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Scientific Opinion Paper

Obsolescence - Political strategies for improved durability of products

From fridges to fans – a growing number of consumers replace household goods earlier than they did in the past. The reasons are manifold. Some products simply break down before they reach an optimum technical life. Others are replaced before they reach an optimal service life (time of use by consumers) - the technology may have become outdated or a computer is no longer compatible with the newest software. In other cases, consumers get rid of perfectly working mobile phones simply because they crave the latest model.

This phenomenon harms the environment. More resources such as precious metals and energy are needed and greater amounts of waste are produced. Many member states have addressed this issue and the Commission also sees the need to improve resource efficiency and presented its Action Plan on a Circular Economy¹.

In this scientific opinion paper the German Environment Agency (Umweltbundesamt, UBA) outlines some of its recommendations to policy makers, industry and consumers. They are based on two studies (Prakash et al. 2016, Schlacke et al. 2015) we commissioned in recent years and summed up in our position paper from 2016².

Obsolescence as we understand it covers several reasons as to why products are no longer in use:

- Defects due to lack of performance of materials or components (material obsolescence),
- lack of interoperability of software and hardware (functional obsolescence),
- the desire for a new item despite the fact that the old one is still functional (psychological obsolescence), and

¹ Communication from the Commission to the European Parliament, the Council and the Committee of the Regions: Closing the loop - An EU action plan for the Circular Economy; COM/2015/0614 final

² UBA (2016): Strategies against obsolescence: Ensuring a minimum product lifetime and improving product service life as well as consumer information. Dessau-Roßlau. Download at: <https://www.umweltbundesamt.de/publikationen/strategies-against-obsolescence-ensuring-a-minimum>

- refraining from carrying out repairs on grounds of cost, if the gap between the cost of repairing an item and the cost of a new item is too small (economic obsolescence).

The service lives of many electrical and electronic appliances, such as refrigerators, smartphones or television sets, are indeed getting ever shorter. This has been shown in a study commissioned by the German Environment Agency and conducted by the Öko-Institut e.V. and the University of Bonn (Prakash et al. 2016), which investigated 13 product groups of electrical and electronic appliances.

There are many reasons for pre-mature new purchases. Especially in the area of consumer electronics and in information technology, technological leaps or the desire for a new device often trigger new purchases. At the same time, however, increasing numbers of appliances fail within the first five years of their service life – for example, the number of large household appliances being replaced within the first five years of their service life due to a defect increased from 3.5% in 2004 to 8.3% in 2013.

A consumer survey within the study looked at washing machines, television sets, notebooks, electric kettles, and handheld electric mixers and showed that approximately one third of the interviewees were dissatisfied with the products' lifetime. Given that with the current state of energy efficiency of new products, products with a long service life still are, in a significant majority of cases, more environmentally friendly and thus more resource-saving, as they avoid the additional manufacturing of new products.

Strategies against obsolescence must simultaneously address the issue in two main areas:

- Strategies for achieving an assured minimum lifetime and an extension of product lifetime (addressing mainly material, functional and economic obsolescence), and
- Strategies for extending product service life on the part of the consumers (addressing mainly psychological obsolescence).

Our core recommendations are as follows:

1. We need product standards with regard to minimum lifetime.

They should be added to the Ecodesign Directive:

The EU Ecodesign Directive (Directive 2009/125/EC) already offers a suitable regulatory framework for product-specific requirements in terms of the lifetime of energy-related products. With its action plan for the circular economy the EU Commission announced that it will promote, amongst other aspects, the reparability, upgradability and durability of products and develop, as appropriate, product requirements in its future work under the Ecodesign Directive. We explicitly support, that when existing

regulations are under review or new regulations are being passed, requirements for product lifetime or at least for the lifetime of components particularly prone to defects should be set out where appropriate and verifiable.

2. Producers must inform consumers on availability of spare parts and repair services (e.g. through the Ecodesign Directive):

Consumers would be in a better position to assess the reparability of a product at purchase if they were given information on the period of time for which spare parts will continue to be available and on their costs. Therefore the German Environment Agency supports the EU Commission's announcement to explore the possibility of relevant horizontal requirements under the Ecodesign Directive.

