

# Design Economy 2021

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## *Scoping Project* Introductory Paper

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This report was commissioned by Design Council as part of the Design Economy 2021 research programme.

Design Council is the government's advisor on design. Our mission is to make life better by design. We work with people to create better places, better products and better processes, all of which lead to better performance. We commission research, develop programmes and influence policy to demonstrate the power of design. We bring together non-designers and designers from grassroots to government and share with them our design expertise to transform the way they work.

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# Executive summary

This series of papers sets out a methodological proposal for *Design Economy 2021*: Design Council's flagship programme of research assessing UK design. Previous iterations of this research have focused predominantly on the economic significance of design: on the numbers of designers and design firms, on the use of design in business, and on the financial value generated for the UK economy through design activity. The scope of *Design Economy 2021* goes beyond this, looking at the social and environmental value of design as well as the economic; looking at how design is used and understood in the public sector, as well as by businesses, and the public understanding of design. It also has a greater emphasis on investigating issues of equality, diversity and inclusivity in design, including across the UK's nations and regions. Further, *Design Economy 2021* will be not only backward-looking, a snapshot of design as it is today, but forward-looking, in setting out a positive vision of where design might be in 2050, and what it will take to get there.

A new approach to this research is therefore needed, and timely: the ways that we think about impact and value are changing, there is a new urgency to consider social and environmental issues in relation to design, and design skills, methods and practices themselves are continually evolving – thus the tools we use to research these things must also evolve. We argue a shift towards a sociological approach to analysing the Design Economy is needed, to produce insights into the links between individual and organisational understanding, intent and action, the outcomes that result and how these are valued. Further, shifting towards a citizen science approach, in which stakeholders in the design economy are active collaborators and participants within, rather than subjects of, the research, will make the study more democratic and the resulting insights more relevant.

These methodological papers set out an ambitious, multi-year programme of research. Design skills and design activity are multi-faceted, diffused throughout many economic sectors, and carried out by many people – not only those calling themselves professional designers or architects. Constructing a picture of design and its impacts and value therefore requires a mixture of different research tools. It also requires an approach that draws more heavily on sociological understandings to account for the contexts, enablers and barriers shaping design skills and design work and discussions about design shaping these. The proposals herein blend together surveys of the design industry, businesses, the public sector and members of the public, with in-depth case studies and live data gathering exercises, and with deliberative and future-facing workshops. These research activities will be brought together in the analysis to create a rich picture of the design economy. However for the purposes of thinking through the methodological requirements, the research is sub-divided into six themes:

1. Assessing the environmental and social impact and value of design
2. Measuring the number of people working in design today, the kinds of roles they occupy, and the economic contribution of their work
3. Evaluating the understanding and use of design by businesses
4. Evaluating the understanding and use of design by the public sector
5. Evaluating the understanding and use of design by the public
6. Evaluating regional variations in use of design.

The rest of this introductory paper sets the scene for Design Economy 2021. We begin by discussing in greater depth why a new approach to researching the design economy is needed, the challenges inherent to this task, and our approach to developing the methodological proposals. We introduce some key concepts and terms that reappear throughout the six papers; defining these at the outset to help the reader make sense of the proposals that follow. In a similar vein, we outline a number of frameworks and models that we have used to structure how we propose the Design Council conceives of the design economy, and therefore how we can think about assessing the design economy. Finally, we conclude this introductory paper with a high level overview of the research programme, and a discussion of how this differs from what has been done previously.

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The scoping papers that follow adopt a similar structure of outlining the background to each research theme, the general approach to research and any important frames or conceptual models, the key research questions that the methodology has been designed to answer, and the main characteristics of the proposed methodology. We include in the appendices supporting material that sits behind these proposals, including our summaries of selected previous studies, and deeper discussion of key concepts.

- Paper 1:**  
**Environmental and Social Impact and Value of Design**
- ‘Environmental and Social Impact and Value of Design’, proposes a novel methodology for Design Economy 2021 that will provide data and stories on the environmental and social impact and value of design in the UK. It envisages a programme of research over several years which, as well as articulating the social and environmental impact and value of design, will result in new capacities in the design economy, new kinds of evidence and a stronger orientation to understanding the links between intent, design skills and action and social and environmental outcomes. The general approach is a projective one: establishing a Theory of Change and Impact Framework (to be further developed in the research) that articulate how design activity generates social and environmental impact and value, drawing on existing knowledge about design’s impacts and frameworks from other sectors, pursuing a combination of research methods to inquire into the different aspects of the value ‘chain’ (or sets of relations through which value is co-created), and then both ‘scaling up’ – estimating what the ‘bigger picture’ might be for the whole sector on the basis of what can be established about part of it – and ‘projecting forwards’ - anticipating what could be achieved if the majority of individuals and firms in design sectors did the same.
- Paper 2:**  
**Economic Value of Design**
- ‘Economic Value of Design’, proposes for Design Economy 2021 an updated methodology for assessment of the current economic contribution of design to the UK and its potential future economic contribution. The overall approach of this method entails repetition, extension, and projection. It proposes repeating the Design Economy 2018 methodology to add to the existing time series on the economic impact of design – while reviewing the relevant occupational and industrial definitions that form Design Economy 2021; extending Design Economy18 to capture the economic impact of design skills and practices outside of the design economy; and projecting forward the economic impact of design to quantify what contribution might be made by design to the UK economy over coming decades.
- Paper 3:**  
**Business Understanding and Use of Design**
- ‘Business Understanding and Use of Design’, proposes an updated approach to assessing the role and outcomes of designing within businesses. Informed by academic research, it deploys a logic model of how design operates in organisations to pose questions regarding the understanding of design (and other enabling factors), levels and types of design activity, who designs, the impact and

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value of design activities, including spillovers into other contexts, and the future prospects for design in business. The methodology defines the organisational purposes that design might be used to address, adapting the OECD's (2015; 2018) characterisation of design as contributing to different kinds of innovation (product, service, process, organisational or marketing innovation) and to R&D. However it also makes allowances for recording design activities that deliver change, if not strictly innovation in the OECD sense.

**Paper 4:**  
**Public Sector Understanding and Use of Design**

'Public Sector Understanding and Use of Design', proposes an approach to establish baseline evidence about the scope and scale of design activity across the public sector. This is a new addition to the Design Economy research programme and represents an original piece of research: no previous attempts to holistically quantify and characterise the intersections between design and the public sector in the UK exist. The methodology proposed is very similar to that proposed for paper 3, given that in both cases we are talking about how design is understood and used within organisations, with some nuancing to accommodate the differences between business and public sector contexts.

**Paper 5:**  
**Public Understanding of Design**

'Public Understanding of Design', proposes a methodology for constructing a national overview of the public understanding of design as well as in-depth qualitative analysis. The proposed approach offers the potential for establishing a world-first baseline around the public understanding of design that can become a regular component of future Design Economy reports. Furthermore, the methodology offers in-depth insights that can help direct and support future design programmes to encourage and support greater participation in design, and thereby help the design economy to flourish.

**Paper 6:**  
**Regional Use of Design**

Finally, 'Regional Use of Design' proposes a methodology for assessing design's contribution to the regions and nations of the UK, as well as smaller geographic units such as LEP geographies, local authorities and microclusters of design within local authority boundaries. This gives colour to design's potential contribution to levelling-up, i.e. securing more balanced outcomes across the UK, with improved performance – economically, socially, and environmentally – in parts of the UK that have lagged other parts of the UK in these terms.

To quantify the potential for design to contribute to levelling up, we need to better understand the current geographic distribution of design's footprint on the UK. Paper 6 sets out a methodological approach for doing this. In addition to this quantification, it provides qualitative methods that are designed to work towards concrete steps for design to improve economic, social and environmental performance in historically underperforming places and, therefore, have design maximise its contribution to a more levelled-up UK.

# 1.

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## Introduction

Design Council's ambition for Design Economy 2021 is that it will take a broader view than previous versions of Design Economy research. This time the intent is not only to create a picture of the present size and shape of the design economy, but to understand the difference it makes: the value it generates, how this is achieved, the potential of designers and design skills to contribute to the challenges facing the UK today and in the future, and the consequences for different communities and groups, recognising structural inequalities. To that end, six methodological papers were commissioned, to set out proposals for:

- A methodology to capture the environmental and social value of design in data and stories (paper 1)
- Building on previous research into the number, and type, of people in the UK that have design intensive jobs and the economic value of their contribution to UK economic gross value added (GVA), by proposing methods of investigating design skillsets and mindsets, and emerging design roles (paper 2)
- Gathering baseline data on the understanding and use of design and design skills by business (paper 3), the public sector (paper 4), and the public generally (paper 5) and across UK nations and regions (paper 6)

The purpose of this introductory paper is to provide the context that links the six methodological proposals together, and to outline the key concepts and models that are operationalized in those papers. We begin by recapping the necessity of a new approach to researching the Design Economy and the challenges therein, briefly describe how we have approached the task, define our key concepts and terms, introduce a series of models that underpin the methodologies, and outline the key points of the methodology as a whole.



