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Royal Academy of Engineering and UKRI Interdisciplinary Centre for Circular Metals roundtable on Right to Repair

Thursday 14 October 2021 at 12:00pm-3:00pm

Prince Philip House, 3 Carlton House Terrace, London SW1Y 5DG

This roundtable brought together members of the engineering research community, manufacturers of household appliances and electronics, and third sector organisations to discuss the opportunities and challenges of 'Right to Repair' legislation for UK manufacturers.

Introduction

This workshop was hosted by the Royal Academy of Engineering and co-organised with the UKRI Interdisciplinary Centre for Circular Metals, a research centre aimed at helping the UK become the first country to fully recycle and reuse its metals. One of the central themes of the Centre is the repair economy: how to increase the lifespan to and reparability of goods containing metals (www.circularmetal.co.uk).

The aim of the workshop was to consult with manufacturers, the repair community, industry bodies and other stakeholders on the *Right to Repair* legislation. These new laws are being enacted around the world. They are designed to help governments achieve their net zero targets and to meet obligations to reduce the environmental impact of waste. We discussed what the UK economy needs from future legislation, and in particular, how the UK engineering community can help manufacturers move towards a repair economy.

The discussion was wide ranging and covered many themes and is summarised below under the following headings: Repairability, Safety & Liability, Protecting IP, VAT, Innovation and Supply Chains. This document concludes with reflections on the discussion from the UKRI Interdisciplinary Centre for Circular Metals team and their proposed next steps.

Repairability

- It was asserted that at the point of purchase most people focus on price and functionality and not on longevity. Some attributed this to the lack of demand for such durable goods, especially for fast moving sectors such as electronics. They gave as evidence that products with long warranties did exist in the marketplace but were not popular with customers.
- Others in the room disagreed and noted that the low market share of these products might be due to citizens being unable to easily compare the value for money of buying a more expensive but more durable and repairable product.
- It was stated that the French *Right to Repair* legislation includes a mandatory repairability index which allows shoppers to directly compare the repairability, access to spare parts next to the price at the point of purchase. It perceived to have been popular with shoppers in France.
- There was general agreement that a UK Repairability Index could be an effective tool for citizens to compare the value for money of buying a more durable and repairable products.

- It was asserted that lack of access to spare parts and high pricing of those spare parts was a current barrier to repair by citizens, and that future *Right to Repair* legislation should explicitly include access to spare parts for citizens.
- In contrast, others suggested that most manufacturers acted in good faith, limiting parts only where there were safety concerns (see below). They claimed the current prices were reasonable and it was not in the interests of any company to stockpile spare parts in warehouses and not try to sell them.
- The examples of bicycle and plumbing technologies were discussed, where the use of common parts across manufacturers has produced a healthy UK repair economy and long-lasting repairable products. However, a move to specialised parts in both these sectors may lead to less repair and shorter lifespans for products.

Safety of Repair & Liability of Manufacturer

- Safety concerns were cited by manufacturers (risk of electrocution, fires, injury) as a reason to limit citizens' right to repair a product and have access to spare parts. There was a discussion about how a citizen's *Right to Repair* should be balanced against a manufacturer's liability for injury and harming the public.
- It was suggested that current UK *Right to Repair* legislation unfairly sides with the concerns of manufacturers and limits access of parts and repair manuals to repair professionals only. Others disagreed with this, stating that it was only a matter of time before a manufacturer will be sued for failing to prevent injury of a citizen during repair.
- It was stated that there is strong public support for the fundamental right to repair a product that a citizen had bought from a manufacturer, and while safety is important it should not be used by manufacturers to block repair by citizens.
- The example of how automobile manufacturers do not limit repair or access to parts despite a car being a safety critical technology was discussed. It was noted that cars are safety tested regularly (MOT) which is mandated by law. This however does not completely eliminate risk since a badly implemented repair or renewal on a vehicle does not prevent it being on the road until the next MOT that, on average, could be 6 months away.
- There was a discussion of whether a combination of insurance policies and safety checks would provide adequate cover for repair related accidents/claims i.e. professional Indemnity cover.
- It was suggested that further study of countries where the law supports individual repair liability (not just for manufacturers and repair professionals) would be helpful.

