

# THINKING

a Manifesto  
for Design

A report by the All-Party Parliamentary  
Design & Innovation Group

# TESTING MAKING

## Design:

- // the **fastest-growing creative industry**, growing by **34%** in five years between 2008 and 2012
- // worth over **£70bn per year** to the **UK economy**
- // a way of **solving future social and economic challenges**
- // a sector which **employs 350,000 people** with UK businesses **spending £33.5 billion** on design each year

### About the APDIG

The All Party Parliamentary Design and Innovation Group is a cross-party coalition of Parliamentarians and design sector organisations that works to develop new policy ideas, critique existing government decision-making around design, communicate within Parliament the enormous potential value around design and help the design community better engage with the policy process.

The mission of the APDIG is twofold:

- To educate Parliamentarians and Whitehall about what design is and what it can do.
- Elucidate what design means for Government, and identify key areas of policy where design can make a difference – Design Education's continued importance, pushing to design better Public Services and ensuring design is an integral part of Government's Creative Industries Strategy.

For the last couple of decades, design has indeed slipped lower down the Government agenda. We wish to make the arguments for design in the following areas, which extend across all departmental remits:

- More 'design thinking' in Government – the ability to prototype, iterate and improve service delivery beyond the constraints of short-termism and without fear of political failure
- Strategic thinking from the Government in how to integrate design with digital and new technology
- Increasing the capacity for design in forthcoming large infrastructure projects.

Design policy is an emerging field, and the APDIG is proud of the role it plays in promoting its development by identifying new areas where design thinking might be helpfully applied to Government policy.

### Industrial Members

- Anti-Copying in Design (ACID)
- The British Industrial Design Association (BIDA)
- British Institute of Interior Design (BIID)
- The Centre for Information Design Research, Reading University (CIDR)
- Council for Higher Education in Art and Design (CHEAD)
- Crafts Council
- Design Business Association (DBA)
- Design Council
- Design Museum
- Design and Technology Association (D&T Association)
- Design Wales
- Institution of Engineering Designers (IED)
- Knowledge Transfer Network (KTN)
- Nottingham Trent University
- Ravensbourne
- V&A Museum

On behalf of the APDIG Parliamentary Officers, this report was compiled and written by Naomi Turner (Manager, APDIG). This individual works for Policy Connect, a non-profit social enterprise that provides secretariat services to the APDIG. The work programme of the APDIG and its secretariat is kindly funded by the organisations listed above.

This report is not an official publication of the House of Commons or the House of Lords. It has not been approved by either House or its committees. All Party Groups are informal groups of Members of both Houses with a common interest in particular issues. The views expressed in this report are those of the group.

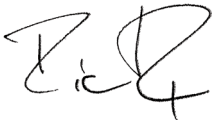
# Foreword

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Throughout the multitude of human interactions in modern society, it is the design of goods and services which acts as a barometer of the understanding between those who make and those who ultimately use. This is equally true both of new products which will appear on our shelves and of democratic processes which structure social systems. A product which is poorly designed is one which is less effective, less fit for purpose, and more likely to be discarded. Political institutions which are similarly lacking are not only likely to be ineffectual in addressing the needs of citizens, but risk becoming irrelevant to them.

This manifesto argues that design must be central to our political, economic and educational systems if the opportunities of the future are to be fully realised. Advances in technology raise endless possibilities not only for new products, but for creative integration with and transformation of existing services and productive processes.

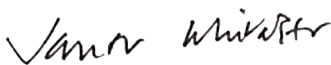
With this manifesto, we argue that the incorporation of design into product development, economic policy and the process of policymaking itself ought to be a fundamental tenet of delivering both effective public services and a prosperous future.



**Lord Richard Rogers, President**



**Caroline Dinenage MP Co-Chair**



**Baroness Janet Whitaker, Vice-Chair**



**Barry Sheerman MP, Co-Chair**

**This manifesto argues that:**

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**Design equips people to think in terms...**

**// of complexity**

**// of user needs**

**// of not being afraid to  
prototype and test**

**// beyond the present, and into  
the future**

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The design skillset is essential for...

- // making physical things as well as modelling and testing digital, service and physical prototypes
- // the integration of service design methods in public services, all the way up to government
- // understanding the potential application of science and technology, particularly in addressing challenges of the environment and society

# Industrial Strategy

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Using design methods in industrial policy means thinking creatively about how the UK can compete in a globalised world.

Industrial Strategy is traditionally the 'home' of design policy. Whilst the design discipline has changed somewhat (service design, digital/interactive design, design of environments) which means that design is increasingly starting to be applied to other areas, design continues to be a growing part of our economy. Design will also have a huge part to play in science and innovation, which includes advances in manufacturing and routes to commercialising our research base.

