

CERREC

Central Europe Repair and Re-use Centres and Networks

National Re-use Framework Conditions in Austria

Based on the checklist for identifying national framework conditions for implementing repair and re-use centres and networks

Work Package 3 - Output 3.1.2. for the partner state of Austria

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13.04.2012







This report has been elaborated in the frame of the project CERREC, comprising the following partners:

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- CZ Biom Czech Biomass Association (CZ)
- Bay Zoltán Foundation for Applied Research (HU)
- ARGE Waste Prevention, Resources Protection and Sustainable Development (AT)
- bag Arbeit e.V (DE)
- LAMORO Development agency (IT)
- Slovak University of Technology in Bratislava (STU Bratislava) (SK)
- Kujawsko-Pomorskie Voivodeship (PL)
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Status quo and relevant aims, developments of RNA

As a part of the CERREC project, the 3 WP deals with the Stakeholders participation. One of the subtasks is the surveying the national background and actual situation. As a deliverable of this subtask, every PP should compile a report on the topic. Based on these reports a summary report will be extracted and concluded.

The aim of this guideline is to give a frame and structure for every PP to their related reports. The points in brackets with italic letters also give hints for clear answers.

Please note, that all of the questions should be answered to make solid and useful conclusions.

There are three types of questions:

- first is (A) where You should choose one answer from many,
- second is (B) providing numeric data {hint: try to check out the Eurostat database: (http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database)},
- (C) third type of questions is the explanation ones, where only some guidelines can help to answer the questions.

Some questions may be the combination of them. At the end of every question we indicate the type of it.

Please note that you should choose the appropriate answer, or give a list of them with short explanations (2-3 sentences touching the spot). At the end of every question, feel free to merge your comments and complements. Thank you for your contribution!

1 Legislation

In this chapter we are focusing on the actual situation of the implementation of the related Directive and other rules and legal regulation, though we also intend to collect the national strategy papers and documents directly dealing with the re-use joint activities. Last we are curious about your opinion on the judgement about the legal efforts made in your country.







1.1 Is the revised Directive 2008/98/EC (WFD) implemented in national legislation? – (A)

{The aim of the question is to compile the actual status of WFD in the concerned countries. Please tick the box by double clicking on it and selecting the marked status.}

0	The WFD is
	not implemented in national legislation
	implemented in national, regional and local legislation and regulations
	implementation in progress; will be implemented until

The Directive 2008/98/EC (WFD) was implemented in national legislation, which in the case of Austria means the Federal Waste Management Law (AWG) with the Law amendment of 2011 (AWG-Novelle 2011: BGBI 9/2011), where especially the Appendix I of the law (Liste Abfallvermeidungsmaßnahmen; List of waste avoidance measures) was adapted to match the revisions undertaken in the WFD.

1.2 Name the national/regional or local laws or regulations that implement the WFD and give a short description of their key principles – (C)

{Assemble a short list and add introduction for each of them.}

Federal Law on Sustainable Waste Management (Bundesgesetz über eine nachhaltige Abfallwirtschaft 2002 (AWG))

The federal Waste Management Law is the national legal foundation for all aspects of waste management. It gives general legal definitions of terms and practices in waste management, guidelines and regulations for waste treatment and prevention, obligations and guidelines for waste collectors and waste treatment actors as well as collection and recycling systems and treatment plants, provisions for export of wastes and regulations for formal procedures ranging from reporting to punishments for infractions against the Waste Management Law. The law amendment of 2011 (AWG-Novelle 2011), which implemented the WFD, broadened the definition of waste prevention and introduced a federal waste prevention program in addition (or as a part of) to the federal waste management program. A listing of examples for waste prevention was also added. Further on, the rights and obligations of actors in waste management were revised and a listing of waste removal and recycling methods added.





The key principles of the federal Waste Management Law are the following (Federal Waste Management Law 2002, §1):

- Regulation and organisation of waste management following the principles of precaution and sustainability with the goal to reach the following aims:
 - Avoidance or maximal possible reduction of harmful or detrimental influences on human beings, animals and plants
 - Maximal possible reduction of emissions of air pollutants and greenhouse gases
 - Saving of resources
 - During and after treatment, the gained materials are not more harmful than similar primary resources
 - Only the wastes which don't endanger future generations are stored in landfills
- Application of the five-step waste hierarchy as defined by the EU Waste Framework Directive, with regard to ecological necessity and technical capabilities, the possibility to differ from the hierarchy if, from a holistic viewpoint, a different option provides the best results in the field of environmental protection. There is also an obligation to treat wastes that cannot be recycled, and to accordingly store their solid residuals, and an obligation to form waste management structures with regard to union law.
- Definition of conditions under which collection, storage, transport and treatment of wastes is required as public interest.
- For wastes which are removed in treatment plants, the idea of removal autarchy and removal in the nearest treatment plan should be pursued.

State Waste Management Laws

In addition to the federal Waste Management Law, each federal state has its own Waste Management Law or Waste Management Ordinance (in the case of Carinthia). Those state laws further regulate the waste management activities which are implemented on a state or regional level, which are mostly communal waste management and waste collection fees. They also provide regulations for the state waste management plans and for regional waste management associations. Regarding term definition, they have little to no influence because all waste terms are defined at the federal level (Holoubek 2007, P. 1347 cont.). Therefore, major changes in waste terms or general definitions in the federal Waste Management Law can be expected to be adapted into the state laws. The following table gives an overview







over the state Waste Management Laws and their revision status in regard to the implementation of the Waste Framework Directive:

Federal State	Waste Management Law	Revision status regarding the WFD
	Burgenland Waste	
Burgenland	Management Law 1993	No revision to date
	Carinthian Waste	Implementation of WFD
	Management Ordinance	through revision in LGBI Nr.
Carinthia	2004	76/2011
	Lower Austrian Waste	
Lower Austria	Management Law 1992	No revision to date
	Salzburg Waste	
Salzburg	Management Law 1998	No revision to date
	Styrian Waste Management	
Styria	Law 2004	No revision to date
		Implementation of WFD
	Tyrolean Waste	through revision in LGBI Nr.
Tyrol	Management Law	28/2011
		Implementation of WFD
	Upper Austria Waste	through revision in LGBI Nr.
Upper Austria	Management Law 2009	32/2011
		Implementation of WFD
	Viennese Waste	through revision in LGBI Nr.
Vienna	Management Law	48/2010
	Vorarlberg Waste	
Vorarlberg	Management Law	No revision to date





As it can be seen from the list, four out of nine federal states have already revised their waste management legislation to implement the Waste Framework Directive 2008/98/EC. With the exception of Carinthia, and as seen in the following chapters, the federal states of Tyrol and especially Upper Austria and Vienna are also the location of most of the already existing repair and re-use initiatives and networks.

Federal Waste Management Plan (Bundesabfallwirtschaftsplan) 2011

The Federal Waste Management Plan 2011 is the central waste management strategy document in Austria. The current 2011 plan is the sixth waste management plan since the introduction of waste management plans in 1992. The Federal Waste Management Law provides that a waste management plan should be constructed at least every six years (www.bundesabfallwirtschaftsplan.at, 01.02.2012). The plan includes a comprehensive overview of waste management in Austria, an observation of selected waste flows, a listing and description of waste treatment plants, an extensive listing of legal foundations, regulations and measures, a waste avoidance program (a closer description will be provided later), treatment policies for individual waste and material flows according to the Waste Treatment Ordinance, detailed guidelines and classifications for waste transport and a guideline and description of the Austrian inherited waste remediation system. In respect to the Waste Framework Directive, the most important part included in the Federal Waste Management Plan 2011 through implementation of the directive in the Waste Management Law is the waste avoidance program. The waste avoidance program, as presented in the waste management plan, includes the following components (Federal Waste Management Plan, P. 207 cont.):

- General overview of the principles and basics of waste prevention, including a listing of prerequisites for a waste prevention program
- Presentation of the waste prevention and recycling strategy implemented in the Waste Management Plan 2006, a listing and description of the implemented measures and an evaluation of their success
- Collection of other existing waste prevention projects and initiatives in Austria, implementation of waste prevention in the state waste management plans and "success stories" about the best waste prevention projects
- Presentation of the Waste Prevention Plan 2011, including the general vision and a listing of the planned measures and projects divided in "measure bundles" and expectations regarding their influence. The measures are taken directly from the



Annex I of the revised WFD and evaluated based on their implementation status in Austria.

