PSYCHOSOCIAL BARRIERS TO RE-USE OF DIFFERENT GROUPS AND PRODUCTS

Comparative report

2021

Preparation: P7 RREUSE

Contributors: all partners

2LIFES
Interreg Europe

Contents

1. Introduction to the 2LIFES project

The 2LIFES project has the primary aim of accelerating Europe's entry into the age of re-use. While the European Union promotes Waste Hierarchy as the way forward, a significant proportion of re-usable products are still prematurely recycled and even incinerated or landfilled. According to UN Environment, 50% of all carbon emissions are caused by the extraction and processing of natural resources (UN Environment, 2019). That is why the European Commission underlines the need for the EU to "strive to reduce its consumption footprint and double its circular material use rate in the coming decade" (European Commission, 2020: p. 4). Therefore, re-use needs to be promoted across Europe.

This project brings together cities and regions committed to re-use. The expected primary outcomes are the development of new channels, infrastructures and protocols for re-use, as well as the sharing of best practices to enable policy learning and step-up re-use. Awareness-raising among households, businesses and administrations will also be required. Finally, green jobs related to re-use initiatives are also expected.

2. Portraits of 2LIFES partners

EMULSA, Municipal Company of Urban Environment Services of Gijon (Gijón, Spain) is the lead partner of the project. It is a municipal public enterprise that has been directly managing urban waste management in this city since 1978. Its competencies include the design of the waste management strategy besides the municipality and the execution of the waste management plans in force. It is in charge of daily collection and transport to landfills and it is also responsible for citizen awareness-raising campaigns to promote the selective collection of waste as well as correct environmental behaviour. EMULSA will contribute with its experience in waste management and also its specific experience within the field of waste prevention and re-use. This experience and business model can be extrapolated to the other partners, thus improving their own management models.

Gijón has recently approved the Municipal Waste Management Plan of Gijon 2017-2022, which establishes the strategic lines for waste management in the city of Gijon for the coming years. Whilst EMULSA efforts until recently have primarily focused on recycling, the Municipal Waste Management Plan in force since 2017 focuses to a great extent upon

prevention and re-use. The specific priority in the Municipal Waste Management Plan the project frames within is the following: Priority "reduce waste generated and foster re-use". Municipal Waste Management Plan of Gijon 2017-2022 is expected to be improved thanks to the project through the development of projects promoting re-use inspired in the cooperation which will contribute to developing further the Plan's approach for re-use.

Figure 1: *Map of 2LIFES partners*

Aarhus Waste and Heat Reuse (Aarhus, Denmark) is also a local public authority. The Municipality of Aarhus has set up long-term goals towards a vision where the municipality shall be climate neutral within the year 2030. Intending to achieve this objective, the city has implemented several profound and successful initiatives concerning housing, transport, industries and other sectors, including the waste sector. The big challenge now is involving and making the citizens act. The ReUse Centre has been a pilot project for three years and a small step in the right direction, showing how to make the circular economy work in action. It is an innovative space for recycling, upcycling and progressive waste management where any citizen can pick up prime bulky items for free, therefore preventing them from becoming waste and saving resources and CO2 emissions. Citizens also contribute with their bulky unwanted items. It is more than just an exchange space: it aims to change citizens views and perceptions of waste, therefore hosting exhibitions, events and courses on waste. Consequently, it has been a

decisive space to work upon re-use involving citizens. The Aarhus Municipality has approved a six years extension, thus making Aarhus ReUse evolve from being a pilot project to a fully operational project. Aarhus Waste and Heat Reuse P/A will contribute by providing the knowledge of daily waste management in Aarhus but also the specific experience of The ReUse Centre - where the other project partners can come and get inspired.

KRWMC, Klaipeda Regional Waste Management Centre (Klaipeda, Lithuania) is an infrastructure and public service provider. It is a critical institution in the Klaipeda Region responsible for the mixed municipal waste processing strategy, which envisages the improvement of this policy instrument through new re-use projects inspired in other partner regions. The new projects expected in the Klaipeda Region will focus mainly on the creation of a repair and exchange system for worn out household goods and second-hand, the conditioning of "spaces" using the existing infrastructure (bulk stations) serving for exchanges regarding re-use, or the creation of specific IT protocols for re-use of WEEEs/clothes /furniture/books, thus improving existing collection mechanisms and processes. KRWMC will contribute to the project by providing best practices and practical information regarding the initiatives aforementioned, already in place.

ANEL, Nicosia Development Agency (Nicosia, Cyprus) is a public agency. It aims to identify existing good practices in the field and transform them into new local projects developed supported by the OP framework and resources. Moreover, the Department of Environment of the Ministry of Agriculture, Natural Resources and Environment (which is the responsible body for waste management policymaking on a national level as well as the intermediary body for the implementation of the selected policy instrument) is in the process of establishing synergies with the local authorities and the private sector to boost re-use. Whilst several NGOs operating in the district of Nicosia already apply and promote a wide array of re-use activities, they are not eligible to be financed under the identified policy instrument. Therefore, ANEL will look for examples in the partner regions showing practical cooperation of different local stakeholders for the development of holistic re-use projects

KDRIÜ Central Transdanubian Regional Innovation Agency Nonprofit (Székesfehérvár, Hungary) is a regional public agency established by the decision of the government. It covers the Central Transdanubia region of Hungary. It deals with innovation planning and services, project development and network management. Its core focus is to establish and maintain a

network of regional services based on the cooperation of different service providers, including universities, businesses, and the public community. Its experience in waste management includes involvement in the drafting of the regional capital's waste management strategy; agreement with the biggest waste management company in the region to jointly develop awareness-raising; cooperation with ten municipalities on waste management initiatives; and the development of a project on re-use and recycle for primary schools (with support of cities). The agency also has experience regarding construction waste. CTRIA will contribute through the provision of GPs in re-use, mainly expertise in plastic re-use and re-use in construction and with its experience in the organization of awareness-raising events.

Marche Region (Ancona, Italy) is a regional public authority. This region has recently put in place a new policy (the "Regional Waste Management Plan") that includes a "Regional Program of Waste Prevention (RPWP)", which covers municipal and special waste. The responsible authority for the Plan is the Regional Council of the Marche Region. The general objectives of this Plan are to achieve optimal performance in terms of integrated management of municipal waste and to encourage the correct administration of special waste. The Regional Programme of Waste Prevention (RPWP) aims specifically at the prevention of urban waste, focusing on prevention activities in the region, identifying Waste Fractions prevention priorities, setting strategic objectives, influencing permanent changes in behaviour, planning activities and monitoring activities. Through 2LIFES an optimized implementation of the Regional Waste Management Plan is expected, with particular attention to the promotion of re-use centres by municipalities.

RREUSE Reuse and Recycling European Union Social Enterprises (Brussels, Belgium) is an international non-profit network representing approximately 850 social enterprises active in the field of re-use, repair and recycling. RREUSE strives to help promote a legislative framework that enables the development of re-use centres and networks, especially those operated as social economy enterprises, leading to local green and inclusive job creation. Moreover, they aim to influence policy proposals on employment conditions, social rights and inclusion, and link them to the circular economy debates. Since its creation in 2001, RREUSE has been involved in numerous EU projects, the majority of which focus(sed) on supporting the re-use both from a practical and policy perspective. In these projects, RREUSE has primarily provided expertise from the RREUSE network and often support in communications.

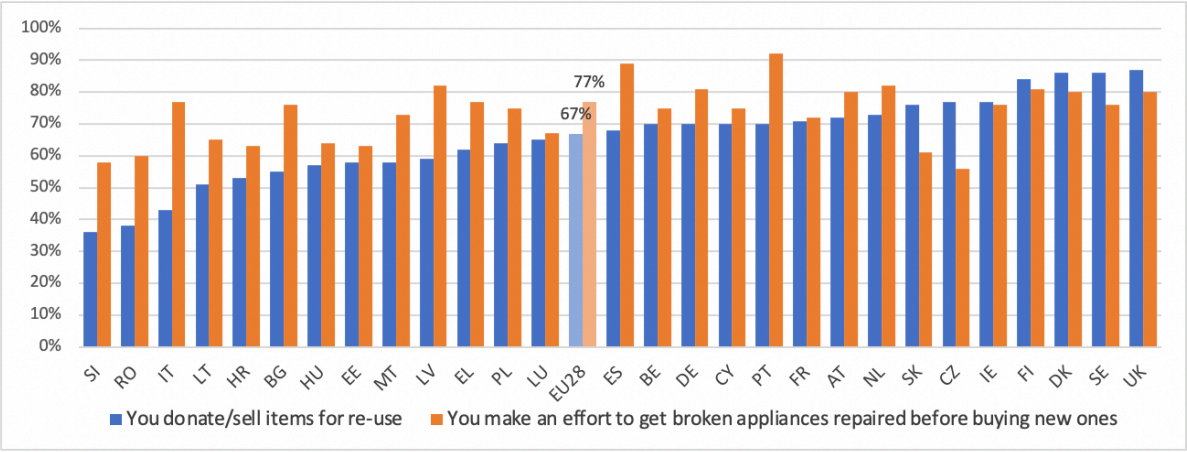
An overview of these projects can be found on RREUSE's website, which includes the Life+ LoWaste Project, which was selected as one of the top 5 outstanding Life projects from the programme's 25-year history. As an advisory partner, RREUSE will be in charge of providing expertise to the partnership at various stages in the project.

3. Research on psychosocial barriers to re-use: aim and state of the art

As a vital component of the 2LIFES project, partners had to simultaneously carry out psychosocial studies on barriers to re-use concerning different population groups and products during the first semester. This study, consisting of a formal survey process, had the goal to identify the most reluctant groups to re-use and the less popular re-usable goods per territory, which is strategic information to provide content and evidence on the current situation, produce tailored communication campaigns, and increase the effectivity of the project.

