



Urban Repair Centres (URC)

Overview of best practices

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INTRODUCTION

This report provides an overview of the research done by the 4 partner cities (OLLN, LEU, APE, ROE) with regards to the creation of an Urban Repair Centre in their cities. In the first section of the report, the distinction of the term “Urban Repair Centres” from the more general Urban Resource Centres is made.

The second sections gives an overview of existing best practices of Urban Repair Centres together with conclusions and learnings.

Lastly an overview is given of the initial pilot URC’s the different partner cities will launch and develop during the Sharepair project.

1. Urban Repair Centres

In this document we will regularly make a reference to the term “Urban Repair Centres”. For the purpose of this document, the term “Urban Repair Centres” refers to an Urban Resource Centre with a big focus on repair related activities.

The above clarification does not clarify much if the term Urban Resource Centre is not understood by the reader. We like to reference the definition provided by the Urban Agenda during their work on the classification of urban resource centres. Their definition is the following:

“Urban Resource Centres are physical centres that help facilitate sustainable consumption, waste prevention, re-use, repair and recycling in urban areas. These centres can be designated multi-functional places. Urban Resource Centres bring together a wide community of stakeholders to find alternatives for managing waste streams generated at municipal/inter-municipal/regional level.”¹

With this in mind, we can refer to Urban Repair Centres as **physical centres that help facilitate repair in urban areas**. The scope of Urban Repair Centres includes, but is not limited to the following aspects:

- Education, communication and awareness raising amongst citizens, businesses and organisations on the topic of repair.
- Encouraging the social economy (including the collaborative economy) and social cohesion.
- Act as an incubator / collaborator with local companies to develop sustainable and circular business models.
- Encourage and enable more repair and reuse.

2. Best practices

We have selected some inspirational examples of repair centres and initiatives to draw lessons from current practices. We deliberately excluded the analysis of after-sales services of major brands (Vandenborre, Darty, etc.) and single-product repair solutions (Smartphone repair, IT) which are developing everywhere. We preferred to focus on more comprehensive repair projects which, at the same time, offer training or employment opportunities for people more or less distant from the job market because these projects better relate to the definition of Urban Repair Centres made earlier.

Information was gathered in multiple steps. Firstly, information about the different initiatives and centres was collected through desk research. Secondly, some relevant actors were interviewed about their work and experiences to get some more in depth understanding.

2.1.Circuit - Kringwinkel Antwerpen



Circuit, part of Kringwinkel Antwerpen, is a community centre that revolves around the circular experience and circular economy.

Circuit hosts a repair hub that is open every Wednesday and Saturday and focuses on electronics and bicycles. Two permanent employees of Kringwinkel Antwerp provide citizens with repair services or explain how they can fix their products themselves. In this way, the employees of De Kringwinkel, who usually operate behind the scenes, move to the front stage.

Visitors can also come by and make use of the available tools for a voluntary contribution. Next to the repair hub, Circuit also organizes workshops and training sessions around different repair related topics and they operate a material library where citizens can lend tools. Voluntary repair is also supported by Circuit, every two months they organize a repair café where volunteers help citizens get their broken devices fixed.

In collaboration with “Plein Publiek”, Circuit organizes events to bring the neighbourhood together and promote circular economy. They try to appeal to as many people as possible and regularly involve local catering to bring people into contact with circular economy in a fun and easy way. They organize small events, debates, and info sessions on circularity.

Together with EcoHuis, Circuit developed mobile Repair Boxes for Repair Café initiators. The boxes have all the necessary tools, parts, and DIY repair books that initiatives need to organize a repair café.

There are repair boxes for bikes, clothing, electronics, and wood repair. The City of Antwerp supports local organizations to rent and transport the Repair Boxes.

Circuit is now a pop up at “Plein Publiek”, but plans to move to a more permanent spot on “Circular South” where they want to develop an even bigger DIY repair hub and community centre for local residents. They will offer several units to small circular start-ups and local craftsmen. There will also be a bar where citizens can get together and be inspired.

De Kringwinkel is a privately organized network of reuse centres managed by a non-profit social enterprise with 46% turnover from sales & 43% from subsidies. De Kringwinkel offers a job, training, and a future perspective to more than 5828 people who, for various reasons, have few or no opportunities on the regular job market.

CIRCUIT is a project by Kringwinkel Antwerpen as part of “Circular South”, an ERDF funded project led by the City of Antwerp. CIRCUIT is still in the pilot phase and currently explores business and financial models. In the current stage, the revenues generated from the activities alone are not sufficient, external funds are needed to maintain the project.