## 2.

# A new methodology for a changing design economy

### 2.1. Why a new approach is needed

Over recent years, there have been a number of significant changes in the contextual environment in which design firms and designers are operating that mean there is a need for new thinking and new measures in relation to assessing the value of the design economy. Concerns such as climate change, persistent racial and other inequalities, the COVID-19 pandemic, the development of AI, and emerging risks to democratic processes, values and institutions have all come to the fore. This means that it is no longer tenable, when discussing value, to isolate the financial and economic from other kinds of impact, or to prioritise short-term gains without consideration of long-term impacts. Indeed, value itself is a concept whose common understanding and usage in policy discourse has been problematised in response to the abovementioned issues, as described in the Design Council's report produced with the Mission Oriented Innovation Network (2020). Value is recognised as plural, both in its conceptualisation and its measurement, and highly subjective. Looking at design through this lens highlights that its impacts and value are varied, both positive and negative – from empowering communities to become self-sustaining and businesses to become more innovative, to perpetuating colonialist thinking and practices and contributing to environmental degradation – but also contested. There is no singular account of the value of a design intervention or project: it is necessarily a socially produced judgment. Recognising and responding to this means fundamentally reorienting the emphasis of the Design Economy 2021 research strategy.

Secondly, alongside these wider contextual shifts, there is the ongoing transformation of design practice itself. Design does not sit still: new variants emerge, others fade, new roles in the labour market are created, new kinds

of application for design skills are tested, new outcomes are achieved, and new technological infrastructures are built and used in designing and everyday life and work. Because of the backwards-looking nature of national public data collection practices, it is likely that newer disciplines (like service design, discussed below) were under-represented in previous versions of the Design Economy analysis. Consequently, a different approach is needed to discover where there is new demand and high growth, taking advantage of new sources of data and novel methods.

Finally, we note that the organisation, production and delivery of Design Economy 2021 should itself aim to be net zero in environmental terms<sup>1</sup>. There are different ways of achieving this, with a variety of approaches to calculating and pricing carbon emissions and addressing these for example through buying certified carbon credits (voluntary offsetting) or investing in projects with a positive environmental return (Julie's Bicycle, 2021). None of these is a quick fix as the pricing and formation of carbon markets themselves introduce distortions into organisational behaviour; making these choices also requires deliberation with stakeholders. But by building into the Design Economy 2021 research project the commitments that underpin this year's emphasis on social and environment impacts, the Design Council can model how strategic intent can be implemented across its activities and engagements with stakeholders across the design economy.

### 2.2. Equality, diversity and inclusion

Over the last eighteen months, Black Lives Matter and awareness of the uneven consequences of COVID-19 have increased the sense of urgency around addressing systemic and institutionalised inequality and discrimination. It is therefore more pressing than ever to understand how these inequalities and exclusion operate through design,

<sup>1</sup> This suggestion was persuasively made by Professor David Swann from Sheffield Hallam University, a participant in stakeholder events during the production of this methodology.

and what might be done about it. For the purposes of this research we are defining equality, diversity and inclusion (EDI) factors as race, religion, relative economic status, sex, gender, sexuality, disability, and regional socio-economic context, recognising also the intersectionality between these things. We also follow the wide usage in the UK of the term BAME (Black, Asian and Minority Ethnic) while recognising there is disagreement about definitions and their use.

Issues of equality, diversity and inclusion intersect with the design economy in two distinct ways: in the make-up of the design workforce itself (and more broadly in access to participation in design), and in the ways that designing and the products of design address and ameliorate, or ignore and perpetuate inequalities, the exclusion or marginalisation of particular groups, and the normalisation of characteristics and perspectives associated with the dominant or powerful in society.

As Design Economy 2018 highlighted, the design industry undoubtedly has a diversity challenge: it is overwhelmingly male, white, able-bodied, and concentrated in the capital, London. And if the workforce in general looks like this, its senior leadership even more so. Notably, the make-up of the workforce does not reflect the diversity of people entering design education, so somewhere along the way people of different kinds are being excluded and filtered out of industry. The reasons for this are complex and require further investigation, however they are more than likely to include: the cultural association between certain types of people and certain professions, owing partly to the visibility of some types and invisibility of others; unfair business practices, such as unpaid internships and hiring or referring friends; not offering flexible working patterns/work-life balance; as well as outright misogyny, racism and class-based discrimination. To some extent this reflects the situation with the cultural and creative industries more broadly (Brook, et al., 2020). So the challenge for Design Economy 2021 is both to establish more detailed metrics on diversity in the design economy (there is relatively recent data on sex and ethnicity, but little on gender, disability and socio-economic

background), and to dig deeper and more meaningfully into the diversity question and why this continues to be a challenge for the design industry.

However design has a bearing on issues of equality, diversity and inclusion (EDI) outside of the constitution of the workforce: the ways that designing is carried out, and the outcomes it produces, can serve to ameliorate or perpetuate inequalities. Designing can be seen as a process by which ideas and norms (or ideologies) are translated into material form, so we might expect that the design of the material environment is complicit in making life easier for some and harder for others. Whilst the need to design 'inclusively' for all abilities has been recognised in practice for some time – most notably in architecture and the built environment – it is only relatively recently that debates about how to 'decolonise' design have gained prominence (Abdulla, et al., 2019; Schultz, et al., 2018) along with discussions about inequalities re-produced through design, including 'social' design and calls for design justice (e.g. Sloane, 2019; Maze, 2019; Costanza-Chock, 2020). In assessing the social and environmental impact and value of design, then, Design Economy 2021 must shine a spotlight on how designing addresses (or not) issues of equality, diversity and inclusion.

Finally, consideration of inclusion, accessibility and diversity should also define the approach to the Design Economy 2021 research itself: in both the make-up of the team delivering the research, its governance, and in the recruiting of and engagement with research collaborators, respondents and participants.

### **2.3. The special case of service design**

Of particular relevance to the UK economy and society is the linkages between design and services, which are the dominant part of the economy. Service design is a specialist sub-field that has emerged in the past 15-20 years (e.g. Meroni and Sangiorgi, 2011; Sangiorgi and Prendiville, 2017; Penin, 2018). Further, there is growing awareness of the relationships between design and systems, in particular in relation to environmental change (e.g. Ceschin and

Gaziulusoy, 2016; Nold, 2018; Nold, 2021) and the multiple ‘objects’ associated with service design (Kimbell and Blomberg, 2017). But understanding and use of design skills, provided by specialist design consultancies or in-house teams, extends much beyond the small number of organisations which offer service design. For example service-based businesses may use a wide range of design firms to support the delivery of business functions including marketing and communications (e.g. branding agencies, graphic design) and operations (e.g. digital design for services delivered by multiple channels; interior design for retail outlets). Such specialist design firms, or in-house teams, may not frame their work as designing services or systems, and yet they are routinely employed by organisations offering services such as in financial services, retail, healthcare, and hospitality and entertainment.

In terms of assessing the outcomes of design in relation to services, and assigning value to these, a complication is to determine the extent to which the activities undertaken can be characterised as R&D and whether they lead to innovation. For example, the OECD’s fourth edition of its Oslo Manual (2018) for measuring innovation notes that “For many service firms, design and other creative work constitutes their main creative activity for innovation. While the OECD sees design as an innovation activity, and in service organisations this may be the extent of R&D, the nature of data collection and analysis might mean that this is hidden. For example, a distinction made in the OECD Oslo Manual (2018) between the design of products and services, and the design of processes, might look very different from the perspective of people with design skills aiming to improve a service experience and its associated processes. “The goal of product design is to improve the attractiveness (aesthetics) or ease of use (functionality) of goods or services. Process design, which can be closely linked to engineering, improves the efficiency of processes” (OECD, 2018, 4.15). While these activities often result in knowledge, they seldom meet the functional novelty and uncertainty requirements for R&D, or are conducted on an ad hoc basis” (OECD, 2018, p. 88). As a result, routine work that designers or design firms do may not be ‘counted’ in studies of innovation and R&D.