Data and knowledge about consumers' behaviour regarding the circular economy are rather scarce. Therefore, these studies will frame the communication campaigns to be carried out during the project. As will be shown in this report, the survey was designed to exhaustively collect data on citizens' attitudes, beliefs, and behaviours regarding the re-use and repair sector. Behavioural economics can also inform and have a considerable impact in the policy arena, which often focuses on supply. However, it must certainly not ignore the demand in order to transition to a circular economy and thus deliver on sustainability targets.

***Figure 2**. Attitudes of Europeans towards Waste Management and Resource Efficiency (2015)*

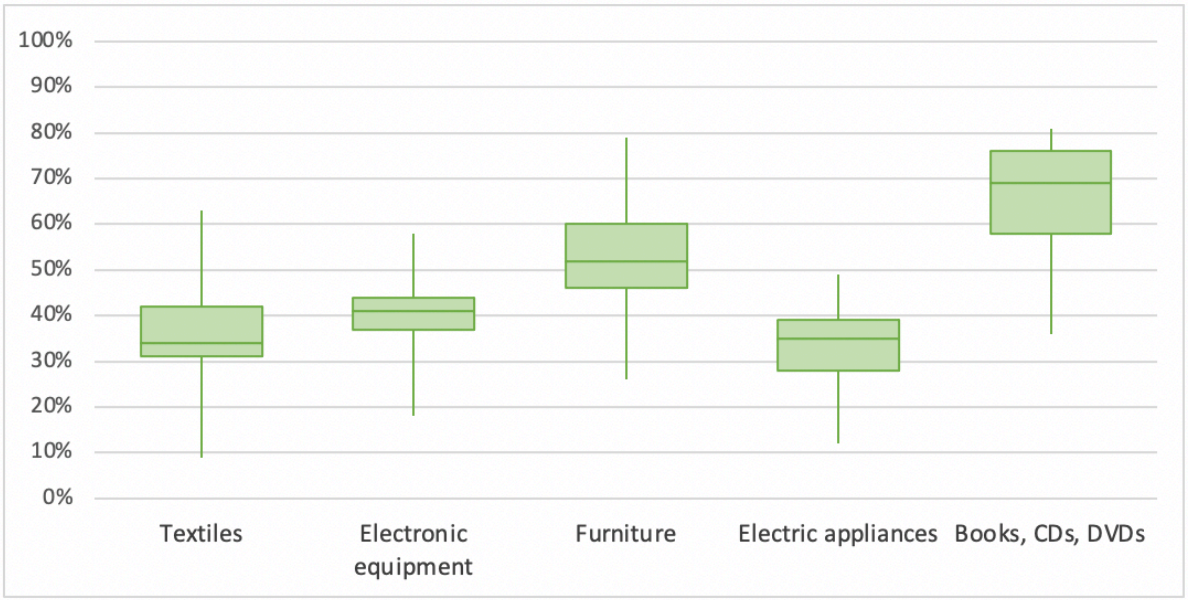


***Source**: Own elaboration based on data from Flash Eurobarometer 388 (2015).*

A pioneering survey in this regard was *"Flash Eurobarometer 388: Attitudes of Europeans towards Waste Management and Resource Efficiency"*. According to this study, which reached 26,595 European citizens, 87% of citizens agree with the statement "My country as a whole is generating too much waste", and in some countries such as France, this figure went up to 95%. Regarding re-use and repair, 77% of European citizens (EU28) said they attempted to make an effort to get broken appliances repaired before buying new ones, whilst 67% of respondents donated or sold items for re-use.

Moreover, the survey also asked European citizens which types of products would they buy second-hand. The responses to this question show the wide differences existing across EU28 countries. Policy frameworks must consider these differences and draft roadmaps to remove psychosocial barriers to re-use on an *ad hoc* basis. For instance, while in some countries less than 10% of citizens would be willing to buy second-hand clothes in other countries more than 60% of citizens would do so. The median values (the line that splits the central box) also show the vast differences between different types of second-hand products: for instance, while on average almost 70% of European citizens would be willing to buy second-hand books, CDs and DVDs, this figure goes down to 34% for textiles.

Figure 3. *Variability across EU28 countries regarding willingness to buy second-hand products (2015)*



Source: *Own elaboration based on data from Flash Eurobarometer 388 (2015).*

This comparative report will dive into the specificities of consumer behaviour in the partner's cities and regions, taking existing studies like the Flash Eurobarometer 388 as a

reference. If a re-use strategy is to be successful, which would result in re-use policies playing a central role in reducing waste generation and raw materials consumption, re-use and repair have to become a natural choice for consumers. Re-use organizations would be able to keep items circulating if proper infrastructure, policy frameworks, and consumers behaviour were promoted. This is what can be called a re-use culture (RREUSE & Zero Waste Europe, 2021).

To change behaviours towards sustainable options, re-using products and re-usable packaging options must be seen as something attractive, desirable, affordable and convenient for customers. Hence, there is a need for municipalities, regional administrations, waste agencies and other public bodies to create a local re-use culture by educating its citizens and businesses about why re-use is important. This should be supported with informative communications (both online and offline) that explain what can be re-used and signpost those interested donate or buy second-hand products (RREUSE & Zero Waste Europe, 2021).

Mapping out who the key stakeholders are locally and what existing re-use and repair initiatives are already being implemented and diving into the already existing psychosocial barriers to re-use is thus necessary, since it provides a helpful platform to guide future actions. Therefore, the partners of the 2LIFES project had to draft a situational analysis of re-use in their territory, as well as a survey concerning psychosocial barriers to re-use.

4. Background and methodology

All partners conducted a survey with common questions. The survey aimed to dive into consumer behaviour regarding re-use, thus revealing what psychosocial factors might boost or hamper second-hand consumption. The only exception was the 2LIFES partner in the city of Aarhus, AffaldVarme, who soon realized that the survey was unsuitable to its regional context. The team, therefore, has been given permission from the Lead Partner to prepare its own surveys and studies in line with their needs and context. AffaldVarme thus prepared two studies, the first one focusing on recycling construction materials and the second one on establishing a Mobile Repair Workshop.

While the same survey was conducted in all regions, the methods to reach out to respondents, and thus the composition of the samples, varied. While some partners outsourced the study to a subcontractor, some others conducted it themselves, and in some cases, the final

sample might be skewed towards certain social groups. Therefore, this report will attempt to compare the results by considering vital sociological variables such as age, gender or educational level. The overall results of each partner cannot be compared directly without considering these variables, since the composition of the samples varies.

It must also be considered that these surveys were done during the COVID-19 pandemic, a time of high economic and social uncertainty. Therefore, this phenomenon can affect the results in many ways (for instance, in times of high uncertainty, people are more likely to think about purchasing decisions in merely financial terms, excluding ulterior factors such as environmental friendliness).

5. Sample characteristics

It must be noted that there are obvious differences regarding the age, educational level and gender of respondents between the partners' surveys. For instance, whilst samples in Marche, Klaipeda, Nicosia and Transdanubian region are on average younger and highly educated, the sample of the city of Gijón is not[1]. While all samples include a slightly higher number of women, 83% of respondents of the Hungarian survey are women, which must also be considered when analyzing the results. Overall, the surveys made in Spain, Italy and Lithuania have been responded to by 400 to 700 people, while the Hungarian survey has gathered up 234 participants, and the Cypriot survey 30.

A majority of respondents of the Spanish sample reported a monthly household income from 500 to 1,999 EUR. In contrast, most of the respondents in Italy reported higher revenues (50% cited a monthly household income between 2,000 and 4,999 EUR[2]). However, in some cases like Lithuania, a wide majority (64%) of respondents preferred not to say their average

[1] 45% of the Spanish sample is 55 years old or more, while this figure goes down to 27% for the Italian survey and to 15% in Lithuania. The Hungarian has just 18% of respondents over 50 years old, and 49% of the sample in their 20s or 30s. The Italian, Hungarian and Lithuanian samples include around 60% of people with higher education degrees, and over 80% of the Cypriot sample has a higher education degree, while only 29% of the Spanish sample does. It must be noted that higher education is commonly related to a higher environmental awareness and more positive attitudes towards environmentally friendly actions.

[2] 21% of respondents preferred not to say what was their income.

household income. Most respondents in Gijón reported family units of 1 or 2 persons, while respondents in other regions lived on average in larger units[3].

Whereas less than 50% of the sample in Gijón was active (30,3% was working in the private sector and 17,2% in the public sector), a 24% was retired, a 14,9% was unemployed and a 4,4% of the sample was studying. However, the occupational composition of the surveys in the rest of the regions were profoundly different, with 57,4% of respondents in Italy working in the public sector, 24,7% in the private sector, 2,1% unemployed and a scant 1,8% retired[4].

6. Main results

Since the characteristics of the samples play a key role in the results, this report will often include results broken down by different categories (mainly income, age, and gender). This allows for a better understanding of the available data.

6.1. Important factors when purchasing consumer items

When assessing psychosocial barriers and drivers to purchase second-hand goods, it is also pivotal to understand consumer's beliefs and expectations when buying new products, and more generally, their engagement with the circular economy. Therefore, it was deemed necessary to kick off the survey by assessing consumers' behaviour when buying new products, in terms of what sustainability factors, ranging from durability to repairability[5], they have in mind at the moment of purchase. Respondents could mark more than one option.

Spain, Italy and Hungary (30%, 28,6%, and 22,4%, respectively) respondents coincided with considering the durability of a product as the most important factor when buying a new item. However, respondents from Lithuania pointed to the potential of a product to be sold

[3] Whereas only 20% of Spanish respondents live in household units of 3 or more people, 59% of Hungarian respondents live in such kind of household units, and this figure goes up to 68% in the case of the Italian survey. Spanish respondents are presumably young childless couples, older couples whose children already live separately, and widowed elderly people living alone.

[4] Finally, in Lithuania, almost 20% of the sample was unemployed, and 10% were students, while 12% worked in the private sector and over 40% in education, healthcare or more broadly in the public sector.