2.2.Cyreo scri



Cyreo is a social cooperative that develops activities to preserve resources, promote used goods, and create employment for disadvantaged workers. The participative management and the values of solidarity that animate it, generate a positive economic, social, and environmental impact.

Cyreo was born and developed with the initiative of citizens who want to promote an alternative economy that responds to current social and environmental issues. Today, Cyreo has 75 cooperatives who have chosen to invest in the development of the activities with multiple impacts, without expecting any financial return.

The activities at Cyreo started in 2015 with the development of a reuse centre for small appliances, which is still the main focus and specialty of the organization. From 2016 other activities were also established: environmental management of cemeteries, recovery of advertising tarpaulins and maintenance of gas pipeline. Cyreo recovers used appliances through three channels: sorting in a

collection centre, devices brought in by individuals, and devices donated by companies (mainly computers).

The sorting of appliances happens in the collection centre and is done on a weekly basis. After collecting the appliances from shops and container parks, WEEE are sorted by Cyreo on visual criteria. This way, only the potentially reusable appliances are brought back to the workshop. The next step is to repair the appliances in the workshop, using the electroREV quality standard. After that, the appliances are cleaned and tested one last time before being encoded for sale.

Cyreo sells the repaired appliances either directly to customers during recovery fairs, or via online sales sites. There is no permanent store at the moment. Items repaired by Cyreo are resold at a third of the price and with one year warranty.

Each year, Cyreo collects about 25 tons of small appliances and repairs about 20% to 30% of them. The appliances that cannot be repaired are returned to collection centres for recycling.

Cyreo is a member of Ressources, the federation of social and circular enterprises, and collaborates with public partners such as the public social welfare centres, Cities and private partners for collecting and sales of small appliances.

Cyreo is a cooperative society, recognized by the Walloon Region as a professional integration company. Cyreo employs 8 people and 6 workers in integration. The centre is located in Gembloux, in the North of the Province of Namur.

Because of the low selling price of reconditioned machines, this activity of Cyreo is not profitable. Cyreo therefore started maintenance in cemeteries, which is more profitable but has the disadvantage of being a seasonal activity. The combination of the two activities, one during the summer and the other during the winter, increases the volume of activity over the whole year, while ensuring the financial stability of the company.

Cyreo studied setting up a repair service for clients and recognizes the demand, but the premises does not have the necessary space to propose this type of repair service currently.

2.3.MAAKbar Leuven



MAAKbar is a meeting space for creative citizens with a focus on circular economy, located in Leuven.

The circular hub opened in April 2019 and focusses on a bottom-up, inclusive and participatory approach. It encourages citizens to be part of the circular story; to use the space to develop ideas, projects and skills; to learn new skills for a more sustainable lifestyle; to work together to make the transition towards a circular city.

MAAKbar is a citizen driven initiative that mostly operates with volunteers.

What happens in MAAKbar?

- Repair cafés and repair events;
- A tool library;
- Workshops with a focus on circular economy;
- Circular walks in the city of Leuven;
- Workshops and training for newcomers and vulnerable groups;



MAAKbar developed a complete circular concept and wants to inspire others to start their own 'MAAKbar'. Everyone interested in starting a similar project, can contact the organization for information, tips and a customized action plan.



2.4.EFT Le Hublot

Le Hublot, located in Namur, is part of the Centre of Professional Training Nouveau Saint-Servais (CFP NSS), and also a member of Ressources.

Le Hublot combines the recovery of appliances and training for repairing these devices. The company collects big devices (washing machine, dryer, dishwasher), that are repaired during the training sessions and are resold after. The upgradeable electro mainly comes from La Ressourcerie Namuroise (see below).

The company offers an 18-month training course in Appliance Repair. The course exists out of the following aspects:

- disassembling of major household appliances and repair of valid parts;
- technical diagnosis and repair of devices in the work shop;
- sales of upgraded "big white" household appliances, with 12 months warranty.

Le Hublot offers an on-site repair service and sells refurbished products but has no delivery service. Repairs are limited to replacing damaged parts that are necessary to remedy the observed defect. Only components essential for the correct functioning of the appliance, get repaired, non-essential parts or accessories are left alone. Payment is made in cash.

The warranty for a repaired device is 12 months. The buyer needs to return the device to the workshops and covers the costs for transportation. The repair time depends on the availability of spare parts on the market (a minimum period of fifteen days is feasible). If repairing is not possible or too expensive (more than 30% of the sale price), the device is replaced by a device considered equivalent by the seller (brand, type and age may be different). The buyer has no other choice than to accept the exchange offered to him. The warranty applies under the usual user conditions, the buyer being required to correctly install the device, to treat it well and to use it with due diligence.

Le Hublot is a work-based training company. Trainees are paid 1€/hour.