With regard to the goals of the CERREC project, it is important to note that re-use is one of the five major action fields respectively bundles of measures in the Waste Prevention Program 2011. The main goals of the bundle "re-use" are implementation of regional re-use networks and quality assurance. The main support for reaching those goals should be provided by public actors such as the federal states or waste management associations, for which a set of supporting measures has been designed. Those measures are, on one hand, related to promotion of re-use outside of the waste regime (waste prevention), and on the other hand to promotion of preparation for re-use. The latter measures are divided in three core bundles of measures which are designed to support extensive integration and economic consolidation of the re-use sector, market penetration by re-used products and improvements in quality of re-use products and services (Federal Waste Management Plan 2011, P. 236 cont.)

State/Regional Waste Management Plan

In addition to the Federal Waste Management plan, the state waste management laws require each federal state to draw up a State/Regional Waste Management Plan. Those plans include general waste management principles, terms and definitions, an overview over the structures and figures of waste management in the last period and a waste management strategy plan for the following period. The publication periods for the state waste management plans are between five and six years for the individual states with the exception of Salzburg, whose waste management law states that the waste management plan should be reviewed respectively republished "if needed", where the need is defined by substantial legal, systemic or organisational changes (Salzburg Waste Management Law 1998, § 4). The following table gives a short overview over the current waste management plans and concepts of the federal states and their publication/review periods:

Federal state	Waste Management Plan/Concept and publication year	Re-publication/Review period
Burgenland	State Waste Management Plan 2006	5 years







Carinthia	Waste report and waste management concept 2006	6 years
Lower Austria	Lower Austria Waste Management plan for the period 2010-2015	5 years
Salzburg	State Waste Management Plan 2006	"if needed"
Styria	State Waste Management Plan 2010	5 years
Tyrol	Waste Management Concept	6 years
Upper Austria	Upper Austrian Waste Management Plan 2011	6 years
Vienna	Viennese Waste Management Concept 2007	6 years
Vorarlberg	Vorarlberg Waste Management Plan 2006	5 years

Considering the aims of the CERREC project and the implementation of repair and re-use centres and networks in general, some of the state waste management plans include the promotion and implementation of repair and re-use in their outlined strategies. Five of the management plans directly include re-use and/or repair in their listed aims for the next period. An overview is given over those plans and their implementation of repair/re-use concepts:

- Lower Austria Waste Management Plan for the period 2010-2015
 - Repair and re-use are listed among the planned measures for the following period, the measures for the waste electronic appliance category include the development of a repair/re-use network concept and a campaign for re-use and waste avoidance; those measures have very high priority (NÖ-AWP 2010, P. 58)







Salzburg State Waste Management Plan 2006

- Measures proposed for reaching the aim of waste avoidance include the development of a repair/second hand guide; cooperation with socioeconomic enterprises is proposed in the field of waste electronic appliances; promotion of repair and re-use is one of the set aims for development of recycling sites (S-AWP 2006, Pgs. 120, 129 and 135)
- State Waste Management Plan of Styria 2010
 - Repair and re-use are included in the "Vision Styria 2020" both in Strategy 2: Sustainable Resource Management in the Society through the measures/aims of implementation of return/collection centres for re-usable products and establishment of at least one socio-economical re-use shop per RegioNext region in Styria and in Strategy 3: Sustainable Resource Management in the Economy through the establishment of a internet platform for procurement of re-usable business or industry wastes (LAWP-STMK 2010, P. 165)
- Upper Austrian Waste Management Plan 2011
 - The waste management plan states preparation for repair and re-use as one of its core strategic action fields for the following period. The main aims of this action field are creation and expansion of a quality-assuring infrastructure for treatment, repair and sales mainly through socio-economical enterprises, a waste collection that treats re-usable products with care and improvement of longer-term use of re-usable products (OÖ-AWP 2011, P. 140 cont.)
- Vienna Waste Management Concept 2007
 - The waste management concept lists re-use of products in its strategic aim of waste avoidance and recycling; treatment of waste electronic devices is designed towards collection of re-usable products and cooperation with socioeconomic enterprises and re-use/second hand stores (W-AWK 2007, Pgs. 4 and 9)

In conclusion, it can be stated that already more than half of the state waste management plans and concepts include repair and re-use issues in their proposed strategies. After reviewing and re-publication of the remaining plans and concepts, it can be expected that they will also address repair and re-use in accordance to the EU Waste Framework Directive. Among the plans and concepts that already include repair and re-use issues, it can be





observed that documents with a publishing date during/after the implementation of the WFD have more extensive and detailed strategies on those issues.

1.3 What other national or regional legislative decisions or governmental strategy documents in your country are relevant for the implementation of repair and re-use centres and networks? - (C)

{Laws, studies concerning waste treatment, preparing for re-use, retail, quality assurance, social economy, sustainable development, etc.}

- o Name
- o Purpose and key principles
- Relevance for the implementation of repair and re-use centres and networks

The following national and regional legislative decisions have been identified as relevant for the implementation of repair and re-use centres and networks. Each legislative document is shortly presented in form of a description of its purpose and key principles, based on the aims stated in the decision or document itself, following that, the relevance of the individual documents for the implementation of repair and re-use centres and networks is stated. The majority of the listed documents and decisions are ordinances related to certain parts of the waste management structure, but there are also encompassing laws such as the construction and plant law (Anlagenrecht) and strategic plans such as the state waste management plans for the Austrian federal states:

Waste Balance Ordinance (Abfallbilanzverordnung)

Purpose and key principles: The purpose and key aims of the waste balance sheet regulation are the following:

- Implementation of a uniform federal annual waste balance report
- Improvement of the waste management planning data
- Support for enforcement activities by public agencies, especially regarding their regular controlling function
- Reduction of administrative efforts through implementation of a electronic data management
- Establishment of synergies with other notification obligations

¹ The listing is based on a conference presentation by Mag. Boldog from the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management ("Life Ministry").





 Survey of basic data needed for notification obligations of the European Union

Those aims are to be reached by establishing an electronic recording system describing the type, amount, origin and disposition of waste; all waste management and waste treatment companies must annually report their waste balance to a central system (using the eADok program). The report has to be delivered to the governor of the federal state. The first reporting year was 2010, with the scope and depth of the required information being broadened until 2012 respectively 2013 for small enterprises in the business fields of waste collection and treatment.

Relevance: All repair and re-use centres and networks which are recognized as waste management enterprises under Austrian law are required to annually report their waste balances. This obliges all repair and re-use centres and networks to implement a waste flow recording system. While this is manageable for larger companies, especially small private companies are facing increasing difficulties regarding the reporting system. Studies have stated that, although the eADok reporting program is provided free of charge by the government, the correct use of the program and fulfilment of the requirements of the waste balance ordinance can be a challenge for small and micro-enterprises(Leutgöb and Schwarzlmüller 2011, P.13).

Construction and plant law (Anlagenrecht)

Purpose and key principles: Requires all companies and enterprises to apply for permission for construction and operation of plants as well as for substantial changes in existing plants. There are certain exceptions to that obligation, as for example for treatment plants that recycle exclusively non-dangerous waste. An option for a simplified procedure also exists for some plants, for example treatment plants for dismantling dangerous electronic and electrical waste appliances or end-of-life vehicles with an annual capacity of below 1000 tons. Measures implemented by the plants, such as treatment or storage of additional wastes, also have to be reported. The competent authority for issues regarding construction and plant law is the federal state governor. A permit is only granted if the following conditions are met:

- No endangerment of human life and health
- Emissions of pollutants are limited using state-of-the-art technologies
- Neighbours are not experiencing intolerable inconvenience





- No endangerment of the property of neighbours
- Unavoidable wastes are being treated or removed according to the state-ofthe-art
- Treatment obligations are being respected
- Consideration of other public interests

Additional requirements exist for landfills and IPPC sites.²

Relevance: Repair and re-use centres and networks might have to, depending on the type of products they process, apply for permission for their plants and possible changes to existing plants. This is more important for larger companies and collection sites, while small and very small/micro companies can profit from the exceptions or at least have the possibility of a simplified procedure. However, it is important to note that certain types of waste require the full application procedure, which could be a difficult undertaking for small and micro companies.

