COMMISSION STAFF WORKING DOCUMENT

Implementing an Action Plan for Design-Driven Innovation

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IMPLEMENTING AN ACTION PLAN FOR DESIGN-DRIVEN INNOVATION

1.   DESIGN FOR GROWTH AND PROSPERITY

There is general political agreement in Europe that all forms of innovation need to be supported to ensure competitiveness, prosperity and well-being. Design is increasingly recognised as a key discipline and activity to bring ideas to the market, transforming them into user-friendly and appealing products or services[1]. Though still often associated solely with aesthetics, the application of design is much broader. A more systematic use of design as a tool for user-centred and market-driven innovation in all sectors of the economy, complementary to R&D, would improve European competitiveness. Analyses of the contribution of design show that companies that strategically invest in design tend to be more profitable and grow faster[2].

Design provides a series of methodologies, tools and techniques that can be used at different stages of the innovation process to boost the value of new products and services. When applied to services, systems and organisations, user-centred design thinking drives business-model innovation, organisational innovation and other forms of non-technological innovation. These methodologies may also be instrumental when addressing complex and systemic challenges, for example in redesigning public services and in strategic decision-making processes.

The qualities of European design come from diverse cultures and make it distinctive and competitive in an age of globalisation. With over 400 000 professionally-trained designers, Europe has internationally recognised capability and a leadership position in design[3]. The Commission's staff working document entitled 'Design as a driver for user-centred innovation'[4], presented in 2009, concluded that design has the potential to become an integral part of European innovation policy. User-centred and non-technological aspects of innovation are, however, still insufficiently integrated into innovation policy and support in Europe.

The Innovation Union, a flagship initiative of the Europe 2020 strategy[5], recognises the importance of capitalising on Europe's creative potential, especially the role of design in

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[1]   Innovation Union Flagship Initiative of the Europe 2020 strategy for growth and jobs, commitment 19, SEC(2010) 1161.

[2]   For example, research undertaken by the Swedish Teknikföretagen, Företag som satsar på design är mera lönsamma (2011) shows that businesses that invest in design have an approximately 50% better long-term   financial   performance   than   businesses   who   do   not: http://www.teknikforetagen.se/hem/Publicerat/Nyheter/Foretag-som-satsar-pa-design-ar-mer-lonsamma/.

[3]   There are approximately 410 000 professionally-trained designers working in Europe, generating an annual turnover of €36 billion. Rosenberg Thesen, Oktober 2010, Zentralverband des Deutchen Hantwerks.

[4]   Commission Staff Working Document: Design as a driver of user-centred innovation, SEC(2009) 501.

[5]   SEC(2010) 1161, see note 1.

bringing ideas to the market. In line with the commitment taken in the Innovation Union strategy, the European Design Innovation Initiative was launched in 2011 to exploit the full potential of design-driven innovation and to reinforce the links between design, innovation and competitiveness[6]. Related to this, the Commission asked the European Design Leadership Board (EDLB), a group of 15 experts from industry, SMEs, national and regional innovation agencies and the academic world, to make proposals on how to improve the integration of design, user-driven innovation and other non-technological drivers into innovation policy and support. The EDLB presented its recommendations to Vice-President Tajani in September 2012 at the European Design Innovation Summit in Helsinki[7].

The EDLB is convinced that most European companies could benefit from using design as a driver for innovation. Companies which are not yet aware of this potential to boost growth needed to raise their awareness of the value of design. Europe's public sector organisations also needed to change their perception of the role of design and its potential contribution. The EDLB also sees a need for a shift in European policy-making, in the research community, as well as in government[8].

To address these challenges, the EDLB identified a number of recommendations, grouped in six areas for strategic action:
• Differentiating European design on the global stage;
• Positioning design within the European innovation system;
• Design for innovative and competitive enterprises;
• Design for an innovative public sector;
• Positioning design research for the 21st century;
• Design competencies for the 21st century.

In October 2012, the European Commission issued an Industrial Policy Communication Update[9] that focused on the actions needed to enable growth and economic recovery in Europe. Design-driven innovation plays a key role in addressing the challenges of the third industrial revolution. The Commission will promote wider use of design, as well as other non-technological innovation drivers, in developing high-value products and services, increasing productivity and improving resource efficiency. According to this Communication, the Commission will implement an action plan to accelerate the take-up of design in innovation policy. This action point is also included in the Commission's Communication on promoting cultural and creative sectors for growth and jobs in the EU[10], to reinforce cross sector fertilisation.

