BACKGROUND INFORMATION

TABLE OF CONTENTS

INTRODUCTION Repairing electrical and electronic devices[1] and thereby extending their lifespan makes you part of the circular economy. It is an effective way to contribute to a more sustainable future. This educational pack is presented to you by Djapo and Sharepair to raise awareness about this issue among children and adolescents and help them recognize opportunities to repair devices in their daily lives. We want to encourage pupils to become committed to choosing repair, both at school and beyond.

This document containing background information is intended for you as a teacher, and helps you to prepare the lessons. It familiarizes you with the basic principles of electrical and electronic repair by giving you the what, why and how. The first part introduces the wider concepts of sustainability and the circular economy, and then focuses on repairing electrical and electronic devices. The second part covers Education for Sustainable Development and the didactic principles that underlie the pack's teaching materials. It clarifies the modular structure of the teaching pack and the intended learning process behind the steps required to engage pupils. It also contains tips on working with English as an Additional Language (EAL) pupils.

1 ~ The word 'device' is commonly used to refer to smaller electronic products such as smartphones or laptops. For larger domestic electrical products such as washing machines and fridges, the word 'appliance' is more common.

Interreg North-West Europe SHAREPAIR
djapo
België partner in ontwikkeling
Vlaanderen verbeelding werkt

CONTENT-RELATED BACKGROUND INFORMATION

1.1 – Sustainability

Sustainable development means taking care of the earth and of humankind. The natural resources of the earth are the basis for what we need as human beings to survive. Everyone, regardless of where they live, has the same right to the natural resources they require to meet their basic needs. At the same time, natural resources are precious, and future generations need to be able to enjoy them equally. This is why it is necessary to treat them sustainably, including in commercial industries. This helps to realize a world in which everyone can enjoy the right to live in dignity on a healthy planet.

This harmonious equilibrium between the social, ecological and economic realms can be summarized by the three Ps of sustainable development. Sustainable stewardship means:

- avoiding negative impact on other people, their way of life and their chances of a dignified existence (**People**);
- avoiding negative impact on the carrying capacity of the planet (**Planet**);
- contributing to social prosperity (**Prosperity**).

Two further Ps were added in the United Nations' 2030 Agenda for Sustainable Development to clarify the conditions required to work on sustainable development: **Partnership** and **Peace**.

After an intensive development process, the United Nations translated the three Ps of sustainable development into 17 Sustainable Development Goals or SDGs. The international framework of the SDGs has been proposed as a new global plan to make the planet a healthier, more just and more peaceful place for all. The framework reflects a shift from the classical 'North-South' divide to a more global perspective. All world leaders will have to make concrete efforts to realize these development goals by 2030. You can find more information about the SDG framework here.

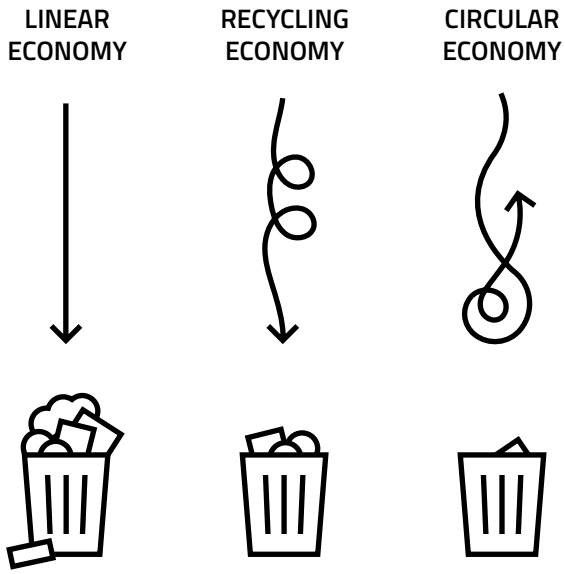
Source: https://www.un.org/sustainabledevelopment/news/communications-material/

1.2 – The circular economy and repair

The current global economic model cannot sufficiently guarantee that future generations will also be able to enjoy the earth's natural resources fully to meet their basic needs. The need for a different economic model is obvious, a model in which we use materials and products sustainably.