Waste Treatment Ordinance (Abfallbehandlungspflichtenverordnung)

Purpose and key principles: The main aims of the Waste Treatment Ordinance are the determination of minimal requirements for collection, storage and treatment of wastes with the goal of realizing the aims and principles of waste management; promotion of a closed-loop economy and material efficiency and assurance of environmentally compatible collection, storage, transport and treatment of wastes. The minimal requirements apply for both dangerous and non-dangerous wastes according to the Waste Management Law (AWG); however most of the regulations and provisions included in the ordinance are related to collection, storage, transport and treatment of dangerous wastes.

Relevance: Repair and re-use centres and networks have to comply with at least the minimal standards for collection, storage and treatment of the WCPs (waste considered products) processed by them. In addition to possible additional efforts created through the ordinance, there are also benefits for repair/re-use initiatives through requirements for collection, storage and transport of wastes, which have to be done in a way that does not endanger the re-usability of waste considered products. Therefore, the quality and/or availability of re-usable products are being increased.

² Source: Presentation by Mag. Boldog, 2011









Waste electrical and electronic equipment ordinance (Elektro- und Elektronikaltgeräteverordnung)

Purpose and key principles: The ordinance is aimed at avoidance of wastes from electronic and electrical appliances and re-use, recycling and other forms of usage of those wastes with the ultimate goal of reduction of the amount of disposed waste and improvement of the environmental situation. All actors in the life cycle of electronic and electrical appliances (such as producers, distributors, users and especially waste managers) should be included. Additionally, the ordinance aims for separated collection of at least 4 kg of waste electronic and electrical appliances from private households per inhabitant per year, starting with the year of 2006 and for a limitation on use of dangerous materials in electronic and electrical appliances with the goal of providing increased protection to human health, the environment and environmentally compatible waste usage and removal. To reach those aims, the ordinance provides extensive coverage on the processes of manufacturing, taking back and disposing of electronic and electrical appliances, as well as provisions and obligations related to the implementation of collection systems for those appliances.

Relevance: Repair and re-use centres and networks whose field of commerce includes waste electrical and electronic equipment draw a substantial portion of their legal framework, obligations and limitations from this regulation. This includes procedural forms for collection, storage and treatment of WEEE and, most importantly, complete coverage on requirements for the implementation of a collection system, which is a very important point for those repair/re-use initiatives that either want to use their own collection system or have to do so out of lack of any external collection systems.

Ordinance for end-of-life vehicles (Altfahrzeugeverordnung)

Purpose and key principles: Provides regulations for the return, re-use and treatment of scrapped vehicles as well as legal frameworks for collection and recovery systems. The aims of the ordinance include promotion of avoidance of especially dangerous materials in vehicles, an increase in recycling and re-use of end-of-life vehicles and their components and ultimately a reduction of the total amount of disposed waste. To reach those aims, all economic actors in the life cycle of a vehicle should be included, with a special focus on actors directly connected with treatment of end-of-life vehicles. The ordinance provides coverage on collection and storage of end-of-life vehicles, especially regarding the







obligations of actors including the manufacturer and the waste management actors, technical standards for treatment and storage of vehicles and requirements regarding reporting and classification.

Relevance: Repair and re-use centres and networks whose field of commerce includes end-of-life vehicles draw a substantial portion of their legal framework, obligations and limitations from this regulation. Important points include the obligations and standards, as well as the procedures for a collection system, technical standards and waste listings for treatment and storage of end-of-life vehicles. Finally, it has to be noted that repair and re-use is a common concept in the vehicle business field, with repair of vehicles being the preferred option for most consumers and the used vehicle market having a long and standing tradition, both of which facts lead to an already established network.

1.4 Analysis/Conclusion: Is the legal framework in your country beneficial or obstructive for the establishment of repair and re-use centres and networks? - (A and C)

{Please tick and explain why you think it is beneficial, neutral or obstructive.}

□ beneficial
neutral
obstructive

The Austrian legal framework can be regarded as beneficial for the establishment of repair and re-use centres and networks, based on the complete coverage and implementation of a separate waste collection system and the implementation of the ideas of waste prevention through repair and re-use in the relevant legal documents both on the federal and state/regional level. Additionally, there is a set of laws regulating treatment of wastes, especially potentially dangerous wastes or wastes with a complicated treatment procedure such as waste electronic appliances. On an organisational level, in addition to the federal and regional general waste management laws and the specialised laws, repair and re-use is integrated in public authority strategies through the federal and state waste management plans. Overall, the broad scope of the existing framework provides potential repair and re-use centres and networks with a set of regulations and guidance for their establishment and activities, as well as clear definitions regarding the cooperation partners, procurement,







transport and treatment of products and their preparation for re-use. However, the framework is also somewhat obstructive to small and very small initiatives, because the multitude of obligations and requirements often prove to be a difficult task because of the required effort (Leutgöb and Schwarzlmüller (2011), P. 3 cont. and P. 13). Larger companies, centres and networks will be able to follow those requirements, but it is important to acknowledge the fact that most of the project partners will be small and very small enterprises (Leutgöb and Schwarzlmüller (2011), P. 13). Changes in the legislation which would address some of the listed problems and obstructions are being discussed, with solutions mostly proposed in the form of simplified procedures for small and very small enterprises (Hammerl, interview from 02.02.2012).







2 Environment

One of the main inducing agents of the project is preserving the environment. According to this aim, it is substantial to reveal the source of the object of the project activity itself. So we need information on **WCP** (waste considered products) categories: where they emerge, what are their ratios and their total amount. Even we would like to know the official (or if it does not exist, your subjective) estimation on their future tendencies and opinions. This information is crucial when forming a future scope in the Central Europe region. In this point, please introduce it as well as your actual waste management system from the project activity view.

2.1 What are the common sources (where they generated) of WCP-s today in your country/region? Please fill in the table! - (B)

{This is the first point of the process. We would like to know the estimated sources of the concerned categories, which were defined in the Methodology paper (Section 4.).}

Because there is no central authority and/or recording system for waste considered products using a differentiation as proposed by the questionnaire, information for all tables using the following WCP categorisation was obtained by using both expert interviews with actors working both in research and business related to repair and re-use in the form of a small-scale Delphi Study and data found in existing literature on the subject of repair and re-use in Austria.

The percentages presented in the following tables represent the range of the collected estimates respectively data and show the minimal and maximal value for a given category and field. If a certain data set could not be used or deliberately was not used, an explanation stating the reasons for the dismissal of that data set is given. To avoid repetition in the description of the methodology, the presented method is also used in the chapters 2.2, 5.5 and 7.1.

			Other	
Product category	Households [%]	Companies [%]	(please name) [%]*	Total [%]
electric/electronic appliances: according to the WEEE				
according to the WEEE				







directive,				
Large household appliances	90-100	0-10	0	100
Small household appliances	100	0	0	100
o IT and telecommunications equipment	10-100	0-80	0-10 (public institutions)	100
o Consumer equipment	90-100	0-10	0	100
o Electrical and electronic tools (with the exception of large-scale stationary industrial tools)	100	0	0	100
o Toys, leisure and sports equipment	100	0	0	100
non electric driven household appliances	100	0	0	100
• furniture	70-90	10-20	0-10 (public institutions)	100
non electric toys / sport / leisure equipment	100	0	0	100
garments and textiles	100	0	0	100
furnishing equipment	90-100	0-10	0	100
other (books, CD, DVD, LP, other audiovisual media and different specialised product groups)	100	0	0	100





2.2 Is there any information about the distribution of the concerned categories? Please fill in the table! – (B)

{Aim is to reveal the ratio of different categories at each PP region/countries. If there is no available data, please estimate!}

For more information on the method used to calculate/estimate the ratios, please refer to Chapter 2.1.