2.5. Openhub de Louvain-la-Neuve

Located in Louvain-la-Neuve, the Openhub helps starters and companies to test their ideas with creativity.

To do this, the hub offers 3 technological tools:

- the Fab Lab for Makers in « Do It Yourself » mode;
- the Tech Lab for companies in « Do It with me » mode;
- the xR Lab for all projects that need to simulate usage contexts (virtual reality);

Connected to other university partners, the Openhub is developing support methodologies dedicated to "Fast & Creative Testing". The Louvain-la-Neuve Openhub is part of the network of creative hubs in Wallonia. As such, it is the hub of Walloon Brabant which allows each project leader or company to be directed to the most suitable field operators.

The Openhub gives access to the Makilab (fablab), which provides a plethora of small equipment that can be used for prototyping and testing of projects: network cameras, 4K webcams, 360 ° cameras, TVs, screens, depth sensors, etc. and has state-of-the-art machinery and equipment.

The open hub is open to anyone who wants to test, experiment. Technicians are present to assist everyone in the use of the machines and all kinds of repairs and experiments. There are large reception areas, coworking spaces, workshops, training, etc.

The TechTruck

Equipped with technologies such as 3D printing, laser cutting and CNC milling, the TechTruck is a real mobile laboratory of creativity, accessible to all. Currently, it is mainly used in schools, to sharpen students' curiosity and introduce them to the world of digital manufacturing.



2.6.SOFIE scrl-fs

SOFIE started in 2002 with collecting, sorting, dismantling, recycling and reusing of EEE. SOFIE is a cooperative society recognized as a professional integration enterprise and is located in the Province of Liège.

The social purpose of SOFIE is to promote professional integration and the training of low-skilled workers and job seekers. It aims to create lasting employment in sustainable activities.

SOFIE's activities are divided in:

1. Collection and sorting of WEE

In partnership with Recupel, SOFIE collects WEEE from household appliance retailers in the Province of Liège. The material is gathered in a regional transshipment centre and sorted into four fractions before being sent to suitable processing centres.

2. Valuation and resale of used appliances

SOFIE has a large workshop, equipped with state-of-the-art equipment, where a team of trained technicians recondition used appliances. Washing machines, dryers, dishwashers, refrigerators, freezers, televisions and upgraded small appliances are then sold in the R SHOP City and R SHOP Country stores in Liège and Grâce-Hollogne. Each store offers a wide choice of second-hand appliances (with 1 year warranty), furniture, dishes, books, toys, records, etc.

3. Depollution and dismantling of fridges and small appliances

In partnership with the company Recydel in Wandre, SOFIE recycles WEEE, ensuring the depollution, dismantling and shredding of refrigerators and small household appliances.

4. Repair of appliances

SOFIE repairs broken appliances brought in by individuals. Ideally, people drop off their broken device at the R SHOP Country store. It is also possible, if paid for, to use the delivery service.

Support is € 30 (this is requested when depositing the device). In case of repair, the deposit is always deducted from the invoice. If the person chooses not to repair, the deposit is lost.

- Labor cost: 30 € / h.
- Full cleaning cost: 50 €
- Parts cost: 1/3 price if recuperation, or new price
- Up to € 100 (deposit included): the device is repaired automatically
- More than 100 €: the customer has the choice to make or not the repair.

SOFIE is labeled REC'UP and ELECTROREV. It offers a one-year warranty on large appliances. SOFIE is a cooperative society with a social purpose. It employs 45 people.

2.7.La Ressourcerie Namuroise scrl

La Ressourcerie Namuroise is a professional integration company specialized in the reuse, repair and recovery of everyday objects.

In 2019, 380 tons of goods were given a new life by collecting, sorting, reconditioning, repairing, remanufacturing, and selling them via the Boutik network of La Ressourcerie namuroise.

La Ressourcerie Namuroise is:

- a collection service for bulky items at home, free for individuals in the province of Namur;
- FABRIK, a work space for sorting and the management/recovery of waste.
- 4 BOUTIK “Made in Recover” which offers furniture and objects for reuse and eco-consumption, as well as remanufactured eco-design furniture.

In addition to this waste reduction objective, the mission of La Ressourcerie Namuroise is to promote professional integration and training people with a distance from job market. La Ressourcerie Namuroise is recognized as a professional Integration Company.

Since 2016, La Ressourcerie Namuroise has a carpentry workshop that produces a range of tailor made furniture with sustainable design, remanufactured furniture or reused of collected materials. In 2019, the carpentry workshop employed 4 people: foreman, furniture repairer and designer furniture assembler. The team is reinforced by 3 people under article 60 contract for the air-gumming, dismantling and gluing jobs.

