THE HIDDEN STORY

Universities and the Creative Economy: Using data to support leadership in knowledge exchange

The creative industries are significant sector for the success of the UK economy, contributing £87.4bn GVA in 2015.[1] Universities play a key role in success of the sector. Yet knowledge exchange (KE) within the creative industries is often characterised by fluid networks of smaller organisational networks and academic-industry co-creation.

This can be a challenge for universities to capture through existing systems, leading to potential opportunities for partnerships being overlooked. This toolkit provides an overview of: models for knowledge exchange with the creative economy; recommendations for establishing Research Information Management Systems (RIMS); as well as visualisation and evaluation tools to inform strategy. The briefing also seeks to bring together prospective practitioners in establishing a development group in this field.

THE CHALLENGE

Successful universities in the creative sector exhibit a mix of closely meshed clusters of projects and co-publishing partnerships across a variety of different fields. These networks, in turn, provide a powerful justification for larger scale regional or industrial funding.

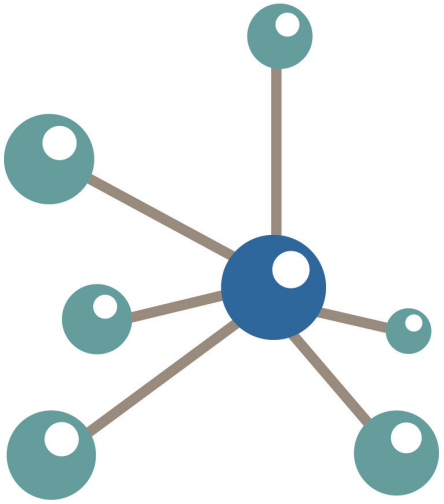
Creative industries are a fast-growing sector in their own right but they also contribute skills and capabilities to the wider economy. In recent years, arts funders have become interested in the role of universities as regional anchor institution and government policy has focused on the role of higher education in the development of industry clusters. This represents an opportunity to grow research funding and to address relevant questions in arts and humanities. Yet it also represents an organisational challenge to develop systems able to identify networks and mobilising resources to benefit from collaboration.

To grasp this opportunity, research & innovation offices need to review their capabilities, to consider the following:

- Is there a university strategy for supporting the development of networks in the creative sector, e.g. are there shared objectives between major partners, are there internal policies for the utilisation of facilitates and equipment to support promising partnerships?
- Do R&I offices provide similar levels of staffing support to nurture creative networks, as they do to establish relationships with larger-scale organisations? Do they have the competencies and connections to convene partners?
- Have R&I offices developed models for managing networks and the co-production of research, that can be utilised in funding bids?
- Do RIMS systems identify partner organisations and location, as well as capturing the outputs and impacts of collaboration?
- Is there an external policy of collaboration and data sharing between universities and other major civic institutions to develop economies of scale?

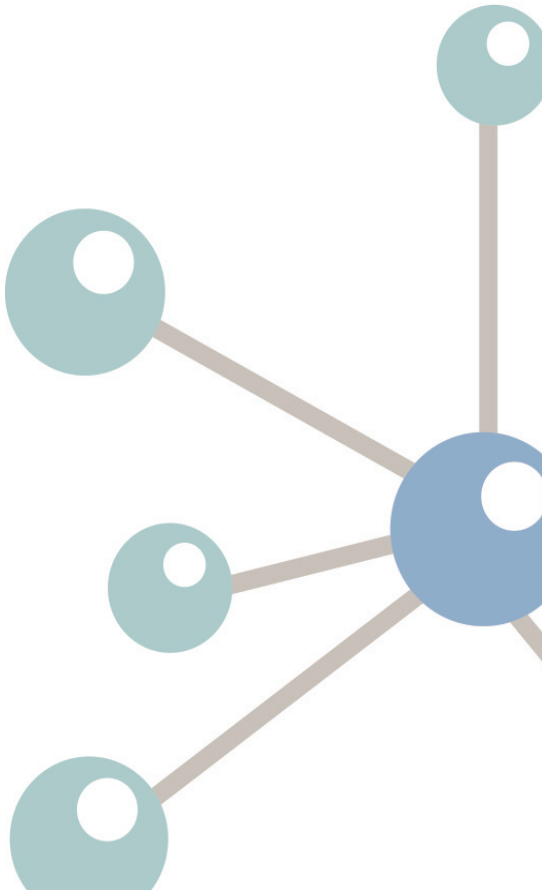
DEVELOPING A NETWORKED-BASED APPROACH TO KNOWLEDGE EXCHANGE

Networks and regional clusters give universities valuable access to: student practice based research / KTPs, challenge-led research project income; and evidence of impact for REF case-studies. Evidence from social network analysis shows a close connection between these networks and publication outcomes.



