Design Council

Design in the knowledge economy 2020

In partnership with
the work foundation

Introduction

For the UK to revive its fortunes, overcome recessionary pressures and rejoin the top-table of growth nations, we need to be ingenious, focussed and nimble. The complex socio-economic issues we face in the UK and elsewhere mean that new approaches are needed.

This paper from Will Hutton raises some tough questions for Britain. Are we playing to our strengths? Are we mixing the skills and capabilities that are the foundation stones of innovation, such as technology, design and enterprise?

I am delighted to note that the paper endorses some of the Design Council's recent 'open' collaborative approaches to innovation. Unless we move faster to join up the so-called 'old' and 'new' economies, we will fail to achieve the step change in productivity and renewal so urgently required.

I would like to thank The Work Foundation for all their help and support in producing this paper. It marks the beginning of our collaboration on the knowledge economy and provides a valuable contribution to all those with an interest in economic policy.

David Kester
Chief Executive
Design Council

By 2020 the UK must create a balanced and sustainable knowledge economy with design as a critical and central part. There is no other option.

For a decade up to Northern Rock's collapse in September 2007, Britain relied on financial services, property and construction to power its economic and employment growth, with the remaining jobs largely supplied by a public sector whose tax revenues were buoyed up by the bubble economy. In 2010, as we emerge from one of the most severe economic crises of the last century, it is clear that the balance of the economy must change. The country, brutally, is going to have to work and innovate to make its living. There are no more easy pickings off the back of a credit boom. Britain is going to self-consciously create a national innovation ecosystem to drive new growth sectors and companies – and design must be a critical part of that effort. Successful companies will be those which develop innovative products and processes, so creating new markets and reputations for themselves.

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New ways of intervening have to be found. Public spending commitments or tax concessions – the traditional ways of achieving public policy goals – are going to be extremely constrained by the necessity to reduce Britain's budgetary deficit. The quest is on for policy levers that can deliver changed behaviour as effectively but more cheaply.

The challenge to rebuild Britain's economic model around investment and innovation, but with little direct public money, is shared across the industrialised west, where the knowledge economy has become the great engine of growth. For more than a generation the number of jobs that require degree level or professional skills has steadily risen, while the companies and sectors that have grown are those that one way or another are smart and add value. Knowledge-intensive industries range from information and communication technologies to advertising and from universities and hospitals to building aero engines. Design too is a classic knowledge based industry. Over half of all value-added is now generated within these sectors, as defined by the Paris-based club of government economic forecasters, the OECD. This in turn has been driven by three massive changes in the way economies work and how organisations within them operate.

Firstly, in all advanced industrialised economies it has been the technology and knowledge based industries that have driven the rise in jobs and exports. In the knowledge-based services alone, OECD employment increased from 50 million in 1970 to over 150 million by 2005.[1]

Secondly, there has been an amazing inversion in company investment. Economists differentiate between investment in tangible assets – plant, machinery and buildings – and intangible assets. Researching new products; building up a company's reputation; investing in human skills; design; computer software and even investment in management and leadership all count as intangibles. Back in 1970 companies' investment in intangibles was 40% of their investment in tangibles. Today it has trebled.[2] We live in a world in which value lies less in making a good or service – but in researching, designing and advertising it.

Thirdly, workforces have become more skilled and much better educated. In 1970 most of the UK's workforce had no qualifications and only a tiny share had degrees. Today, almost 90% have some sort of qualification and up to a third has a degree or equivalent.

This transformation – for it is a transformation – is being driven by the interaction of ever more demanding and better educated consumers, who hunger for the experiential, with companies responding with more technologically sophisticated goods and services. Think the iPod, iPhone and iPad. There is the BBC iPlayer. There are GPS navigation systems, allowing golfers to calibrate their shot to within inches. There is real time monitoring of aero engines in flight from a single ground station. So it goes on, with the decades ahead likely to see more robotisation, miniaturisation and digitisation. The knowledge economy led the recovery of the 1980s and 1990s. It will lead the recovery of the 2010s.

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1 The OECD definition of knowledge based services includes business, high tech, and financial services and education and healthcare services. In addition, the high to medium tech manufacturing sectors are also included. Estimates for EU15, US, Japan, Korea and Australia from KLEMs database.

2 HMT (2007) *Intangible Investment and Britain's Productivity:* Working Paper no 1.

How does design fit into this big picture?
Design is the bridge between the consumer questing for the experiential and the company trying to meet that appetite with an offer that presents the new in a user-friendly and innovative way.