What we know from (mostly qualitative) studies, across a wide range of service sectors, however, is that bringing design skills to the design and implementation of services – whether or not this is called ‘service design’ – leads to outcomes. Positive outcomes can include novel ideas, engaging productively with stakeholders, enhanced innovation capabilities, a stronger customer/user orientation and emphasis on how people experience services (e.g. Robert et al, 2015; Penin, 2018; Arico, 2018; Liedkta, 2020). Negative outcomes include unequal implications for those involved in service work especially precarious work (e.g. Penin and Tonkinwise, 2009).

The implications of this for the Design Economy 2021 methodology are twofold. First, in assessing the understanding and use of design and design skills in businesses and the public sector, the proposed framework for conceptualizing design ‘outputs’ includes services, and surveys of both of these groups should furnish data on the extent to which design is used in designing services. Second, in assessing the number and type of people in design roles, paper 2 approaches the service design question by proposing to use an analysis of LinkedIn data to ground an understanding of design skills and practices within the UK labour market and to quantify the presence of these skills and practices within this labour market. The combination of these is likely to show strong connections between design skills and designers and the designing of services, even if this is not framed as ‘service design’.

## 3.

# Key challenges in assessing the impact and value of design

### 3.1. The moving boundaries of design

It is not surprising that it is hard to assess the size, shape, impact and value of design in the UK. The term design includes multiple kinds of practice, forms of expertise, business or contractual arrangement and kinds of employment. The Eames' oft-quoted comment about design - "What are the boundaries of design?" "What are the boundaries of problems?" (Eames, 1972) - points to the expansive nature of design work, design roles and broadening domains and application. This expanding nature is evident over the past decade. Even a simple review of contemporary professional design work in the UK can identify design expertise and designers working on a huge range of issues and opportunities: products, the built environment, services, systems, organisational change, public policies, political movements, institutional forms, and so on. Researchers describing design account for this as design as exceeding current framings and ways of thinking (Hatchuel, 2001). Another explanation holds that in contrast to other professions such as law and accounting, most designers (other than in architecture and engineering), are not strictly a 'profession' if this is defined as having a distinct form of knowledge, regulators specifying what can and cannot be done (or saying what should be done), or institutions that govern its boundaries (Abbott, 1988). Unlike in law, accounting, medicine, architecture and engineering, there are no protected forms of work that can only be done by graphic, product, industrial, digital or service designers. As a result, we can characterise design as diffused, varied and ill-defined with boundaries that shift and flex in ways that are relatively unregulated, compared to other forms of knowledge work.

### 3.2. Professional design practice operating and being used in a variety of settings

We can find evidence of design activity, and therefore outcomes, in an extremely diverse range

of settings beyond design's historic home turf of manufacturing and architecture. Associated with the traditional objects of design practice, it is relatively easy to find designers operating in sectors which result in industrial outputs, consumer goods, communications or changes to the built environment. Often these match on to the codes for industrial classifications of firms within national data sets. But to find evidence about the emerging, and possibly growing roles for professional design in healthcare services, financial services, education services, and public services (for example) is more difficult. If the Eames are right, and design can be applied to any problem, we might expect to find design, designers and design expertise in efforts to - for example - support community resilience as well as supporting innovation in aerospace services.

### 3.3. The uneven nature of design professions

In some areas of design, only those with specific, regulated expertise are allowed to practise - notably architecture and engineering in relation to the design economy but also law and accounting. These professions formed in the 19th century (Abbott, 1988). While product, graphic and industrial design were also practised in the 19th century, and in everyday speech are referred to as professions, they did not institutionalise in the same way. Further, as design historians have shown (eg Armstrong, 2015) the formation of particular design professions is tied to particular junctures in wider political, social and economic developments. The result is that in the UK (and many other countries) there are some forms of design practice that are (a) defined by legislation or regulation, (b) tied to distinct forms of knowledge and expertise, and (c) regulated so that only people who have been trained in that knowledge (e.g. through a degree that is authorised by a chartered institute and ongoing continuing professional development (CPD)) and who have complied with particular institutional

requirements (e.g. registered with the relevant body such as UK Architects Regulation Board) can practise. Different forms of professional institutionalisation result in different kinds of design professional (Faulconbridge and Muzio, 2017). In contrast, anyone can call themselves and practise as a graphic or UX designer, although in practice there are accepted social norms associated with what is included, and excluded, from legitimate practices. Beyond the boundaries of the regulated professions, other forms of design proliferate and change, carrying into new domains the logics and assumptions built into their professions which may re-produce inequalities (Julier and Kimbell, 2019). Further, they can blur with management and exist in relation to a variety of business functions such as marketing, customer service or digital operations. Additionally, there are different organisational forms through which designing takes place including consultancy, integrated teams within businesses and stand-alone teams. For these reasons, there is no unifying way to establish the use of design, its impacts and what value it might generate, across all sectors of design.

#### **3.4. Data about design and designers having intensities and gaps**

Data has infrastructure and histories. Data exists where people have invested resources to find things out, which can tell us something about their purposes. There are significant 'data gaps' for design, in particular in relation to its social and environmental impacts, as well as EDI, which tells us that accounting for these was not a priority in the past. So data-gathering and interpretation are not neutral. Whatever approach is pursued for Design Economy 2021 there will continue to be gaps and omissions which should be identified, acknowledged and explained. Future efforts to demonstrate particular qualities

or consequences of professional design or claim specific outcomes should be attentive to the conditions and purposes for which data are generated and used.

#### **3.5. Expanding the Design Economy to social and environmental issues and the public sector**

While there is data relating to design and the economy used in previous versions of the Design Economy, there are varied and distinct forms of evidence about the social and environment impacts of design. These rest on data infrastructures constructed for other purposes which were not set up and used to provide evidence about design, although in some cases they can be used in this way. Some are specific to industrial sectors and types of professional design expertise e.g. fashion or architecture. In the case of the social and environment impact of design, we identified a multiplicity of indicators and types of data associated with social and environmental outcomes. Complementing these, we identified other kinds of evidence about design oriented or applied to social and environmental impact. We found there is nuanced understanding of design's value in academic design literature but this usually results from projects carried out at small scale, often qualitative, highly contextual and not necessarily valid in other contexts. By combining these in Design Economy 2021, we think that this will allow the production of an account of the social and environmental impact of design that is holistic, crosses design specialisms, and allows insights from emerging practice to inform understanding.

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## How we developed the methodology

To develop the methodology, we worked in a small team across UAL and BOP Consulting with specialists from different disciplinary backgrounds including the humanities, economics, design research (with specialisms in social design and sustainable fashion), and science and technology studies. Between January and April 2021, we worked together over a number of days to clarify the kinds of questions that Design Economy 2021 could and should ask, and the methods for answering them.

The approach we used was primarily desk research, conducting rapid literature reviews in relation to each of the six topics, as well as building on our previous studies and experience in researching related topics. However in relation to Paper 1 (Social and Environmental Value) we also conducted a small number of interviews as part of a 'deep dive' into two fields – architecture and fashion – where there is extensive existing research and practice relating to social and environmental impacts and value. We met weekly as a team to discuss and develop the methodological approach, and the resulting papers have been collaboratively authored, with the exception of Paper 2 (Economic Value of Design) and Paper 6 (Regional Use of Design) which were solely authored by BOP Consulting. The authors met regularly with Design Council to update on progress and confirm direction of travel.

We also tested and explored the proposed methodologies with two groups of stakeholders – one a group of experts (academics and civil servants) with related expertise and experience in assessing design, and one a group of expert design practitioners – in order to iterate and improve the proposed methodologies.

We have kept in mind the timescale and resource constraints for the next stages of of Design Economy 2021. In particular, evaluating design's

social and environmental impact and value, at scale, is potentially a huge multi-year research and practice challenge. We have proposed an approach that will deliver results in 2021, but argue this should take place over a longer time frame so it can provide a basis for a more far-reaching programme of work with the UK design sector in future.

### **4.1. Connecting scales: Towards a sociological analysis of the design economy**

Any analysis of the design economy requires understanding the wider world or context in which design activities and participants exist. Previous versions of the design economy have been rooted in economic approaches, which have surfaced the economic contribution or value of design skills and design work. In other words, this is an approach that 'sees' design as an economic activity and in economic terms.

For Design Economy 2021, with its focus on the linkages between design skills and activity and social and environmental value, another approach is needed. To understand such links requires a methodology more strongly rooted in other social science traditions. Sociological approaches offer ways to connect what is happening at different scales in the design economy – from the micro-social practices existing in a design studio or workshop, to the norms, logics and cultures of design-intensive organisations and their clients or partners, to the infrastructures in the wider economy that result in school-leavers or graduates having particular skills and motivations, or institutions defining boundaries of some design professions, to the public understandings of and narratives about design.