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[6] More on the European Design Innovation Initiative: http://ec.europa.eu/enterprise/policies/innovation/policy/design-creativity/index_en.htm#h2-3.
[7] Design for Growth & Prosperity, Report and Recommendations of the European Design Leadership Board, 2012, http://ec.europa.eu/enterprise/policies/innovation/policy/design-creativity/index_en.htm.
[8] EDLB, see the previous note.
[9] A Stronger European Industry for Growth and Economic Recovery, Industrial Policy Communication Update, COM(2012) 582.
[10] Promoting cultural and creative sectors for growth and jobs in the EU, COM(2012) 537.

2.   AN ACTION PLAN FOR DESIGN-DRIVEN INNOVATION

In response to the above mentioned two Communications, this Staff Working Document describes current and upcoming actions previously endorsed by the Commission and relating to promoting design-driven innovation in different policy fields. These actions form the Action Plan for Design-Driven Innovation aiming to accelerate the take-up of design in innovation policies at European, national and regional levels and to create the capacity and competencies needed to implement these policies. The action lines corresponds as widely as possible with the recommendations of the European Design Leadership Board and on a consultation with a broad representation of stakeholders.

The action lines in this document focus on taking advantage of the instrumental role of design in delivering the policy objectives of EU programme, such as Horizon 2020[11], COSME[12] and the Structural Funds, for the period 2014-20. Even though the Action Plan focuses on measures supported by EU policies, matching actions promoting adoption of design in innovation policy are required at national and regional levels. The emphasis is on closing the divide between advanced regions and those lagging behind in applying design-driven innovation.

This Staff Working Document focuses on actions ripe for implementation in the short- to medium term. Thus there are issues of strategic importance which are not covered in this document, though they will remain on the Commission's longer-term policy agenda.
This document defines design, as an 'activity of people-centred innovation by which desirable and usable products and services are defined and delivered'[13]. Within this broad definition, the Action Plan sees design as a strategic means of encouraging innovation, not just as an issue of style or aesthetics.

3.   ACTION LINES FOR IMPLEMENTATION

To accelerate the take-up of design in innovation policy, particular importance is given to three strategic areas for action:

1. Promoting understanding of design's impact on innovation;
2. Promoting design-driven innovation in industries to strengthen Europe's competitiveness;
3. Promoting the adoption of design to drive renewal in the public sector.

The first area involves creating conditions and developing competencies for an effective policy on design-driven innovation, while the two other focus more on delivering these policies to European industries and the public sector. A number of action lines have been identified in each area, with information on current and upcoming actions already endorsed by the Commission. For all action lines, matching actions are needed at national and regional levels to boost design in driving innovation and renewal.

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[11]   Proposal for a Council Decision establishing the Specific Programme Implementing Horizon 2020 — The Framework Programme for Research and Innovation (2014-2020), COM(2011) 811.

[12]   Proposal for a regulation establishing a Programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (2014-2020), COM(2011) 834.

[13]   Definition by the EDLB in Design for Growth & Prosperity Report, 2012, http://ec.europa.eu/enterprise/policies/innovation/policy/design-creativity/index_en.htm.

3.1. Promoting understanding of design's impact on innovation

Design is of particular importance and is recognised as a key discipline and activity to bring ideas to market, transforming them into user-friendly and appealing products. Although some European countries are world leaders in design, others lack a robust design infrastructure and design capability. This systemic gap has largely gone unnoticed but must now be tackled.

(Innovation Union, Europe 2020 Flagship Initiative)[14]

3.1.1. *Advocating design's role in innovation to policy makers across Europe*

In Europe, there is a gap between the leaders in applying design as a driver for innovation and other regions. Therefore, events and information dissemination are needed in Member States across Europe to introduce design-driven innovation to policy-makers by showing examples of cases in which design has played an instrumental role in creating new economic or social value. Countries and regions that are lagging behind in applying design in innovation can benefit most from such best practices. The SEE Platform project under the CIP programme already works towards this objective[15]. Resources for future advocacy actions have been earmarked in the EIP Work Programme for 2013[16].