	Ratio in the total amount of
Product category	concerned WCP
	[%]
electric/electronic appliances: according to the WEEE directive,	
 Large household appliances 	15-20
 Small household appliances 	10-20
 IT and telecommunications equipment 	2-20
o Consumer equipment	5-20
o Electrical and electronic tools (with the exception of	2-20
large-scale stationary industrial tools)	
 Toys, leisure and sports equipment 	4-20
non electric driven household appliances	4-5
furniture	10-35
non electric toys / sport / leisure equipment	5-15
garments and textiles	15-20
furnishing equipment	10-15
other (books, CD, DVD, LP, other audiovisual media and	3-5
different specialised product groups)	
Total:	100





2.3 What was the total weight of the WCPs in 2010 and what are the tendencies (increasing, decreasing, stagnate) and the reasons? - (C)

{We need the total amount of WCP-s in 2010. If it is not available, please estimate. }

A direct calculation of the total weight of WCPs in 2010 can not be done in the proposed way due to non-existing data on all categories, therefore an estimation will be made based on the three main categories of products attractive for repair and re-use, which are bulky waste, garments and textiles and waste electrical and electronic appliances. The estimation will be based on data gathered from several studies, the Federal Waste Management Plan 2010, workshop presentations and expert interviews.

In 2010, the total amount of waste assigned to those three categories added up to 42,9 kg of waste per capita, 31,1 kg of which is bulky waste, 8,7 kg waste electrical and electronic appliances and 3,1 kg waste textiles. If this amount is multiplied with the average population of Austria in 2010, the total amount of WCP from the three observed categories in Austria sums up to 359.834.131,8 kg or 359.834 t (Meissner 2012, P. 13 http://www.statistik.at/web_de/statistiken/bevoelkerung/index.html, 07.03.2012). Additional information regarding waste electrical and electronic devices puts the total weight of collected WEE devices at 74 255,5 t for the year 2010, with 1292 t or 1,74% listed as being re-used as a complete device (EAK Tätigkeitsbericht 2010, P. 34). Meissner estimates the percentage of re-usable products relative to the total mass for the three observed product categories at 9% for waste electrical and electronic devices, 20% for garments and textiles and 5% for furniture, which is included in bulky waste (interview with M.Meissner, 27.02.2012). If applied to the figures calculated above, the mass amounts for re-usable products in the three categories would be 13.042 t total or 1,55 kg per capita for bulky waste/furniture, 6.567 t total or 0,783 kg per capita for WEE appliances and 5200 t total or 0,62 kg per capita for garments and textiles (own calculation based on Meissner 2012, P. 13). For a better overview, the calculated amounts are presented in a compact way in the following table (the results are rounded up):

WCPs (collection total)						
Category	Category Bulky waste WEEs Textiles Total					
per capita (kg)	31,1	8,7	3,1	42,9		
Total (t)	260 858	72 973	26 002	359 834		





Re-usable WCPs					
Category	Category Bulky waste WEEs Textiles Total				
per capita (kg)	1,55	0,783	0,62	2,953	
Total (t)	13 042	6 567	5 200	24 809	

It should however be noted that the presented calculation is only applicable in a limited way for the whole of Austria because of differences in the waste collection systems of the individual federal states (for example, the state of Burgenland lists "treated waste wood", which includes furniture, as a separate category) (interview with M.Meissner, 27.02.2012).

The total amount of WCPs in Austria is increasing in the past period, influenced by lobbying, initiatives and actions with the goal of awareness raising undertaken by a multitude of concerned actors such as RepaNet, RReuse, socioeconomic enterprises, NGOs/NPOs such as the Austrian Institute of Ecology or the ARGE Waste Prevention and the Ministry of Agriculture, Forestry, Environment and Water Management. An important additional factor is the rising acceptance and will for action regarding re-use in the general Austrian society (interview with M.Meissner, 27.02.2012).

2.4 Describe the waste management structures in your country – (C)

{In the checklist you have already filled in, several stakeholders were introduced. Please write some rows about their tasks and roles in the waste management system. Please list and describe the waste management activities of them! }

The waste management system in Austria is organized on multiple levels with a broad range of stakeholders participating. First, an overview will be given over the waste authorities in Austria, and after that there will be a short listing of the waste management companies and sites. The waste management authorities in Austria are organized on three levels, as shown in the following graphic. On the highest, federal level the main waste management authority is the federal Ministry of Agriculture and Forestry, Environment and Water Management, also known as the Life Ministry (Lebensministerium). On a federal state level each state has its own Waste Department incorporated in the state government. Finally, at the regional level the regions inside the federal state have their waste management structures organized into Waste Management Associations (Abfallwirtschaftsverbände). The following figure gives a schematic overview of the waste management structure in Austria:





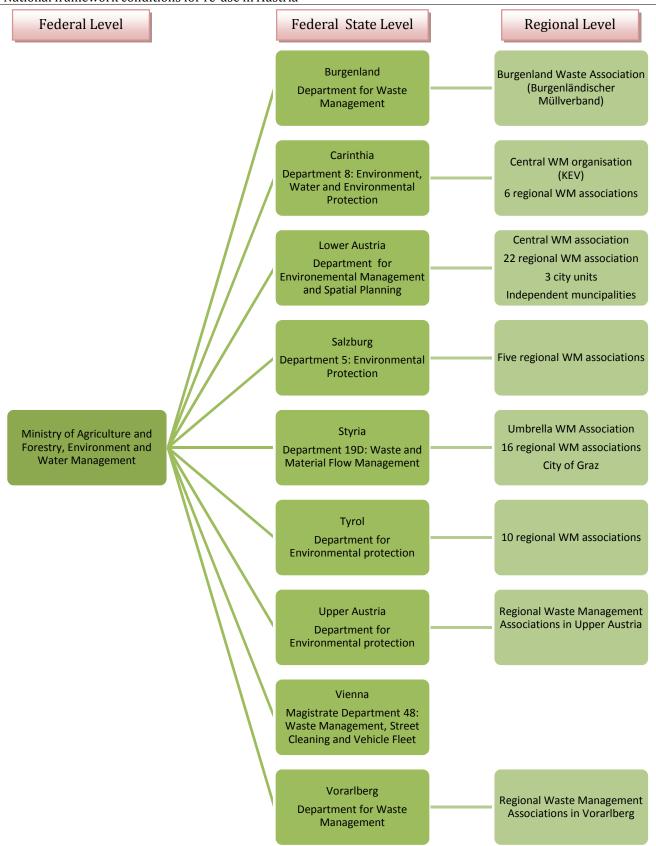


Figure 1: Structure of the waste management authorities in Austria





As shown in the figure, there are differences at the regional level between the waste management authority organisations of the individual federal states. Some federal states have a central umbrella organisation which coordinates the sub-regional waste management associations, while others have organisational structures which are independent of the waste management associations. In the following few sentences an overview will be given over the waste management authority structure in each federal state. In the federal state of Burgenland, there is only one central waste management association, the BMV (Burgenländischer Müllverband) which organises waste collection in the entire federal state. The federal state of Carinthia has six regional waste management associations, which are organised by a central authority – the Kärntner Entsorgungsvermittelungs GMH (KEV). Lower Austria organises its waste management authorities in twenty-two regional waste management associations and three association-like urban units, but there is also a number of municipalities which do not belong to any of the associations. There is also a central umbrella organisation which includes all twenty-two associations and the three city units. Salzburg is divided in five regional waste management associations. In Styria, there are sixteen waste management associations and the city of Graz as an independent unit, who are all organised under an umbrella waste management association. Tyrol organises its waste management into ten waste management associations, but it is noteworthy that there is no central waste management association (in the form of an umbrella organisation) other than the central governmental authority.

The waste management organisation on a regional level in Upper Austria consists of a state waste management association which acts as an umbrella organisation, whose members are fifteen regional waste management associations and three statutory cities. Vienna, which has a special status as both a city and a federal state, has its waste management structures embedded in the city magistrate, with the Magistrate Department 48 acting as a central waste management structure. In the federal state of Vorarlberg, waste management is organized through a central waste management association, the Umwelt- und Abfallwirtschaftsverband.

