussed as instrumental for local growth and regeneration.

Also, in the Public and Community Engagement section, there are some connections between words that relate to various forms of public engagement, suggesting that these activities have been performed together in order to engage with the public.

There are some relevant differences in the types of words pertaining to knowledge exchange with the arts and cultural sector used in the different sections of the KEF narratives. In the Institutional Context section, words mainly refer to different artistic and creative subjects and infrastructures, suggesting that in this section the arts and culture are mentioned in relation to their role within the university. In the Local Growth and Regeneration section, words mainly refer to specific creative activities (musicians, performing, studios, textiles, creative economy, creative sector), with a strong emphasis on digital (digital, digital innovation, digital technologies, digital skills, digital industries, digital creative), suggesting that these are considered to play an important role in local growth and regeneration. In the Public and Community Engagement section, the words refer to the activities, events, structures that universities can rely on for their public and community engagement.

Qualitative analysis

The twenty HEIs that have mentioned more often the words pertaining to knowledge exchange with the arts and cultural sector have usually mentioned this form of KE engagement as a key part of their institutional mission. Hence, we have identified a group of HEIs that consider engagement with the arts and cultural sector a strategic priority. This confirms that the selection process of these cases was suitable in order to identify HEIs that are particularly interesting and relevant for our purposes.

Through a qualitative analysis of these twenty KEF narratives, we identified three main areas of engagement of HEIs with the arts and cultural sector:

- provision of direct support for businesses, including both support for existing businesses and for the creation of new businesses;
- provision of support tailored more towards individuals, both in relation to increasing and widening access to education in the arts and related fields, and in relation to helping facilitate careers in the arts and cultural sector;
- artistic or cultural activities that create a broader impact on society and the economy; including all forms of local regeneration activities as well as engagement with any communities outside the HEI.

In the KEF narratives, it is often difficult to disentangle discussion of engagement with the arts and cultural sector from discussion of engagement with the creative industries more generally. However, for all the forms of engagement above, we have been able to identify examples of engagement specifically with the arts and cultural sector.

Evaluation of KE with the arts and culture sector

HEIs use both internal and external evaluations and use a variety of quantitative and qualitative approaches to evaluate their KE.

External evaluations are used mainly for specific projects and activities. They comprise a variety of methods, with quantitative methods generally based on assessing the achievement of KPIs, benchmarking against other organisations or sector practices, and various types of quantitative indicators including improvement vis a vis past performance (there is no mention of counterfactual analyses). Qualitative methods are mentioned more frequently, and many HEIs report the use of surveys and feedback from participants / beneficiaries of KE in order to derive measures of satisfaction, self-assessed achievement of targets or improvement as a consequence of the engagement, or to understand outcomes of various kinds.

Internal evaluations are mentioned very frequently, and they are used both to evaluate specific projects and activities and to evaluate the performance of centres, departments and institutions. There is an emphasis on qualitative methods complemented by quantitative indicators. There is extensive use of surveys and formal and informal feedback. HEIs produce case studies, interviews, narratives to showcase the impact of KE.

The KEF narratives mentioned a wide variety of indicators used to demonstrate KE performance. HEIs have made a lot of effort to provide quantitative estimates of their impact and to identify appropriate indicators. This effort suggests that HEIs are aware of the value that policymakers place on the provision of quantifiable impact indicators. Some HEIs mentioned that the collection of these indicators is also useful for their own internal evaluation of their KE activities.

5.2. Policy implications

The following policy implications have been drawn from the findings shared in this report.

Encourage HEIs to discuss their KE engagement with the arts and cultural sector.

KEF narratives demonstrate wide ranging engagement of HEIs with the arts and cultural sector, though the extent to which this is discussed varies. Simply by reading the KEF narratives, it is not possible to ascertain whether the HEIs that did not mention KE with the arts and cultural sector had no engagement to report, or simply did not prioritise it as a topic to be discussed in this context. It is possible that HEIs whose main disciplinary fields do not include the arts and humanities might have omitted to discuss these forms of engagement as their impacts are less easy to quantify than those of other types of KE, for example engagement with companies in manufacturing or finance. Additionally, many HEIs do not emphasize their engagement with the arts and cultural sector, preferring to refer more generically to engagement with the creative industries and/or digital industries - even when significant examples of engagement with the arts and cultural sectors can be found.

HEIs should be encouraged to use their KEF narratives to provide a comprehensive picture of their KE engagement, not overlooking engagement with the arts and cultural sector - as distinct from more general engagement with the creative industries or with the digital economy. This is particularly important as the quantitative indicators used in the KEF are not well suited to capture many forms of KE with the arts and cultural sector, so the KEF narratives are the only place where this form of engagement can be reported.

Exploit the rich information in the KEF narratives further.

KEF narratives are a rich source of information about HEIs' KE activities and they could be mined further for information about many aspects of KE. Our qualitative analysis has uncovered a wide range of KE activities reported and a wide range of indicators used in order to demonstrate engagement with the arts and cultural sector. Further analyses could be expanded to a greater number of KEF narratives, and delve more into specific issues - for example, the factors that enabled the success of KE with the arts and cultural sector could be investigated, as well as the most frequent organisational forms used for successful projects.

Continue to combine narrative descriptions with quantitative indicators.

While indicators are useful for evaluation purposes, they also necessarily provide only a partial view of the impact of KE. Therefore, a combination of narrative description supported by quantitative indicators still seems the most appropriate way to demonstrate impact. Moreover, the sheer variety of KE activities that HEIs perform when engaging with the arts and cultural sector suggests that it would be inadvisable to ask HEIs to stick to a set of predetermined quantitative indicators.

Use evidence collected from the KEF narratives as best practice.

The indicators collected in this report (shown in Table 7) can provide a useful initial overview of best practices for HEIs looking for indicators that could help them to showcase their performance in knowledge exchange with the arts and cultural sector.

Additionally, the forms of knowledge exchange mentioned in the KEF narratives could provide examples and best practices for HEIs seeking for ways to expand their engagement with the arts and cultural sector.

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