3.1.2. *Measuring the economic impact of design and its role alongside other intangible assets in value creation*

There is a lack of reliable, comparable statistical evidence demonstrating design's contribution to the economy and its impact on return on investment. Developing effective evidence-based policies requires comprehensive, reliable methods for measuring the impact of investing in design. Also, there is a need for a comprehensive picture of design investment across Europe. Work currently being done through the CIP-funded €Design-project[17] and by the OECD will give insights to help modernise evaluation methods.

3.1.3. *Applying design methods in multidisciplinary research and innovation programmes that address complex challenges*

More design-driven innovation and renewal in Europe needs research in which designers and design methods play a central role. Currently, design research does not have sufficiently close contacts with other fields of expertise, though harvesting the potential of design for European innovation requires a multidisciplinary approach. Co-design and other design methods can help to reinforce partnerships between multidisciplinary research teams and assist us in understanding the crosscutting issues and architecture of complex problems. Integrating a design approach in European R&D should be promoted at European, national and regioinal level, including Horizon 2020, which includes support for the use of design in exploring new forms of innovation.

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[14] Innovation Union Flagship Initiative of the Europe 2020 strategy for growth and jobs, commitment 19, SEC(2010) 1161.

[15] Sharing Experience Europe platform is one of the six European Design Innovation Initiative projects financed through the Competitiveness and Innovation Programme for 2011 and 2012. More information: http://ec.europa.eu/enterprise/policies/innovation/policy/design-creativity/index_en.htm.

[16] The Entrepreneurship and Innovation Programme's (EIP's) work programme for 2013 allocates €2.85 million of EU co-financing for a project implementing the European Design Innovation Platform (measure ENT/CIP/13/CN05S00).

[17] €Design is one of the six European Design Innovation Initiative projects. See note 15.

3.1.4. Developing competencies and applying methods for design-driven innovation in education and training

There is a lack of shared understanding of design as an integral part of education in Europe. Design skills, competencies and knowledge are not properly embedded in European education systems. The future Erasmus+ programme[18] provides opportunities for incorporating the concept of design-driven innovation into curricula across different subjects. For example, Sector Skills Alliances for vocational education and training and Knowledge Alliances for higher education are part of promoting innovation and good practices. Knowledge Alliances could highlight design themes beyond the traditional art-related perception through various forms of university-business cooperation. Peer learning activities through the European Alliance for Apprenticeship, which has been recently launched by the Commission, could help increase awareness and develop vocational students' and apprentices' design-related competencies.

3.1.5. Facilitating continuous dialogue among the key stakeholders of design-driven innovation policy

There needs to be a continuous dialogue between the European Commission, national and regional governments, European industries, academia, the professional design community and other stakeholders to ensure the implementation of actions promoting the take-up of design in innovation policy. It is important to take a broad view of design-driven innovation to identify potential crossovers and spill-over effects across policy fields such as education, research, urban planning and social welfare. The European Design Innovation Platform, the creation of which is planned in the EIP work programme for 2013[19], will support these objectives.

3.2. Promoting design-driven innovation in industries to strengthen Europe's competitiveness

Wider use of design, as well as other non-technological innovations, is one of the key drivers for developing high value products, increasing productivity and improving resource efficiency.

(Industrial Policy Communication Update, 2012)[20]

3.2.1. Creating capacity to deliver support for design-driven innovation for businesses throughout Europe

There is weak provision of specialised design-based training and mentoring programmes for SMEs, and of design-led innovation incubators. Making such support services available more widely will improve businesses' ability to use design as a driver for innovation. This calls for improvement in the design innovation competencies of business-development organisations, incubators and other intermediaries in all Member States. EU co-financed structures like the Enterprise Europe Network[21] and the European Innovation Management Academy[22] can be used to identify interested intermediaries willing to include design innovation management in their services. The European Design Innovation Platform will work towards these objectives.

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[18] Commission proposal for a regulation establishing 'ERASMUS FOR ALL', the Union Programme for Education, Training, Youth and Sport, COM(2011) 788.

[19] EIP Work Programme for 2013, see note 16.

[20] A Stronger European Industry for Growth and Economic Recovery, Industrial Policy Communication Update, COM(2012) 582.