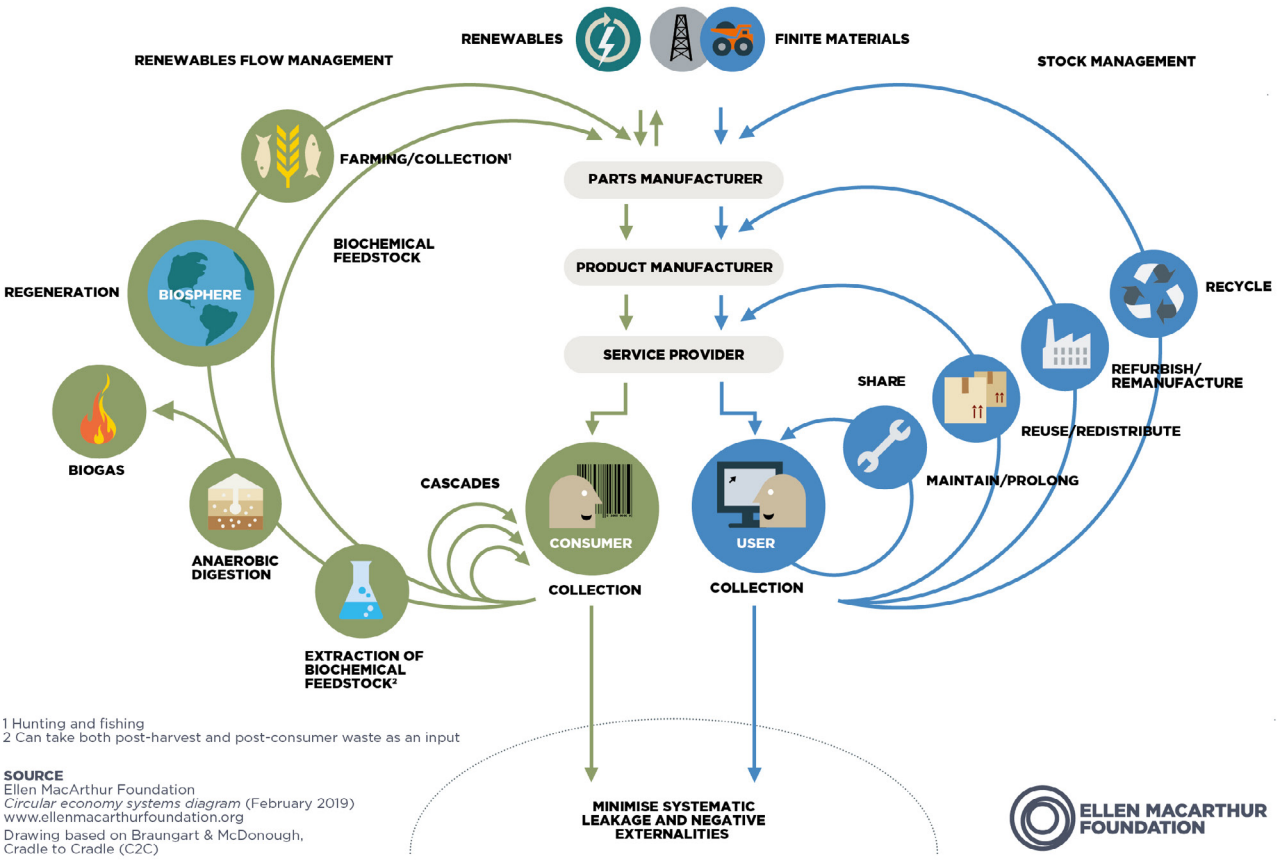
1.2.1. – What is a circular economy?

The **circular economy** is a model to keep materials and products in the economy while optimally retaining their value. Unlike a linear economy, in which raw materials from products ultimately disappear out of the material cycle, the circular economy is aimed at **retaining the value** of materials and products. In a circular economy, products (or the materials they contain) are specifically designed for constant reuse, for example through repair, sale at high second-hand value, or upgrade. Once this is no longer possible, the products are recycled as much as possible and, if necessary, broken down into their constituent materials. In this way, any extracted raw materials will remain present in the economy and the material cycle is closed, like in a natural ecosystem.



Source: https://vlaanderen-circulair.be/nl/kennis

The butterfly diagram of the circular economy below (developed by the Ellen MacArthur Foundation) visualizes the biological and technical cycles of the circular economy:



Source: https://ellenmacarthurfoundation.org/circular-economy-diagram

1.2.2 – Why is a circular economy important?

Resource scarcity
It is becoming increasingly difficult to extract raw materials and find new sources. As a result, excavation is going deeper and further, and this is having a huge **impact on the environment**, while also further driving up the **prices** of scarce resources. The European Commission keeps a list of critical raw materials that are economically important to us but are becoming difficult to source.

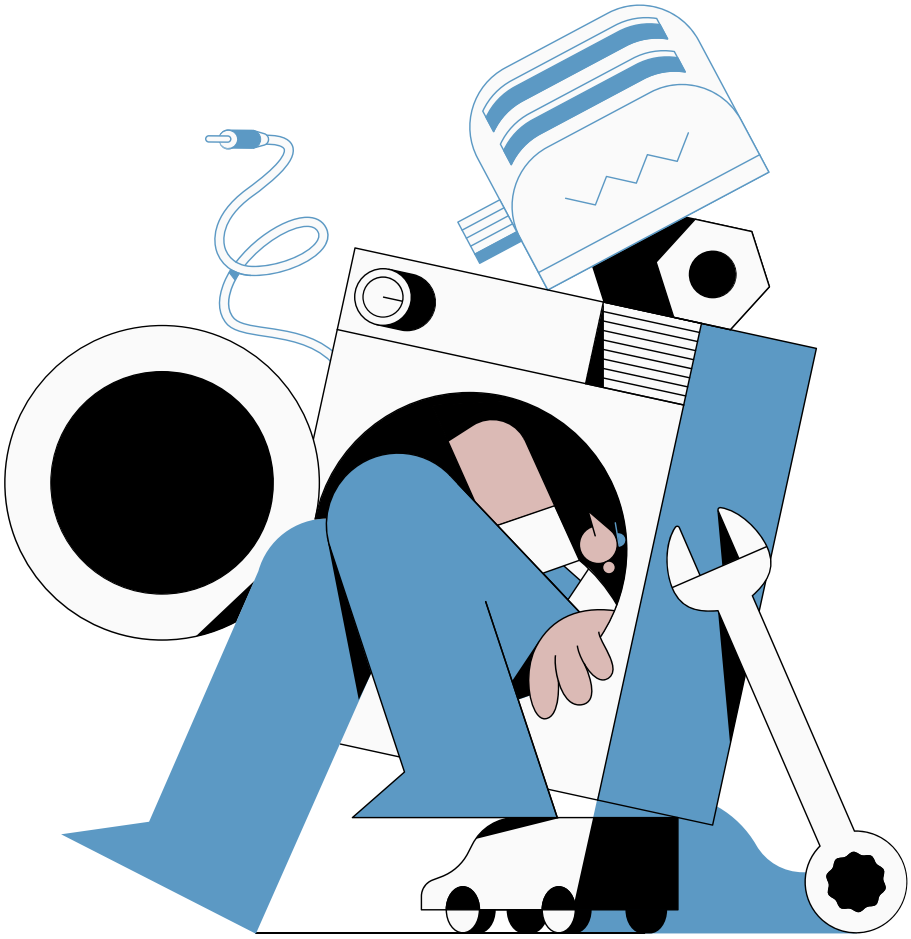
Climate disruption
Extracting and transporting raw materials and turning them into products (and after use, often recycling or incinerating them) costs a lot of energy, and therefore produces high **greenhouse gas emissions**.