In 2019, La Ressourcerie Namuroise was able to hire a valorisation team, in order to promote and encourage the reuse and repair component for the items collected. Objects in good condition or potentially reusable items are thus better identified and selected.

- Armchairs, rugs and other articles covered with textile are shampooed and treated against parasites. The other fabric items (linens, toys, upholstery, etc.) are machine cleaned with environmentally friendly products.
- Small appliances are checked and cleaned. No repair. What is not kept, will be returned to Recupel, who then pays for this electronic waste.
- Large upgradeable appliances are entrusted to the EFT LE HUBLLOT (see above).
- bikes are verified, repaired and overhauled.

The valued objects are stored by categories, transferred to the Boutik network and sold.

La Ressourcerie Namuroise does not repair on behalf of third parties, but hosts a monthly repair café in the stores. They do not repair electro and never buy parts to repair, except for bicycles.

2.8. Repair Café Mobile – Repair Together



Repair Together provides support to more than 171 “Repair Cafés” in Brussels and Wallonia. In Flandre, the “Repair Cafés” are supported by Repair&Share. Both organizations are members of the international network RepairCafé.org

The main objective of Repair Together is to pool resources needed to create, develop and maintain Repair Cafés in Belgium. Repair Cafés are recurrent repair events organized for and by neighbours on a voluntary basis. Repair Together also promotes and informs the public about reparation, citizen initiatives, circular economy, the fight against planned obsolescence and the right to repair

On the web site, they offer tools to help people repair, such as videos and very detailed tutorials.

Repair Together has also developed a Repair Café Mobile, a mobile work space for the repair of objects, collaborative and itinerant. It is the mobile version of Repair Cafés and travels through Wallonia and Brussels.

The mobile repair café includes:

- A reception area: to ask questions, complete a registration form, find out about Repair Cafés, find out about actions (schools, events, training, etc.), discuss new consumption patterns.
- A repair area: on each side of the trailer, there are storage spaces with various tools and a large work surface to repair.
- A coffee area: to have a drink and get to know the repairers of the Repair Cafés.

Repair Together focuses on repairing little electro, for practical reasons but also because there are already actors in the social economy that repair big electronic devices. The philosophy of Repair Together is to teach people to repair, not to repair for them. They also emphasize conviviality: Repair Cafés are a moment to meet others, discuss repair information and exchange knowledge.

All repairs are free but people can leave some money in the piggy bank. Visitors are invited to complete a registration form to follow up the progress. This also gives Repair Together the opportunity to gather data about repair that can be entered in a centralized database (type of device, ease of repair, etc.).

The association Repair Together employs 10 people, some of them part-time, and is funded by the Walloon region and the Brussels region. The members of Repair Cafés are all volunteers.

2.9.Halle 2 – The Munich Waste Management Cooperation



Halle 2 is a circular hub in the city of Munich. Its main activity is the selling of goods that are collected at 12 recycling centres in the city in order to extend the lifespan of useful everyday items such as electronic devices, bicycles and textiles. The goal of Halle 2 is to be a hub not only in terms of reducing waste by reuse but also in terms of understanding all aspects of the circular economy.

At Halle 2, stakeholders of the city's sharing and circular economy (from educational institutions, non-profits, voluntary organization, ...) can test new services, exchange knowledge, inspire citizens and try out new ideas to improve the processes involved in collecting, evaluating, and selling used goods. From sustainability seminars to Saturday auctions, the hub shows what circular economy looks like in action. Halle 2 has established itself as one of the best places for second hand shopping and for social/circular enterprises to make their circular activities more visible.

Citizens can, for example, learn how to fix their own bike and enjoy a cup of coffee at a Repair Café, or buy a bike repaired by a social enterprise that provides vocational training for unemployed youth. They can purchase electronic devices that have been repaired and checked by specialist social companies. Alternatively, they might be inspired to get creative by the many examples of upcycled products and exhibitions of art made from waste. In the future Halle 2 wants to introduce even more services, like for example the rental of tools.

Halle 2 demonstrates the added value of the circular economy model, where reusing, sharing and cooperation between very different stakeholders and interest groups from different branches create opportunities on both economic and ecologic levels.

Halle 2 is a project from the Munich Waste Management Cooperation (AWM), which is owned by the municipality. The €1,000,000 budget for renovating and marketing the store came directly from the fee paid to AWM by every Munich household for collecting and managing their waste.

A multi-disciplinary working group of 15 people was set up to create the project. They established cooperation agreements with local social enterprises that offer both the specialist expertise needed for the store's repair and reuse services and the employment and training opportunities key to the project's vision. It also worked with educational and community organizations to create activities that would encourage people to be more environmentally aware and active. Since the recycling of items has become a profitable activity for Halle 2, the AWM had to develop contracts with the (social) partners involved in the project.