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It is at the core of the knowledge economy, and one of the coping stones of an innovation system. There should be no surprise that it is the biggest single source of intangible investment in the UK. Latest estimates put spending on new engineering and architectural design at £44 bn or nearly 30% of all intangible investment. It is one and a half times the estimated spend by business on employer provided training and five times the spending on R&D.[3]

The old boundaries between manufacturing and services are dissolving.

A manufacturing company in 2010 has to have a keen eye on the soft or intangible side of its offer; the best are becoming manuservice companies. Manufacturing invests more, proportionately, in intangibles than the service sector; it employs as big a share of knowledge intensive workers as do high tech service industries; and it is a big exporter of knowledge based services on the back of advanced technology. And the most important intangible is investment in design. Manufacturing is in fact the biggest single investor in design, and spends twice as much on design as it does on R&D.

3 Gil and Haskell (2008) *Industry Level Expenditure on Intangible Assets in the UK*, report to BERR.

The Work Foundation's Knowledge Economy Programme is looking ahead to what a balanced knowledge economy would look like by 2020, back-casting to today, and setting out what needs to be done by the end of the decade.

It is becoming crystal clear that no economy can get to first base unless it has all the components of an innovation ecosystem. There have to be the universities and research centres creating knowledge; there have to be institutions who transfer knowledge into companies small and large; there have to be systems and processes to create new markets – from advertising to public procurement; there has to be a steady supply of entrepreneurs; finance has to be mobilised – and skills developed. Under each of these headings there are myriad institutions and initiatives, but all have to lock together and be understood – at national level, in our cities and by our companies and entrepreneurs. Britain's current approach is a far cry from that.

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Firstly, design needs to be an integral part of the new innovation 2020 ecosystem. The Design Council is already positioning design strategically within the innovation process as the force that embodies the new and creates new markets.

Secondly, design needs to underpin our efforts to drive an export-led recovery. As many commentators have pointed out, exports are likely to be one of the few sources of strong growth over the next decade, helped by a big depreciation in the value of the pound. But if our manufacturing industries are to do well, we also need a strong design sector to underpin that growth and develop exports of knowledge services allied to manufacturing exports and also in their own right.

Thirdly, a significant share of the public spending cuts announced in the last Budget were to be achieved through public sector efficiency savings, and it is likely these will increase in both scale and scope after the next general election and for the foreseeable future. Design will have a key role in helping deliver more for less.

Fourthly, the geography of design matters. Much of the knowledge economy is piled up in the South East and London and design is no exception to this general pattern. But over the past decade there have been encouraging signs that knowledge-based services have been growing faster in our major cities in the Midlands and northern Britain. Knowing why knowledge-intensive activities such as design are located where they are and how that might be changed is vital if a more regionally balanced knowledge economy is to be achieved by 2020.

Lastly, organisations need to think how design can help them adapt to the coming decade. In *The Landscape of Tough Times* [4] I set out the prospect of a decade of accelerating and constant innovation driven by 'general purpose technologies', the disintegration and replacement of old business models, and enterprises which will last for shorter periods but may burn more brightly than in the past before making way for the next wave of innovation and enterprise.

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Recent events have accelerated rather than held back the growth of the knowledge-based economy.

Over the next decade we will become even more dependent on non-financial, knowledge intensive sectors to deliver jobs, value-added and exports. The challenge for the next government is to create the right supporting frameworks to deliver a faster pace of innovation and enable the huge investments required in technology, science and innovation and the digital and physical infrastructure, in an age of public spending austerity.

The Work Foundation is actively stimulating argument and building alliances to help shape those frameworks and organisations, and help them adapt and thrive in the new environment. The Economist's Big Rethink conference in association with the Design Council will bring businesses together to start the ball rolling. There is only one option for the country; to go single-mindedly for the jobs and wealth in the knowledge economy – and design is one of the core drivers of that mission.

Will Hutton
Executive Vice Chair
The Work Foundation

4 Hutton (2009) *The Landscape of Tough Times,* The Work Foundation.

The Design Council

The Design Council helps businesses to become more successful, public services to be more efficient and designers to be more effective. Our purpose is to promote the value of design to the economy and everyday life, and help business and the public sector get the benefits. For more information on the Design Council's programmes, research, events and publications, go to our website.

www.designcouncil.org.uk

The Work Foundation

The Work Foundation is the leading independent authority on work and its future. It aims to improve the quality of working life and the effectiveness of organisations by equipping leaders, policymakers and opinion-formers with evidence, advice, new thinking and networks.

The Work Foundation's Knowledge Economy Programme is a major research programme exploring the future of Britain's economy, involving key players from business and government.

The programme's primary aim is to set out a credible view of what a balanced and sustainable economy would look like in 2020, and describe the options for government, organisations, and institutions for getting there.

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