[5] It is known that consumers are generally willing to engage in circular economy practices, but actual engagement is rather low. However, recent studies have found that provision of information regarding durability or repairability can be highly effective to change attitudes. (European Commission, 2018: p. 10).

again when they don't want it anymore as the most crucial factor[6] but nevertheless reported durability as an essential factor too (27%). The duration of the warranty, the repairability of the product, products being environmentally friendly, and lower costs due to higher energy efficiency were also generally deemed as important factors, whilst the potential of products to be taken back at the end-of-life and the fact that there are made of recycled material were not high in the respondents' list of priorities.

***Table 1**. Important factors when purchasing consumer items, by partners' countries*

	Italy	Spain	Hungary	Lithuania
Durability	22,4%	30,4%	28,6%	27%
Environmentally friendly	17,7%	5,3%	18,3%	22%
Lower costs due to higher efficiency	17,4%	20,7%	18,9%	32,5%
Repairability	17,1%	13,6%	13,7%	3%
Longer warranty	14,6%	16,7%	11,3%	27%
Seller takes product back end-of-life	6,5%	2,5%	6,1%	17%
Made of recycled material	2,5%	1,6%	1,7%	1,5%
Easily sell the product	0,4%	4,5%	0,3%	41,5%

***Source**: Own elaboration based on surveys results*

Beyond the aggregated figures, it is also relevant to assess differences across gender, generational and socioeconomic status lines. For instance, in Spain, the youngest respondents were found to relatively give more importance to products being environmentally friendly, being easy to sell them once no longer want them[7] and long durability. However, they seemed less worried by longer warranties, repairability and running costs due to efficiency.

In Italy, data showed that men were more likely to focus on product durability and lower costs due to energy efficiency, whilst women gave more importance to warranties and

[6] It must be added that such differences are at least partly given because of the particularly young average age of Lithuanian respondents. In Spain, 9,7% of people aged 16-34% considered this is an important factor, only 4,5% of respondents aged 35-54 did, for 2,2% of respondents over 55. A stronger interest in re-selling goods can be therefore assumed for young people, which are highly familiar with popular second-hand apps.

[7] In the Spanish city of Gijón, while 9,7% of people aged 16-34% considered this is an important factor, only 4,5% of respondents aged 35-54 did, for 2,2% of respondents over 55.

environmental sustainability[8]. No clear associations were found regarding the rest of the variables. Regarding income, individuals with higher reported household income gave more importance to energy efficiency, while those with a lower income were more prone to value the repairability potential of products.

As can be observed in the table above, Lithuanian respondents provided quite different answers compared to other partners. Sellers taking products back and providing new ones, lower costs due to higher efficiency, extended warranties, but especially easiness to sell the product in the future were judged as more important by Lithuanian respondents[9] than others, while a scant 3% of respondents viewed repairability as one of the most critical factors, the lowest value among all partners.

6.2. Second-hand purchasing behaviour

The second block of the survey aimed to shed light on the past behaviour of respondents regarding the acquisition of second-hand goods, thus getting to know whether they had purchased a preowned product at some point in their life, what kind of product was it, and whether they regretted it.

In Gijón, 56% of respondents had purchased at some point a second-hand item from a second-hand shop, charity shop or re-use centre. The younger the respondents, the more likely they were to have purchased a second-hand item, with over 86% of people aged 16-34 having done so, 63,5% of respondents aged 35-54 and only 37% of those over 55.

While women were found to be more prone to buy second-hand furniture or clothes, men were more prone to acquire second-hand home appliances and small electronic devices (30,7% have done so, for 17,6% of women). Regarding age, the younger the respondents, the more likely they were to have purchased preowned clothes or small electronic devices, while the elder respondents were more likely than young people to have acquired at some point second-hand furniture.

[8] All these relationships passed the Chi-Square test (Sig.<0,05), except environmental sustainability which yielded a significance of 0,056.

[9] In Lithuania, differences were found in terms of educational attainment and household size. According to the authors of the original local report, higher education generally entails more conscious consumer behaviour (larger environmental awareness when making decisions on buying).

In the Transdanubia region, 94% of respondents reported having bought a second-hand product, mainly clothes (41,3%) and furniture (24,4%). No differences were found regarding the composition of customers, according to the authors of the report. In contrast, 53% of respondents in the Marche region had bought preowned goods. The most common product to buy second-hand was furniture, with 31,9% of respondents having experience purchasing such goods, followed by clothes (25,2%), IT products such as headphones, MP3 or radios (16,6%) and finally, electrical appliances (8,8%).

In this Italian region, young respondents between 25 and 34 were found particularly prone to buy second-hand, with 66,7% of them have done so, compared to 47,1% of those over 55. Regarding specific second-hand products, people over 55 were found particularly unwilling to purchase second-hand clothes[10]. Women were found to be more likely to have bought second-hand goods than men, with 58,5% having done so, compared to 45,2% of men. Men were found more likely to buy second-hand IT products, while women were more likely to buy preowned clothes and furniture.

In Lithuanian region of Klaipeda, 54% of the respondents had purchased a second-hand product. Approximately 36% of the respondents had bought second-hand clothes, while around 17% had purchased furniture and 11% an electrical appliance or IT product. Finally, in Cyprus, 40% of respondents had purchased second-hand goods at some point, mainly appliances and furniture.

It can be thus concluded that young people were generally found to be more likely to buy second-hand products, mainly clothes and IT products. Moreover, women were more prone to purchase preowned garments and furniture, while men tend to be more interested in second-hand IT products.

Finally, 95% to 98% of respondents who had purchased second-hand goods would do so again in all surveys. No apparent differences were found in terms of income, gender or age in this regard[11].

[10] Only 13,5% of respondents over 55 had ever bought second-hand clothes, while 33,3% of those between 25 and 34 years old had done so.

[11] In Spain, respondents over 55 were found slightly more likely to regret the second-hand purchase, with 3,6% of these saying they wouldn't do it again. But the overall number of people which stated that regretted buying second-hand goods was so small that it is complicated to draw any conclusions, as it is not statistically significant.

6.3. *Reasons not to buy second-hand goods*

Consumer protection is a crucial factor in all sectors, as customers need to be able to obtain accurate information about the products they purchase and feel protected against possible defects of the products.

***Table 2**. Reasons not to buy second-hand goods in the region of Marche, Italy.*

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Low reliability	7%	32,7%	40,8%	17,4%	2,1%
Easy get scammed	3,9%	16,9%	31,9%	41,3%	6%
No option to give back product	1,8%	12,2%	29,4%	43,4%	13,2%
Customer is less protected	1,3%	7,8%	17,7%	57,9%	15,3%

***Source**: Own elaboration based on surveys results*

As it can be seen in the following table, more than 70% of respondents in the region of Marche agreed with the notion that customers are less protected if there are any problems when buying second-hand products. 57,9% of respondents highlighted that customers have no option to give back the product to the seller, and almost half of the sample considered customers can easily get scammed when buying second-hand. However, respondents were found to somewhat disagree with the notion that second-hand products are less reliable.

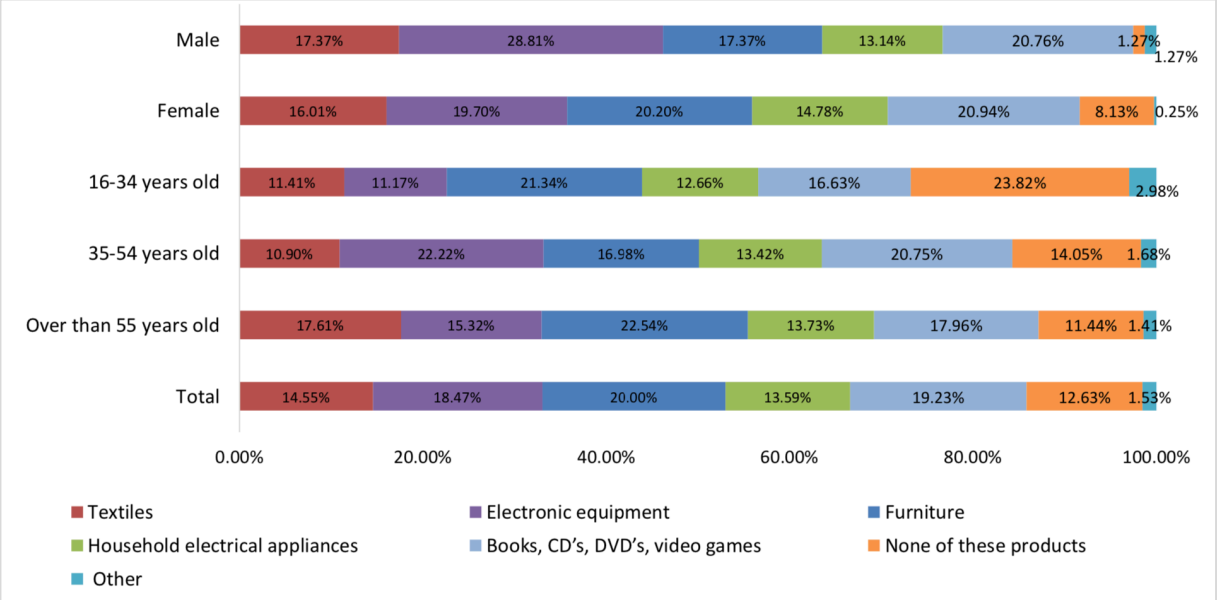
Similar trends were observed in all partner's regions: whilst the majority of respondents do not think that second-hand products are unreliable, there are concerns regarding the possibility of being deceived when buying a second-hand product, the lack of options for replacement, and the absence of guarantees when buying a re-used product.

However, the second-hand market is a broad sector with a wide array of products. It is thus necessary to study each product's peculiarities whilst also examining how they interact with consumers' behaviour.