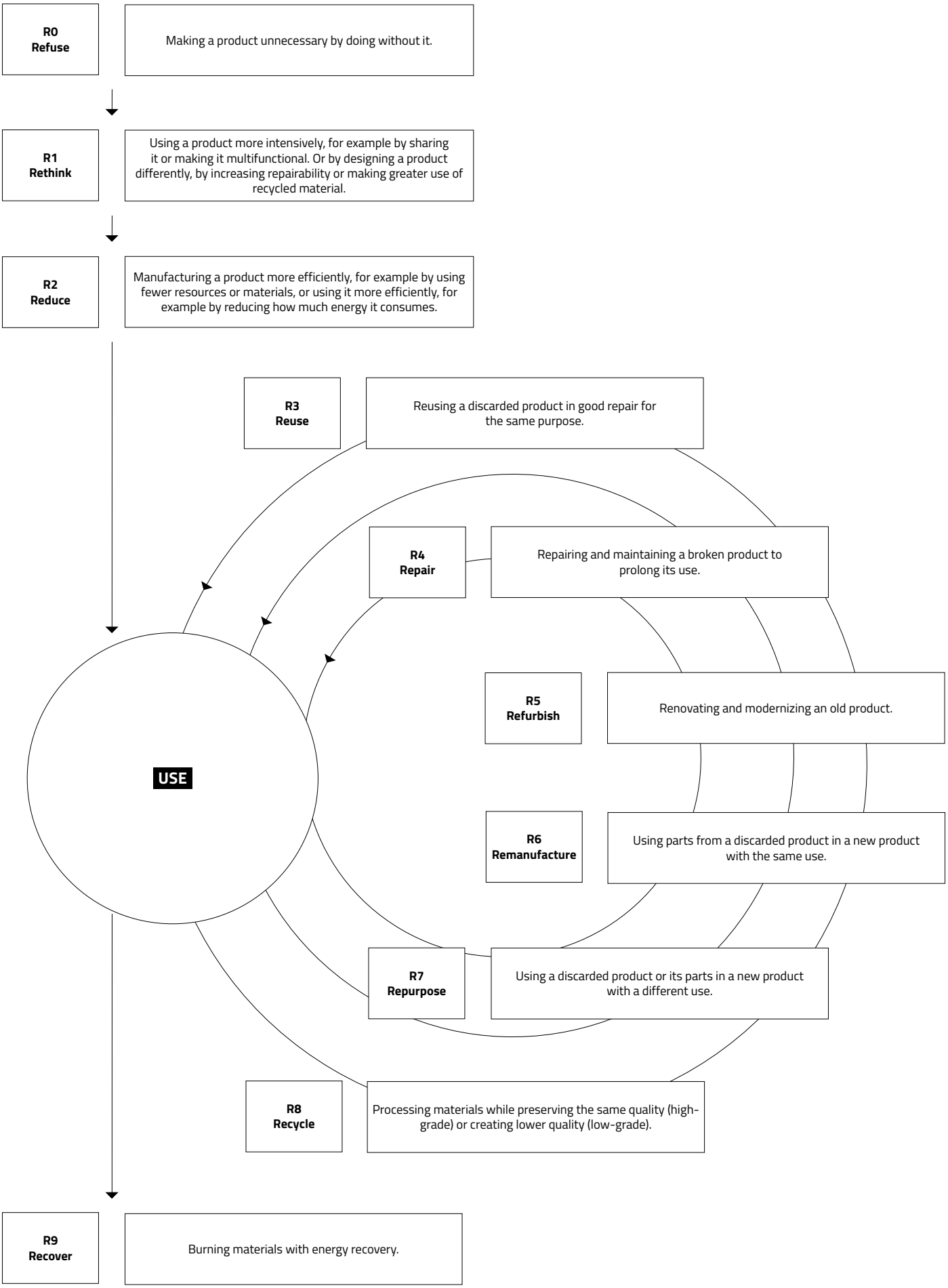
Economic and social benefits
The transition to a circular economy in the EU would lead to an estimated growth in GDP of 0.5% by 2030 with 700,000 new jobs. This would create many new opportunities for innovative and creative craftspeople, creators, repairers, sorters, assemblers, repurposing staff, recyclers, carriers, designers, platform developers etc.

