

Proposal for EPS Student Project 2020-2021

EPS Brief C:

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Title	Product lifetimes
Context:	<p>Designing products for longer lifetimes is increasingly regarded as a means to accelerate progress towards sustainable development. Short-lived products are problematic because (i) they may use raw materials that are in finite supply, (ii) the energy used in their production contributes to climate change, (iii) their materials are often not recovered at product end-of-life for reuse, and (iv) many are disposed of in landfill sites that are increasingly scarce.</p> <p>Increasing product lifetimes is a strategy that has recently been creating attention from governments and industry across Europe because of the need to shift to a circular economy, increase resource efficiency and reduce waste generation.</p> <p>A circular economy, in contrast with the current, unsustainable, linear economy, requires not only increased materials recycling (as its name suggests) but slower cycles of consumption through greater product longevity. This mean not only designing products for durability but promoting effective maintenance, reuse and repair.</p>
Aims	<p>The aim of this project is to choose a product and explore how its lifetime could be increased. Potential products for investigation include vehicles, electrical/electronic goods, furniture, floor coverings and clothing.</p> <p>The focus could be on (i) understanding user attitudes and behaviour, (ii) product redesign or (iii) systemic change (i.e. social innovation).</p>
Project options	<ol style="list-style-type: none"> 1. Understanding user attitudes and behavior <p>Do we know enough about why consumers buy short lived products or throw away products that still function? Is there a need for consumers to have more information about the product's performance before purchasing (e.g. durability or reparability labels), and how to maintain it in good condition while in use? This project would involve a questionnaire, interviews or focus groups and could also include some basic conceptual design work.</p> 2. Product redesign <p>Could the product be designed to be more durable, easier to repair, and more likely to be re-used once discarded? Could improving the product's functional and aesthetic ageing characteristics minimise depreciation and create emotional attachment? This option would involve the development of one or more prototypes of a new product.</p> 3. Systemic change <p>Might opportunities exist for increased product longevity by addressing the product context? Are repair and maintenance services accessible, for example, and if not, could they be enabled by developing user skills and creating local support groups or networks? Could whatever the product offers be provided by means other than an individually owned item, such as sharing or leasing products? This project would take the form of a community-based project.</p>
Support	<p>Support will be provided by researchers linked to the Centre for Sustainable Consumption and/or Centre for Clothing Sustainability.</p>
Approaches	<p>Design for longevity, User centred design, Design for sustainable behaviour, Systems design, Emotionally durable design</p>
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