In Gijón, 25% of respondents said they would never buy second-hand electrical appliances, followed by almost 20% who would never buy re-used clothes. Finally, 14% would never buy second-hand books, CD's and video games, 13% electronic equipment, and 10% furniture. People aged between 16 and 34 were found more hesitant to buy second-hand clothes

(25% would never do so), while people over 55 were on average less willing to purchase second-hand electronic equipment and furniture. Only 19% of the sample reported not having a 'taboo' with any second-hand product. The results regarding what type of products would they buy second-hand can be observed below.

***Figure 4**. Willingness to buy second-hand products in the city of Gijón, Spain.*



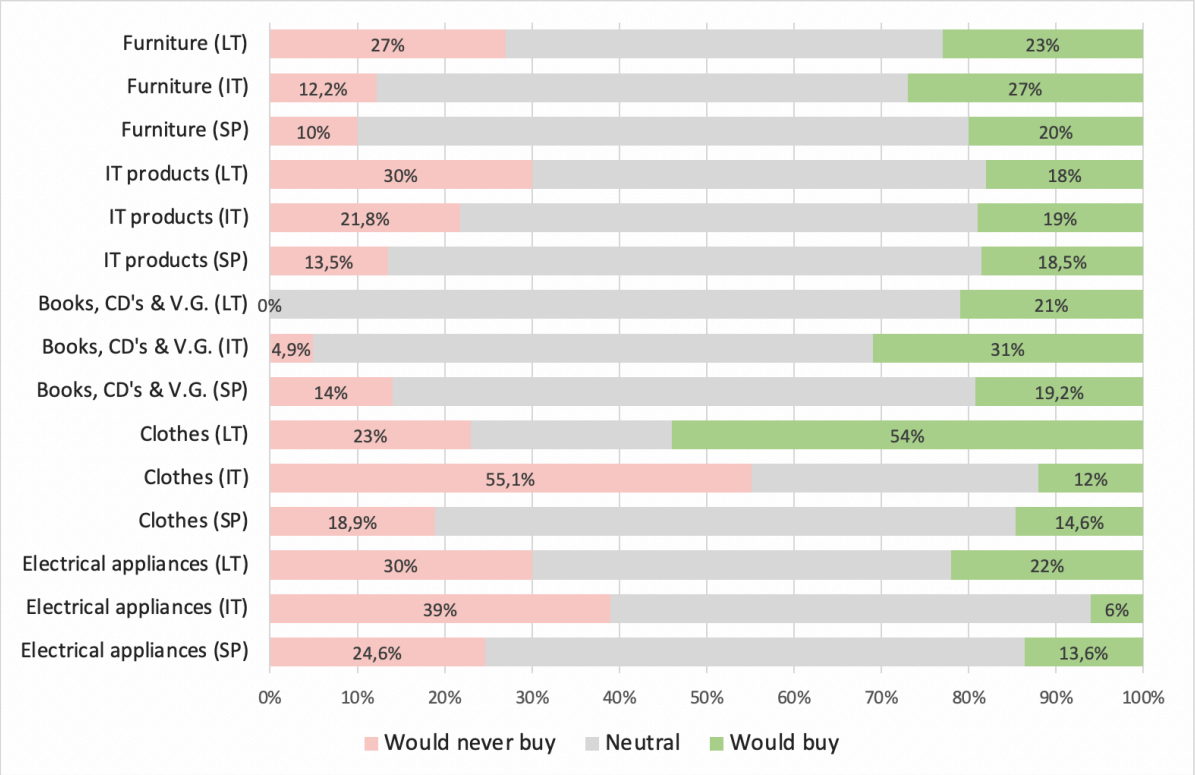
***Source**: Own elaboration based on surveys results*

Similarly, most respondents (55,1%)[12] in the Italian region of Marche reported that would never buy second-hand clothes, followed by electrical appliances (39%). Only 21,8% and 12,2% said that they would never buy IT products and furniture, respectively. Furthermore, respondents reported being particularly unwilling to buy second-hand products such as underwear, shoes, and other hygienic textiles such as towels. A key factor at play may be income. For instance, while 19,4% and 39,8% of respondents with an income above 3.000 euros per month reported that they would never buy second-hand furniture and electrical appliances, respectively, only 5,3% and 28,1% of those whose income was below 1.500 did so. The same applies to IT products, as 22,6% of those earning more than 3.000 euros would never buy them second-hand, but only 10,5% of those earning less than 1.500 did so[13].

[12] While in the Spanish survey, respondents were ask to select maximum on type of product that they would never buy second-hand, the Italian survey asked the same question independently for all types of products. That is why the overall percentages are higher.

[13] Regarding age and gender, associations were less strong. However, age was related to a somewhat higher unwillingness to buy second-hand books, CD's and video games (0% of people aged 34 or less were unwilling to

***Figure 5**. Willingness and unwillingness to purchase second-hand products, per partners' countries*



***Source**: Own elaboration based on surveys results*

The psychosocial study deployed in the Hungarian Transdanubian region found that clothes and furniture were the most popular products to be bought second-hand. More than 30% of respondents in the Lithuanian region of Klaipeda reported that they would never buy second-hand IT products nor electrical appliances; 27% of respondents said so for furniture, and 23% for clothes. In Cyprus, the product with the highest number of respondents willing to buy it second-hand were books, CDs, DVDs, and video games, followed by furniture and household electrical appliances.

Whilst asking want kind of products is essential, the surveys in Gijón, Marche region, and Klaipeda region also asked which types of products consumers would buy second-hand. Whilst this might seem redundant, by adding up the data it is possible to estimate how many respondents would actually buy, are neuter, or would never buy specific types of products, thus distinguishing "taboos" regarding certain second-hand products from active willingness to buy

do so, while 4,7% of people aged 35-54 and 8,7% of those aged 55 or more did so), and men were found slightly less willing to buy second-hand clothes (59,9% of men would never do so, whilst that is the case for 51,3% of women).

them (that is, not having a "taboo" regarding a second-hand product does not mean that person is actively willing to buy it, and vice versa). The results can be found in Figure 4.

However, whilst it is imperative to understand consumer behaviour concerning specific second-hand products, it is also appropriate to delve into the particular reasons mentioned by consumers to buy or not to buy second-hand. In Hungary, 29,7% of those who had never bought second-hand reported that they did not do so because of hygienic reasons. In comparison, 24,3% reported not buying preowned clothes because of lower quality, and 18,9% for health and safety concerns. Spanish respondents were more likely not to buy second-hand because they simply didn't contemplate that option before (33,2%), because they assumed second-hand products were lower quality (26%), or because of hygiene concerns (18,8%)[14].

While these surveys asked respondents to choose one of those possible reasons, the Italian poll asked for each possible reason (that is why the figures are remarkably different). The results yielded 72,4% of respondents reported not to buy second-hand for hygiene reasons, followed by health and safety (51,4%) and quality (49,7%). 14,9% of respondents had never considered it, whilst 7,7% of respondents reported not buying second-hand because of the product's looks, and only 1,7% because of what other people might think of them. While these results suggest that social influence and stigma are not a factor at play, unwillingness to publicly recognize social influence over individual decisions is a known trend in behavioural research, therefore this should not be taken as definitive results.

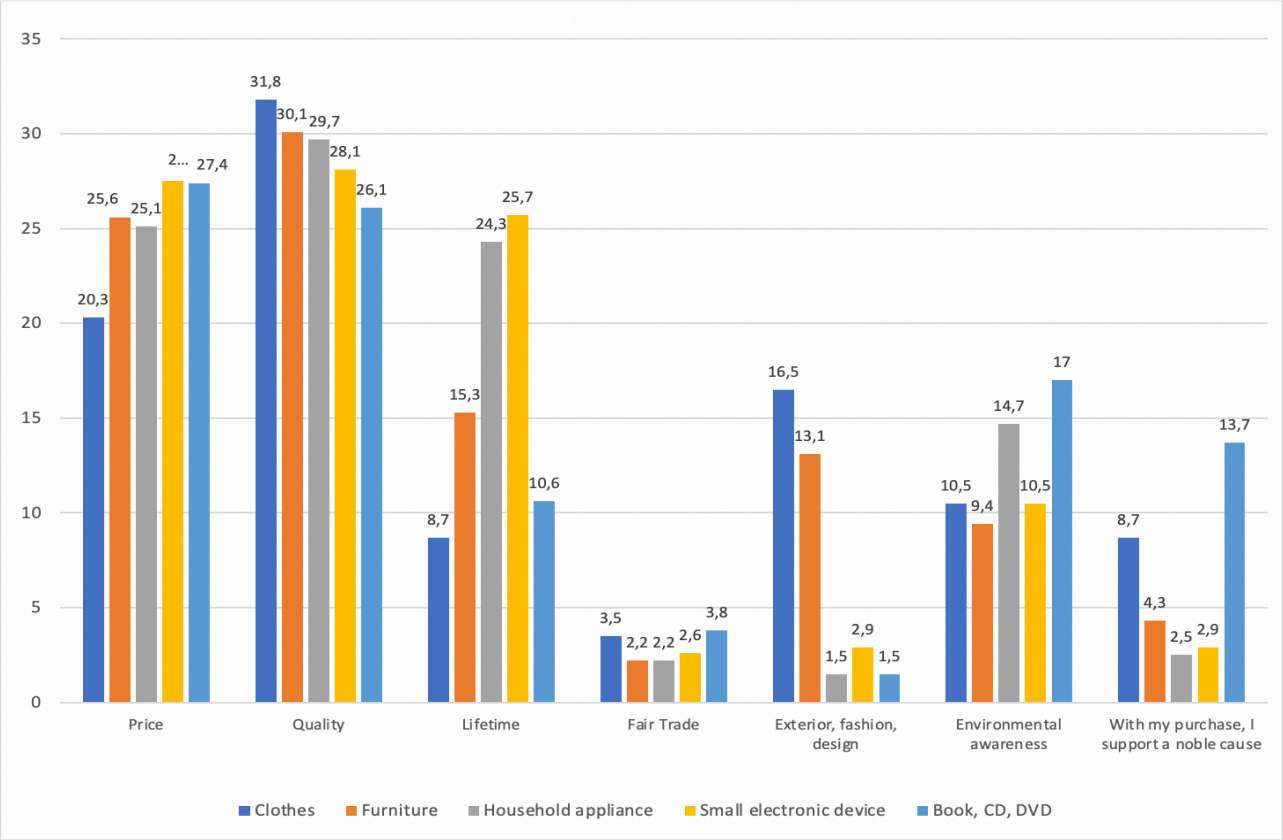
Compared to the rest of the partners, the survey carried out in Klaipeda yielded a higher proportion of respondents reporting not buying second-hand products because of the less appealing look (30%), whilst hygiene concerns (32%), inferior quality (27%) and health and safety concerns (24%) had a similar degree of support.