2.10. Murphy SAS

Murphy is a repair service for major household appliances: washing machine, dryer, dishwasher. Created in 2017, this French company aims to reduce our household electrical waste by making everyone adopt the reflex of repairing rather than throwing away. The company wants to wreak havoc on the idea that it is easier and cheaper to replace rather than repair its household appliance.

Positioned in a sector hitherto dominated by distributors of new appliances (Darty, Boulanger), Murphy relies on salaried technicians with several years of experience, to offer quality service. Murphy also offers a personalized service, so that the customer always has the same contact during the repair.

The company has already saved more than 35,000 devices, avoiding more than 2,500 tons of household waste. Murphy works at home in the following cities and their surroundings: Paris, Lille, Lyon, Toulouse, Marseille, Nice, Montpellier, Cannes, Bordeaux, Nantes, Nancy, Metz et Strasbourg. It has reconditioning workshops in Ile-de-France, Lyon and Lille.

Murphy offers 3 services:

1. Online repair assistance

Murphy advocates self-repair. To help individuals more easily understand how to repair their appliances, Murphy has implemented two tools: an interactive and free online diagnostic guide with repair tutorials, and the direct sale of spare parts. This offer helps the company to build up its network of customers, to increase its notoriety (and more generally to raise awareness among the population). On its site, Murphy also gives a series of tips to extend the life of devices.

2. Home repair

Murphy has chosen to meet consumer expectations by charging a one-off, refundable price of € 85 (regardless of location and duration of intervention). In this way, Murphy hopes to increase the volume of repairs by removing the brake linked to the cost of the repair. For a repair, you must make an appointment on the site. Murphy offers several slots to make it easier to book an appointment in less than 48 hours. The client chooses the day and time of the intervention (in short slots of 2 hours). Then the technician comes to your home, for an all-inclusive package of € 85 which must be paid in advance online. In 60% of cases, the device is repaired within 30 minutes and the repair is guaranteed for 6 months on the same failure. If the repair requires spare parts, the customer can accept the quote, or refuse it. In this case, the € 85 is transformed into a voucher to be used on reconditioned devices.

3. The sale of reconditioned equipment

Murphy sources its supplies from its customers (non-repairable household appliances) and from WEEE collectors (Waste Electrical and Electronic Equipment) to resell reconditioned appliances at attractive prices, while making a profit on the sale. The devices are reconditioned by Murphy employees in its workshops in France. They are guaranteed for 1 year (repair or exchange).

The products offered are: Washing machine, Dishwasher, Tumble dryer, Fridge, Oven & stove, Freezer, Hob, Microwave oven.

Murfy is the first commercial company to work with Eco-Systèmes (French organization in charge of waste management of electrical and electronic household equipment). Murfy could thus increase the value of the 23 million devices now discarded and in part recovered by the association, which today works mainly with Emmaüs and the Envie network.

Murfy trains and recruits (on permanent contracts) all over France. It currently has 140 employees, spread throughout France. Those who do not have experience as a household appliance technician can apply for the Murfy paid training, set up in partnership with Pôle Emploi. The training lasts 6 months: 3 months of practical training in one of the workshops (Bobigny, Lille, Lyon or Nantes), followed by 3 months in virtual autonomy with customers.

To date, Murfy is unprofitable and its equity is negative. But the company continues to invest and raise capital.

3. Learnings from existing practices

The cases that we have described in this study are very different from each other, in terms of:

- **Objectives:** “to repair for” or “to learn to repair”. The objective of some centres is that people learn to repair themselves and then put in place tools and guides to help people. Other centres aim to repair but not to learn how to repair. Either they repair to resell the product, or they repair for the customer. In this case, the repair is most of the time paid for.
- **Legal structure:** non-profit organization, training company, integration company, commercial company (rarer).
- **The status of repairers:** volunteers, people in training, people in integration, professionals.
- **Pricing:** free, voluntary contribution, cost of support payable whether the device is repairable or not, estimate (rare).
- **Funding:** public (the city for Hall 2 in Munich, the “ressourceries” via Recupel), private.

Furthermore, it seems that the business model is different for small appliances and big devices. The main reason is that big devices are not easily transportable and it’s easier to make the reparation at home. A “mobile” repair service seems to be required for big devices.

There is very often a second-hand shop linked to the possibility of reparation. In this way, if the device is not repairable or the repair is too expensive or too long, the customer has another solution. Ideally, these outlets should be located in commercial spaces, which are generally overpriced.