Faculties and research centres can have an important role in brokering partnerships and, as a participant in regional policy, universities can play an important role in stimulating industrial clustering. Yet a strategic approach is required and universities need to be able to identify the 'deal' they seek to establish with the sector. When thinking about how networks can be incubated the following components to an 'offer' are key:

- **Continuity of funding**, stable funding for initiatives;
- **In-kind support**, such as access to facilities/equipment;
- **Access to knowledge**, in terms of academic time, data services and collections;
- **Brokerage and co-production**, facilitation of connections and joint productions of community events/services.



1 DCMS Sector Economic Estimates 2017 (DCMS, 2017)

In practical terms, the following taxonomy of creative sector partnership can help stimulate discussions with strategic partners and inform the design of project applications:

Task-based innovation

- **T1a Continuous Professional Development** – updating skillsets for emergent roles and technologies
- **T1b Conferences and Participitative Workshops** – largely focused on the open exchange of knowledge/technology and approaches to innovation, and the co-curation of knowledge networks

Learning infrastructure

- **T0a Graduate Incubation** – Start-up support and financing
- **T0b Talent Development** – Mentoring and professionalisation
- **T0c Access to Creative Learning** – Creative Apprenticeships and Student/ Graduate Placement schemes
- **T0d Learning Resources** – Digital: online archives, tuition & MOOCs; and Physical: studios, Makerspaces, libraries/galleries

Community and well-being partnerships

- **Socially and Culturally Inclusive Projects** – largely exploratory and low-cost interventions, such projects involve KE within specific communities and support for social capital
- **Arts and Wellbeing** – trialling interventions and exchanges based on consortia of HEIs, civic and third sector organisations

Commercially orientated approach

- **T2a KTPs/KE into Individual Organisations** (incl. consultancy, contract research, & sponsored PhDs)
- **T2b KE into the CCI Sector** emphasis on developing capability and freer exchange of IP via networks
- **T3. Commercialisation,** licensing and spin-outs

Civic / economic development policy

- **T4. Incubation/Digital Hubs** – Clustering characterised by significant localised infrastructural investment
- **T5. Large Regional Cluster Developments** – characterised by beacon and anchor stakeholders and by substantial infrastructural and inward investments leading to agglomeration
- **T6. Cultural Consumption Channels** – from platforms and portals monetarising digital/digitised content to a long-tail economy; to physical exhibition and performance venues
- **T7. Festivals** – bring together creative professionals, providing a platform for diverse offerings around key themes in the visitor economy
- **T8. Iconic Builds and Place-making** – Characterised by investments in iconic facilities to epitomise a region and attract audiences

Academic and artistic collaboration

- **Curatorial Investigations** – typically rely on the (re)interpretation of collections to link art to contemporary issues
- **Cultural/Artistic Commissions and Performances** – typically collaborative activities undertaken with, or reflecting on, communities (of practice, belief or co-location)

RESEARCH DATA METRICS

Since REF-2014, a lot of universities have reviewed their research information management systems (RIMS) and several are in the process of establishing new systems and metrics.

Existing systems are often highly fragmented with a division between pre- and post-award systems and between financial data and output metrics. This makes it very difficult to utilise research data to demonstrate the value universities bring to regions or sectors, with implications for industrial funding.

Integration across these systems is important to enable universities to fulfil REF and other regulatory reporting requirements as an extension of internal performance metrics.

However, when designing new RIMS a third dimension can be envisaged, looking at the research institution's engagement with sectorial and regional networks. This information helps informs funding policy enabling pre-award business development to more clearly identify key-brokers and market gaps.

The information also provides a valuable evidence for a university's strategic role in forming clusters, enabling it to justify bids for industrial funding.