In the Spanish survey, men were found more likely to focus on the look of the product (15,4%, whilst only 5,9% of women) and its quality (29,7%, whilst 22,8% of women), and women were more likely to report not having contemplated that option before (37,6%, whilst only 28% of men). The Italian survey found men more concerned about health and safety, whilst women were more prone to have concerns over hygiene issues. This factor was also

[14] Finally, 10,3% of respondents said that the look of the products were less appealing, 8,2% reported health and safety concerns, whilst only 1,9% mentioned social stigma (that is, being afraid of what others might think of you buying second-hand).

clearly associated with age (the older the respondent, the more likely to have health and safety concerns over second-hand products).

***Figure 6**. Important factors when buying second-hand products in the Transdanubian Region*



***Source**: Own elaboration based on surveys results*

Respondents also had to rank the importance they attributed to several factors when purchasing second-hand products, spanning from the quality of the garments to fair trade practices in the supply chain. As shown in the figure, in Hungary price and quality were found to be the two most important factors determining the purchasing decision, even though the price was deemed slightly less critical for garments. As observed in the individual report:

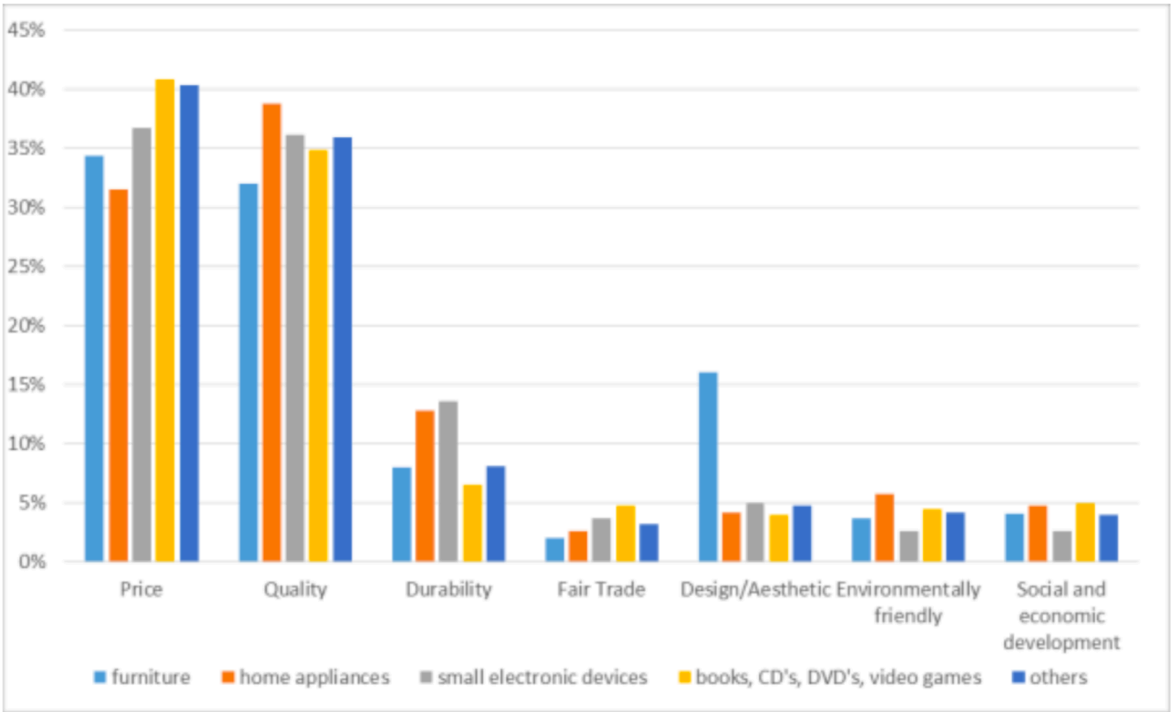
> *«Before buying, we like to make sure of the quality of the products, be it whether a dress, a laptop or a closet. Unfortunately, in Hungary there exists such an image of second-hand products that the clothes are piled up, dirty, with an unpleasant smell, and nobody feels like even touching them. There is an enormous need for the average person to see good examples. For example, a second-hand clothing store where you can have a look at products that smell good and attractively placed for all our senses and try them on in as pleasant conditions as in a mall store».*

While the conditions vary across Europe, the driving force behind this psychosocial study was to identify the particularities of each region, thus identifying gaps that can be addressed in the

action plan at the end of the project. Therefore, the Hungarian partners will consider this factor when preparing a strategy to boost re-use in their region.

The product's lifespan was also a significant factor, particularly regarding electrical appliances and IT products, and to a lesser degree, furniture. Indeed, durability and ecodesign are pressing issues in the circular economy, and campaigns are being launched to promote the longer-term use of electronics by improving their design, repairability, and boosting re-use and repair through policy and tax drivers.

***Figure** 7. Important factors when buying second-hand products in the Marche Region*



***Source**: Own elaboration based on surveys results*

Design and aesthetic properties were found particularly important for clothes and furniture, as these are products often associated with aesthetics, self-expression and identity beyond their functionality. Indeed, similar studies have found similar results: consumers' interest in product durability and repairability is higher for expensive and not fashion-driven products, such as electrical appliances (European Commission, 2018: p. 10). Finally, 10-15% of respondents deemed environmental sustainability as an important factor, whilst the figures were lower for "noble causes" and fair trade. Whilst the sample was not fully representative of the region, it was observed that respondents in their forties and older, as well as those living in

better financial conditions, were the ones who took less into consideration this issue when purchasing second-hand.

Interestingly enough, the Italian partners decided to ask separately about re-used clothes, since this is a critical product in the sector. Regarding the rest of the products, price and quality were the most essential factors, with slight differences between the different products[15]. Roughly 65-75% of respondents ranked either price or quality as the most crucial factor when purchasing second-hand products. Durability came third, particularly regarding home appliances and IT products, with almost 15% of respondents ranking durability as the main factor when buying this item. Finally, design and aesthetic properties were significant factors when purchasing furniture, but they were not deemed essential for the rest of the products.

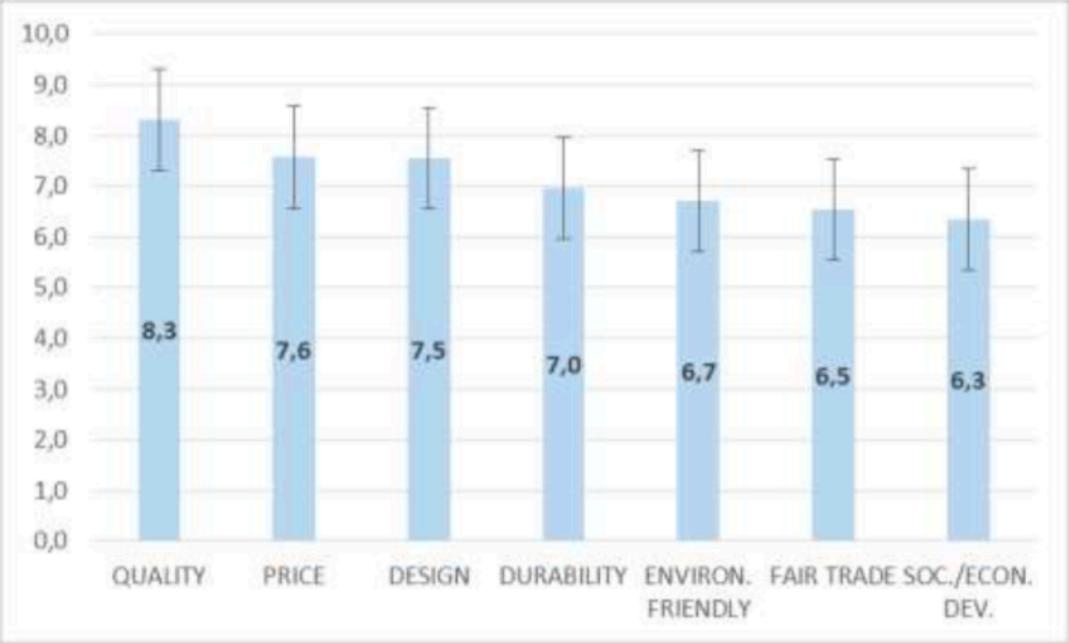
Concerning textiles, respondents had to value from 1 (less important) to 10 (more important), how important were for them the same factors (quality, price, design, etc.).

As shown in the figure below, the most important factor was the quality of the garment, with an average value of 8,3, followed by its price and design. Durability performed slightly worse, with an average value of 7. Finally, those factors related to social and environmental sustainability were the ones that the respondents found less relevant when buying re-used clothes. Therefore, these results point to the pressing need of deploying awareness-raising campaigns about the environmental and social benefits of re-used clothing and other products, thus influencing consumers' priorities. Second-hand textiles have been proven to bring about many ecological advantages compared to new garments[16], as well as social benefits such as job creation: according to RREUSE (2021), social enterprises create on average 20 jobs per 1.000 tonnes of textiles prepared for re-use.