Considering the low selling price of small electro, only repairing small electro does not seem profitable. That is why, up to now, only the easiest repairable devices are kept, others are thrown away and very rarely dismantled. We must therefore find a way to reduce the cost of repair (cost of repairer, room, spare parts) if we want to increase the quantity of repaired devices.

The other reason why only the easiest repairable devices are kept, is because most of the time the organizations work with workers that are in integration or in formation and who do not initially have the skills to repair. To increase the quantity of repaired devices, there is a need for professional repairers.

Spare parts, or the lack thereof bring multiple challenges. Mostly, spare parts are ordered elsewhere and re-invoiced to the customer, which can lead to delays and a significant cost. One could consider having the spare parts that are the most used in stock; the ideal would of course be for the parts to be standardized, which is not at all the case at the moment, even within a same brand.

In the field of repair, large premises are needed, both to store the devices to be repaired, to set up the repair shop and to offer reconditioned machines for sale. Large spaces are needed, accessible to the general public and, if possible, well located from a commercial point of view.

To encourage citizens to repair, they must be offered places where they can repair themselves or learn to repair. For this, we need reception areas and repair work spaces with ad hoc and various equipment.

4. Pilot URC's in the Sharepair project

Each of the Sharepair partner cities (OLLN, LEU, APE, ROE) will set up an Urban Repair Centre in the city based on the learnings from the analysis. The approach of each URC with regards to enabling repair will be a bit different. This section gives an initial overview of the plans.

4.1. Le Repair Studio - Louvain-la-Neuve (BE)

The sharepair partners of Ottignies/Louvain-la-Neuve have set up a RepairStudio. It opened on May 5, 2021 in the premises of the Openhub of Louvain-la-Neuve



The RepairStudio is open every Wednesday from 12:00 to 18:30:

- to repair or have small electros repaired, free of charge (during the launch phase). To ensure the smoothness of repairs, they ask to make an appointment (30-minuts slots);
- to buy, at low prices, electro devices reconditioned by Cyréo, with a 1-year warranty;
- to deposit the small unnecessary electros, whether they are functional or not. They are recovered, repaired, or recycled by Cyreo;

Purchases and deposits are made without an appointment.

The RepairStudio includes:

- a large reception area where you can discuss and exchange, and also buy devices refurbished by Cyreo;
- a workshop for repairs. This workshop is located in the Makilab where there are a series of machines and technicians that allow, among other things, to manufacture parts via 3D printing;

The RepairStudio has been running for 1 month and already allows us to draw conclusions and adapt our project: repair time, type of devices, necessary equipment, need spare parts, etc.

4.2.E-Hub – Apeldoorn (NL)

Sharepair partner, the municipality of Apeldoorn, Netherlands, opened a physical E-novation hub, where partners from education, the business community and the municipality of Apeldoorn will join forces in the Cleantech Region to add high-quality value to collected electronics on promising markets.

The organisation Circle Value will be working together with Weee Nederland, recycling companies Foenix, Stilema, SecondTech, (Higher) education Saxion's regional development research group, ROC Aventus, and other companies.

CircleValue is a raw materials alliance of AVU, ROVA and Circulus-Berkel with the aim to actively participate in the transition to a circular economy. Developing innovative solutions for different waste streams is a major challenge in this regard.



Stimulate & increase recycling

In 2021, the physical E-Hub on the Zwitsal site in the NewTechPark in Apeldoorn has started formally. The E-novation hub will be the place where knowledge and experience can be gained in safe testing, repair and certification of returned electronic devices and parts. The aim is to significantly increase the reuse percentage of collected electronic products, such as washing machines and electric motors, in the coming years.

23.9 kg E-waste per person

Electronic waste is one of the fastest growing waste streams and places a strong claim on people and the environment. In 2019, per inhabitant in the Netherlands, no less than 23.9 kg of E-Waste was released per inhabitant of electrical and electronic equipment. Negative consumer perception and low expected technical quality mean that most consumers are hesitant when it comes to purchasing reusable electrical appliances. At the same time, there are many business opportunities because electronics contain valuable raw materials and parts. A major system change is needed to actually take advantage of these opportunities. Data and information will help to get a grip on the electronics flow in the Cleantech Region, as well as technical expertise to objectively identify and classify the reuse possibilities of the collected electronics.



Extend the lifetime of electronics- and electrics

The E-novation hub will become a leading knowledge centre for reusable electronics. In a stimulating learning environment, together with students from ROC and Saxion, experience will be gained in registering, testing and data certification of collected electronics. The knowledge that is developed in this way is shared with the professional field. The E-novation hub is looking for innovative solutions for how smartly and efficiently the lifespan of collected electronics can be extended.