[21] Enterprise europe Network has close to 600 member organisations across the EU and beyond, more information: http://een.ec.europa.eu/

[22] The European Innovation Management Academy combines education and research in innovation in small and medium sized enterprises: https://www.improve-innovation.eu/home/

Design as a driver for innovation can also be reflected in European regions' Smart Specialisation Strategies.

3.2.2. *Strengthening European SMEs' ability to use design as a strategic tool in creating products and services with a higher value for their customers*

Design is a key driver in creating new products and services that are attractive to customers, and can make a business stand out amongst the competition. However, the lack of design management skills is a significant barrier to the wider adoption and integration of design into Europe's businesses. Companies would benefit from investment in design management skills and from managers recognising the strategic importance of such investment. Specialised innovation support for strategic design is envisaged under the 'Innovation in SME´s' part of Horizon 2020, while the introduction of new products and services in the market will be promoted by the COSME programme. The WORTH pilot projects[23] will support the use of design in SMEs. Also, actions under the European Creative Industries Alliance[24] provide experience of innovation vouchers, helping ideas spread across sectors.

3.2.3. *Enhancing cooperation among companies that invest in design as a competitive asset*

SMEs across Europe lack awareness of design management and available tools for integrating design into their everyday processes. This calls for an intensified cooperation and peer-learning between companies that invest in design as a competitive asset. Experiences on the open innovation approach could be exploited in this context, like experiences on the open innovation marketplaces. Full advantage should be taken of existing EU-level business networks and instruments that support networking, such as the European Technology Platforms[25], the Living Labs and the Enterprise Europe Network. The European Design Innovation Platform will also work towards these objectives. In addition, the role of design in new industrial value chains can be supported through companies obtaining support from the 'Innovation in SME´s' part of Horizon 2020.

3.2.4. *Promoting new collaborative innovation strategies and practices that enable new business-models*

Web-based service models, together with advanced manufacturing technologies, provide opportunities for new types of business models in which the relationship between designer, producer and consumer is renewed and in which the designer is fundamental in providing customised solutions. Collaborative methods such as co-design can provide a basis for developing new products and services focused on user needs. Development of design-driven business models can find support under the Horizon 2020, with a particular focus on demonstration activities such as testing, prototype and design, as well as for piloting innovative processes, products and services. Also, support to co-creation of solutions to social problems is envisaged.

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[23] The Entrepreneurship and Innovation Programme's (EIP's), work programme for 2013 allocates €1 million for the WORTH Pilot Project (measure ENT/CIP/13/B/N02C00). WORTH will support partnerships between SMEs and professional designers to develop new products, processes or services with a high design content.

[24] European Creative Industries Alliance (ECIA) works for better policies and business support for creative industries: http://www.howtogrow.eu/ecia/

[25] European Technology Platforms (ETPs) are industry-led stakeholder fora charged with defining research priorities in a broad range of technological areas. More information: http://cordis.europa.eu/technology-platforms/

3.2.5. Integrating design into research and development to better support commercial and societal applications benefiting from a strong user orientation

Translating investment in research and development into usable and marketable products and services is a challenge that design can help tackle. Design as user-centred innovation can improve the development and market potential of ideas emerging from research and development. Designers can contribute, for example, through communicating with users, exploring applications and rapid prototyping. Designers' participation in R&D&I teams could be promoted under the 'Innovation in SME´s' part of Horizon 2020, which aims to increase private-sector commercialisation of research results.

3.2.6. Investigating the needs to update the protection of the intellectual property rights for design

Efficient, effective, transparent and user-friendly legal instruments for design protection in Europe are essential for enterprises, encouraging them to invest in design. The Commission has called for an assessment of the functioning of the current industrial design protections systems in Europe[26], both at national and EU level. In addition to legal analyses, this assessment will provide an economic overview on design-related intellectual property rights amongst European industries and their contribution to the economy.

3.3. Promoting the adoption of design to drive renewal in the public sector

The squeeze on public finances has created renewed momentum for the modernisation of public administration. The Commission considers fostering user-friendly procedures for service providers and recipients to be one of the particular contributors to growth.

