BEDA Positioning Paper

“Supporting the key role of design in the Circular Economy”

September 2015
Introduction

Since the industrial revolution, the production and consumption of goods and services has followed a linear “take, make, dispose” model based on an unlimited availability of low-cost material and energy resources. The International Resource Panel (IRP) of the United Nations Environmental Programme (UNEP)\(^1\) warns that this model is unsustainable because it causes serious economic and environmental impacts. Since 2010, the concept of the circular economy has spread rapidly as an alternative. The European Commission and many other public and private organizations, such as the Ellen MacArthur Foundation\(^2\), are working to promote the transition toward a circular economy model.

Many voices, such as the European Commission First Vice-President Frans Timmerman, have stated that the future of the European economy is in the circular economy – in reusing and in putting things back into the economic cycle. This means rethinking the way we design, produce, consume and dispose of products and services.

The circular economy will be essential to improve resource efficiency in Europe, one of the key aspects of Europe 2020. A strategy for smart, sustainable and inclusive growth\(^3\). Public administration and industry are aware of the business opportunities in improving resource productivity. A study for the European Commission\(^4\) estimates that increasing resource productivity by 2% per year could create over two million jobs more than under a business-as-usual scenario. Another study for the European Commission\(^5\) states that with waste prevention, eco-design, reuse and similar measures, European companies could achieve a net annual saving of €600 billion.

Several European regions have recently launched action plans towards the implementation of design for circular economy models, for instance Scotland with ‘Zero Waste Scotland – Design for a Circular Economy’ or Catalunya with its ‘Ecodesign Strategy for a Circular Economy’\(^6\), among others.

The European Design Leadership Board included in their recommendations to the European Commission in 2012 the need to ‘promote the increased use of design in European industry to encourage synergies in support of economic growth, environmental regeneration, and the raising of social and emotional value, whilst respecting the need for renewable and endogenous resources’\(^7\).

But current ‘green’ approaches and initiatives are not enough to create a sustainable future. A more radical shift is needed in how we design, produce and distribute our products and the services around them.

---

Moving from a linear economy model towards a circular economy model implies a number of important transformation changes, not only in products or services but also in new business models and the way all actors interact.

Designers can offer strategic business innovation which could have a much bigger impact on eco-design and new business models.

BEDA believes that a circular design approach can play a leading role in achieving these changes. It is thus crucial to strengthen the role of design in public policies that boost the circular economy.

Background

The principles of the circular economy are the following: a) to reduce the use of material resources through the design of reusable and repairable products b) emphasis on services rather than goods (i.e. moving from consumption to services); c) to reuse materials as new raw materials and avoid hazardous substances; d) to increase the energy efficiency of production systems, products and services and to promote the use of renewable energy; e) to promote the use of bio-based materials in order to replace black carbon with green carbon, as well as to support the European bio-economy; f) new opportunities for innovation across fields such as product design, service design and new business models, etc. (i.e. business models and systems that support sharing).

Several European public policies have dealt with resource-use related aspects, such as the European Ecolabel\(^8\), Green Public Procurement\(^9\) and the Eco-design and Energy-Labelling Directives\(^10\).

Acknowledging that the amount of resources and energy used by a product during its entire lifetime are directly determined during the design phase, the eco-design approach can reduce the use of resources from the following perspectives: improving reparability and durability of products, increasing the recyclability of materials and minimizing the use of hazardous substances, and the energy efficiency of the production process or the use-phase of products and services.

BEDA proposes that this approach to eco-design should be supplemented by the following:

- Material replacements / substitutes (car-industry replacing steel with aluminium; wood industry making wood-based “synthetic plastic”).

- The enormous potential within bio-based materials (bio-economy) – estimated to represent 50% of the circular economy - that gives, among other advantages, greater ability to degrade materials after use (an example is enzymatic bio-refining).

---

\(^8\) [http://ec.europa.eu/environment/ecolabel/](http://ec.europa.eu/environment/ecolabel/)
- Companies’ choice of alternative business models could bring forward totally new strategic concepts for design, production (raw material selection and composition) and marketing.

The Circular Economy package of the European Commission\(^ {11}\) and the legislative proposal to review recycling and other waste-related targets in the EU\(^ {12}\), both published in July 2014, mentioned the role of design in order to enlarge the useful life of products and their recyclability. The European Commission officially withdrew these policies in March 2015 with the commitment of approving a new package at the end of the year.

BEDA, as the pan-European platform for design, is willing to participate in this process.

**Revision of the European Commission’s Circular Economy Package**

BEDA aims to create increased awareness of the importance of design as a key tool to move towards a circular economy in Europe.

There are many companies that have increased their competitiveness by implementing design in their business innovation strategies, with better company results and more satisfied customers. More specifically, eco-design strategies enable them to reduce production costs and offer products and services that require fewer resources and energy in the use-phase, and with lower environmental impacts at the end of their lifespan.

In the context of the revision of the Circular Economy Package by the European Commission, we would like to strongly encourage politicians and other stakeholders to consider design at the core of this public policy.

**Supporting the key role of design in the new Circular Economy Package of the European Commission**

BEDA offers the following proposals with the aim of supporting the main role of design in the EU Circular Economy Package:

- Training businesses in design for innovative business strategy, with emphasis on eco-design and circular economy principles.
  
  o Highlighting the benefits design can bring to businesses.
  o Highlighting the importance of design being used much earlier in the development process of product or service development.
  o Highlighting the need to prioritize, especially in the design phase, the minimization of materials and energy use, the non-use of hazardous substances,

---

\(^ {11}\) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Towards a circular economy: A zero waste programme for Europe', COM (2014) 398 final.

the possibilities of repair, recycling and materials reuse and the use of bio-based materials (i.e. plastic from plants or green chemicals).

- Increasing the use of eco-design criteria (including product design requirements for disassembly, reparability, recyclability and durability, as well as service design principles) in the European Commission’s policies: European Ecolabel, Environmental Product Declarations, environmental footprint, etc.

- Enabling access to finance through the European Structural and Investment Funds for those companies that are already investing in eco-design or circular strategies.

- Promoting eco-design criteria (including product design requirements for disassembly, reparability, recyclability and durability, as well as service design) in public procurement, making use of the possibilities offered by the new Directives 13.

- Raising consumer awareness about environmental information - a switch by consumers to less damaging behaviours and consumption patterns.

- Training practising and future designers in circular economy principles.

- Facilitating the integration of “circular economy principles” to mainstream policies, programmes and initiatives.

- Including design for circular economy in EU funded research and innovation projects and programmes.

**About BEDA**

BEDA exists to ensure permanent liaison between its members and the authorities of the European Union in order to communicate and promote the value of design and innovation to the European economy. Today, BEDA boasts 45 members from 21 European Member States plus Norway, Switzerland, Serbia and Turkey. Members can be professional and trade associations for designers from across Europe as well as design promotion centres and other publicly funded organisations that promote design nationally or regionally. Those professional associations represent some 400,000 designers from across Europe in every discipline of work from industrial design and interiors to digital design and branding. BEDA is a not-for-profit organisation funded by its members.

---