Technical competences of young people

In a 'rough', inspiring industrial hall, students from the ROC and returnees will actively test electronics. In a test lab, students and returners will assess electronics based on work instructions and test protocols and test equipment in a safe test environment. By systematic testing, the ultimate aim is to be able to proceed to certification for electronic electronics. In the coming year, (digital) training material will be developed to support new personnel in repair and overhaul. The activities in the E-Hub make a strong contribution to developing the technical competences of young people in the context of a regional circular economy.

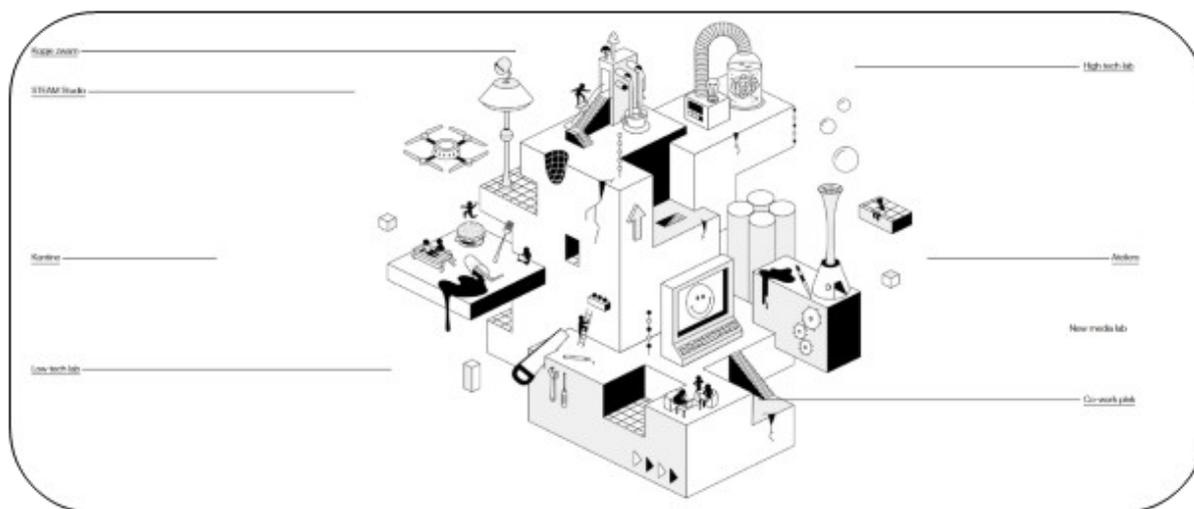
Extended life platform

In addition to the physical E-Hub, the E-novation project group is also building a data-driven matching platform for reusable electronics in the Cleantech Region. This 'Extended-life' platform makes the electronics flows transparent and bridges the current 'gap' between reusable electronics and their marketing. The purpose of the demo to be developed is to design a "Minimum Viable Product" of the platform that makes the functionalities and system requirements of the Extended-Life Platform visible. The demo also provides insight into the operation of the underlying process architecture when identifying, classifying, testing and repairing electronics.

4.3. Maakleerplek - Leuven (BE)

Maakleerplek is a space where companies, organizations, schools, artists and citizens from Leuven learn, make and work together. It is a place created for and by all citizens. Together with the city, the maakleerplek participants try to answer various social, social, economic, ecological and cultural challenges of today and tomorrow. Focussing on creativity, innovation and cross-fertilization between different sectors, companies, educational institutions and organizations.

In September 2020 a participatory process, initiated by the city of Leuven, brought together 44 participants (organizations, citizens, schools, artists, companies). Everyone worked together to develop a mission and vision for maakleerplek. At the end of November 2020 a charter was signed by all participants, the official launch of the concept ‘maakleerplek’.



maakleerplek is divided in different spaces. Each space has a specific focus:

- Kopje zwam
- STEAM studio
- Kantine
- High-techlab
- New media lab
- Co-working spaces
- Low-techlab
- Low-techlab

The Low-techlab is a place for makers and repairers. The lab is an open atelier for like-minded organizations or citizens to create, make and repair. In April 2021 the low-techlab officially started. In



the first phase, only the participants can share the space (because of COVID-19). After the summer, the lab will also be available for citizens and other creative minds to work.

Currently, three makers are involved in the low-techlab:

- b00t vzw: a group of young architects that experiment with new materials and design installations for various local projects;
- Dovetail: a furniture builder who works with recuperated wood;
- De Batterij: a music instrument builder who experiments with sound and material.

Repairhub

Maakbaar Leuven and the city of Leuven work together, in the context of the Sharerepair project, to start a Repairhub in maakleerplek. The Repairhub is part of the low-techlab and focusses on repair in the city.