In the methodology proposals for Design Economy 2021, we propose offering an account of the UK design economy that recognises it as a complex value creating system (Ramirez and Mannervick, 2016) or 'network' or 'constellation'

of different actors, with multiple linkages between them, which result in particular kinds of design work and shape particular impacts and forms of value. The actors within this system can be analysed in different ways. An institutional analysis would highlight for example firms using design, commissioners or clients, customers, investors, professional design associations, higher educational institutions, schools, government departments, regulatory bodies, manufacturers and producers, retailers, civil society organisations, publishers and the media, museums and galleries, and so on, which in different ways shape professional design work, and its capacities to create value. Through the interactions of these actors value is realised and co-created (Ramirez, 1999; Vargo and Lusch, 2011; Vargo and Lusch, 2016; Ramirez and Mannervick, 2016; Vargo and Lusch, 2018). Other sociological approaches emphasise looking for such linkages, rather than taking them as given, with the aim of understanding how design (including people, objects and narratives associated with design disciplines and professions) come to have agency (Latour and Callon, 1981; Mol, 2002; Latour, 2005).

Space does not allow a fuller description of, or justification for, this approach – in so doing bracketing decades of discussion in social research. However we note the utility of such approaches, including for areas that are in flux, or contested. Although there are not necessarily significant areas of contestation relating to Design Economy 2021, the plurality and fluidity of design practice and slippages with other forms of expert knowledge work such as product management, sustainability management and public sector innovation (for example) suggests the importance of being aware of what is being assembled as or included in the design economy, and what and who is being marginalised or excluded.

In this proposal, sociological approaches were used to identify the agency of the designer as situated between material objects they take for granted as part of their practice, structuring routines and narratives, and professional organisations, recognising that sometimes designers and those with design skills sometimes do not much agency in relation to the ‘downstream’ production, delivery or build processes which result in design outcomes, including their social and environmental impacts. This underpinned the rationale for using mixed methods. For example acknowledging the varying sites and scales of practice leads to recognition of the importance of engaging individual designers and stakeholders, not just focussing on design firms. Sociological approaches thus highlighted the everyday contexts of the designer (or person using design skills), the narratives shaping use of design, and the ways it is seen to deliver or create impact and value.

#### **4.2. Characteristics of our approach**

An important characteristic of our approach is that resulting methodological proposals are both retrospective and anticipatory. Retrospective inquiry is what most research is concerned with – asking questions, and gathering evidence, to understand something that has already happened. So far, so familiar. But the ambitions for Design Economy 2021 are future-facing – to explore the potential of design, to ask what design could look like in 2050. This is a very different proposition.

We propose benefitting here from recent developments in sociological research, driven in part by studies of innovation, recognising the intertwined relations between society, on the one hand, and science and technology, on the other. Social researchers have long discussed the best methods for understanding how to carry out research about something that is changing and developing – like society – even as new technologies, forms of data, infrastructure and practices are emerging (Marres et al, 2018).

Therefore alongside recommending carrying out retrospective research about the design economy today (or looking back at recent activities), we recommend an approach that is anticipatory. By using the term anticipatory, we connect Design Economy 2021 with related developments in futures research and practice (e.g. Miller, 2018; Miller et al, 2018) that use deliberative and participatory methods to advance understanding of possible futures, enabling deliberation in the present about what future actions might be possible for organisations and public policy makers. This approach also links methodologically, and in terms of purpose, with ongoing discussions in design across the world to acknowledge the important and distinctive role that design expertise plays in bringing about new ways of living and being – and being attentive to the implications of this ‘world-making’ (e.g. Escobar, 2018).

Another characteristic of our approach is how stakeholders are involved in the research. In previous years, Design Council and its partners have used classic tools such as surveys and case studies, in which individuals and firms are consulted and studied; the insights are then shared with them and wider publics. To achieve the vision associated with Design Economy 2021, with its emphasis on social and environmental impacts and value and EDI principles, we recommend shifting towards seeing stakeholders in the design economy as co-researchers, rather than subjects of research. In particular we make recommendations in the social and environmental paper for new demonstrator projects involving firms in live data-gathering to involve them in assessing their social and environmental impacts, alongside many deliberative and anticipatory workshops.

There is potential to scale up the research frameworks and forms of data-gathering and analysis from the demonstrators in ways that

change who has agency in the research, shifting it towards a broader group of stakeholders across the design economy. The benefits are increasing the quality and relevance of the research, closing the loop between research and practice as well as generating novel questions and methods. Here, adopting principles and practices from citizen science (European Citizen Science Association, 2015) is one way to achieve this. Thus far, most of the emphasis in citizen science has been on the natural sciences although there is now growing understanding of the value of this approach in the social sciences (Purdam, 2014). In a citizen science approach, citizens have active roles in the research, participating in multiple stages and benefitting from taking part. They have access to the data and results, and their contributions are acknowledged in outputs. Implementing this within the Design Economy 2021 research programme would involve members of the public collaborating directly with the Design Council and its partners in data-gathering and analysis as well as defining research questions and articulating futures for the design economy. Informed by citizen science principles, this may require rethinking the power relations between the Design Council, its partners, and stakeholders. Further, there are implications about where and how resulting data is shared and analysed, with the potential to build on open data approaches and technological infrastructures, alongside thinking through ownership of and access to results, assuming there are no privacy and security concerns. Adapting these principles within Design Economy 2021 and the longer-term research programme we recommend will help make the research more democratic – and ultimately more relevant.



# 5.

## Key concepts and terms

In this section we outline a number of key concepts and terms that the six methodological papers draw on. We include these premises here to avoid repetition in each of the papers; the papers should consequently be read alongside this introductory explanation.

### 5.1. Defining design

Get together any group of designers and before long a conversation about defining design and the design process ensues. Often confusion stems from differences in how the matter of ‘defining design’ is interpreted: according to its status as a process or an outcome; according to its ‘object’, i.e. the thing being designed; as different kinds of practice or discipline; as negotiations between form or function, or aesthetics and ethics; and according to the ways it is deployed in organisations – to name a few different approaches. As hard as it may be, settling on a definition, or perhaps identifying a number of preferred definitions, is an important foundational step for any research into design. In these papers it has implications across all six methodological papers: structuring the research and analysis of the ‘understanding of design’, the ways that design is deployed in organisations and society more broadly, and for making distinctions about what kinds of design generate greatest economic, social and environmental value.

Rather than summarising all the possible definitions of design, in this section we focus on how key documents shaping data-gathering treat design which has resulted in particular categories and forms of data. A long-standing discussion among design professionals, researchers, and those investing in and using design skills, revolves around the question of whether design is an addition to a novel development (e.g. making something attractive, after its functionality has been specified during development) or is about integrating different factors in the development of something new (Barcelona Design Centre,

2014). Differing interpretations of design are built into international standards which have become the basis upon which the OECD and other international organisations collect and publish statistics on R&D (the Frascati manuals) and innovation (the Oslo manuals). The key distinctions embedded in early versions of OECD innovation manuals relating to design were as follows (Galindo-Rueda and Millot, 2015, p14-15):

- Design is one activity used by firms, alongside capital investment and R&D, to assist the introduction of new products and processes.
- Design is part of marketing innovation, involving changes that only impact on the appearance, not the functional performance of products.

A report by a European project (Barcelona Design Centre, 2014) drew attention to the emphasis on design as being additive, and associated with marketing, which the authors viewed as inadequate to the challenge of capturing the value of design for innovation and its role alongside R&D. They proposed seeing design as an integrator of functional, emotional and social utilities at the very outset of systemic innovation, as a key factor enabling important non-linear efficiencies in the economic and social value creation of firms and GDP growth of nations (Barcelona Design Centre, 2014, p.19).

Despite this advocacy, the proposal was not included in that form in most recent version of the OECD’s Frascati Manual (2015), used by rich countries to gather data and assess R&D and experimentation. The definition of design in Frascati (2015) is as “a potential multi-faced innovation activity aimed at planning and designing procedures, technical specifications and other user and functional characteristics for new products and business processes” (OECD, 2015, 2.62). Here, design is seen as shaping functionality,

rather than just the appearance of products. Additionally, processes are included. But the integrative capacity of design is not highlighted. But not all design activity is classed as R&D and Frascati argues for keeping them separate. For example prototyping in industrial design can be considered part of R&D when it is creating something new, but not prototyping which is tied to production (OECD, 2015, 2.50). In Frascati, a key characteristic of R&D is uncertainty and it views design as often de-linked from uncertainty, for example in the case of standard outputs such as designing a building (OECD, 2015, 2.63).