**'Design is the difference between a project existing either in a lab, or out in the real world'**

– Lord Inglewood, Evidence to the Inquiry, *Designing the Digital Revolution* (2014)

The argument for design in business has been made for the last 60 years by the Design Council and is well established. For every £1 businesses invest in design, they can expect over £20 in increased revenues, over £4 increase in net operating profit and over £5 in increased exports.

The Design Business Association's Design Effectiveness Awards also articulates design's impact (not as a 'good' in and of itself– but effective in terms of increasing a business' turnover).

For companies to succeed, they need to use design. The Knowledge Transfer Network in particular argues that earlier involvement of design in the innovation process would be hugely beneficial in helping deliver better technologies more likely to succeed in the marketplace.

## Design: The fastest growing creative industry, but still undervalued

Design is the fastest-growing creative industry. The latest figures from the Department of Business, Innovation and Skills showed that design grew by 34% in between 2008 and 2012 (GVA). Design is also a significant export, with the value of design services exported totalling £190m in 2012. Overall, the value of design exports have increased year on year over the period 2009 to 2012 (from £116m in 2009).

- Current government statistics only show design to be ‘graphic, product and fashion design’. Whilst NESTA’s work goes some way to better measuring the economic importance of the creative industries through measuring GVA, we think that this could be done even better.
- The APDIG here proposes a similar means of better measuring the impact of design through a new set of SIC and SOC codes developed in consultation with our industry members whom represent the UK design industry.
- We recommend that the Office for National Statistics use these measures when formulating new SIC and SOC codes and that Government commits to engage in updating the SIC and SOC codes for design in the Classification Revision Process leading to the planned update in 2018.

## Intellectual Property

For creativity and innovation within design to continue to grow, our Government policy needs to ensure that design can be protected effectively and IP rights safeguarded. This will require stability and a united effort for all to come together to share a vision of growth for 2020; currently nearing 10% per annum for the Creative Industries and contributes £71.4 billion to the UK’s GDP. If growth continues at this level 2020 could see the Creative Industry’s GDP rise to £150 billion, providing 2 million jobs. [ACID]

- The IP Act is a welcome development in the sector, and should be further enhanced; for example, investigating making the Act consistent with other aspects of EU law and the inclusion of unregistered rights.
- The impact of digital technology has not yet been wholly felt, particularly in industrial strategy. This, however, comes with a caveat around IP. 3D printing in particular allows for fantastic new possibilities in design, but Government should take action to monitor this new technology with a view to both maximising its potential uses and addition to continually re-addressing current policy to ensure that designer’s IP remains protected.

## Design and Digital Industrial Strategy

Digital technology relies on the increasing integration between devices and the nature and quality of our reception and interpretation of content. The so-called “digital revolution” pivots on user experience and the effective use of design. However, we argue that the Government focuses too much on the technology, and not the users.

Better support of design methods to reverse this trend is important:

- Innovate UK should further develop existing relationships with research bases in Higher Education Institutions tasked with uncovering new forms of value in digital economy.
- Links across STEM and other disciplines including arts, design and humanities are key. One approach could be strategic working groups engaging Catapults, LEPs, HEIs and research councils to develop new models for partnership working and connected funding streams and initiatives related to innovation.
- Government should increase its financial support for development of the Internet of Things.

# Design and Public Services

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Without design, the challenges of an ageing population – amongst others – will not be met.

Less money to pay for care and rising expectations of quality of life means that today's systems cannot cope. Just one example is public health, which is something of a paradox – the National Health Service has become a victim of its own success. The health landscape has now changed greatly since the NHS was founded. Politically, we are unlikely to move beyond the current environment of complex commissioning. Therefore, how can we keep the best of the NHS whilst thinking about a step change in its design?

**'At their best design methods and design thinking catalyse people to see issues and possibilities in a fresh way. They spark creativity and help us spot the possible connections between things, which so often become obscured by the silos of daily life which dominate government and businesses alike. But we're at a fascinating moment [for] design if its full potential is to be realised.'**

– Geoff Mulgan, Evidence to the Inquiry, *Restarting Britain 2: Design and Public Services*, Design Commission (2013).



