New empirical evidence explains the driving force behind the above-average market growth amongst small and medium-sized businesses in the creative digital economy. At a time when public resources are scarce, it is imperative we find what works to fuel continued business innovation and growth. The ‘Brighton Fuse’ research used Brighton as a test area because of its successful Creative, Digital, and IT (CDIT) cluster to gather valuable new information to support skills development, business support, and economic development in Brighton and across the UK. The findings identify a new category of business, referred to as ‘superfused’. These companies show double-digit rates of growth in turnover and employment, despite the recession. They are continuously innovating business models, services, and products and fusing technology, the arts, humanities, and design with creative, digital, and IT skills.

The report turns on its head conventional underestimating of the importance of arts and humanities to the creative and digital economy and points to a future business model that could be further developed nationwide. It also suggests that Government intervention to support small and medium enterprise in this sector might be better targeted at the later stages of cluster development, giving it time to establish and provide support once its growth needs have been identified.

Who are the key players in the creative digital economy?

- The findings show that these entrepreneurs are just as likely to have an arts and humanities background as science, technology, engineering or maths (STEM). They network frequently, and place great emphasis on creativity and collaboration.
- These individuals bring an arts and humanities skillset that enables them to succeed at problem solving, innovating, and adding value in the creative digital economy.

Policy relevance and implications for education and skills

The fusion of arts, humanities and technology knowledge and skills is producing high-growth, superfused businesses that are leading the growth of the creative economy. However, there is a constraint on the development of interdisciplinary talent.

- Arts and humanities skills are helping drive economic growth, and should not just be seen as a luxury supported by science, technology, engineering and maths.
- Interdisciplinary skills are key to the continued growth of the creative digital economy. Higher Education (HE) funders should review the extent to which systems supporting education at the school, under-graduate, and post-graduate levels discourage interdisciplinary work and keep digital and creative skills in silos. A balance is needed between deep disciplinary expertise and the ability to draw on expertise across disciplines.
- To address the ‘fused’ skills shortage, Local Enterprise Partnerships (LEPs) and Sector Skills Councils (SSCs) should work with small firms to articulate their demands for skills and training, and should help communicate these to HE and FE institutions who often have difficulty working with small firms. Currently the higher education system is not supporting the continuous upgrading of skills and needs to be more innovative in its course design and the models it uses to meet the needs of the CDIT sector, and the industry more broadly.
- Innovation policy needs to reflect the fact that the UK is predominantly a service economy, where innovation is driven by design, process innovations, software-intensive new service offerings, and softer organisational and marketing changes.

What do superfused businesses look like?

- The evidence shows that superfused businesses embed digital technology skills in all aspects of their operations, both managing the business and creating content.
- A superfused business leads in product innovation, process innovation, and empowering people through training, networking, and interdisciplinary collaboration.
- Superfused businesses are part of broader networks - superfused clusters - of like-minded people and businesses who attend cultural, artistic and technology meet-ups, co-operate with other businesses and individuals, and network (both online and in person) on a business level.
Policy relevance and implications for business, Local Enterprise Partnerships, and Sector Skills Councils

The growth of the Brighton CDIT cluster, like most clusters, was driven by the continuous innovation, exploitation of existing technologies, and the presence of a vibrant artistic and creative community, rather than the commercialisation of new-to-the-world technology in new firms.

- Building clusters from scratch is difficult, particularly clusters based on the development of new technology where there are poor links to commercial demand. Policymakers and LEPs should therefore be cautious about the potential for success of this approach.
- There is huge potential for growth policies to focus on helping firms to grow, rather than encouraging more market entry by entrepreneurs. Levels of market entry are already high and it is unclear if it needs to be further encouraged given the low growth and survival rates of new firms. By contrast, growth in existing SMEs is often constrained by factors that policymakers and LEPs have the opportunity to influence.
- Policymakers in LEPs should recognise that while cluster development initially combines entrepreneurial drive with local advantages, over time the cluster grows and firms take advantage of the local support networks to develop access and share resources and knowledge. This gives rise to opportunities for policy interventions to improve infrastructure, address barriers, improve co-ordination and investment, poor labour and commercial markets. The advantages to local organisations working at a variety of scales and in close proximity remain significant, even in a digital age.
- Clusters are not necessarily based around a single industry but instead can develop around a range of sectors that share common resources and inputs, and achieve scale economies by co-location. A diverse ecosystem of private firms, together with public sector and University involvement, can assist in reusing and diffusing knowledge within a local context – particularly if independent ‘brokers’ (such as Wired Sussex) are able to assist in co-ordination to generate mutual economic benefits and champion a cluster’s sense of identity and brand to regional and international audiences.

Innovation is a process of creating value, but firms and local regions also need to be able to capture value in order to prosper and survive.

- Innovation policies should address the relatively low emphasis given to value capture compared to value creation. Value capture in the CDIT sector seems to be undervalued in policy terms, given its economic importance. There is a significant opportunity for policymakers to help UK firms capture and monetise value created elsewhere in the world in the CDIT sector.
- A trade-off in policies should be considered when influencing value capture. Increasing the amount of value that is captured by innovators, through stronger intellectual property rights increases the incentives firms have to innovate, but simultaneously decreases the diffusion of the value that is created. In some instances, and particularly in the creative digital context, greater diffusion leads to increased value. In such circumstances, cross subsidies can be merited.
- Business support, education, and management training on building the assets that allow firms to capture value and innovate (so called ‘complementary assets’) could be made more available. How firms capture value is a key part of their business model. A significant number of superfused firms engage in all modes of innovation, including staff training, new products and services, new processes, content for copyright, new code, and new business models. This is particularly important for the creative industries and there is a key opportunity now for policymakers to address this to support the continued high growth of the UK’s digital creative economy.

**Background:** The Brighton Fuse is a two-year study of the Brighton & Hove Creative, Digital, and IT (CDIT) cluster funded by the Arts and Humanities Research Council (AHRC), and carried out in collaboration between local universities (Brighton and Sussex), industry (Wired Sussex) and the National Council for Universities and Business. The project aimed to estimate the economic contribution of this cluster to the local economy, measure its performance in terms of growth and innovation, and identify the opportunities and challenges to better understand the barriers to growth. Its aim was to inform future strategies to make the cluster more competitive, spread learning to other regions, and provide the blueprint for achieving high growth creative, digital businesses. It has done so through a quantitative survey of 500 companies in the Brighton & Hove CDIT cluster and 58 qualitative interviews.