3. Introduce a manufacturer's duty to issue a guarantee statement e.g. in the Consumer Sales Directive:

It should be made mandatory for manufacturers to indicate a manufacturer's guarantee statement for their product (German: "*Herstellergarantie-Aussagepflicht*"). This should include the possibility to make a so-called "zero statement", i.e. to indicate a "zero" period and thus to not offer guarantee cover. In contrast, a period greater than "zero" would represent a material guarantee that is binding for the manufacturer. If the product's lifetime falls short of the stated period, the buyer has the right to demand reparation under the commercial guarantee (e.g. repair, reimbursement of the sales price, or replacement of the item). While the legal guarantee under sales law governs the relationship between seller and buyer, this instrument would allow for claims to be made directly against the manufacturer, thus holding liable those that are responsible for the product's constitution. The fact that the product would be guaranteed to be free of defects not only at the time of purchase but for the entire commercial guarantee period is another advantage.

This instrument should preferably be established at the European level where it could be linked to the Consumer Sales Directive which in its Article 6 establishes minimum requirements for voluntarily given guarantees set out in consumer contracts. In accordance with Article 8 (2) Member States may adopt more stringent provisions, e.g. introduce a mandatory guarantee statement with, in which case we propose the addition of a subsection 3 to section 443 German Civil Code (BGB). This option for Member states should be preserved at the revision of the Online Sales Directive.

Additionally, a prolongation of the general legal guarantee is useful, especially with an extension of the period for the reversal of proof to two years. However, for products with a traditionally much longer lifetime (for example large household appliances)

further measures are needed. While we expressively support the activities for standardization to pave the way for minimum lifetime requirements, we recognize the limitations to measure life time and to execute market surveillance. Therefore we need the obligatory commercial guarantee statement. In case a commercial guarantee statement is not supported, we recommend prolonging legal guarantee rights for explicitly named product categories.

4. Improved framework conditions for repairs:

Available spare parts, repair instructions and diagnostic software should always be available also to independent repairers and repair initiatives as well as to re-use centres. The provisions in force with respect to motor vehicles (Regulation (EC) No 715/2007) set an example in this regard. The relevant provisions should also be applied to electrical and electronic appliances. Additionally, a significant number of repair initiatives have been established based on civil society engagement. For reasons of cost it is likely that repairs of appliances in certain product groups will only be carried out if the consumers themselves are able to do so (e.g. changing a smartphone display), which also necessitates access to repair instructions and spare parts.

5. Reduce value added tax for repairs:

The EU Directive on the common system of value added tax already permits the use of reduced VAT rates for locally provided, labour-intensive repair services (e.g. minor repair services for bicycles, shoes, clothing and household linen). Additionally, an examination of the possibility of extending reduced VAT rates to other repair services should be undertaken and introduced into the European-level discussions. These aspects should be introduced into the current discussion on the proposal of the Commission to modernize the value added tax system by establishing the destination principle and by granting member states more leeway for setting VAT-rates.

6. Strengthening product appreciation:

Measures and initiatives contributing to extended product service lives, continued use and joint use of products should be afforded greater support. This includes e.g. structural funding for such initiatives, in Germany for example as part of the implementation of the 'National Programme for Sustainable Consumption' adopted by the German government in February 2016. Measures to promote re-use should be strengthened as part of the advancement of the circular economy (in Germany by implementation and update of the waste prevention program and legal foundation).

Literature:

Prakash, S.; Dehoust, G.; Gsell, M.; Schleicher, T.; Stamminger, R. (2016) on the impact of the service life of products on their environmental impact (creation of an information basis and development of strategies against obsolescence). Download at: <http://www.umweltbundesamt.de/publikationen/einfluss-der-nutzungsdauer-von-produkten-auf-ihre-1> (German, English translation in preparation).

Schlacke, S.; Alt, M.; Tonner, K.; Gawel, E.; Bretschneider, W. (2015): on strengthening sustainable product consumption through adaptations in civil and public law. Download at: <http://www.umweltbundesamt.de/publikationen/staerkung-eines-nachhaltigen-konsums-im-bereich> (in German with extensive English summary).