**Design, when blended with other kinds of evidence and generative tools/methods, can deliver transformation of services, faster, in ways that are fundamentally more deliverable, and require less government resource (time and money)**

- Different kinds of evidence must be accepted as legitimate as a basis for policymaking – ‘nudge’ has opened the door to challenging the ‘rational man’ interpretation of society/ the economy that has dominated policymaking in the 20th century – and been proven inadequate. Design is an excellent generator of insight and human-centric data.
- As with new built environment projects, or new industrial applications of advanced technology, design can help make the most of the potential uses for civic data.
- Making and testing prototypes (a core design method) can also help governments avoid costly ‘blunders’ by overcoming cultural and operational disconnect, and identifying potential pitfalls in new policy ideas and services.
- Co-design activities help unlock the creativity of more people than just the designer – such practices are a good way of harnessing the expertise and different kinds of knowledge that exist within the civil service, and also within society more generally.
- Other governments have set the ambition for design to become a core capacity of government/ civil servants.

For example, Finland has a national design policy, whilst Denmark’s Mindlab (originally established in 2001) continues to flourish. The UK should meet that ambition.

**Our report, *Restarting Britain 2: Design and Public Services*, called for**

- The Cabinet Office to initiate responsibility for building design capacity across government; and for policymakers across departments to trial a multi-disciplinary design studio method for originating policy. It has since done so with the establishment of the Policy Lab, based in the Cabinet Office.
- A better commissioning model for design in government.
- Training in basic service design methods for all civil servants.

**Designing Future Governments**

Many of the challenges we are collectively facing are unlikely to be either owned or solved by governments alone; therefore more creative approaches to harnessing the resources of others, and co-ordinating or instigating collective action need to be deployed by Governments.

- Government has new kinds and greater quantities of data about populations at its disposal, which it can use in more intelligent ways to both design and deliver policy and services.
- Government can also use new delivery mechanisms, namely digital technologies. It has started making use of them but certainly hasn’t maximised their potential.
- Citizens expect a different relationship with governments and public services than in the past – more autonomy, responsive services, the ability to interact online – and governments (central, local) mostly haven’t kept pace with these changing expectations.

# Infrastructure, Housing and the Built Environment

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Without design, we risk a deepening housing crisis, transport systems that are not keeping up with the modern world, and an absence of the great vision used by the Victorians to build cities, public buildings, tunnels and sewers (on which we still rely heavily today).

**'We live in an urban age. Ten per cent of the world's population lived in cities 100 years ago; today it is 50%, and in the next 30 years we shall see it at 80%. People are drawn by jobs and the possibility of meeting other people. They are the hearts of our culture and the engines of our wealth.**

**As part of this we need to invest in the infrastructure of cities, particularly in housing—the infrastructure of the everyday.'**

– Lord Richard Rogers

## Design can Deliver the next Generation of Infrastructure

- Using good design is essential to creating livable places and making infrastructure projects meet their objectives, in an efficient and sustainable manner. It also helps promote public buy-in. CABE research shows that 73% of people would support the building of more homes if well-designed and in keeping with their local area.
- If we are to aspire to the vision of the great builders of the Victorian era, we need to use the skills of the great architects, designers and engineers that this country now trains. Designers can be directly appointed, but for many public projects, competitive procurement will be necessary under EU regulations. Properly-run design competitions, with a majority of architects and designers on the jury, and selection criteria that reflect the importance of design, are the norm in many countries; we need to use them more widely in the UK, so that our big infrastructure projects meet long-term needs.
- Public bodies sponsoring major infrastructure programmes should ensure that they have architectural or urban design expertise on their boards, and make use of design review panels, design standards and design competitions to ensure that standards are maintained.
- Large infrastructure projects, such as HS2 or future large-scale housing delivery, should appoint a Chief User Officer with responsibility for the effective, relevant and transparent use of big data as recommended by the Design Commission report, *Designing the Digital Economy* (2014). This report also called for Government to show leadership in the use of designers for big data analysis. For example, funding designers to work with data.gov.uk on discrete 'transformer projects' would demonstrate the social and economic use of open datasets to other public and private organisations.
- In 2011, the activities of the Commission for Architecture and the Built Environment (CABE) were transferred to the Design Council. This activity now sits with the Design Council's Architecture and Built Environment team. Government should continue to support the Design Council in its work to champion the importance of design in the built environment.

# Education

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Design education is incredibly important for future economic growth as part of an industrial strategy, but it continues to be threatened.

The UK is known globally for its Thomas Heatherwicks, its Vivienne Westwoods and its James Dysons. However, the overall decline of participation and decreasing diversity in pupil takeup of design education subjects places this reputation at acute risk.

Design thinking is a tool that can make a major contribution across educational projects drawing on a variety of disciplines. Greater opportunities should be created for designers and the design industry to collaborate with schools, colleges and universities to embed design thinking and design practices and help address the challenges of equipping students with the skills they will need for their working life.

At a time when the 'two cultures gap' has never been greater, design can help demonstrate the value of creative education to policymakers and indeed help us to think about what skills every pupil and student will need in the future.