1.2.3 – How do you bring about a circular economy?

Changing the way we deal with products and materials is an important step in the transition from a linear to a circular economy. The 'R strategies' show how – and in what order of priority – products and materials should be treated to ensure that the raw materials in them retain as much of their value as possible, waste materials are reduced to a minimum and environmental pollution and greenhouse gas emissions are kept as low as possible.

First and foremost, products should be designed, manufactured and consumed in a manner that optimally extends their lifespan, makes them easy to repair and reuse and reduces the volume of waste materials. Secondly, reuse should be stimulated, for example by selling products second-hand and, if necessary, repairing them. Thirdly, any waste materials that are nevertheless generated should be recycled as much as possible and not be allowed to disappear out of the material cycle. If that is impossible, the waste products that are released should be applied in some useful way, for example for energy recovery or as a source of energy.





Based on https://www.rvo.nl/onderwerpen/r-ladder

1.3 – Repairing electrical and electronic devices

1.3.1 – Production, consumption and waste flow of electrical and electronic devices

Electrical devices are simple devices that run on electricity and can often be switched on using a power switch, such as blenders, heaters or simple coffee machines. They usually have a single function that is operated exclusively by electrical components such as a power supply, a cable and a motor.

Electronic devices are controllable devices that often have multiple functions, for example smartphones or coffee machines with settings for one or more cups. They are operated (at least partially) by electronic components such as a circuit board, a diode and a capacitor.

It is hard to imagine our lives without electrical and electronic devices. Across the world, people exchange information via their computers, make appointments via their smartphones and prepare food using blenders, ovens and toasters. Electrical and electronic devices make our lives a lot easier.

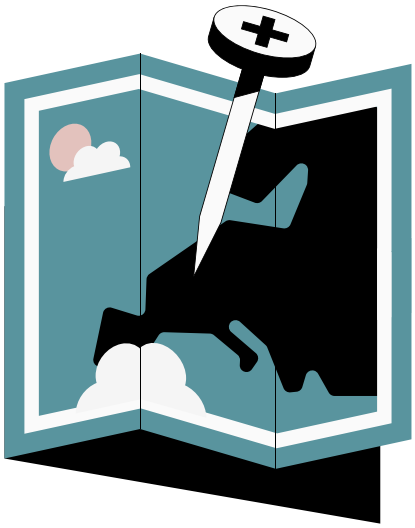
But producing these devices requires intensive mining of often rare, non-renewable resources, such as gold for smartphones. This kind of extraction is harmful both to the environment and to the quality of life of the frequently exploited people who mine the raw materials in unsafe, unhealthy conditions. These resources are usually located in the global South, where foreign private mining companies take advantage of low wages and inadequate government regulation of the mining industry. These mining companies disrupt local communities by acquiring concessions without the local population's consent, purchasing land at derisory prices and extracting raw materials with technologies that involve the use of toxic chemicals such as cyanide, which then enter the groundwater and pollute local ecosystems, agriculture and drinking water. Local resistance to these practices often leads to bloody mining conflicts and human rights violations.

Similarly, the production process from raw material to device has a negative impact on living environments and communities. Highly toxic chemicals are released during the production of complex electrical and electronical devices such as smartphones and laptops; these chemicals are often harmful for workers and end up in the groundwater and in drinking water. Moreover, producing devices often requires more energy than using them. Many newly manufactured devices therefore already have a considerable carbon footprint even before they are switched on for the first time by a consumer. And if you add to this the greenhouse gas emissions that result from transporting materials and devices across the globe, it is clear that every newly produced device has a strikingly negative impact on our climate.

VIDEO

The documentaries 'Death By Design' and 'The E-waste Tragedy' show the often dramatic impact that the production process and waste flow of electrical and electronic devices have on our living environment and communities.

After an intensive extraction and production process, many electrical and electronic devices end up being used only briefly. Electrical and electronic devices today stop working 20% faster than 20 years ago. Broken devices are usually not repaired by the producer once the warranty has expired, and the lifespan of the product then depends on its repairability and the consumer's decisions. Moreover, producers of electrical and electronic devices often make choices that actually reduce the lifespan of devices or make them harder to repair. They frequently do this to save costs or because product repairability and a long lifespan do not interest them. Producers may choose the cheapest design, without screws, or cheap parts that are likely to break more quickly. And they sometimes use different parts for every new model and choose to discontinue older parts, fail to guarantee that devices can be updated, etc. Some producers simply want to sell as many devices as possible and build software or malfunctions into their products by design to ensure that they will break faster. We call this 'planned obsolescence'. For example, there are printer manufacturers who programme their printers to show an insoluble error message after a certain period or a set number of prints.



After use, the raw materials in broken, worn or dated electrical and electronic devices usually do not end up in the material cycle because households typically keep old devices indefinitely in a drawer. Devices in households that are no longer used and whose raw materials are lost to the circular circuit are called 'dormant devices'. But even if they are collected, the materials from electrical and electronic devices are difficult and expensive to recover for recycling, as most devices contain very small quantities of many different raw materials that are not easy to separate from each other.