[15] Even though, as it can be observed in the figure, price was deemed particularly important for books, CD's, video games and other products, and quality for home appliances.

[16] According to a study published on The International Journal of Life Cycle Assessment, «the collection, processing, and transport of second-hand clothing has insignificant impacts on the environment in comparison to the savings that are achieved by replacing virgin clothing. The reduction of impacts resulting from collecting 100 garments for reuse range from 14% decrease of global warming for the cotton T-shirt to 45% reduction of human toxicity for the polyester/cotton trousers» (Farrant, Olsen & Wangel, 2010).

***Figure 8**. Important factors when buying second-hand clothes in the Marche Region*



***Source**: Own elaboration based on surveys results*

6.4. Donation behaviour

Regarding donating products for second-hand, slightly less than 40% of respondents in Lithuania had done so, which means that there is a lot of room and opportunities to raise awareness in the Klaipeda Region. Of those that had donated at some point in their life, more than 70% had donated clothes, almost 30% furniture, and only 17% and 6% of respondents had donated electrical appliances and IT products, respectively[17]. Indeed, the phenomenon by which people keep old phones and laptops "in the drawer" is a well-known factor in the sector. Therefore, evidence-based strategies must be envisaged and developed to nudge people to donate this type of products, thus keeping their value in circulation. Not in vain, the European Commission has recently underlined the importance of certain critical raw materials, mainly necessary for IT products, for Europe's economy. A circular usage of critical raw materials can increase the economy's resilience and autonomy, thus being less dependent on the often fragile supply chain of some of these materials.

[17] Which means around 27% of the overall population had donated textiles, 11% furniture, 6% electrical appliances and 2% IT products.

The overall number of respondents that had donated goods was higher in the Marche Region, where 58,2% of respondents had donated or sold[18] preowned goods. Of these, 46% had donated furniture, 67% clothes, 20,1% electrical appliances and 23,7% IT products[19]. A broad majority of Gijón citizens, 69%, had also donated or sold second-hand goods at some point in their life. Similar to the results in the Marche region, a majority of them specified to have donated or sold clothes (46,2%), followed by furniture (22,2%) and small electronic devices (16%). Only 9% had donated or sold electrical appliances. Interestingly enough, the results in Gijon suggest that women and younger generations are more likely to donate[20]. Younger generations were found particularly more prone to donate used IT products, whilst women were more prone to donate clothes.

Finally, the survey with the highest proportion of respondents that had donated used products was the one conducted in the Transdanubian region, whilst the one with the lowest proportion was Cyprus. 90% of respondents in Hungary had sold or given away a second-hand product (including thrift shops, gift shops, re-use centres, flea markets, and online sell-and-buy interfaces). Clothes and furniture proved again to be the most popular, with 40,3% and 20,3% of respondents having donated these types of products at some point. Only 53% of respondents in Cyprus had donated products, mainly clothes, furniture, and small electronics.

Fewer respondents, 14,3% and 13,6% respectively, had donated small electronic devices and household appliances, while 11,5% had donated other kinds of items, including toys, products for babies, sports equipment, vehicles, and more. The survey found that those that had never sold or donated products were generally young, affluent, urban and highly educated individuals. As highlighted in the report, this could be plausible as many respondents might not have a house of their own yet, or simply have experienced fewer products replacements during their adult life. However, this is a social group to be targeted in campaigns to promote re-use in the region (which are indeed scheduled in the framework of the 2LIFES project).

[18] It must be noted that, while other surveys such as the one done in Klaipedia focuses exclusively on donations, the Italian and Spanish surveys also include second-hand sales.

[19] Extrapolating, this would mean that 26,8% of the overall population has donated or sold second-hand furniture, 39% clothes, 11,7% electrical appliances and 13,8% other IT products.

[20] Whilst 75,1% of women had reported to have donated products at some point in their lives, only 61,5% of men had done so. Concerning the age, 81,6% of respondents aged between 16 and 34 years old had donated products, whilst only 71,8% and 60,9% of those aged 35-54 and 55 or more, respectively, had donated.

Finally, in all regions a vast majority (97-99%) of those who had donated or sold second-hand products stated that they would donate again. No relevant differences were found regarding age, gender, or income.

6.5. Barriers to donating preowned products

Regarding barriers to donation, a wide majority of Spanish respondents pointed to lack of information (49,8%), followed by lack of awareness (25,1%), difficulties in the donation process (13,5%) and reluctance on the economic and social procedure and its consequences (8,2%). While lack of information was more common among respondents over 55 years old, lack of awareness was more likely among those below 34.

However, reasons not to donate in Marche Region were different. 60,2% of those that had never donated goods didn't do so because of difficulties in the process, 42,9% pointed to the lack of information, 21,1% to reluctance on the economic and social procedure and its consequences and only 5,6% to lack of awareness. No apparent differences in this regard were found concerning gender, age, or income.

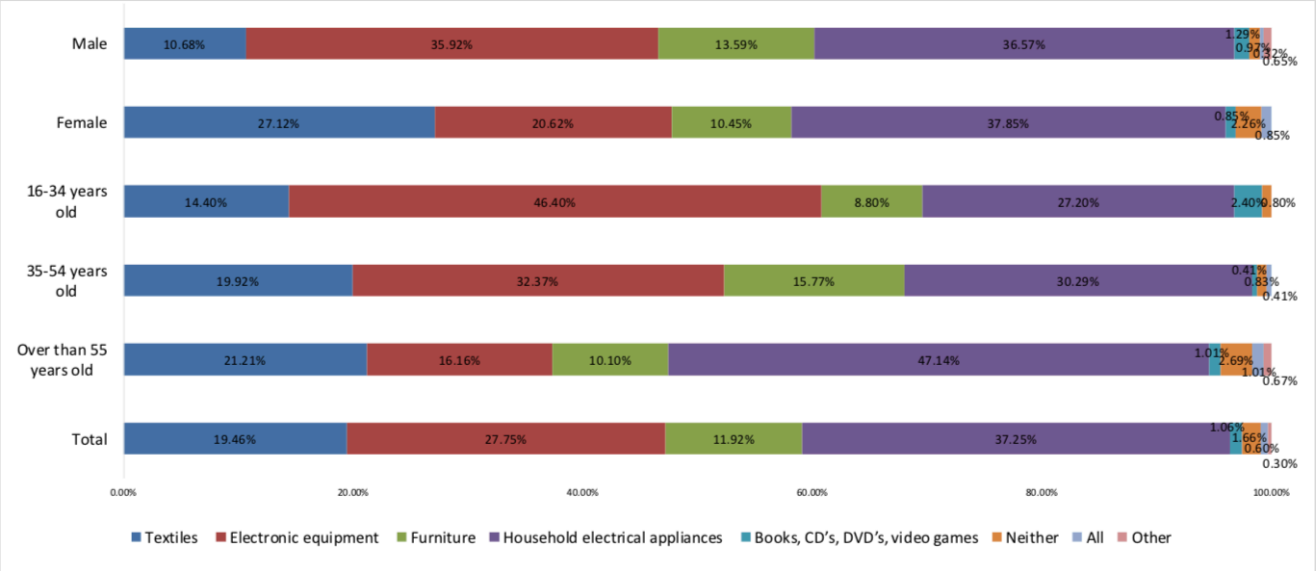
In Hungary, 20,6% of those that hadn't donated products didn't do so because of not having them in the first place, whilst 26,5% reported not contributing because of difficulties in the donation process, 23,5% of lack of information, 20,6% because of lack of awareness. However, these factors are tightly intertwined, as the difficulty of a process often stems from not having enough information and this prevents us from doing something. As we have seen, young people can be a good target group in this regard.

Finally, in Lithuania, significant barriers to donating products that have been identified are lack of information and bureaucratic obstacles, awareness being a relatively small barrier. As the report rightly points out, this has probably been a common pattern across Europe. These barriers became much more aggravated and harder to overcome during the pandemic, when additional strict safety measures were imposed on any commercial or charitable transactions. On the other hand, according to the report, older people in the region, especially the poorer ones, still prefer to get broken items fixed by professional repairers. In contrast, most young people try to fix the objects themselves or sell them on the Internet. Older adults are also more likely to stock broken items at home, while younger people are more likely to throw them away.

6.6. *Self-reported behaviour when a product doesn't work anymore*

This survey also attempted to address citizens behaviour when one item is damaged or broken. In Gijón, 33,3% of respondents stated they would bring the item to a repair shop or professional repairer as a first option, followed by 32% that would try to repair it themselves, and a 20,1% that would just throw it away as a first option. 6,5% would donate it, 4,8% would try to sell it, and 2,9% would simply stock it somewhere. Younger people were less likely to throw it away[21] or donate as first options and more likely to try to sell it or hoard it somewhere. Women were found slightly more likely to try to repair or sell the products.

Figure 9. *Type of products more likely to be repaired or refurbished before in Gijón, Spain*



Source: *Own elaboration based on surveys results*

As it can be observed in the figure above, the product most likely to try to repair or refurbish is household electrical appliances (37,3%), followed by electronic equipment (27,8%) and textiles (19,5%). However, stark differences were found across generational and gender lines. Younger people are particularly more prone to try to repair or refurbish electronic equipment, whilst those over 55 years old are more likely to try to repair household electrical appliances. Moreover, women were more likely to try to refurbish clothes, whilst men were more prone to repair electronic equipment.

[21] Only 12,8% of those aged 16-34 years old would throw away the damaged item, per 19,9% of those aged 35-54 years old and 23,2% of those over 55 years old.