(Annual Growth Survey 2013)[27]

3.3.1. Building the capacity of public sector administrators to use design methods and to procure design effectively

Modernising public administration requires strengthening strategic design and implementation of policies.[28] At present, the European public sector lacks, to a large extent, the skills and the capacity to apply design when addressing the need for renewal. There could be more use of design and designers in the public sector, for instance, by developing support material and toolkits and by providing training to public sector administrators. This could significantly contribute to modernisation of the public sector, including more innovative public procurement. The CIP-funded European House of Design Management project[29] already works towards these objectives.

3.3.2. Enhancing research and development of design-driven innovation for efficient and user-friendly public services

Fostering growth requires usable, desirable, affordable and accessible public services. Matching this with the demand for more efficiency and productivity is a challenge that requires new innovative practices and means. Service design methodologies can improve productivity in the public sector, while sustaining and improving the user experiences. Applying the design approach to public sector modernisation requires research, testing and evidence of new forms of design-driven innovation. One of the objectives of Horizon 2020 is to promote innovation to foster efficient, open, user-friendly public services. Support for

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[26] The Economic Review of Industrial Designs in Europe, call for tenders MARKT/2013/064/D

[27] Annual Growth Survey 2013, Communication from the Commission, COM(2012) 750

[28] 2013 European Semester: country-specific recommendations. Moving Europe beyond the crisis. COM(2013)350

[29] EHDM is one of the six European Design Innovation Initiative projects. See note 15.

multidisciplinary research on citizen centric public service configuration and innovation driven by users is envisaged.

3.3.3. *Promoting peer learning and cooperation among public-sector actors looking for design-driven solutions*

In times of budget constraints, governments are searching for ways to deliver more value at lower cost. There are already a number of examples of successful design-driven solutions and a growing appetite in the public sector to learn more. The European Design Innovation Platform will support peer learning, cooperation and open innovation among interested actors. Also, the CIP-funded SEE–project is already working towards this objective.

4. MONITORING AND SUPPORT FOR IMPLEMENTATION

This Action Plan is a step in the longer term effort to highlight the role of design in innovation policy, which is one of the Innovation Union objectives under the Europe 2020 strategy for growth and jobs. A continuous dialogue with stakeholders from European industries, national and regional governments, academia and the professional design community will be conducted through the European Design Innovation Platform[30], and through events. Progress of the Action Plan will be monitored by the same group of Commission officials that will supervise the implementation of the European Design Innovation Platfrom.

The European Design Innovation Platform is a project within the framework of the Action Plan for Design-Driven Innovation, co-financed through the Enterpreneurship and Innovation Programme. It will provide a web-based platform for cooperation and dissemination of information as well as other actions to promote the adoption of design as a driver for innovation. It will be complementary to existing cooperation structures and networks operating in related fields and will develop synergies with them.

There are already six EU co-financed projects under way promoting design-driven innovation in the strategic areas of the Action Plan. They are financed through the Competitiveness and Innovation Programme and relate to the European Design Innovation Initiative that contributes to the take-up of design as a user-centred innovation tool[31]. There are altogether 46 organisations from 19 Member States represented in the six implementing consortia. The six projects are:

€Design — Measuring Design Value

– Develops measuring of design as an economic factor for value creation

SEE Platform: Sharing Experience Europe — Policy Innovation Design

– Integrates design into innovation policies by exchanging best practice

IDeALL — Integrating Design for All in Living Labs

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[30] The Entrepreneurship and Innovation Programme's (EIP's) work programme for 2013 allocates €2.85 million of EU co-financing for a project implementing the European Design Innovation Platform (measure ENT/CIP/13/CN05S00).

[31] There are six European Design Innovation Initiative projects financed through the Competitiveness and Innovation Programme for 2011 and 2012. More information is available on: http://ec.europa.eu/enterprise/policies/innovation/policy/design-creativity/index_en.htm.

–   Connects designers and innovative eco-systems to increase competitiveness of companies

DeEP — Design in European Policies

–   Evaluation indicators to provide understanding of the impact of design innovation policies

EHDM — European House of Design Management

–   Improves design management competencies in the public sector

REDI: When Regions support Entrepreneurs and Designers to Innovate

–   Stimulates innovation through design in regional innovation ecosystems

Carrying out these projects successfully will ensure that implementation of this Action Plan starts quickly.

Disclaimer: This document is a European Commission staff working document for information purposes. It does not represent an official position of the Commission on this issue, nor does it anticipate such a position.