



**State of play:
Enabler Sustainable design –
October 2015**



Flanders
State of
the Art

TOGETHER WE
MAKE TOMORROW
MORE BEAUTIFUL

OVAM

WWW.OVAM.BE

1 SUSTAINABLE DESIGN

LEADER: OVAM

INTRODUCTION

Within a circular economy, the design and development of new products, materials, chains and product combinations are fundamental elements. With sustainable design, we are meeting our economic and social needs sustainably and with a focus on all phases. From raw materials to production and use and then back again. Sustainable design in Flanders means reviewing all of the links in the chain, including business models, logistics and operational management.

AMBITIONS AND REALISATIONS

We are working on 5 priority actions regarding sustainable design:

- Promoting sustainable design in the manufacturing industry;
- Developing and disseminating tools for sustainable design;
- Spreading basic principles for sustainable design through education;
- Integrating minimum standards for the sustainable use of materials within European product standards;
- Sustainable, new business models must be introduced to businesses, industry and consumers.

We will discuss these 5 themes and the corresponding action points below.

1.1 PROMOTING SUSTAINABLE DESIGN IN THE MANUFACTURING INDUSTRY

In a circular economy companies must think about their production processes and the use of socially responsible, non-harmful, renewable or recycled materials. We try to stimulate this as much as we can.

Trans-disciplinary workshops are used to unite designers, producers and processors in order to consider ways in which the materials cycle could be closed more effectively with the current production processes. This has taken place for 'Metal & design' (including a workshop on new business models) and for 'Plastics & design'.

OVAM also endeavours to share as much information about possible expertise and best practices via other channels. There is also an online example database of products that contain materials which can be dismantled and recovered, recycled or are sustainable, and which also provides innovative business models to encourage reuse or recycling. Best practices can also be found on www.ecodesignlink.be and in the journal 'Grow'.

OVAM and Plan C, City of Antwerp and Flanders Fashion Institute have also organised 'Fashion Flows', a raft of experiments and a design tool that provides inspiration to a circular economy within the fashion sector.

OVAM also organised a study visit to the Proximus labs in order to find out how they tackle life-expectancy evaluations and error management for modems and decoders.

In 2015, OVAM organised a Sustainable Innovation Day in partnership with Flanders DC. Business leaders can learn from inspiring examples and strong Flemish case-studies and can also be provided with personal guidance in order to realise sustainable innovation within their companies.

1.2 DEVELOPING AND DISSEMINATING TOOLS FOR SUSTAINABLE DESIGN

(Future) Designers must be familiar with sustainable design. This can only be achieved if they are given the right tools and OVAM has done so.

In order to highlight opportunities and challenges for SMEs and industry, OVAM has developed the Sustainable Innovation System (SIS) tool kit. This is a handy brainstorming tool which increases sustainability within operations in 3 dimensions: value creation, strategic functional spectacles and the life-cycle perspective. In 2015, the OVAM SIS tool kit was launched in education. For economic subject areas, in partnership with the department of Environment, Nature and Energy (LNE), but also for other courses.

Designers can also work online with the new Ecolizer. With this, they can quickly and easily calculate the environmental impact of a product, even per phase over the life-cycle of the product. They learn how they could reduce environmental impact via the use of alternative materials, adhesion systems that can be dismantled or more efficient shapes. In this context, design ideas can be easily compared with one another. Since the launch at the end of November 2014, 550 designers and companies have signed up on www.ecolizer.be in order to determine and analyse the environmental impact of their products.

Finally, OVAM is also raising awareness about sustainable design among the public at large via the Ecodesign Awards, which have been awarded for many years at the Henry Van De Velde Awards in collaboration with Design Vlaanderen. Design Region Kortrijk also encompasses close collaboration with respect to events such as 'Design Week', which promotes sustainable design.

1.3 SPREADING BASIC PRINCIPLES FOR SUSTAINABLE DESIGN THROUGH EDUCATION;

Since 2013, Flemish design high schools have included sustainable design on their curricula. They do so via the EHO kit. This kit provides teachers with a guide to integrating sustainable design into their lessons. They are also provided with educational sheets covering relevant topics, working sheets that show concrete applications and example sheets that provide practical examples. Two years after its launch, there is still a great deal of interest in the EHO kit. Workshops during which teachers are provided with guidance on how to get to work are requested with increasing frequency.

The EHO kit was initially only for use by teachers in design courses, such as product development. But, in the meantime, we have expanded: in 2014, to bachelor and master degree courses in Electromechanics (Hogeschool PXL, Vrije Universiteit Brussel and Universiteit Antwerpen) and in 2015, to the Faculty of Nature and Technology at HoGent.

OVAM also organised 3 workshops during which teachers from the areas of chemistry, agro/bio technology, wood technology, fashion and textile technology could critically assess their own curricula. These workshops reached 200 teachers from 17 different courses. Five hundred EHO kits have also been distributed.

1.4 Integrating minimum standards for the sustainable use of materials within European product standards

Flanders is not an island. The fact that many regulations are set at a European level means that we must turn our gaze outwards. We can also draw a great deal of inspiration from abroad and have a wealth of expertise and know-how about sustainable design to share with others.

The ENEC (European Network of Ecodesign Centres) was set up to share expertise and inspiration. In 2015, this network focussed on eco-design in SMEs for auxiliary goods, packaging, building materials and furniture. ENEC attended and provided presentations at various events, such as the EU Green Week and the Basque eco-design meeting. The ENEC also has concrete plans this year to expand the network with additional European member states in February 2016.

OVAM also tries to influence European regulations and minimum standards around reusability, recyclability and the use of recycled materials. For priority product groups, OVAM aims for the development of materials criteria in the context of the EU Ecodesign Directive. In this context, it promotes the QA-CER label which indicates the percentage of reused materials. A partnership has also been set up with the Netherlands, on materials criteria in regulations concerning eco-design.

Finally, German and European studies about 'Planned obsolescence' and the option to include materials criteria within the PEF (Product Environment Footprint) and OEF (Organisational Environment Footprint) will also be monitored.

1.5 SUSTAINABLE, NEW BUSINESS MODELS MUST BE INTRODUCED TO BUSINESSES, INDUSTRY AND CONSUMERS

Turning linear production processes into circular business models is about more than just product design. Plan C launched the Business Model Innovation Grid in 2014. The BMIX is a web tool with various strategies for integrating sustainability within commercial operations.

A workshop about new business models, with a company visit to Gallo, was organised. Philips has given a presentation about its 'Pay per Lux' system, which enables lighting to be supplied via a lease agreement. The fittings are then returned and the materials are efficiently reused and recycled.

In 2015, company leaders were offered personal guidance, via Plan C, in their quest to identify new circular business models in the Masterclass for Circular Business. Entrepreneurs were able to find the right strategies for their commercial goals within a circular setting.