The fourth edition of the OECD Oslo Manual (2018) which offers guidance on measuring innovation also expands its definition of design. It does this by recognising the forms of design such as design thinking which have been popularised in the past decade, while not going as far as including design-led innovation that starts with analysis of user needs and changing meanings as advocated by researcher Roberto Verganti (2009) and others. The OECD Oslo Manual 2018 (fourth edition) introduced these changes relating to design:

- Product design was included as part of product and service innovation, rather than marketing innovation as in the third edition (OECD, 2018, p. 75)
- It offered three definitions of design (OECD, 2018, 5.5.2):
  - engineering design (including technical specifications, tooling up and prototype construction);
  - product design that determines the shape, colour or pattern of objects, the interface between software and users, or the user experience of services; and
  - design thinking, which is a systematic methodology for approaching the design of a good, service or system.
- It included guidance on how to assess design capabilities in organisations.

In OECD Oslo (2018), the integrative potential of design is a question for how organisations implement and use design, rather than a characteristic of design itself. While this edition offers some precision, on closer inspection the definition of design thinking offered (OECD, 2018, 5.9.4-5.9.5), and the summary of design methods (OECD 2018, 5.96-7), does not contain the range of activities that design research literature, and Design Council's definitions of skills and project summaries, suggest. For example the important role of visualisation and materialisation of early stage concepts is not mentioned. However visual thinking and expression does appear in a list of methods used by designers in another OECD output (Galindo-Rueda and Millot, 2015, p37).

In summary, overlapping but inconsistent definitions of design exist in some of the key documents used by policymakers to guide public data gathering in richer countries like the UK, which have developed data infrastructures and often have well-developed design sectors. The inclusion of design thinking in OECD (2015 and 2018) recognised developments in practice, often tied to innovation practices in organisations. But despite the valuable work done to define design in relation to R&D and innovation, and specify the kinds of data that might illuminate its understanding and use, there is still a variety of ways of capturing design in order to assess its use and consequences. The implication for Design Economy 2021 is the need to determine a definition of design and scope for what it might be expected to achieve to underpin the research.

## 5.2. Understanding design

The question of which definition to use becomes particularly pertinent in the quest to assess 'understanding' of design: what should respondents or answers be assessed against? If we are assuming that there might be a 'deficit' in public understanding of design (see paper 5), what is the standard against that deficit is being measured? Indeed, this also raises the question of whether one ought to begin with such a definitional framework at all – or rather to ask the question in a non-leading way, in order to allow other responses to emerge.

Design Council's own definition of design as combining 'head, 'heart' and 'hand' (Design Council, n.d; UKRI, 2020) can be adapted and used across Design Economy 2021 for assessing the 'understanding of design' across business, the public sector and the public in general. We recommend combining this with the OECD's Oslo Manual (2108) formal definition and discussions in Galindo-Rueda and Millot (2015), but leaving room in the data-gathering to allow for the inevitable variation in how people might understand what design means. In addition to organising deliberative workshops, it would also be valuable in the proposed surveys to have an open text option, that allows people to articulate their own form of words if the pre-determined categories do not make sense for them. In this way, the research can both build on previous definitional work, as well as allowing space for new definitions to emerge, grounded in contemporary practices.

### 5.3. Mindsets, skills, practices

Part of the ambition with this research is to go beyond a narrow understanding of design that limits design activity to individual professional designers. This is because it is believed that there may be people beyond the established professional design communities using design, and there is an interest in finding out if design has started to diffuse throughout organisations, becoming part of 'business-as-usual'.

Design Council has previously undertaken some developmental work and thinking to set out a typology of elements of the 'design mindset' (Design Council, 2018). The notion of 'mindsets' has some currency in the public sector innovation community/discourse at present<sup>2</sup>, however from a theoretical point of view it is not a well-established or theorised concept. Although extremely popular, the evidence for the reliability of personality tests is contested (Murphy Paul, 2004). People are often inconsistent in their responses, and it is of course very easy to 'fake' or perform the answer that appears to be the approved one. Nevertheless, if it is possible to define the key elements of a 'design mindset' it should also be possible to survey public sector professionals on the extent to which they

identify with these personality traits. However the data that results would be subject to some of the same potential weaknesses/ issues as other kinds of personality tests.

The concept of design 'skills' represents a more precise and well-established object of research. An approach to assessing design skills was developed for Design Council's *Designing a Future Economy* (2017), which identified the 13 skills most used by design professions. We recommend repeating the O\*NET exercise for an up-to-date count of people using design skills across the economy, and to use this definition to identify public sector professionals who might be considered part of the design economy. As discussed in paper 2, LinkedIn data might be analysed to ground this exercise in UK labour market interpretations of design skills and practices, as well as updating quantification of these skills and practices across the UK economy.

We further suggest that 'practices' might be a useful unit of analysis to cast the net even wider. Social practices are routinised actions that are habitually performed, and meaningful, for large numbers of people or social groups. The concept of social practices has become popular in certain branches of social research and theorising: where once thinkers spoke of "structures, systems, meanings, life worlds, events and actions when naming the primary generic social thing, today many theorists would accord 'practices' a comparable honor" (Schatzki, 2005, p. 1). Another way of characterising 'regimes of practices' is as "coherent sets of ways of going about doing things" (Dean, 2010, p. 30). This is similar to Pierre Bourdieu's notion of 'habitus': learned dispositions or bodily ways of being that are specific to groups and social contexts (Bourdieu, 1977). Practices are thus geographically, temporally, and culturally contingent.

Design itself, of course, might be considered and analysed as a kind of social practice (or set of practices), that is particularly 'inventive' (Kimbell, 2021). As a form of practice, design is "habitual, possibly rule-governed, often shared, routinized, conscious or unconscious, and ... embodied and

situated” (Kimbell, 2012, p. 173). Examples of design practices from the emerging field of ‘design for policy’, for example, might be: conducting research into people’s lived experiences to identify design opportunities, generating ideas through lateral thinking activities, creating models or early stage mock-ups of proposals to test the validity and feasibility of a policy proposal with stakeholders, and so on.

Why assess skills and practices? The answer is that practices – if defined at a suitable level of granularity – would pick up more activity and people than the O\*NET definition of skills. Skills pertain to an individual, and imply a degree of sophistication and experience, whereas practices are a feature of a social context having a collective significance. Someone may not identify as having acquired a certain kind of design skill, but they might well be able to identify that they have participated in, or used, a kind of design practice – even if only once. And, indeed, they might be able to identify what sorts of practices they see at work in their organisation, even if they themselves have not participated in them. The advantage of skills and practices over mindsets is that they are empirically observable. An observing researcher could see practices and skills in action, whereas mindsets would be harder to verify other than through asking the research subject. However, there is not, at present, a comprehensive or generally accepted list or typology of design practices that incorporates all design disciplines. We suggest this could be developed in partnership with expert practitioners from a range of disciplines.

A practice-led approach to assessing design raises a question about where the individual designer is in all of this. In practice theory, individual human beings are seen as ‘performers’ or ‘carriers’ of practices who are part of a shared design culture itself shaped by wider political and economic developments (Julier, 2008; Julier, 2017). In the case of design, this means a reversal in the commonplace understanding of the relationship between designers and designing: designing makes designers, and not the other way around. We might conceive of expert practitioners in different sub-sectors of design as people who are well-versed in a

specific cluster of design practices. Similarly, when we talk about professional identities and intent, we recognise that these things do not originate in the designer, but rather the professional identity is discursively and culturally shaped by the worlds the designer is immersed in.

#### 5.4. Change, impact and value

**Value** is a contested term with many competing definitions offered across different disciplines (Kluckhohn, 1951; Sen, 2000; Sandel, 2012). The nuances in thinking about value are typically lost in policy contexts where value is often equated with impact, in particular when measured in terms of economic impact assessment (see for instance Warwick Commission, 2015). In the discourse of evaluation, value and impact are further conflated with change (Rossi et al, 2018; Descy and Tessaring, 2004). While these are all concepts/terms that are used in discussing what results from design (MOIN, 2020), they are neither synonymous nor coextensive. It is useful to distinguish between them in order to have clarity about which aspects of design are considered, measured and evaluated. In other words, the analytic distinction between change, impact and value is heuristically and explanatorily useful because these terms capture different things and call for different types of evidence, measurement and argumentation (Pawson and Tilley, 1997). This is particularly important for those aspects of design economy where the measurement approaches define (and constitute) what is being measured, e.g., carbon footprint or social value.