In the Marche region, the most common reaction to a broken or damaged item was to try to repair or refurbish the product (36%) or bring it to a professional repairer (32%), whilst 13% of respondents would donate it as a first option. Stocking it, throwing it away, or trying to sell it were the less common options, with 6-7% of respondents doing so as a first option. As highlighted in the original report:

> *«From these responses, it appears that people are open to fix or refurbish it. This was considered to be an important and positive aspect. However, if we go back to the question what aspects characterize purchasing behaviour in general, the aspect of price sensitivity is clearly seen, as it was five times higher than the aspect of environmental awareness. It is likely that both the high rate of repairs and servicing are related to price sensitivity (...) However, for the future and for shaping attitudes, it can certainly be important to take advantage of people's openness to repair and servicing and connect this to shopping habits. We need to point out that when we buy a new product, it is important that it can be repaired later».*

Similar trends were found in the Transdanubia region, in Hungary, where 32,4% of respondents would first try to repair the product themselves, and 30,8% go to a professional repairer. In this region, stocking the broken or damaged items was found to be more common, with 13,7% of respondents doing so as a first option, whilst 12% would donate it. Finally, trying to sell it or throwing it away were less common, with 5,3% and 5,1% of respondents, respectively, doing so as a first option.

***Table 3**. Self-reported behaviour when a product doesn't work anymore, by country*

	Hungary	Italy	Spain	Lithuania*
Try to repair it	32,4%	36%	32%	6%
Professional repairer	30,8%	32%	33,3%	35%
Stock it	13,7%	7%	2,9%	12%
Donate it	12%	13%	6,5%	4%
Sell it	5,3%	6%	4,8%	46%
Throw it away	5,1%	6%	20,1%	22%
Something else	0,7%	1%	0,5%	0%

*Respondents could choose more than one option in Lithuania

***Source**: Own elaboration based on surveys results*

Finally, respondents in the region of Klaipeda, Lithuania, were found particularly more prone to sell damaged or broken items (46%), and less likely to try to repair them themselves (6%). However, 35% of respondents would bring the products to a professional repairer, 22% would dispose of it as the first option, whilst 12% would stock it and 4% donate it. The survey

found that young people were more likely to try to repair the products themselves or to sell them, whilst the elderly were rather prone to stock products or go to professional repairers.

6.7. How to promote re-use?

Finally, the survey also asked respondents to comment on how re-use should be promoted. In Hungary, the most popular means to do so were "By creating re-use centres" (24,1%), "By integrating it in the school curriculum"[22] (21,8%) and "By doing communication both online and offline" (21%). 14,1% of respondents thought organizing community events involving key stakeholders was the best way to promote re-use, whilst 11,9% pointed to the need to introduce financial incentives, and 6% deemed it necessary to distribute information material. Other possible means to encourage re-use mentioned *ad hoc* by respondents included presenting good examples; producing ads with leaders, influencers, and celebrities; or increasing second-hand shops' availability in villages and rural areas.

Respondents in the Marche region, Italy, also included training and educating students as a critical measure (24% mentioned this proposal as the most important), with 23% pointing to the need to create and locate re-use centres strategically, and 23% underlining the need to put in place financial incentives for citizens. Public events (14%), advertising campaigns (12%) and public distribution of brochures (4%) were the least popular proposals. Finally, 87% of respondents deemed it necessary to allocate public resources to promote re-use through public policies, whilst only 8% didn't agree with that option, and 5% was unsure. Among those not agreeing with publicly promoting this sector, some examples of responses included people not considering it a priority area, people advocating for the industry to support itself, or people advocating to use the products for as long as possible.

[22] In this regard, the original report by the local partner reflected: «children, young people and the school age group are important target groups for shaping attitudes. However, in our opinion, integration into the school curriculum means more than that. The emergence of environmental awareness in a given institution means that both educators and parents become involved. Educators are primarily involved on the input side, i.e. they provide the input of information, and the parents represent the output side, i.e. they are "ready" to receive the new knowledge and approach taken home by the children. All of this can be thought of as a system that can work effectively if all its parts and participants work. If a child sees the exact opposite of school examples at home, he or she is confused and unable to decide what is right. Thus, the formation of parents' attitudes must also be part of school attitude formation. It can very easily be achieved through family programs, events that also accommodate parents and various collections (paper, socks, jeans)».

In Gijón, the most common answer regarding how to promote re-use was to include it in the educational curriculum of students in school (52,6%). Offering financial incentives was the second most popular option (17,5%), whilst creating advertising campaigns, both online and offline came third (11,8%). Only a few respondents chose to strategically locate re-use centres and stores (3,6%) or distribute brochures and other informative material (2,7%) as valuable means to promote the re-use sector. Overall, 72,3% of respondents deemed it necessary to allocate public funds to promote re-use in Gijón. However, a clear association was found following generational lines: whilst 84,8% of those aged 16-34 years old supported so, only 62,3% of those over 55 years old supported using public funds to promote the sector.

***Table 4**. Citizens opinions on how to promote the re-use sector.*

	Hungary	Italy	Spain	*Lithuania**
Strategically locating centres	24,10%	23%	3,60%	*80%*
Education	21,80%	24%	52,60%	*88%*
Communication campaigns	21%	12%	11,80%	*66%*
Public events	14,10%	14%	11,80%	*76%*
Financial incentives	11,90%	23%	17,50%	*92%*
Informative materials	6%	4%	2,70%	*65%*

**Respondents could choose more than one option in this case*

***Source**: Own elaboration based on surveys results*

Finally, in the Klaipeda region respondents could choose more than one option concerning how to promote re-use practices. The most common answer was providing financial incentives (92%), followed by streamlining training and education (88%), and strategically locating re-use stores (80%). Public events (76%), advertising campaigns (66%) and distributing informative material (65%) received however a notable degree of support as well.

6.8. Other circular business models

The survey included questions regarding the popularity of other circular business models such as product sharing, PaaS (Product as a Service) or renting, or remanufactured products (products made from re-used parts). In the Transdanubian region, the second was the most common option, with 55,1% of respondents having used this service at some point. 48,7% of respondents used something shared with others (including vehicles, for instance sharing a car

to go to work), and 35% had bought a product composed of re-used parts[23]. In a section to add further comments, some respondents highlighted the role of product swap and exchange in personal circles (friends and family), but also through swapping markets. Other respondents underlined the importance of waste prevention and buying consciously, but also the need to differentiate between re-use and recycle and to foster and professionalize the re-use sector.

In the Italian region of Marche, 42% of respondents had heard of the alternative of buying a remanufactured product made of re-used parts, whilst 25% knew of "formal" sharing schemes such as car or bike sharing, 20% of renting a product instead of buying it, and 11% of using "informal" sharing schemes such as sharing lawnmowers with the neighbours. Only 2% of respondents had never heard of any of those alternatives to purchasing new products.

In Gijón, most respondents (59,7%) had never engaged in any of those activities[24]. The most common alternative options, however, were buying a remanufactured product (24,4%), using sharing schemes (9,9%) and renting products instead of buying them (6%). It should be noted that buying remanufactured products was particularly popular among young people aged between 16 and 34 years old (60,1% of this group had done so, compared to 12,3% among those aged over 55 years old), whilst sharing schemes were particularly trendy among those respondents aged between 35 and 54 years old.

Similar results were found in Klaipeda region, were 79% of respondents had never engaged in this kind of alternative circular activities. However, 26% of respondents had participated in sharing schemes, 15% had leased or rented a product, and 11% had bought a remanufactured product made of re-used parts.

6.9. Facilities in the area

74% of respondents reported knowing a store or collection point of second-hand products close to their house, most people were familiar with second-hand clothes shops and thrift shops,

[23] This question differs from the question of whether you have bought a second-hand product asked at the beginning of the survey because here, although you are buying a second-hand product, but this is, in a sense, a new product which contains a used piece, part or component.

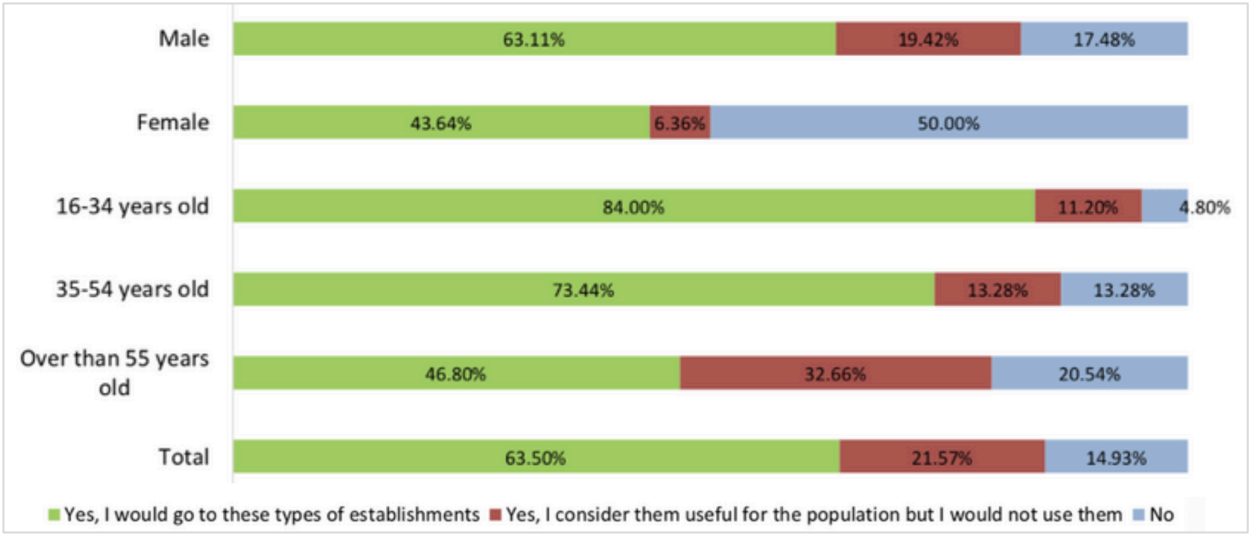
[24] It must be noted and highlighted, however, that whilst the surveys in Gijón and the Klaipedia region asked whether respondents had personally engaged in these activities, the survey in the Marche region, for instance, only asked if they had ever heard about them. Therefore, the results should not be directly compared in that sense.

most of them run by NGOs, but some respondents also mentioned collection points for second-hand textiles run by companies such as H&M. A vast majority of the places mentioned referred to second-hand clothes or electronic devices, and just a few mentions were found regarding books, furniture, or other household goods. Some respondents also highlighted the role of repair shops (shoemaker, bag repairer), online selling-buying groups and online second-hand shop interfaces (Jófogás, Market Place).