In the current linear economy, electrical and electronic devices make up the largest waste stream in the EU. Worldwide, this waste stream is growing three times faster than the world's population; it is the fastest growing waste stream. Less than 40% of the waste materials from these devices is currently being recycled in the EU, and only 17.4% worldwide. Devices that are not recycled are frequently exported illegally to countries in Africa and Asia where the often-toxic waste is dumped in landfill sites and burned. The chemicals released in the process constitute a health hazard for local residents, damage the environment and contribute to climate disruption through the accompanying high greenhouse gas emissions.

While the world population produces 7.3 kgs of e-waste per person annually, Europe produces 16.2 kgs of e-waste per person annually, with Belgium in sixth place in Europe. E-waste is the fastest growing waste stream, encompassing about 53,600,000 tonnes of electronic waste every year.

The production and waste stream of electrical and electronic devices is responsible not only for the exhaustion of raw materials, high greenhouse gas emissions and environmental pollution (Planet); they are also harming people's health and ways of life (People).

FURTHER READING

Read more about the various strategies manufacturers use to plan obsolescence, and why they do this, at https://www.stopobsolescence.org/.

1.3.2 – A closed circuit for electrical and electronic devices

Consumers choose to purchase, use and discard electrical and electronic devices, and individuals are consequently not powerless. You can decide not to buy the latest earbuds (Refuse), to share a washing machine with your neighbours (Share) or bring your old smartphone to a recycling depot (Recycle). Often the best way to keep utilizing the raw materials in a device and minimize its negative impact on human beings and the planet is to use it for as long as possible and repair it if it breaks (Repair). It is important to realize that, in some cases, there is a tipping point where the impact of continuing to use the device will be more negative than that of buying a new one. The production process of a new device can be traded off against the energy consumption of an old product, for example when a consumer would be better off buying a new washing machine that consumes much less energy and water than an older machine.

You can help reduce the extraction of valuable and rare resources and ensure that future generations will also be able to use them by repairing broken electrical and electronic devices rather than buying new ones. Keeping electrical and electronic devices – and the raw materials from which they are made – in use for as long as possible means getting the most out of the intensive extraction, production and transport they represent. It also limits new extraction, production and disposal. Using electrical and electronic devices for as long as possible and replacing them with new devices as little as possible means avoiding the greenhouse gas emissions that are required to produce a new device, thus limiting the contribution to climate disruption. Repairing a device yourself also means acquiring valuable skills, insight into the production of consumer goods and an appreciation of craftsmanship. And having a device repaired creates work for local repairers and stimulates a sense of community through local social repair initiatives such as Repair Cafés.

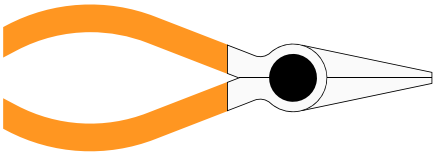
Repair Cafés
Repair Cafés are free meetings where people come to repair broken products together, from clothes and electrical devices to furniture, bicycles, computers, etc. Participants bring broken products with them and repair them under the assistance and guidance of expert volunteers. Repair Cafés teach or reteach people how to repair things and help reduce waste.

Repair Cafés are held in many cities and towns. It is very likely that the Repair Café in your area would be interested in organizing something with your school. Pupils, parents and teachers can get to know the Repair Café together and repair or learn how to repair their broken products. This could be a way for the Repair Café to reach a new audience and maybe recruit a few new volunteers. And who knows, it might inspire your pupils to organize a Repair Café themselves. You can find the Repair Cafés in your area on this map.

Is there no Repair Café in your neighbourhood? Then organize one yourself! Read about how to do this here.

Unfortunately, manufacturers of electrical and electronic devices in the current, linear economy normally do not make it easy for consumers to repair their broken products. A lot of electrical and electronic devices cannot be easily disassembled, official repair manuals are very rare and spare parts are expensive or difficult to source.

Other than choosing to buy products with a long lifespan that are repairable, there is little you can do on your own to end this negligence on the part of the sector. But in addition to consuming consciously, you can exert pressure on policymakers and manufacturers to implement a circular economic model that discourages planned obsolescence and facilitates and encourages repair. One way of doing this is by signing the #Righttorepair manifesto.



Repair score
To stimulate manufactures to make electrical and electronic devices more easily repairable and to encourage consumers to make conscious choices, policymakers could adopt a compulsory 'repair score' for electrical and electronic devices, a score that ranks their repairability. Similar systems have already been introduced in Belgium for energy efficiency (House Energy Rating) and for the nutritional value of food (Nutri-Score) (A, B, etc).

Such a score system could take its cue from the 'Indice de réparabilité' or repair index that was introduced in France in 2021. This index is based on 5 easily measurable and verifiable criteria: repair information, ease of disassembly, availability of replacement parts, price ratio between reserve components and a newly purchased product, and product-specific criteria.

https://repair.eu/news/the-french-repair-index-challenges-and-opportunities/
https://www.indicereparabilite.fr/

Urban mining
Instead of extracting new raw materials through mining, it is also possible to 'mine' raw materials and parts that have been discarded after use. This is called urban mining. Discarded electrical and electronic devices contain many precious metals and parts that can be used to repair other products. By recovering these raw materials and parts, we return them to the material cycle so that they can be used to make new products without having to extract new raw materials. Whether or not a resource can be recovered through urban mining depends on a number of factors, such as the availability of technologies and materials to be harvested and a trade-off between the costs of the often-complex recovery procedure and of mining.