REQUIRED DATA

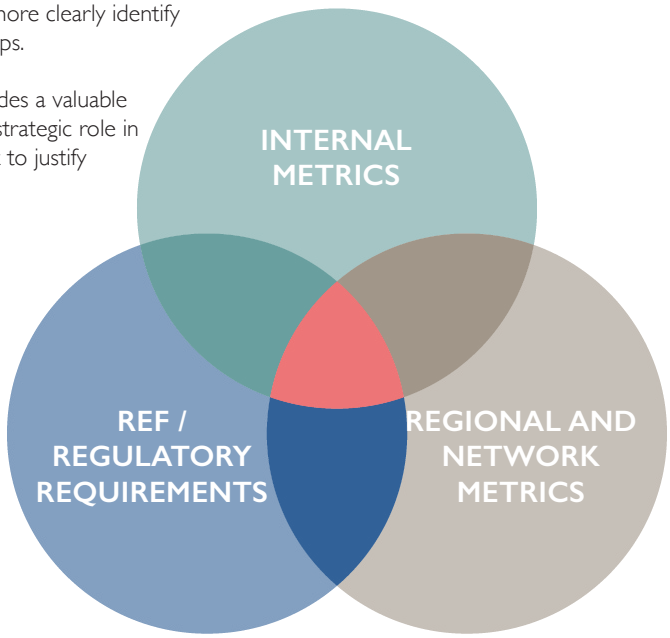
In practical terms, this requires three broad groups of data to be collected. Information on project identification and finances, network and partnership data and information on outputs.

- General project data: funder, PI, value, duration etc.;
- Partnership data: direct beneficiaries, indirect beneficiaries (where appropriate/possible), organisation, geographical location, links to specific regional policies – if appropriate;
- Output data:
  - Project Outputs
  - Publications
  - Productions/Artefacts/Curated Content
  - New knowledge created
  - Impact Outcomes
  - Impact factors
  - Pedagogical impact
  - Actual cultural and societal impact
  - Follow-up projects (if any)
  - Other KE Activities undertaken/ arising

THE CASE FOR A REGIONAL DATA OBSERVATORY

As national policy focuses on devolution and industry policy, mapping investment and knowledge exchange across a region becomes important. A data observatory, enables the confidential sharing of KE data between local universities and civic partners to develop a common approach to industrial funding. Key steps to achieving this include:

- Agree protocol for aims of data sharing, types of data and confidentiality;
- Ensure configuration of RIMS to enable the export of data to a common repository;
- Establish a secure data sharing repository;
- Establish data sharing agreement between universities/civic funders.



VISUALISATION

Visualisation help transform information on knowledge exchange flows in practical maps that help guide funding policy.

The University of Greenwich together with Coventry University are assessing demand for a practical course of data visualisation for research management professional, please contact *Richard.Brooks@coventry.ac.uk* for details.

SOCIAL NETWORK ANALYSIS (SNA)

SNA can be helpful for Faculty/Centre Management as part of a portfolio assessment and university E&I teams.

By configuring RIMS systems to identify collaborators, financial flows, beneficiaries, output, impact and geographical location, research management staff will be able to evidence the following aspects of business engagement.

- Network density – e.g. the degree to which partners are all disparate or part of a self-sustaining group. Helpful for supporting industrial funding bids and for stimulating active research environment.
- Dependency on key PIs/Partners – where a single PI is the main reference point for a number of partners, university connections are personal, not institutional and thus at risk should the PI move.
- Network gaps – by looking across research teams it is possible to identify opportunities where either the university lacks connections with major regional actors or where one set of connections exist that might be used to facilitate other connections and links.

GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

GIS mapping of knowledge exchange is helpful for university leadership is identifying the spread of investments and how policies can enhance innovation ecosystems over time.

Good datasets on the geographical location of partners organisations (and location of corresponding individual, if different) are essential for this activity and represent a relatively low administrative burden – being possible to input retrospectively if necessary.

The location of end beneficiaries is especially valuable for evidencing impact, but this is likely to be a significantly higher administrative burden and the value of such an activity would have to be assessed on a case-by-case basis.

Once complete geographical data provides the following advantages:

- Geographical spread of funders and investments – this information can be helpful for stimulating discussions with regional policy-makers on business cases for local investment;
- Relationships between policy measures and knowledge exchange outcomes – decisions to invest in co-working spaces or annual festival can be assessed in terms of the spread of regional links over a given time period.

ASSESSMENT AND EVALUATION – THE IMPACT CULTURAL COMPASS

Evaluating impact through a metrics scale can be of value to both pre-award and research excellence functions. The Cultural Impact Compass model described below, is intended to provide a formative tool to illustrate the likely future impact of a project and a descriptive measure to evidence the value of existing work.

Current metrics are often inefficient for measuring impact in the arts and humanities field due to a lack of a quantifiable scale and a categorisation of the type and quality of impact. This is especially important as Arts and Humanities disciplines are often associated with a broad range of benefits from economic impact to social wellbeing.

Through comparing the coding derived from our own interviews in the case studies above with codings derived from ResearchFish and Gateway to Research (GTR) the Hidden Story project identified the following evaluative categories of impact:

- social cohesion,
- infrastructures,
- innovation;
- wealth creation;
- creating quality places.