Both the federal Life Ministry and the federal state Waste Departments are required to construct Waste Management Plans, which give an overlook over the current state of waste management in the country/federal state and describe the further development of waste management in the next given period.



Regarding the organisation of waste collection and removal, there is an important difference, especially regarding re-use, in general waste from private households and waste from commercial sources. This difference is in the definition of the waste owner of those materials. In the case of the private households, the waste owner is the municipality, who is being paid by the households for waste removal (the tariff is included in the general running costs of a household) and is legally obliged to collect the household wastes. In practice, most municipalities sub-contract their waste management obligations to either a regional waste management association, or a private company, or a combination of both (PPP- Public-private Partnership), although there are a number of municipalities who run their own waste management (collection and removal) systems or certain parts of those systems.

For **commercial waste**, the owner of the waste is the company which produced the waste, who is therefore legally obliged to manage the collection and removal of the waste in a legal and acceptable way. To do so, the vast majority of all companies make a contract with a private or semi-private waste management company.

There are also several types of waste which, by legal definition, require separate collection and removal. Those waste types are: packaging, end-of-life vehicles, batteries of all kinds and electrical and electronic waste. For the collection of those wastes there are a number of systems approved by the federal ministry, who are then subcontracted by the waste owners, either the municipalities or the individual companies. A listing of all approved collection and removal systems can be found in table form at the end of the chapter.

The waste management companies, sites and systems are organized depending on their purpose and the types of waste treated by them. For direct waste treatment (especially residual waste) there are 10 waste incineration plants and 16 plants for mechanical/biological treatment throughout Austria. The following tables include a listing of the companies/systems which are collecting and/or treating specialized wastes which are approved by the Life Ministry, including the name of the company, the waste categories the company is treating and the general purpose of the company.

Approved packaging collection and treatment systems				
Company Waste Materials Waste Management				
		Activities		
ARA Altstoff Recycling	Plastic, composite materials,	Collection and treatment of		





Austria AG	wood products, textiles,	packaging waste according
	ceramic, biogenic packaging	to the packaging regulation
	and metal	from both private households
		and commercial sources
AGR Austria Glas	Glass	Collection and treatment of
Recycling GmbH (part of		glass packaging waste
the ARA System)		according to the packaging
		regulation from both private
		households and commercial
		sources
GUT – Galle	Paper, cardboard, milled	Collection and treatment of
Umwelttechnik GmbH	board, plastic, composite	commercial packaging waste
	materials, metal, glass, wood	including one-way cutlery
	products and biogenic	and packaging waste
	packaging	including one-way cutlery in
		the vicinity of Mc Donald's
		restaurants
Öko-Box Sammel GmbH	Composite beverage	Collection and treatment of
	packaging	composite beverage
		packaging from the private
		and commercial sector
Bonus Holsystem	Paper, cardboard, milled	Collection and treatment of
Gesellschaft m.b.H. & Co	board including paper	commercial packaging
KG	composite bags, wood,	
	metals, plastic, textiles	
	especially including jute bags	
UFH Verpackung	Paper, cardboard, milled	Collection and treatment of
Systembetreiber GmbH	board including paper	transport packaging and
	composite bags, wood,	goods refuse
	metals, plastic, textiles	
	especially including jute bags	
EVA Erfassen und	Paper, cardboard, milled	Collection and treatment of
Verwerten von Altstoffen	board, plastic, ferrous	commercial packaging
GmbH	metals, wood and textiles	







Approved wast	e vehicle collection and tre	atment systems
Company	Vehicle Manufacturer	Waste Management
		Activities
ÖCAR Automobilrecycling	Daihatsu, Ferrari, Honda,	Collection and treatment of
GmbH	Hyundai, Lotus, Maserati,	end-of-life vehicles from the
	MG, Mitsubishi, Rover, KIA,	listed manufacturers in the
	Chrysler, Jeep, Dodge and	classes M1 and N1 of the
	Nissan (Datsun)	Motor Vehicle Law and
		three-wheeled motor
		vehicles, but no motorcycles

Approved waste ele	ctrical device collection ar	nd treatment systems		
Company	Categories	Waste Management		
		Activities		
ERA Elektro Recycling	All	Collection and treatment of		
Austria GmbH		waste electrical devices from		
		the private and commercial		
		sectors		
UFH Elektroaltgeräte	All, except gas discharge	Collection and treatment of		
System Betreiber GmbH	lamps	waste electrical devices with		
		the exception of gas		
		discharge lamps from the		
		private and commercial		
		sectors		
UFH Altlampen	Gas discharge lamps	Collection and treatment of		
Systembetreiber GmbH		waste gas discharge lamps		
		from the private and		
		commercial sectors		
EVA Erfassung und	All	Collection and treatment of		
Verwerten von Altstoffen		waste electrical devices from		
GmbH		the private sector		
European Recycling	All	Collection and treatment of		





Platform (ERP) Österreich	waste electrical devices from
GmbH	the private sector

Approved wast	e battery collection and trea	atment systems		
Company	Categories	Waste Management		
		Activities		
ERA Elektro Recycling	All	Collection and treatment of		
Austria GmbH	waste batteries			
European Recycling	All	Collection and treatment of		
Platform (ERP) Österreich		waste batteries		
GmbH				
EVA Erfassung und	All	Collection and treatment of		
Verwerten von Altstoffen		waste batteries		
GmbH				
UFS Umweltforum	Car batteries	Collection and treatment of		
Startbatterien GmbH		waste batteries		
UFH Elektroaltgeräte	Device and industrial	Collection and treatment of		
System Betreiber GmbH	batteries	waste batteries		

Source: Federal Waste Management Plan (Bundesabfallwirtschaftsplan) 2011

Federal State Waste Management Plans

Website of the Life Ministry (www.lebensministerium.at)

Websites of the federal Waste Management Departments

2.5 Analysis/Conclusion: Are the waste management structures in your country beneficial or obstructive for the establishment of repair and reuse centres and networks? – (A and C)

{Please tick and explain why you think it is beneficial, neutral or obstructive.}

□ beneficial
neutral
obstructive







The waste management structures in Austria are regarded as being beneficial for the establishment of repair and re-use centres and networks because of the high level of organisation of waste management throughout the federal states. The three-level structure of waste management authorities enables future repair and re-use centres and networks to efficiently choose their level of engagement (federal, state-level or regional). A working system of waste collection and separation makes effective acquisition of products for repair and re-use an easy task. However, because of the difference in legal ownership of waste regarding the waste source (domestic or commercial), some caution is advised in the process of searching for partners (future repair and re-use initiatives should always make sure who is the legal owner of the waste) – for commercial waste products, for example old, but still usable computers from a company who modernises its office equipment, the repair and re-use centre should negotiate directly with the company, and for domestic waste negotiations with the municipal authorities and/or the subcontracting waste management company are necessary.





3 Socio-Economy

Due to the economical crisis in the past years, the collection of the related data is important to make well-based conclusions and assumptions. Please keep in mind, that the answers should be adequate to conclude the strength and weakness of the socio-economy boundaries of the analysed region or country.