1.3.3 – Repairing devices yourself or having them repaired

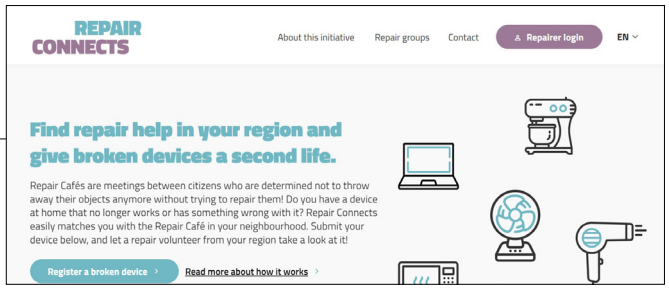
By repairing electrical and electronic devices, you can help prevent the exhaustion of raw materials, reduce global environmental pollution and climate disruption, improve people's quality of life and acquire valuable skills yourself. A recent study by Vito and other academic studies have shown that the costs for consumers who are more likely to have electrical and electronic devices repaired and less likely to replace them with new electrical and electronic devices are lower than for consumers who are more likely to replace broken devices with new ones.

It can be difficult to repair a device or to have it repaired, and this is why Sharepair has developed a number of tools:

RepairConnects
RepairConnects is a broad platform that supports Repair Cafés and involves owners of broken devices in the repair process. People can use RepairConnects to register broken products before they attend a Repair Café to help make their visit even smoother. RepairConnects also has a facility to match owners of broken devices with repairers.

Repairers can log the devices they have repaired in RepairConnects, indicating the methods they used. This information can later be accessed by other repairers to find repair solutions. This data can also be used to measure the number of devices repaired and the impact – the reduction of waste from electrical and electronic devices realized, impact on climate, etc. The Right to Repair movement uses data on the most common problems, missing spare parts, etc. to influence policy and move repair higher up the priority list.

https://www.repairconnects.org/en



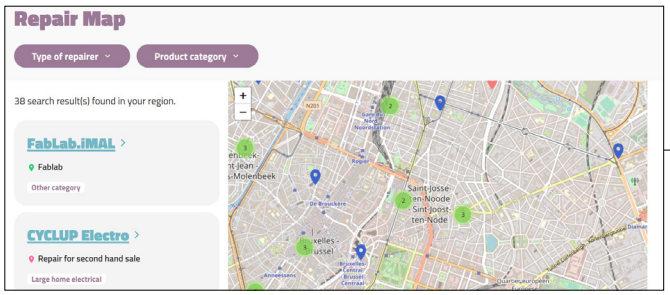
Guidance tool
The guidance tool advises owners of a broken device on how to repair it or have it repaired. The tool offers general information about repair options, such as your rights as a consumer within the warranty period, repairing devices yourself, repairing it in a Repair Café or having it repaired by a professional repairer, 3D printing for repair, etc.

If you want to repair the product yourself, the guidance tool also offers concrete tips for diagnosis and repair of a number of product categories such as blenders, toasters, laptops, etc.

https://www.guidance.sharepair.org/en

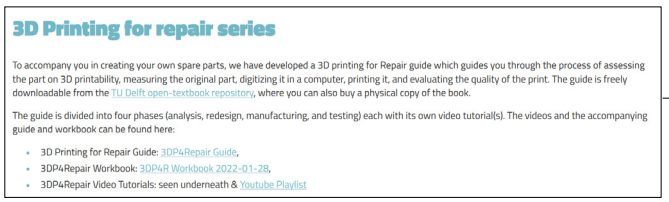
Repair Maps
Repair Cafés are not the only place where devices can be repaired. Repair Maps is an inventory of repair actors across the entire project region, ranging from professionals and Repair Cafés to fab labs and recycling centres. The goal is to offer a transregional overview of everyone who can help you with specific problems in your area.

https://mapping.sharepair.org/en



3D print parts
If you cannot find a new or recovered spare part, then maybe 3D printing could be a solution! This platform provides useful background information (when 3D printing is an option, what things you need to keep in mind, where you can have it done, etc) and directs you to 3D designs to get started yourself.

https://www.sharepair.org/sharepair-3d-printing



DIDACTIC BACKGROUND INFORMATION

This chapter introduces you to the underlying vision of Education for Sustainable Development and the didactic principles on which the teaching pack is built.

The second part familiarizes you with the basic didactic concepts of the teaching material. This helps you understand its modular structure and the learning process behind the steps required to engage pupils.

2.1 – Education for Sustainable Development (ESD)

2.1.1 – The complexity of social problems

This educational pack is based on a vision of Education for Sustainable Development and on the ensuing principles. Discussing sustainable development (see the first part above) means addressing **complex** issues of sustainability and social problems. Climate change, the waste mountain – these are all multifaceted issues that have both **local and global components** that involve many actors.

There are as yet no clear, ready-made solutions for or answers to these challenges. Moreover, the waste problem, like other social challenges, is highly **dynamic**. Our knowledge of the issue is constantly expanding or changing. Any possible answers will therefore be subject to frequent revision.

Finally, there is seldom consensus about the values and norms that guide sustainability. The great social challenges of our time are called **wicked problems** for a reason. The values and norms that these problems touch on appear to be in constant conflict, and there is no consensus. For example, a solution that involves reducing the extraction of raw materials would benefit the ecology, but would conflict with the value we attach to our way of life.