These activities will be part of the hub:

- Organizing repair events and repair cafés;
- Working together with other organizations in maakleerplek to find solutions for repair of EEE;
- Establishing a permanent hub in the city with tools and materials to repair EEE;
- Experimenting with spare parts for EEE repair;
- Working together with the local waste collector Ecoverf to gather broken EEE;
- Generating spare parts from the broken EEE;
- Developing a digital database with spare parts, as well as a physical depot;
- Using the spare parts during repair events or repair cafés;
- Experimenting with 3D printed spare parts in collaboration with the high-techlab in maakleerplek

4.4.RSL Op Post – Roeselare (BE)



RSL Op Post, situated in an old postal building, is a social/circular hub in the city of Roeselare. Owned by the city, it is a place where citizens can meet, where talents are developed and where there is room for social-innovative projects.

RSL Op Post houses several fixed partners who use the spaces in the building. In addition, every citizen, company, or organization that wants to organize something and fits into the social / circular objectives, is welcome. The only condition is that the (temporary) project is accessible to everyone.

RSL Op Post is the home of the local ‘Kringwinkel’, a place where citizens can shop for secondhand products and bring in products they no longer need. It also houses a social grocery, ‘De Graancirkel’, who ensures a three weekly food distribution for those in need. A social organization helps citizens who are looking for a job with discovering their skills in one of the two workplaces. There is a fully equipped kitchen area where food workshops and cooking trainings are organized and the meeting room, a pleasant open space with seating and terrace, can be used by for lectures or low threshold encounters in the weekly organized talking club.

RSL Op Post also houses a makerspace where citizens can make use of a high-tech equipment like a laser cutter and 3D printer. Trained volunteers help citizens with their creative projects and workshops are organized monthly where visitors can learn how to work with the equipment themselves.

The makerspace, together with the nearby open studio, will be further developed into a ‘make and repair hub’. It will be home to the local repair café who will organize monthly repair sessions. The space, repair tools and materials will be made available to organizations and citizens for repair related activities and projects, and lectures, training and workshops will be organized for those who want to level up their repair skills or want to learn more about the circular economy. Next to the use of tools in house, the launch of services like a material library are also evaluated.



Partnerships between the different actors in RSL Op Post are continuously explored. For example, appliances that are brought into the ‘Kringwinkel’ but deemed as defective could be used by the repair café for spare parts. This could be the start of a local spare parts database where products that would normally be thrown away can still be kept in the loop. A partnership between the makerspace volunteers and the repair café could explore how 3D printing can be used for repairing broken devices.

These activities combined should turn ‘RSL Op Post’ into a city hub where the circular economy is promoted in a low-threshold / social way, where every citizen can be inspired and contribute to a more circular economy in his own way.



CONCLUSIONS & NEXT STEPS

The four partner cities wrote this report to provide an overview of best and current practices regarding Urban Repair Centres in Europe. The goal was to gather information about the concept, learn from the examples and use the lessons learned to launch an URC in each partner city.

After researching existing best practices, we came to the following conclusions:

- A different business model is needed if you work on repairing small appliances or big devices. The main reason is transportation. A “mobile” repair service could be a solution.
- Repair is often linked with a second-hand shop. This provides another solution if the device cannot be repaired. Ideally, these outlets should be located in commercial spaces, which are generally overpriced.
- Only repairing small electro does not seem profitable. That is why, up to now, only the easiest repairable devices are kept, others are thrown away and very rarely dismantled. We must therefore find a way to reduce the cost of repair (cost of repairer, room, spare parts) if we want to increase the quantity of repaired devices.
- Another reason why only the easiest repairable devices are kept, is because most of the time the organizations work with workers that have no sufficient repair skills. To increase the quantity of repaired devices, there is a need for professional repairers.
- Spare parts are mostly ordered elsewhere and re-invoiced to the customer, which can lead to delays and a significant cost. A solution could be to have the spare parts that are the most used in stock; the ideal would of course be for the parts to be standardized.
- In the field of repair, large premises are needed, both to store the devices to be repaired, to set up the repair shop and to offer reconditioned machines for sale. Large spaces are needed, accessible to the general public and, if possible, well located from a commercial point of view.
- To encourage citizens to repair, they must be offered places where they can repair themselves or learn to repair. For this, we need reception areas and repair work spaces with ad hoc and various equipment.

Currently, the four cities have launched or are in the preparation phase of launching their own URC's. The conclusions and solutions mentioned above, will be researched further and put into practice by the cities. This will result in a follow up report with a feasibility study for an Urban Repair Centre and new lessons learned for other cities.

This report has been written by :



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