In the Marche region, 82% of respondents highlighted the need and usefulness of creating more facilities where citizens can donate and buy more second-hand products in their city or town, whilst out of a total of 352 valid responses, 27% responded that they didn't know of any re-use institutions, stores or facilities in their area. In the Klaipeda region, in Lithuania, 58% of respondents knew at least one re-use establishment in their area.

In Gijón, a wide majority of respondents knew at least one re-use establishment in their area (85,4%), with young people aged between 16 and 34 years old being particularly likely to know an establishment (96%). Both stores run by for-profit businesses and stores run by social enterprises and NGOs were mentioned. 63,5% of respondents would like to see more second-hand establishments in Gijón and would personally use them, whilst 21,6% consider them beneficial for other people but not for themselves, and 14,9% would not particularly like to see ore of these establishments. As it can be observed in the figure above, men and young people were found more likely to want more second-hand establishments in the city.

Figure 10. *Agreement regarding wanting more second-hand establishments in Gijon.*



Source*: Own elaboration based on surveys results*

7. Conclusion

These studies are an important milestone in the re-use sector, as they provide in-depth information on consumers' barriers to engaging in the circular economy, and more specifically, in the re-use and repair sectors. The results will be pivotal not only to inform the local communication campaigns of the 2LIFES project, but also to more generally provide state-of-the-art information to feed into strategies and action plans to promote re-use, and more generally, have a better understanding of how to engage consumers in the circular economy.

Durability was deemed as the crucial factor when buying a new product, followed by lower costs due to higher efficiency, environmental friendliness, and more extended warranties. Repairability was mentioned by around 14-17% of respondents in Italy, Spain and Hungary. While the option to sell the product again was not deemed an essential factor in most regions, it was vital for respondents in the Klaipeda region (41,5%).

Even though the results varied across regions, most respondents reported buying second-hand products. Young people aged 25-34 were particularly prone to buy re-used products, especially clothes and electronic devices. People over 55 were particularly unwilling to buy second-hand clothes, while women were more inclined to buy re-used clothes, and men to purchase second-hand electronic devices.

Regarding reasons not to buy second-hand products, whilst most respondents do not think that second-hand products are unreliable, there are concerns regarding the possibility of being deceived when buying a second-hand product, the lack of options for replacement, and the absence of guarantees when buying a re-used product. Some second-hand products, such as electrical appliances prepared for re-use, face potentially low demand, with 25-39% of respondents in these studies reporting that they would never buy such products, for only 6-22% of them who showed a willingness to do so.

When buying second-hand items, most consumers in all partners' regions are mainly driven by price and quality, even though design and aesthetics also play a notable role in products such as textiles or furniture and durability for more expensive products like household electrical appliances or electronic products devices.

Donation and sale of used products was rather popular in all regions, mainly for clothes. The barriers to donating mentioned by respondents who had not donated any products yet

varied across regions: for instance, the main obstacle in Gijón was lack of information, whilst in the Marche Region it was difficulties in the donation process. However, a wide majority (97-99%) of those citizens that had donated or sold used products would do so again, which is good news for the sector.

Most respondents were found willing to repair broken or damaged products (either by repairing by themselves or by going to a professional repairer), even though critical differences were found following gender and generational lines, but also depending on the type of product. Clear differences were also found regarding countries, even though a more solid methodology, especially concerning sampling, would be needed to draw comparisons.

Finally, this study showcased that most citizens in partners' regions deemed education and strategic location of re-use centres as the main drivers to promote the re-use sector, whilst financial incentives and public campaigns also received some support. Most respondents also deemed it appropriate to allocate public funding to boost the re-use sector, thus legitimating projects such as 2LIFES. It will be obviously pivotal to monitor public support for this kind of policies, which should be linked to improved monitoring frameworks of citizens' beliefs, perceptions, and attitudes regarding the sector, in line with this report.

Commissioner Virginijus Sinkevičius stated in March 2020, regarding the new Circular Economy Action Plan: «[w]e want to make sure that products placed on EU market are designed to last longer, to be easier to repair and upgrade, easier to recycle and easier to re-use». Whilst the durability and repairability, and more generally, supply of circular products are crucial, this study shows the role of addressing the demand for circular products as well, increasing available information and addressing barriers to re-use and repair products.

To do so, it is pivotal to inform action plans and strategies with behavioural economics research, thus providing state-of-the-art context and offering the opportunity to track progress in the transition to a circular society, in which a re-use culture will be fundamental. These studies can provide granular data regarding which social groups are less committed to re-use or repair certain products, or which groups face particular barriers to do so, thus enabling a better modulation of policies and awareness-raising campaigns.

8. Annexe: Guide to opening a Repair Café (AFFALDVARME)

Repair Cafe Denmark, the Danish umbrella organization within the Repair area, has prepared a detailed list of good advice for new organizations and / or associations that want to start a Repair Café.

AffaldVarme Aarhus (AVA) has been granted permission to pass on the content and has selected the advice and recommendations that are of a universal nature:

- Keep the concept simple!
- Start small and build from there.
- Find a good and saying name that people will associate with the area where the Repair Cafe is located.
- Create a Facebook page and / or a website for your Repair Café for practical information regarding the Repair Café, as well as pictures.
- Find volunteers to help with the preparations and volunteer fixers, who can repair things on the day itself. Start out by finding a few friends or acquaintances who would like to join or set up advertisements in the local area, e.g. in clubs, malls or sports arenas. Also post about it in your own network or Facebook groups and websites with volunteer work.
- You will need volunteers to help set up the Café, welcome people and to fix used items. As a start, you should find a minimum of 1 person on to fix electronics, 1 seamstress and 1 person checking in / receiving the guests. As you become more successful, you will of course need more fixers. If you are from a municipality, consider using unemployed people as volunteers.
- Once you have assembled your team of volunteers, you must find out what you want / can help with repairing. Remember that Repair Cafe activities should not distort competition with the local business.
- Find in your network if anyone wants to borrow or give you tools.
- Find out if you can get sponsorship from the local construction market, local committee, the municipality or similar.
- Make sure to be present as often as possible and acknowledge all the volunteers for helping to make a difference.

- Communicate in a simple and clear manner to the volunteers with the most important information.
- Find out where you can borrow a free room. You can ask i.e. local associations, cultural centers, libraries, cafes, schools, the municipality or at an existing cafe (preferably non-profit). Most Repair Cafes have between 10 - 50 visitors at once, so there should be plenty of space. The room should preferably be able to accommodate 4-5 tables, where the fixers and users sit. Involve people at the level they can and want - and let them own the event. Everyone should be able to join regardless of age.
- Create a cozy setting for your Repair Café.
- Keep track of all the practicalities and make sure your tools are in order.
- Find out how often you want the Repair Café to be open. Start up with fewer times i.e. with a pop-up event. Remember that everyone is a volunteer, so do not have too to high ambitions for how often you can open the Repair Café. We recommend to open the Repair Café once a month for approx. 3-4 hours. But most importantly - be consistent, and people will start coming too.

Marketing

It is a good idea to do some PR for a Repair Café. The PR material should state: Time, place and date and what you offer to repair.

If you get sponsored one or more things for your Repair Café, it is a good idea to credit the sponsors in your PR material.

Always remember to use your Repair Café logo. Examples of PR activities:

- Make a post on the local Repair Café Facebook page.
- Make a post on your own Facebook profile and share. Also consider sharing on other social media, e.g. Instagram, Twitter, LinkedIn or where you have a profile.
- Create a Facebook event / event that people can sign up for and share.
- Make flyers to hand out and posters to hang in the local area, e.g. at libraries, cultural centers, cafes, sports centers or similar. It does not have to be super fancy, use your own printer.
- Contact the local press (local newspaper / radio / TV) and invite them to come by so they can make an article or feature with you.

Before holding a Repair Café:

- Be sure to bring a computer (or lists) to record visitors and their belongings
- Remember tools, sewing machines etc.
- Bring a weight / suitcase weight so you can weigh all the things people bring.
- Print lists where new volunteer fixers can sign up.
- Print lists of local seamstresses, bicycle blacksmiths, mobile phone repairers, etc. You can refer to.
- We do not charge money for the repairs, but it happens that the visitors will give a coin to the coffee box.

A few days before the Repair Cafe, it may be a good idea to send a message to the volunteers, telling them what time you will meet and how the day will play out (especially the first few times).

Celebration - tasks on the day

- Set up tables before the Repair Cafe opens - be well in advance so you are ready on time. Also remember that there must be tools and good light for the fixers.

- It is important to have a person who is responsible for receiving the visitors and registering the things to be repaired. All information is registered directly on the website (or in the excel sheet that can be downloaded from the website).
- Take photos for your Facebook-page (a smartphone takes nice pictures). Film small short videos that you can post on your Facebook page.
- Repairs should NOT distort competition in relation to local companies, but we should provide things that were otherwise thrown out for a longer life. If you are in doubt about whether the repair is distorting competition, it is a good rule of thumb to ask the user if the item is thrown out or not.
- If the fixer is in doubt whether he / she can repair the object, then first ask one of the other fixers - if no one can repair, you refer to the nearest company that can help.
- Make sure that your visitors stay while you repair, and preferably help them to fix their own item as much as possible.

Evaluation

After the first times you have held a Repair Café, it is good to evaluate the day.

- Make a list of pros and cons of the day.
- Make a list of what is missing for next time, etc.
- Feel free to share photos and stories on social media along the way and afterwards.

Starting a Repair Café is not difficult - just do it! But it requires one or two coordinators who keep the pot boiling.

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