2.1.2 – A rich learning context

Precisely because social challenges are complex, thinking about them can aid the development of children and young people. Because they are not clear-cut and need new, creative answers, they constitute a **rich, interesting learning context**.

Climate change, the swelling waste stream, the pressures on biodiversity and similar issues are all **authentic challenges** that intersect the daily lives of pupils. They invite pupils to engage in further **inquiry**, which allows them to use their knowledge and skills purposefully and practise them. In addition, social issues invite pupils to **interact and exchange perspectives**. Many aspects and possible solutions give rise to multiple and sometimes conflicting opinions, ideologies and values. This interaction with a diversity of perspectives can enrich and widen pupils' outlook and knowledge. Social issues can thus become a source of common inquiry and a learning process in which **ideas for change** can germinate.

This inquiry and learning process are particularly suited for the classroom and/or the school. A school that focuses on Education for Sustainable Development can become a **training ground** that offers a safe space where pupils gain experience with social issues. It gives them the opportunity to practise being active citizens of the world and make choices. They learn to think about what a sustainable society means to them and what choices it entails for them.

2.1.3 – Learning by action-oriented thinking

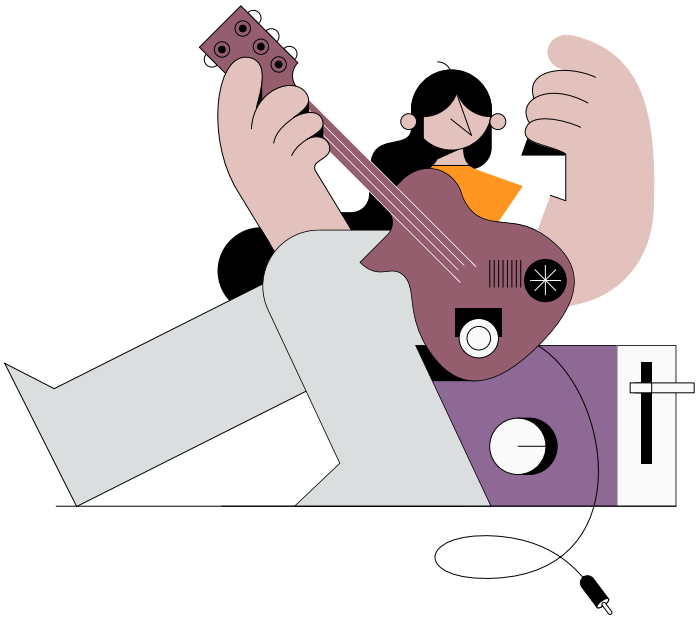
Developing this **capacity to choose** requires more than just knowledge. It is essential to be knowledgeable about the great and small aspects of any social issue, but in the context of Education for Sustainable Development, **knowledge building** is not just a goal. Knowledge is not something you either have or do not have, but it is something active and dynamic that you use and build up by using it.

Making choices concerning a social issue begins with brainwork: inquiring into causes and effects, comparing different views, coming up with ideas or criteria for action, critically examining proposed solutions, focusing on specific aspects of a problem, etc. This is only a small sample of the many different critical thinking skills or thinking processes that you can deploy purposefully.

Action-oriented thinking is characterized precisely by this **purposefulness**. Whenever pupils are confronted with some social challenge, this could be an opportunity for purposeful thinking to propose possible change or action. This could entail either direct or indirect change, for example a new perspective, a better understanding of the subject, or external action that leads to direct or indirect change.

Pupils who have the opportunity to deal with social issues at school develop **self-confidence** in their own ability to make choices and help shape society.

In the context of Education for Sustainable Development, pupils need a learning environment that focuses not only on knowledge, but also specifically on critical thinking skills, dialogue and cooperation. These elements are crucial to build pupils' awareness and their transformative capacity, and they form the didactic principles for this educational pack.



2.2 – Working with this teaching pack

The teaching pack contains **two consecutive lessons**.

LESSON 1 In the **first lesson**, the pupils discover that mobile phones contain valuable **raw materials**. They explore the production chain from raw material to mobile phone. They discover that valuable and rare minerals are lost in a **stream of e-waste that is increasing** every year. They learn that repair is an option to avoid and/or reduce this waste flow.

LESSON 2 In the **second lesson**, the pupils are introduced to various **characters** who all have their own relationship with mobile phones in their daily lives. The pupils place themselves in the position of these characters and examine their **points of view**. The pupils then express their own views on repairing mobile phones. Finally, they broaden their perspective on repair options for electrical and electronic devices and come up with relevant **ideas**.

In addition, the pack contains **three activity sheets**.

ACTIVITY 1 The pupils devise a campaign for repair (for language classes). The **campaign** is preceded by a survey.

ACTIVITY 2 The pupils prepare a **visit** to or from a **repairer**, or a visit to a Repair Café. The sheet contains sample questions for the teacher, assignments for the pupils to prepare the visit, as well as tips for reflecting on it afterwards.

ACTIVITY 3 During a mini workshop, the pupils disassemble a coffee machine to examine the flow of the water by identifying the component parts and reconstructing how they are connected. Then they reassemble the device. This type of assignment is called **reverse engineering**.