**"There is nothing as creative as engineering"**

– Sir John O'Reilly

Although 'creatives' are held in high regard by elements of government policy (related to the high export value of the creative industries, for example), the building blocks are effectively being eroded from the curriculum.

Tactile skills are used across many different professions, in particular science, medicine and engineering. Although they are learnt at school as a 'creative' activity, the widespread application of these skills is not captured.

## Government should act to reverse the decline in participation in design

Department for Education figures released in 2014 show that since 2003, the number of children studying Design and Technology (D&T) has halved. Similarly, Crafts Council evidence shows that uptake of art and design at GCSE has dropped by 25% in the last six years. In general, the number of hours the arts and technical subjects are taught and the number of associated teachers in schools has fallen, with 11% fewer teachers and hours of teaching in the last 4 years. In comparison, the EBacc subjects of History and Geography have seen rises in both number of teachers and of hours taught (of between 7% and 12%).

- The Crafts Council have argued for the school performance framework to be reformed by removing the discount codes that act as a disincentive to studying craft-related GCSE's, restoring parity between subjects.
- The DfE should address the unintended consequences of Ebacc and Progress 8 by making clear statements about the value of D&T and the importance the Government attaches to schools ensuring all pupils have an entitlement to D&T education from 5-16.
- The Crafts Council has also called for Ofqual to report on how the qualifications market meets the needs of creative education and employment.

## There is also acute concern about the decline in entrance to teacher training for D&T subjects.

The D&T Association would like to see improvements to the quality and consistency of initial teacher education, and improved access to Continuing Professional Development. Future teachers should also have a secure D&T pedagogical background and a consistent standard should be applied to all (such as Qualified Teacher Status).

## Opportunities for Design in Higher Education

There are numerous examples of design research projects based in higher education, in particular the excellence demonstrated in some of the Impact case studies found in the latest Research Excellence Framework. These also reflect the value of design to policy engagement and make a real difference to people's lives. Notable examples include Design and the Urban Environment at Lancaster University, Inclusive Design at the Helen Hamlyn Centre, Royal College of Art and Enriching Communities of Literacy, University of Reading.

- Design education is funded within Arts and Humanities regimes, but the biggest economic and societal benefits are more likely to be achieved by programmes that include design, science and technology. The government should look to appraise current spending plans and investigate increasing current provision for design in line with commitments to STEM.

## Design and Technology skills are needed by Business

There is growing evidence to suggest that the link between D&T in schools and careers in engineering, manufacturing, architecture and design are essential for the supply of our future innovators, entrepreneurs, designers and creative thinkers.

A survey of business leaders carried out by the D&T Association found that:

- 83% agreed that children aged 11 to 14 should learn about new technologies including electronics, systems and control, smart materials and CAD/CAM.
- 70% agreed that key growth sectors to which the economy looks to drive growth, such as creative industries, advanced manufacturing and engineering draw on the skills taught in D&T

## Design can break down silos between subjects and improve creative thinking

The Design Commission called on Government in their *Design Education and Growth Report* (2011) not only to oppose any move towards removing design from the curriculum but also to take the opportunity to evaluate how design operates in education.

- To be appropriate in the 21st century context, we need to shift education to an interdisciplinary approach. In other words, from a system that operates in discrete specialist subjects, towards an integrative system that promotes adaption as skills needs change. Schools should use the naturally interdisciplinary nature of design projects to break down silos between subjects. This could be as simple as setting design challenges that engage students outside their subject classes in creative problem solving projects.

## Working in partnership for the wider provision of Design Education

There is also a role for other organisations in improving the profile of and access to design education. Design Ventura, run by the Design Museum had over 9000 children take part in 2014/15. The annual Designers in Residence programme is also an example of what the museum sector is doing to supplement the government's work in promoting design as an esteemed career choice.

- Government needs to sustain this work, as it demonstrates public investment in designers of the future. It is vital this continues to happen in the public-facing realm of the museum as well as Ministers using private sector companies as a backdrop to investment pledges (as with Dyson, Rolls-Royce and so on).
- We also argue for further exploration of strategic support of makerspaces, hackspaces and Maklabs as a means of integrating design and technology education at all levels with that of local industry and business.

# Conclusion

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## We argue for:

- // the creation of a Chief Advisor for design and innovation;
- // an improved understanding of design and innovation spend in the public sector;
- // ‘design thinking’ to be an integral part of the design discipline as taught in primary, secondary, further and higher education;
- // design to be viewed in the same way as sustainability in the UK – not a ‘nice to have’ but for resources to be allocated to actively thinking about and using design

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