**Change** can be defined as the observable, or experienced, results of applying design skills within a context, issue or setting. So: what are the changes that result from design? Who gets to make or champion change? Under what conditions do some changes happen, and not others?

**Impact** can be defined as the size of changes occurring as a result of applying design skills within a context, issue or setting. What changes are measured and expressed in existing registers? What changes cannot be captured in existing registers? How do different methods and forms of data privilege some types of change, and not others?

<sup>2</sup> See, e.g.: <https://www.nesta.org.uk/blog/how-can-you-develop-innovative-mindset-our-experience-essex-county-council/>

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**Value** can be defined as the significance of the change to different stakeholders. How do different stakeholders value the results of change? Who decides what kind of change is important? Who is involved in making valuations?

In relation to impact and value, the Design Economy 2021 methodologies focus on, and seek to uncover, primarily positive effects. This is not to deny the very real issue of design – historically and today – having generated a great number of social and environmental problems. The design sector has long been criticised for serving the interests of profit over public, human, or planetary good. The reasons for focusing on design’s contribution to ‘good growth’ are twofold. First, making an estimate of the collective positive and negative impacts is a potentially limitless task, and so it is necessary to narrow the focus in some way. And second, perhaps more importantly, by understanding better what drives social and environmentally positive practices and outcomes, more of the same can be encouraged.

In practical terms, when attempting to assess any of these things – change, impact, value – there are, broadly, two approaches. One is to make a hypothesis about the expected results and seek evidence that supports or refutes that hypothesis; the other is to inquire openly and without any predetermined expectations of what will be found. The Design Economy 2021 methodology combines elements of both: many of the survey questions are underpinned by research hypothesising a list of likely answers; on the other hand the workshops and case studies provide the opportunity and space for insights that fall outside of those predetermined expectations, and to identify the ripple effects and intangible benefits of design.

# 6.

## Frameworks and models

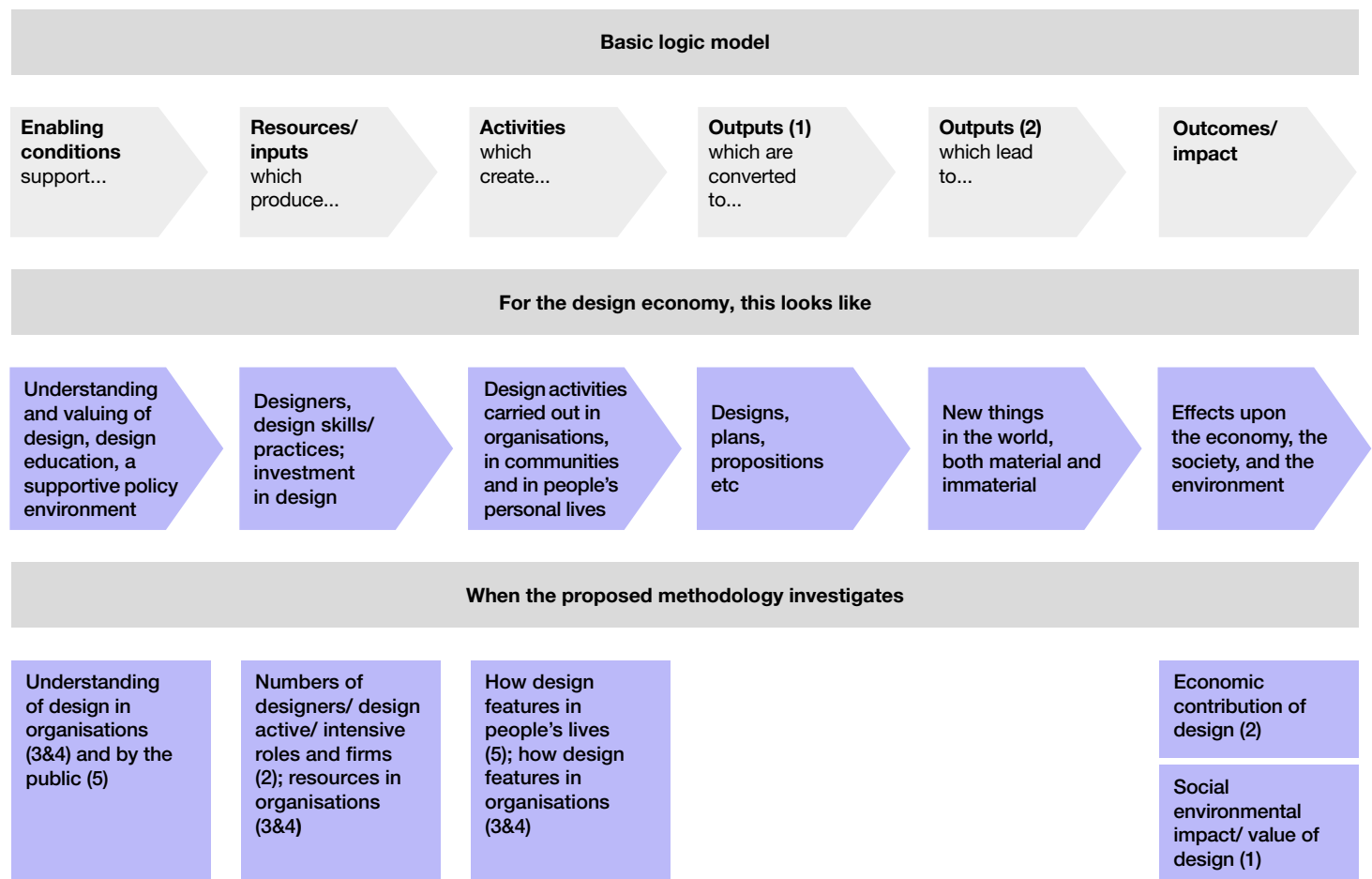
In this section we introduce a number of conceptual models that we have developed or borrowed to structure our thinking about how to carry out the research for Design Economy 2021. They allow articulation and analysis of the different scales through which the impact and value of design skills and design work is realised. While they are informed by the intention to shift towards a sociological understanding of the design economy, these frameworks and models are necessarily simplifications. We are not arguing that these are perfect representations of reality:

they are working models that allow grappling with a complex object of inquiry in order to achieve Design Council’s ambitions for the research.

### 6.1. Three logic models

A logic model is a representation of a narrative about how an intervention produces an outcome (or outcomes). They are typically used to support evaluation of whether programme or project outcomes have been achieved. We have made use of the logic model format here because we are not only interested in how many designers there are