In the example below (figure 1), estimates of impact are shown from: arts and wellbeing interventions; a festival; and regional cluster development project.

The projects are measured against a scale normalised to 1 and against 32 impact parameters. The number of parameters can be simplified as necessary and the scaling can be determined locally to inform policy priorities (e.g. number of people benefitting, national/international impact etc.)

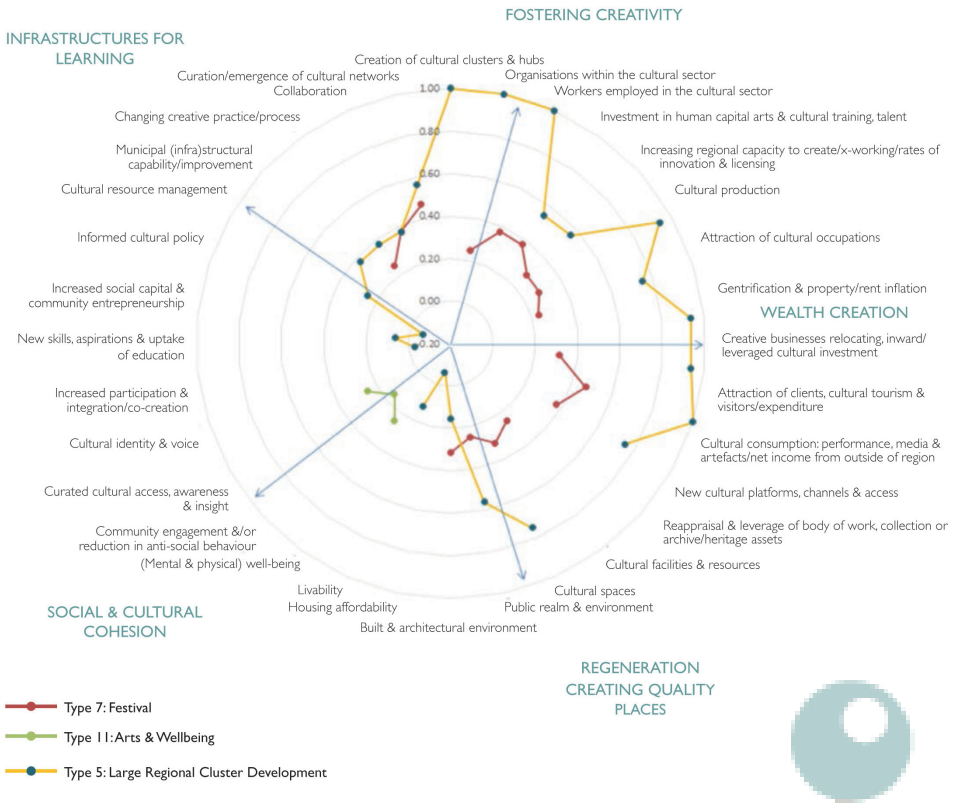
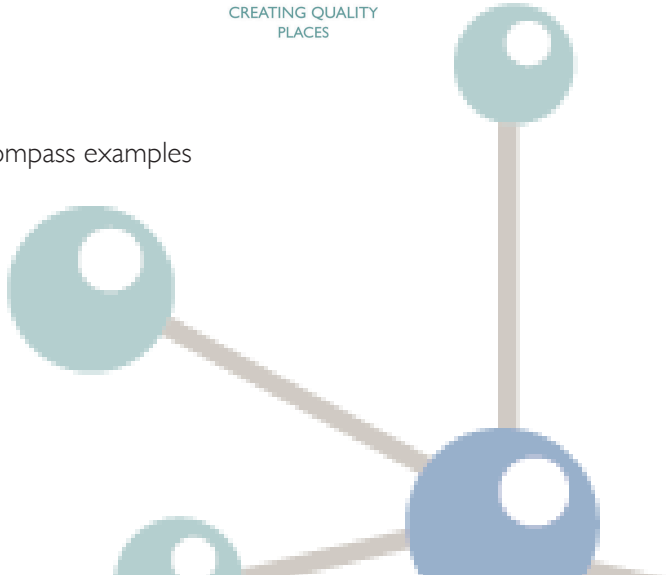


FIGURE 1: Cultural Impact Compass examples



This tool can be useful for universities and civic institutions to assess the impact of pre-existing project portfolios and to determine what types of projects have lead to a given set of outcomes.