Protecting IP

- Some manufacturers control both software and hardware to protect their IP. Concern was expressed that releasing repair manuals and spare parts would make it harder for manufacturers to protect their IP and so reduce their competitive advantage.
- Others disagreed arguing that IP protection should not trump the environmental impact of products. It was stated that companies have a responsibility for their products after they have sold them. Many products end up being dismantled and hacked in unintended ways that will endanger both the environment (due to release of toxic materials) and the user. It was stated that this is a particular issue in developing countries where the second and third



life of products as varied as smartphones to hospital equipment is an important part of the economy.

VAT

- There was general agreement that making repair subject to VAT, as is currently the case in the UK, makes professional repair more expensive, therefore reducing the lifespan of products and harming the environment.
- It was stated that the reduction in demand for repair due to high cost reduces the number of professional repair jobs in the UK.

Innovation

- There was a discussion about the tension between innovation and product longevity. For instance, the electronics market is fast moving and designing them to be durable and repairable for 10 years may not make commercial sense.
- However, there are many examples of how new products have been more energy efficient functional than those they have replaced making a virtue of disposability in terms of CO₂ emissions.
- Several ideas were discussed such as making 'protecting the environment' explicitly part of the design brief for innovative products.
- It was stated that if citizens demanded products with a lower environmental impact the market would respond, and, that manufacturers were waiting for this customer demand.
- Car safety was given as an example of how customer demand can be driven by a combination of legislation and manufacturer innovation. In the 1970's the mandatory wearing of seat belts had neither public support nor manufacturers' support, however legislation was passed for the public good. After the benefits of this policy were appreciated by the public, manufacturers then innovated to offer more safety features such as ABS brakes and airbags. These added extra cost to car ownership, but customers wanted them and were prepared to pay for them. Death rates on the roads reduced dramatically.
- It was stated there may be an opportunity for *Right to Repair* legislation to spur innovation in a similar way. Once repairability and durability becomes a desired feature for the public further innovation in design for repair may be driven purely by public demand.

Supply Chains

- Innovation around storing spare parts and supply chains was discussed. This is currently a financial burden on manufacturers who typically need to keep large numbers of spare parts in warehouses for up to 10 years.
- It was stated that better spare parts supply chain transparency and communication is needed between manufacturers, distributors/retailers and repairers (third party or citizens) to ensure adequate supply to meet demand, regulate commercial parts pricing and prevent waste.
- A move to rapid manufacturing of spare parts, and a move to a digital production on demand model could be a win-win situation for manufacturers, citizens and the environment because it potentially reduces the need for large warehouse full of spare parts



and the costs associated. However, others suggested that developing this technology was too expensive.

Reflections

The following reflections of the discussion represent the opinions of the team from UKRI Interdisciplinary Centre for Circular Metals:

1. A UK Repairability Index is a measure that had widespread support. It seems a simple way to drive demand for more repairable products for citizens and so meet net zero targets.
2. Assurances that the safety and liability of repaired products and who is responsible needs to be clarified through a legal framework.
3. Removing VAT from repair could benefit the environment and increase the number of high skilled repair jobs in the UK. More analysis is needed to understand the cost-benefits of such an approach.
4. Innovation and *Right to Repair* are not necessarily in opposition to each other. There is a potential win-win situation in which customer demand drives environmental innovation of products.

Suggested Next Steps for UKRI Interdisciplinary Centre for Circular Metals team:

1. Move forward developing a framework for a UK Repairability Index that both manufacturers and citizens can support.
2. Clarify safety and liability issues of repair as part of future *Right to Repair* legislation.
3. Quantify the benefit to the economy and the environment of removing VAT from repair.
4. Make it clear to the public, legislators and manufacturers that repairability of household appliances and electronics is innovation in the same way that the development of renewable energy is innovation.