2.3 – Education for Sustainable Development in this teaching pack

The production, consumption and disposal of electrical and electronic devices is a complex global issue that affects almost everyone. The complexity of the issue is due to the fact that the whole chain touches on so many areas: the extraction of ever rarer raw materials and the associated pressure on ecosystems and social conditions, as well as ever-increasing production, consumption and waste stream.

Almost every young person will own or use a mobile phone or some other electrical or electronic device, so there is no doubt that this issue concerns every one of them. This means that, as a teacher, you are addressing an issue that every young person will recognize or relate to. Because of this sense of **involvement**, as well as the **complexity** of the issue, this is a great opportunity to create an interesting and challenging learning environment.

Reconsidering the complex chain from extraction to waste according to the model of the circular economy and stimulating young people to consciously choose repair or other sustainable actions with regard to electrical or electronic devices, requires a specific approach. It is not enough simply to transmit existing knowledge about the issue.

The teaching pack focuses on **doing, thinking and dialogue**.

The lessons challenge pupils by asking them to engage with **critical thinking questions** about the subject. This helps them not just to acquire insight, but to practice the critical thinking skills that can aid them to make **conscious choices** on sustainability issues. In the first lesson, for example, the pupils analyse the chain from raw material to mobile phone. By confronting them with critical thinking questions, the teacher challenges the pupils to reflect on the events and impact within the various stages in the chain.

Interaction with other perspectives, for example those of other pupils in class or fictitious characters, helps the pupils to confront their existing knowledge about mobile phones with other insights or ideas. In the second lesson, they are introduced to diverging perspectives on mobile phones. How do different characters, both here and across the world, regard the repair of mobile phones? What role do these devices play in their personal and professional lives?

The pupils compare possible opinions and listen to other arguments. The repair of electrical and electronic devices is a subject that different people view differently. This kind of dialogue offers pupils the chance to use, enrich and expand their knowledge.

The critical thinking exercises, dialogue with other pupils in class or interaction with other perspectives can help pupils to consciously choose to repair electrical and electronic devices.

To give the pupils **self-confidence** in their own impact on society, they are stimulated in the second lesson to come up with activities that will, directly or indirectly, contribute to the repair of electrical and electronic devices. This will make them **competent for action** and help them experience that their choices can make a difference.

The activity sheets offer opportunities to work actively on repair, either by disassembling a device, devising a campaign or closely observing a repairer at work.

Finally, conscious choices for repair also depend on personal characteristics, values, ideology etc. The teaching pack contains many opportunities to ask pupils about theirs and to reflect on their answers.

2.4 – Visual support

The lessons contain stock photos that can be used during class. If you prefer to use alternative images, you can find high-resolution stock photos for free on online image archives such as www.pixabay.com or www.pexels.com.

2.5 – EAL pupils

This teaching pack contains specific vocabulary relating to electrical and electronic devices and the circular economy. New terminology is often introduced by instructions, critical thinking questions, articles and videos. In addition, the pack contains group assignments. We have a few tips for working with EAL pupils and/or pupils with weak language skills:

TIP 1

Before class, print a word wall with images and display it visibly in the classroom. Go over key words with the pupils before you start an assignment or read an article, and make sure everyone understands what these words mean.

TIP 2

Ask the pupils to familiarize themselves with a text or video in small groups or beforehand at home. Form heterogenous groups or pairs to ensure that pupils with strong language skills read the text or help the other pupils.

TIP 3

Create visual references for class or group assignments on the blackboard using drawings, sketches, mind maps, pictograms etc. Write down arguments, ideas or key terms on the blackboard so that all pupils can understand the assignment.

TIP 4

Help pupils to give their own opinion or question each other's views by giving them a few examples of how to start a sentence.

- In my opinion, ...
- I think that ...
- This makes me feel ..., because ...
- I agree/don't agree, because ...
- What do you think?
- Do you agree? Why/why not?

TIP 5

Help pupils with their writing assignments by giving them a few examples of how to start a sentence, for ...

... writing a report:

- This is about ... I knew ...
- I have learned that ...
- I also learned that ...
- In addition, I found out that ...
- Lastly, I learned that ...

... comparing similarities and differences:

- The ... is just as ... as ...
- The ... is similar to ..., because ...
- The ... is not the same, because ...
- The ... and the ... differ from each other, because ...
- Lastly, they are both ...
- Although a ... and a ... are different, there are similarities. For example, they both ...

... giving your opinion:

- In my opinion, ... because
- I think that ... , because ...
- My view on ... is that ...
- I have a number of arguments to back up my opinion. First, ... Second, ... Third, ...
- I agree with ..., because ...
- I don't agree with ..., because ...

ACKNOWLEDGMENTS

Editors
Sabine Anné, Bram Speleman

Design
Toast Confituur Studio

Djapo vzw
Ortolanenstraat 6
3010 Kessel-Lo
Belgium
+(32) (0)460 95 71 01
info@djapo.be
www.djapo.be

This teaching pack was created in the context of the European Sharepair project and was commissioned by the City of Leuven, Apeldoorn and Roeselare, in cooperation with Repair&Share and Maakbaar Leuven with the support of the Flemish government.

We would like to thank:
the City of Leuven, for their confidence in us and their valued partnership;

Brian Heffernan for his translation of the original Dutch-language material;

James Pickstone of The Restart Project for providing feedback on the English version of the educational package;

our partners, Repair&Share, Maakbaar Leuven and the municipalities of Apeldoorn and Roeselare for their expertise on the subject and their feedback.