Additionally, it can be utilised to help estimate and project what a future collaboration is likely achieve by drawing on previous examples. The table below identifies a scale for impact plotted against depth of impact and international range.

Yet this is only one possible scale and for the Cultural Impact Compass to be useful to an institution the scale should be matched against institutional and regional priorities.

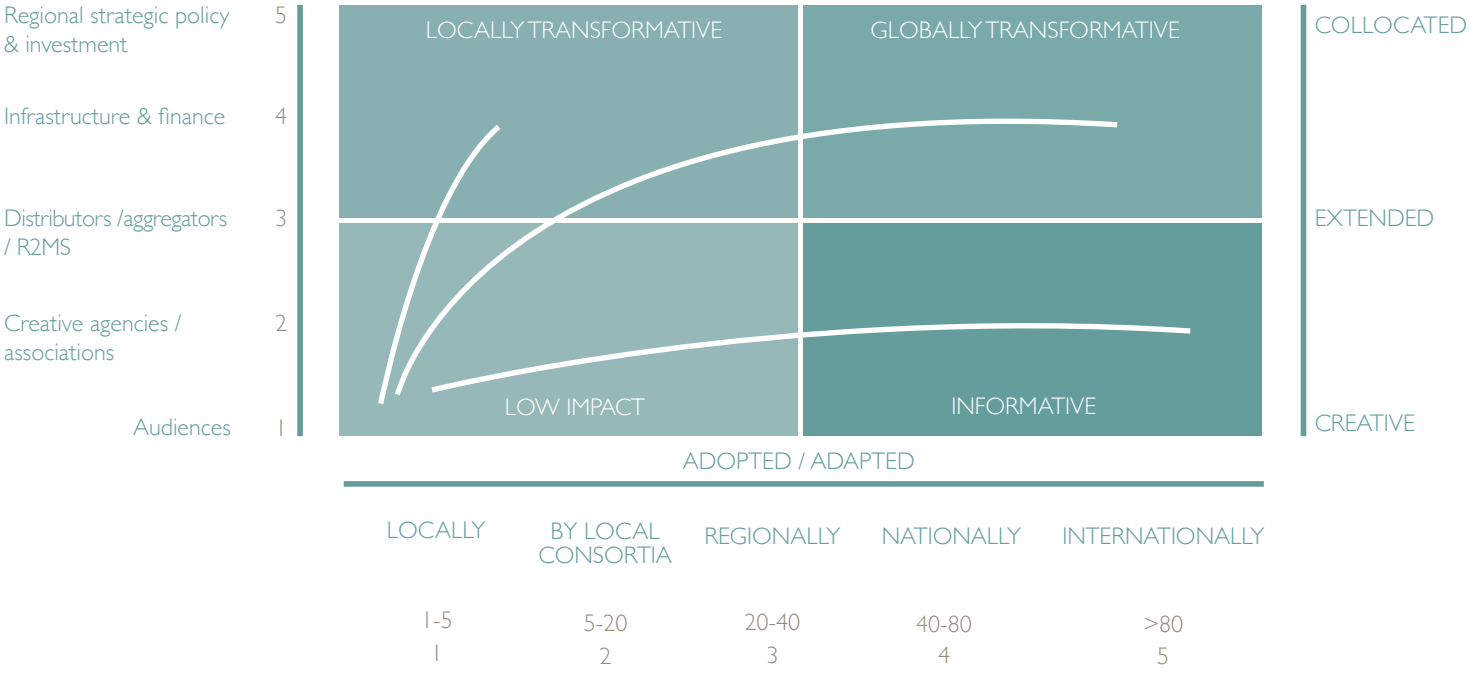


FIGURE 2: An example scale for the Cultural Impact Compass

SUMMARY

Government and research funding agencies are increasingly looking at the role universities play in cultivating clusters of activity in their region. This presents an opportunity for higher education institutions, but also a challenge as existing systems are often ill-suited to identify and exploiting the fluid networks of collaboration often found in the creative sector.

This briefing provides a set of tools to enable universities to shape Research Information Management Systems to provide policy guidance for developing new networks and evidencing the benefits of collaboration.

More than this the study encourages a change in approach to research funding in the sector: whereas research funding and regional policy is often seen as discrete, there is a scope to bring the two strands of university policy together to provide mutually reinforcing benefit.

This would provide universities with more evidence to support industrial cluster bids and enable more productive discussions with creative industry networks.

A cohort of universities is being sought to assess and develop these tools, including the opportunity to partake in a workshop on social network analysis and Geographical Information Systems. To enquire please contact *Richard.Brooks@coventry.ac.uk*

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