3.1 What is the actual and historical (in the last 5 years, so from 2006.) unemployment rate in your country/region? – (B)

Year	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Unemployment	3.7	3,5	3,6	4.0	4.3	4.9	5.2	4.7	4.4	3.8	4.8	4.4
rate (in %)	3,7	3,3	3,0	7,0	7,5	7,5	0,2	7,7	7,7	5,0	7,0	7,7

Source: Statistik Austria, 15.12.2011

3.2 What was the number of unemployed people in 2010? – (B)

{The answers are good indicators for comparing different regions/countries to each other and on a specific base and the availability of potential employees for RnA.}

	Number of unemployed people
International Definition	188200
National Definition	250800

Source: Statistik Austria, 15.12.2011

3.3 What is the consistence of unemployed people in function of qualification, education and age in 2010? – (B)

Age	Total (15- 64)	15-24	25-34	35-44	45-54	55-64
Total number of unemployed people	188200	51400	51700	38500	37300	9000
Percentage of total number (in %)	100,00%	27,31%	27,47%	20,46%	19,82%	4,78%

Education (national)	Total	Primary School	Apprenticeship	Vocational secondary school	General and vocational secondary school	University or college
Total number of unemployed people	188200	59300	60500	20200	31600	16600





Percentage of total number (in %)	100,00%	31,51%	32,15%	10,73%	16,79%	8,82%	
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Education (ISCED)	Total	ISCED Level 0-2	ISCED Level 3-4	ISCED Level 5-6
Total number of unemployed people	188200	60700	108000	19600
Percentage of total number (in %)	100,00%	32,25%	57,39%	10,41%

Source: Statistik Austria, 15.12.2011

3.4 What was the actual average salary (per capita per month) in 2010? – (B)

The actual average salary per capita per month in Austria in 2010 was 1873 € (average net salary, including both full-time and part-time employees), with the median (50%-quartile) being 1707 €. The average salary calculation includes two additional (13. and 14.) monthly salaries (http://www.statistik.at/web_de/statistiken/soziales/personeneinkommen/nettomonatseinkommen/index.html, 07.03.2012)

3.5 What is the actual average unemployment benefit for unemployed people (per capita per month) in 2010? – (B)

The actual average unemployment benefit for unemployed people in Austria in 2010 was 828,60 € The calculation was done by using the average daily unemployment benefit for 2010 of 27,62 € and multiplying it by 30 (statistical month) (Source: Statistik Austria, 07.03.2012)

3.6 Are there existing and planned programmes for employment of unemployed people? If yes, please introduce its main points. – (C)

Programmes for employment of unemployed people in Austria are mostly provided by the Austrian Labour Market Service (AMS – Arbeitsmarktservice) and range for schooling and education for unemployed people to direct financial subsidies for the employers of unemployed people and participation (employment) of unemployed people in AMS-governed







projects and initiatives. The following list describes the programmes for employment and aid in the employment seeking process for unemployed people that are undertaken by the Labour Market Service. It is important to note that the presented Labour Market Service programmes represent, with the exception of the Job 2000 programme, which is organised in Lower Austria, programmes implemented by the Labour Market Service department in Styria. The programmes of the Styrian Labour Market Service are presented as a general example for the characteristics of employment programmes for unemployed people throughout Austria.

Integration Benefit (Eingliederungsbeihilfe) – Action Come Back

The Integration Benefit allows employers, with the exception of federal institutions, the Labour Market Service, radical associations, political parties and political party clubs, to have the wages paid to certain groups of workers, or a part of the wages, refunded by the Labour Market Service. The groups of employees for whom funding can be requested are so-called (arbeitsmarktferne Personen) "People distanced from the labour market" and include older persons who are re-entering the labour market (over 45 years of age in the case of females and over 50 years of age in the case of males) and so-called "fundable persons", which include disabled people according to the federal and state legislation. In special cases, long-term unemployed people (listed as unemployed by the Labour Market service for at least six months if younger than 25, and for at least one year if older than 25) or people threatened by long-term unemployment can also be funded. Employees who are employed in management are explicitly excluded from the funding programme. The funded amount sums up to maximally 1200 € in the case of full-time employment and an aliquot amount in the case of part-time employment (for example, max. 600 € in the case of half-time employment), with minor deviations possible through summing up. The duration of the funding is determined individually, with a maximal duration of 24 months for a single employee (AMS-materials received in a mail by R.Riedl, 09.02.2012).

• Employment Benefit Job 2000

The Labour Market Service for Lower Austria is providing enterprises with personnel shortages with long-time unemployed, qualified workers for a limited time period ranging from one week up to one year. The employees have to be listed as unemployed by the Labour Market Service and are also trained/educated by the AMS if required. Participating enterprises only need to cover labour wages for the provided workers with no other additional costs (http://www.job2000.at/info.htm, 06.02.2012).







The programme is presumed to have ended by February 2012, according to information provided by the Labour Market Service department in Styria, but remains on the list as there is still a valid internet presence and the programme has, in that case, ended recently with a possibility that similar programs will be introduced in the future (E-Mail from R.Riedl, 09.02.2012).

"Kombilohn" – combined wages benefit

Long-time unemployed people (listed as unemployed for longer than 182 days) which belong to one of the following categories: older than 50 years, rejoining the labour market or disabled persons according to the disabled person employment law or the state disabled person and have a continuous monthly wage of between 650 and 1700 € can apply for an additional subsidy of either 150 or 300 € per month. The amount of the subsidy is based on the weekly working time and the monthly wage. The employee has to apply for the subsidy in person at their local Labour Market Service office, and the subsidy is granted for the duration of the employment, but can not exceed one year in total (http://www.ams.at/sfa/14081_21600.html, 06.02.2012)

The SP3b Model Project "Integration of people distanced from the labour market"

The SP3b project for integration of people in the labour market is planned by the Labour Market Service of Styria in cooperation with consulting and support organisations, socioeconomic enterprises and non-profit employment projects, with the background of the implementation of the needs-based minimum benefit system in the federal state of Styria. The project begins at 1.1.2012 and has a maximal duration until 30.06.2013, with the project being implemented in three major regions (Graz and its metropolitan area, Upper Styria and Liezen, Southeast and East Styria) and the projected target group including 1160 persons. The main goals are creating more low-profile employments (in the so called secondary labour market) for recipients of the needs-based minimum benefit of working age (18-64 years, with a focus on people older than 25 years of age), with a special regard to gender (at least 50% of the project participants should be women), and implementing and improving qualification, consulting and support for people who experience difficulties re-entering the labour market. The main aim is set with at least 30% of the participants being either employed or in a qualification/education programme at the 92. day after their exit from the project. Individual participants are eligible to remain in the project for one year at most, with exceptions possible for special cases and including a



reassessment of the subject by the Labour Market Service. To provide additional assistance and an opportunity to monitor the participants after leaving the project, follow-up support with a duration of three months is planned (Funding application for the SP3b Project 2011, P. 11 cont.).

• Implacementstiftung Energie (Implacement Foundation Energy)

The Implacement Foundation Energy is an implacement foundation operating in the federal state of Styria with the goals of connecting unemployed people with potential employers, individual qualification of unemployed people for new workplaces, support of the implementation of the Energy Strategy 2025 of the Styrian state and sustainable creation of new jobs in new areas of employment. The foundation will be active from 1.5.2010 until the 30.4.2016 and has a total capacity for 1000 unemployed persons, from whom 100 could be taken up for the first year. Enterprises cooperating with the foundation are required to operate in the following business fields: energy efficiency and energy saving, renewable energies, district heating and combined heat and power generation, energy infrastructure, regional planning and mobility, research and education, energy consulting and environmental technologies with enterprises from other business fields only eligible for participation if the desired employees will have to be qualified in the fields energy and environment.

The target group of unemployed persons includes persons who have an opportunity for employment which requires an education and/or qualification in the fields of energy and environment, who are registered as unemployed by the AMS and where the opportunity for employment is also registered by the AMS as a job offer. Participating unemployed persons are funded by the foundation with 100.- € per month if the duration of their education is up to 6 months, and 200.- € per month if their education lasts longer than 6 months. This funding is provided without regard to and in addition to any unemployment benefits received by the person (http://www.ejob-steiermark.at/de/FuerUnternehmen/implacementstiftung.php#Ziele, 28.03.2012).

Funding of socioeconomic enterprises

The Labour Market Service is funding socioeconomic enterprises (SEEs), which are described as non-profit oriented companies and associations which employ people with employment difficulties as so-called transit employees. The SEE itself has to be charitable and non-profit oriented, with the fulfilment of those requirements and the existence of a feasible business concept has to be reviewed and approved by the



Labour Market Service. The SEE is expected to cover its own operation costs through its economic activities, with the minimum set at 20% coverage of the total costs. Further investments can be funded, but are subjected to a number of constraints. The duration of direct funding to a SEE is set at one year. Regarding the employees of socioeconomic enterprises, both key employees (qualified employees required for management of the SEE and social and pedagogic support for the transit employees) and transit employees can be funded, whereby key employees do not have to be previously unemployed. Transit employees are defined as persons who are facing difficulties in (re)entering the labour market. This includes long-term unemployed persons, older persons, disabled persons and persons with a lack of social adjustment. The Labour Market Service requires that transit employees are assigned to a SEE by the responsible Labour Market Service regional department, and that all funding requests are submitted before the transit employee is employed. The duration of employment is basically set at one year, it can however be extended in individual cases. Down-time for the transit employees can not exceed more than one third of their total employment duration, and is required to be used for training and support sessions (AMS-Materials received in a mail by R.Riedl, 09.02.2012).