Figure 1: The Design Economy logic model

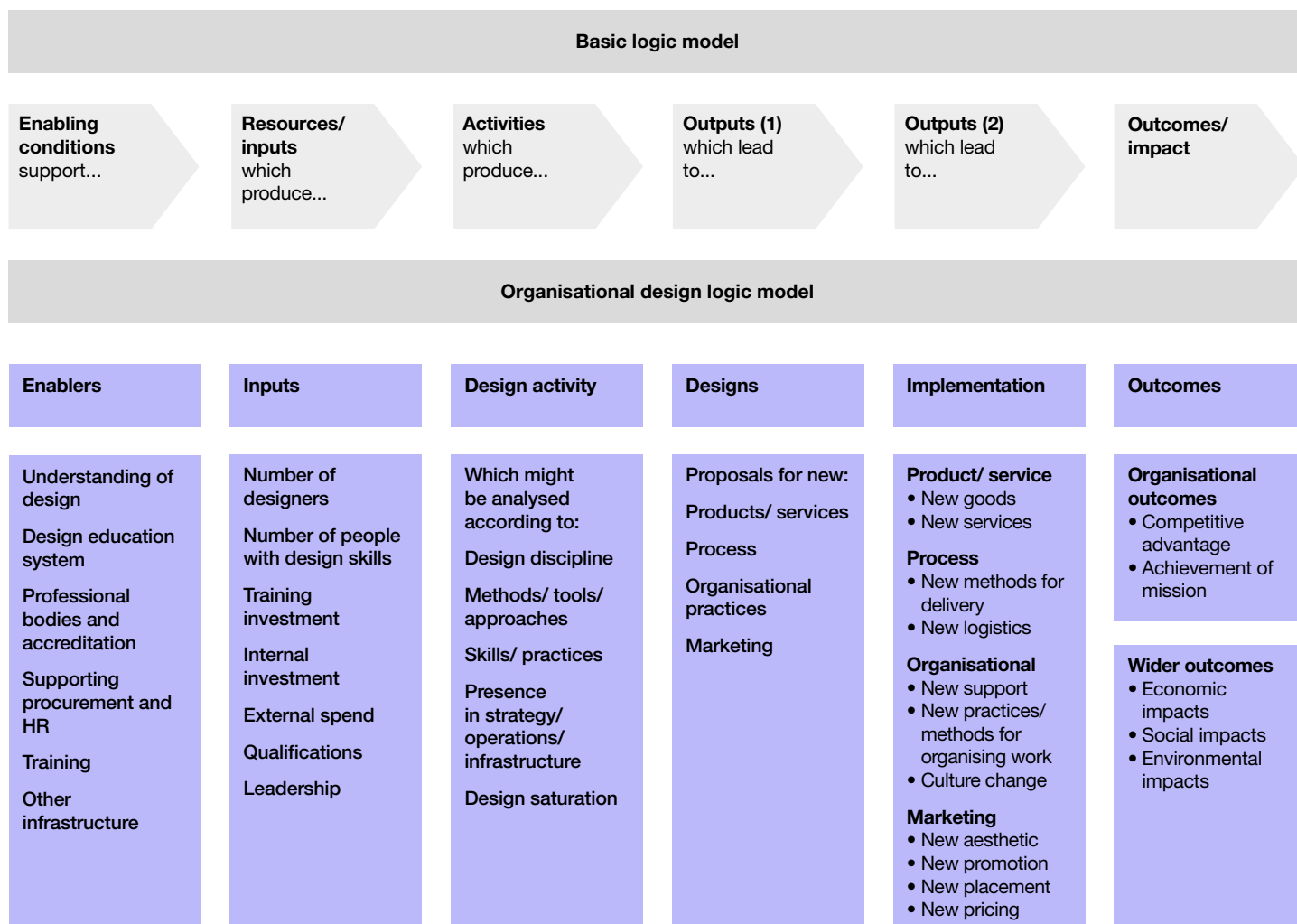


– but in what effects they have. What difference does the design economy make? What outcomes does it deliver? What does design in organisations achieve? How does design generate social and environmental impacts and value? The use of these logic models supports the aim to deliver both retrospective and anticipatory/ projective research.

### 6.1.1. The Design Economy Logic Model

This logic model shows – in a simplified way – how conditions and enabling infrastructures lead to outcomes across the Design Economy. The Design Economy can therefore be assessed in different ways at each stage: we have mapped what the methodology investigates across the bottom row of Figure 1.

Figure 2: Design in organisations logic model



### **6.1.2. Design in Organisations Logic Model**

This logic model in Figure 2 shows how, in response to enabling conditions and resources, an organisation carries out activities, resulting in outputs and achieving outcomes, to help understand what differences design makes. This framework underpins the approach to researching the understanding and use of design in business and the public sector (papers 3 and 4), with some nuancing to take account of the differences between the two contexts.

### **6.1.3. The Social and Environmental Impact and Value of Design Logic Model**

This logic model in Figure 3 describes how design generates social and environmental impacts and value, through a combination of intentions, actions, and outcomes, on the part of the designer, the client, the project and the design firm (or organisation using design) in a social context with particular enabling conditions. It is a value framework that acknowledges that within design there are multiple factors producing direct and indirect impacts on society and the environment, including what happens 'after design'. Custodians, stewards and future-users of a design (particularly in the case of built-environment) play a key role in determining social and environmental impact which might unfold over years, decades or longer. This logic model is used particularly in paper 1, as a structuring framework for researching – and speculating about the potential of – the social and environmental impacts and value of design. It is explained in greater detail in that paper.

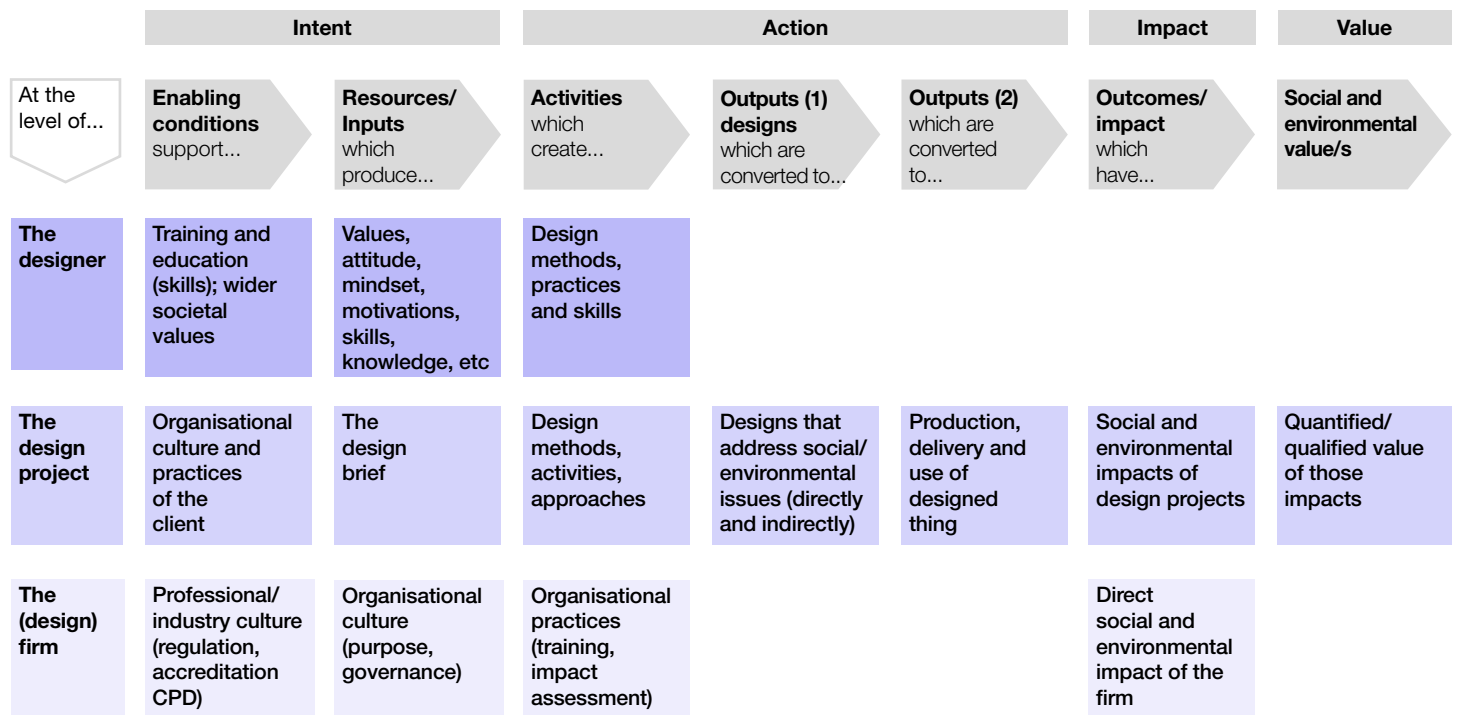
### **6.2. Iterating the 'design ladder': a design saturation framework**

In researching how organisations use design, we recommend deploying a slight adaptation of the Danish Design Ladder, on the basis of two weaknesses in that framework. First, the very concept of 'ladder' implies that some kinds of design are inherently more important than others: it can create an unhelpful hierarchy of value within the design disciplines (strategic design or design thinking being higher up the ladder than design which focuses on the appearance of products, for example). Second, it confusingly conflates two different issues: applications of design within an organisation (for styling, for strategy, etc.) and the design maturity or sophistication of an organisation. It implies that if design is being used for strategy, an organisation must be at a level of superior 'design maturity', and necessarily also already using design for styling. This is not necessarily the case. In contrast, the proposed design saturation framework (adapted from Galindo-Rueda and Millot, 2015, p.28) proposes distinguishing between intensities of design activity, based on saturation of design throughout an organisation, without privileging types of design or application. It is important to note this iteration is not vastly different to earlier versions of the design ladder so as not to prevent comparison with data or analysis generated in previous research based on that older model such as in Design Economy 2018.

These definitions might need expanding on in any survey or self-assessment tool in order to help respondents reflect on where their organisation sits in the model. Wording used for a similar classification system in the 2010 Denmark R&D and Innovation Survey is included in Galindo-Rueda and Millot (2015, p.27-28). Illustrative examples could also be given.