Some of the SEEs cooperating with and funded by the Labour Market Service are operating in the field of repair and re-use, such as for example the BAN in Graz, Styria or the Ho&Ruck in Innsbruck, Tyrol, or on a larger scale the ReVital system and the FAB in Upper Austria. As already stated above, those SEEs provide transit workplaces for persons who face difficulties in the employment process, mostly in light repair jobs or basic transport and public and private maintenance. Funded SEEs are, as described, required to have their employees assigned to them by the Labour Market Service, but there are also a few SEEs which circumvent the official channels and provide the opportunity for word-of-mouth promotion and direct employment based on personal inquiries. The Austria-wide umbrella association for socioeconomic enterprises (Bundesdachverband für soziale Unternehmen) is the main coordination and information authority for socioeconomic enterprises and also awards the socioeconomic enterprise quality seal. In addition to the umbrella association, there are also regional SEE associations for each federal state (www.bdv.at, 06.02.2012).

Further programmes are used on a local and regional level by non-governmental actors and cooperation of governmental and non-governmental actors. Those programmes are partly



introduced on a long-time basis, but can also be realized in form of one-time projects with a limited duration. An example for such NGO-run projects is the Caritas which runs nine socioeconomic projects throughout Austria (http://www.caritas-wien.at/hilfe-einrichtungen/menschen-in-not/arbeitslos/, 20.12.2011), or the Volkshilfe Beschäftigung, which also runs nine socioeconomic projects in Vienna and Lower Austria (http://www.vhbi.at/, 06.02.2012). Such projects, similar to the SEE's, also often include counselling and schooling with the goal of a successful permanent re-employment of unemployed people.

A project which per se is not an employment programme, but still can provide assistance to unemployed people seeking to start a business (which could be integrated in a re-use network) is the **Mikrokredit** (microcredit) programme of the Ministry of Labour, Social Issues and Consumer Protection. The Mikrokredit is a small loan with interest of up to 12,500 € for single persons and 25,000 € for business partnerships with a repayment duration of 5 years, which is available for business starters in Austria who fulfil certain general prerequisites and at least one of the following special requirements (http://www.dermikrokredit.at, 02.02.2012):

- They are unemployed
- They are in danger of becoming unemployed
- · They are atypically employed
- They are formally self-employed
- They are disadvantaged on the labour market
- They are affected or threatened by poverty

Considering the special requirements, especially the first two and the last two requirements can be seen as helpful for unemployed people who are wishing to start a own business. The project as a whole does not provide direct employment, but contributes in an indirect way to employment of previously unemployed people as well as creation of new workplaces by assisting the founding of new businesses.

3.7 Where do the most disadvantaged areas by unemployment rate in the PP's country/region locate? – (C)

Federal state	Austria (total)	Vienna	Styria	Vorarlberg	Carinthia	Burgenland	Upper Austria	Lower Austria	Salzburg	Tyrol
Unemployment rate in %	4,4	7,3	4,2	3,9	3,9	3,9	3,7	3,6	2,9	2,8







Source: Statistik Austria

3.8 Conclusion on socio-economy

Taking into consideration the current societal and economical situation in Austria, the conclusion can be made that there is potential for the implementation of repair and re-use networks in Austria, especially regarding older unemployed people and people with little to no formal education. There are already existing repair and re-use initiatives that are working with those groups, most of which are constituted as SEEs (socioeconomic enterprises, see Chapter 3.6.). Because of the high overall standard, high labour costs and high unemployment benefits it can be problematic, especially regarding the cost factor, to employ previously unemployed people. A helping hand can be found in the Labour Market Service (AMS), which regulates the unemployment benefits and requires unemployed people to take up any viable employment after a certain time period. Looking at the sales side of repair and re-use centres, they have two possible options for market positioning regarding socioeconomy: the first and mostly used option is to search for both employees and customers in the financially disadvantaged (low income etc.) societal groups, where the customers are buying second-hand goods and resorting to repair out of financial needs, but there is also a potential target group in environmentally and socially concerned higher income customers, who are buying and supporting second-hand and repaired products because of their convictions and also in trend-setters and fashion-hunters, who are actively searching for "vintage" products.

□ beneficial
neutral
obstructive





4 Education

Unemployment of people with low level education seems to be one of the main problems EU has to deal with. Such initiatives as re-use centres can employ and also educate people facing this problem, as it was seen at the Austrian initiatives. Special aims/ targets/ intentions/ developments on national/regional/local levels on corresponding educational issues should be collected if exist.

4.1 Is there any educational programme generally for sustainability, and specifically for the re-use? – (C)

{Please list and give a short description on existing re-use promotional initations in your country/region. If there is not any on specifically for re-use, please list some other general programmes.}

University study programmes with a focus on sustainability

Several Austrian Universities are offering bachelor, master and even PhD study programmes which are focused on issues of sustainability. The following list gives a short overview over those universities and the offered programmes:

University of Graz

BSc Programme Environmental System Sciences

Master's Programme Environmental Systems Sciences

Doctoral School Environmental System Sciences

The university also has a dedicated institute for sustainability research, the Institute for System Sciences, Innovation and Sustainability Research, which is offering the majority of the courses for the study programme Environmental System Sciences on all study levels. The doctoral school in Environmental System Sciences is currently the only opportunity in Austria to study in a doctoral school specializing in sustainability.

University of Natural Resources and Life Sciences, Vienna

BSc Programme Environment and Bio-Resources Management

Master's Programme (DI) Environment and Bio-Resources Management

Two PhD programmes is also offered by the university, but they are general PhD programmes covering the entirety of the university research fields rather than the specialized programme offered by the University of Graz.

The university also has a dedicated Institute for Waste Management, which is offering several courses on the bachelor and master levels about the topics of waste prevention and







waste management. The institute also offers an education programme for waste advisors, which is described below in more detail.

University of Leoben

BSc Programme Industrial Environmental Protection, Waste Disposal Technology and Recycling

Master's Programme Industrial Environmental Protection, Waste Disposal Technology and Recycling

University of Applied Sciences Burgenland

BSc Programme Energy and Environmental Management

Master's Programme Energy and Environmental Management

University of Applied Sciences Joanneum Kapfenberg

BSc Programme Energy, Transport and Environmental Management

University of Applied Sciences Upper Austria

BSc Programme Bio- and Environmental Technology

Master's Programme Bio- and Environmental Technology

MCI Management Center Innsbruck

BSc Programme Environmental, Process and Energy Engineering

Master's Programme Environmental, Process and Energy Engineering

Forum Umweltbildung

The Forum Umweltbildung (Forum Environmental Education) is designed as a central project and education management institution by both the Federal Ministry of Agriculture, Forestry, Environment and Water Management and the Federal Ministry for Education, Arts and Culture with the main goals of integrating the principles of sustainable development into the education system and promoting education on sustainable development among teachers and which other actors act as educational multipliers and universities on (http://www.lebensministerium.at/umwelt/nachhaltigkeit/bildung_nachhaltige_entwicklung/for umumweltbildung.html, 13.03.2012). The forum portal provides a comprehensive overlook over existing sustainability education initiatives and a lot of interactive materials for teaching, while the forum itself organises and coordinates workshops and educational programmes throughout Austria (http://www.umweltbildung.at/index.htm, 13.03.2012)

ARGE waste prevention





The NPO ARGE waste prevention developed and implemented the profession municipal environment and waste adviser in Austria (since 1986 training of 300 waste advisers now working in municipalities an various companies in Austria). Recently ARGE founded the capacity building platform "Zero Waste Academy" aiming at developing and providing training offers for public authorities, enterprises and private people/consumers. Specific Re-Use workshops/seminars are offered as well as the annual organisation of waste management conferences. So far re-use workshops were held about the legal framework for re-use and about product liability, compensation and warranties for repaired and re-used products. Smart city and region coaching addressing the three main target groups "smart enterprises", "smart governance" and "smart consumer" is another main topic of the Zero Waste Academy. (www.arge.at,22.02.2012).