**Figure 3: The social and environmental impact and value of the design logic model**



Source: UAL Social Design Institute (2021)

**Figure 4: Iterating the ‘design ladder’: a design saturation framework**



Source: UAL Social Design Institute (2021) drawing on Galindo-Rueda and millot (2015)

# 7.

## The Design Economy 2021 methodology at a glance

To produce the Design Economy 2021 methodology, we have stitched together approaches and types of method and data that, combined, present a coherent, valid, reliable way to achieve Design Council's goals for this research, alongside explaining in what circumstances they 'work' as evidence and their specific implications and limitations. By 'stitching together' we do not mean to trivialise this task. Rather this term is a recognition of the fact that:

- There are a variety of approaches, methods, techniques and datasets associated with assessing and accounting for the size and shape of professional design practice across diverse contexts and the outcomes associated with it.
- No single methodology exists or is adequate to the task of accounting for and assessing design. Existing datasets associated with design are varied, incomplete and have histories and blindspots; new kinds of evidence can and should be generated to fill the gaps that exist.
- Any approach must be open to further iteration and development including deliberation and contestation about how evidence is generated and used, its relevance to stakeholders and their purposes, and to future changes to the operating context in which designers work.

Our proposal for how Design Council (and partners) should carry out the research for Design Economy 2021:

- Includes new frameworks informed by research in multiple disciplines including organisational studies, environmental management, sociology, design research and the humanities.
- Enables data collection and use of evidence that will operate at different scales, use different understandings of evidence, and serve different purposes.

- Rests on a mix of primary and secondary types of research using complementary units of analysis.
- Uses mixed methods, rooted in different understandings of knowledge and evidence.
- Proposes filling important gaps but recognizes other gaps will remain.
- Acknowledges that any combination of methods and data will make assumptions, include bias and have blind spots.
- Is anticipatory as well as retrospective.
- Activates stakeholders in the design economy as co-researchers.
- Is applicable to a range of domains which have their own specificities, histories, data infrastructures and logics e.g. public sector, services, small businesses, large businesses and private client.

### 7.1. Overview of methods

The methodology for Design Economy 2021 blends a number of different research methods: surveys of designers/design firms, businesses and public sector professionals, and members of the public; case studies to assess the impact of design projects in businesses and the public sector; a live data gathering exercise with design firms to explore value; and a number of deliberative and anticipatory workshops to discuss value and speculate on the future of the practice. The tables below provide a summary of all methods. These are then discussed in greater detail in the six papers.

It will be noted that the papers all recommend surveys as part of the methodology, which means that some audiences (designers, businesses, and public sector professionals) will be targeted to answer questions about social and environmental value, economic value, and business and public sector use. We recommend as far as possible combining questions into a single survey for each respondent group.

**Limitations of this methods proposal**

All the methodological proposals for Design Economy 2021 share a number of common challenges and limitations:

- The methodology is underpinned by a series of logic models, which are essentially simplified hypotheses for how the design economy works drawing on social science perspectives on value creation. These will effectively be tested through the delivery of the research and will be iterated as a consequence. However any methodological changes in future years will also have implications on the ability to create a time series.

**Figure 5 All methodology approaches suggested for the Design Economy 2021**

	Surveys				Data collection and analysis					Fieldwork, workshops and focus groups				
	Designers	Businesses	Public Sector	Public	Desk Research	ONS LFS	LinkedIn	Procurement	Companies House	Impact Case Studies	Live data gathering with design firms	Experts Workshop	Designers Workshop	Public Focus Groups
● Reliant On △ Triangulated With														
<b>Social/ Environmental</b>	●	●	●		●						●		●	
<b>Economic (Adapted DE 18)</b>		△												
<b>OECD/ Design Thinking</b>		●				●	●		△					
<b>Business Understanding</b>	●	●	△		●	△				●		●		
<b>Public Sector</b>	●	△	●		●	△		●	△	●		●		
<b>Public Understanding</b>				●										●

Source: BOP Consulting/ UAL Social Design Institute (2021)

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- The proposals rely on participation and cooperation of designers/ other professionals as well as the public in responding to the survey instruments and live case studies. Design Council will need to engage diverse partners across the design economy to deliver on this programme as a shared endeavour serving different interests, and to carry out the research on the basis of informed consent.
  - The very nature of value as deliberatively produced means it is hard to reconcile with quantitative aggregation and analysis.
  - There is a question as to how appropriate it is to import the public understanding of science approach of into design to form a new approach of public understanding of design. Perhaps there should be further conceptual development of a unique framing of public understanding of design.
  - Because sector-wide data on the social and environmental value of design does not exist (yet), the methodology uses an approach of projecting potential value rather than capturing actual value.

In addition, there are some specific limitations.

- Although the approach for Design Economy 2021 is broadly sociological, it draws a limited set of concepts that over-simplify how design skills and design work achieves impact and value.
- Both the business and public sector reports use a framework that assumes design primarily produces different kinds of organisational innovation – although the survey questions also aim to find out if there may be other kinds of outcome from designing.

## **7.2. Comparison with previous iterations of Design Economy research**

Figure 7 shows the differences compared to previous Design Economy methodologies (2018 and 2015).

**Figure 7 Comparison with previous iterations of Design Economy research**

<b>Aspect</b>	<b>2015</b>	<b>2018</b>	<b>2021</b>
<b>Main methods used</b>	Use of Office for National Statistics (ONS) data	Use of ONS data, survey of 1000 firms, 7 case studies	Mixed methods
<b>Definition of design</b>	Aligned with ONS Standard Industrial Classification (SIC) and Standard Occupational Classification (SOC) codes	Aligned with SIC and SOC codes	'Mindset' as well as SIC and SOC codes
<b>Unit of analysis</b>	Sectors, individual firms and individuals	Sectors, individual firms and individuals	Sectors, individual firms and individuals
<b>EDI focus</b>	No	Ethnicity, age, gender, socio-economic class	Ethnicity, nationality, age, sex, gender, socio-economic class, qualifications, disabilities
<b>Regions</b>	Location of firms and contribution to regional productivity	Location of clusters and contribution to regional productivity	Location of clusters and contribution to regional productivity
<b>Skills</b>	No	Future skills	Future skills, as well as mindsets
<b>Domain in which design is used and applied</b>			
<b>Economy</b>	Yes	Yes	Yes
<b>Social and environmental impact of design</b>	No	No	Yes
<b>Business use of design</b>	Defined design roles in design industries, non-design roles in design industries and design roles in non-design industries	Defined design-intensive firms and design-active firms, value chain analysis and causal links to productivity	Yes
<b>Business understanding of design</b>	No	Yes, implied in design ladder	Yes
<b>Public sector understanding of design</b>	No	No	Yes
<b>Public sector use of design</b>	No	No	Yes
<b>Public understanding of design</b>	No	No	Yes

Source: UAL Social Design Institute / BOP Consulting (2021)

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# Credits

## Authors

Dr Jocelyn Bailey is Research Fellow in the Social Design Institute at University of the Arts London. Her research looks at use of design in the public sector and government using insights from humanities and design research.

Dr Patrycja Kaszynska is Senior Research Fellow in the Social Design Institute at University of the Arts London. She researches value and valuation practices through a combination of cultural studies, pragmatic philosophy and critical theory.

Dr Lucy Kimbell is Professor of Contemporary Design Practices and Director, Social Design Institute, at University of the Arts London. She researches design thinking, service design and social design using insights from design and organisational studies.

Dr Francesco Mazzeola is Research Fellow in the Centre for Sustainable Fashion at University of the Arts London. He researches sustainable fashion and design for social innovation.

Dr Christian Nold is a researcher, artist and designer creating new models and technologies for collective representation using approaches from social studies of science and technology. He was previously Research Fellow in the Social Design Institute at University of the Arts London.

Jonathan Todd is Chief Economist at BOP Consulting. He has over a decade's experience in impact assessment and evaluation, and high-level policy experience, particularly within the cultural and creative sectors.

## About BOP Consulting

BOP is a research and strategy consultancy specialising in culture and the creative industries. Over 20 years it has supported government bodies, leading arts and cultural organisations, property developers and international agencies through over one thousand assignments resulting in strategies, programmes and impact.

## About the Social Design Institute, University of the Arts London

The Social Design Institute is one of UAL's new institutes. Its mission is to develop and use research insights to change how designers and organisations go about designing, resulting in equitable and sustainable outcomes. Its focus areas are the intersection of design and value, systems and public policy through original research, knowledge exchange and collaboration.

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**Design Council**  
**Eagle House**  
**167 City Road**  
**London EC1V 1AW**



**[info@designcouncil.org.uk](mailto:info@designcouncil.org.uk)**



**020 7420 5200**



**[designcouncil.org.uk](http://designcouncil.org.uk)**