Waste Advisor schooling programme

This programme is offered by a variety of private consulting enterprises and educational institutions, such as the BOKU (University of Natural Resources and Life Sciences) in Vienna. This educational programme consists of a theoretical seminary course, covering the topics of legislation connected with waste collection, treatment and disposal, waste classification in companies, environmental management systems and in some instances the basics of environmental impact assessment and emission reduction. After completion of the theoretical course, there is an official government-sponsored (http://www.abfallwirtschaft.steiermark.at/cms/beitrag/11590559/4334949/_1, 13.03.2012 and http://www.wau.boku.ac.at/6876.html, 13.03.2012) with the final confirmation of qualification given by the state governor. The job description "Waste Advisor", as well as the first education courses for waste advisors, was introduced by the Arge waste prevention (http://www.awv.steiermark.at/cms/beitrag/11218914/49614218^, 28.03.2012).

Waste advisors are employed in two main employment areas: as municipal/communal waste advisors working for municipalities, regional governments and/or waste management associations, whose area of expertise should be very broad especially in regard to public actions and PR activities, and enterprise-internal waste advisors who specialize in advising the company which is employing them. Most often the latter are not external experts, but employees of the enterprise who have undergone additional training as described above. It has to be mentioned that every company with over 100 employees is required to declare an internal Waste Advisor according to §11 of the Austrian Waste Management Law (AWG). (http://www.berufslexikon.at/pdf/pdf.php?id=2923&berufstyp=sonstige, 13.03.2012)





Municipal/communal waste advisors are employed by individual municipalities or waste management associations and are eligible for funding through the ARA personnel cost funding (which is however limited on one funded waste advisor for every 20.000 inhabitants) (interview with B.Hammerl, 26.03.2012).

Die Umweltberatung

The organisation "die Umweltberatung" (The Environmental Consulting) offers a wide range of educational programmes, courses, workshops and trainings regarding the ecological, social and economical aspects of sustainability. Their main target groups are consumers, other enterprises (in form of schoolings and direct consulting) and primary and secondary education, where the focus is on education and awareness raising for environmental topics and problems. Examples for educational programmes offered by "die Umweltberatung" are schooling courses for energy consultants (both basic and advanced courses are offered), municipal mobility managers and municipal climate protection officers (http://www.umweltberatung.at/start.asp?b=6874, 13.03.2012). "Die Umweltberatung" is also functioning as the umbrella organisation for environmental consulting organisations in the Austrian federal states (http://www.umweltberatung.at/start.asp, 13.03.2012)

The ÖKOLOG-Network

An educational programme which is targeted generally at schoolchildren (primary education) is the federal ÖKOLOG-Network which aims to educate children and shift the structure of schools towards sustainability. The main goals of the education and the structure shift are broadening of knowledge and improvement of awareness towards the ecological, social and economical dimensions of sustainability, as well as communication of the concept of global responsibility. ÖKOLOG is a project of the central coordinating portal Forum Umweltbildung and exists in each of the federal states of Austria, with the federal units coordinating the education in the schools of each state.

(http://www.bmukk.gv.at/schulen/unterricht/prinz/Oekologisierung_von_Schu1817.xml and http://www.umweltbildung.at/cgi-bin/cms/af.pl?navid=48&ref=, 13.03.2012)

Sustainability schooling initiatives on the federal state level

In addition to the presented educational programmes and initiatives which are implemented on the federal level, there is also a multitude of regional education initiatives in the individual federal states respectively regions of Austria. For example, the Styrian state government is





promoting a sustainability initiative with the main focus on the ecological footprint, providing footprint coaches for elementary and high schools (http://www.nachhaltigkeit.steiermark.at/cms/beitrag/11121484/42439355, 13.03.2012). This initiative is implemented in cooperation with the Umweltbildungszentrum Steiermark (Environmental Education Centre Styria), which is an educational institution also focusing on environmental and sustainability education, providing both courses and workshops and project assistance to schools, municipalities and associations (http://www.ubz-stmk.at/angebote/, 13.03.2012).

An example for schooling initiatives in other federal states is the initiative Environmental Education Lower Austria (Umweltbildung Niederösterreich), which is a cooperation partner in the ÖKOLOG network and offers around 560 different environmental and sustainability schooling programmes for schools (http://www.umweltbildung-noe.at/umweltbildungs angebote.asp?Seite=2, 13.03.2012).

4.2 Who are the target groups of the programmes listed above? – (C)

{For example: children or special group of people (i.e. unemployed people, students, etc.)}

Because of the high number and diversity of programmes offered, target groups include people from all groups and levels of society. However, four main target groups which differ in their social position and also have different educational demands and objectives can be identified. Those groups are the following:

- Public Administration
- Businesses/Commercial Sector
- Private Individuals/General Public
- Pupils and students (from all educational levels)

The public administration group includes managers and employees from all levels and institutions of the government. Most of the educational programmes targeted at this group deal with issues of sustainability/environmental policies and their implementation as well as introduction of new projects, programmes and/or legislature. Because they are usually performed as internal training, they are often not accessible to the general public.

The business group is targeted at (private) enterprises from all business fields. Educational programmes offered to this sector cover a wide range of issues from basic sustainability/waste management training for company employees to advanced sustainability education regarding, for example, the energy or waste aspects and training programmes for specialized functions such as the waste inspector schooling programme described in the





previous chapter. Those programmes are usually accessible to the public, with an exception for educational programmes implemented in companies as internal training.

The private/general public group encompasses all individuals without relating to a special occupation or social affiliation. The programmes offered deal with all dimensions of sustainability, but are often designed for private household or leisure time planning. However, there are also specialized programmes for interested individuals as well as the possibility for private individuals to attend some of the education available for the business and student groups. As it can be seen in the name of the groups, the provided education is accessible to everybody.

The student group includes students and pupils from all levels of education ranging from kindergarten and elementary school up to postgraduate and post-doctoral students. The education programmes provided also cover a wide range of sustainability issues which are usually designed as appropriate for a certain age/education level. In accordance with that, younger pupils are being educated about the basics of sustainability, most often in the form of basic waste separation and management and basic environmental protection, while for students the programmes include university courses and seminars, specialized workshops and summer schools often dealing with a specific topic or aspect of sustainability. While the more basic education provided to younger pupils is usually not accessible for the general public, specialized education programmes organised on a university level often include the possibility for external participants.





5 State of the art

Systems for selling second-hand products are available in all EU member states. Existing structures and networks in the field of repair and re-use can be very helpful for the establishment of repair and re-use centres and networks. Especially an existing good cooperation between the waste management and the social economy sector can be very beneficial. It is of great advantage to have the possibility to learn from positive experiences gained and mistakes made in the past.

5.1 Is there any management organisation in your country/region for the concerned project activity? If yes, who are they and what are their roles?

-(C)

{Please assemble a list of them, and add a short introduction for each.}

If the entirety of Austria is concerned, there is no central management organisation for repair and re-use. As described in detail in the following chapters, repair and re-use activities are currently undertaken by a number of co-operations between the public authorities, socioeconomic enterprises (SEE's), NGOs and NPOs and, to a small degree, private companies. Although there are several intentions to set up management networks and/or central coordination authorities at least on a regional level (for more details, see Chapter 7.5.), for now those projects are still in the planning or the implementation phase. The only two exceptions are the RepaNet repair network initiative, which is primarily active in Vienna but also has some coverage in other federal states, and the ReVital product brand which was developed out of the "ruso re-use shops upper Austria" feasibility study/business plan and is currently active in the state of Upper Austria. An management/planning platform is also implemented by the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (Life Ministry) in the form of a re-use platform primarily oriented on reuse of waste electronic and electrical devices, which however met only irregularly (interview with M.Meissner, 27.02.2012) but which will be continued on regularly basis as national stakeholder group within the CERREC project.



5.2 List and describe the existing repair and refurbishing companies and reuse shops – (B and C)

{If you have identified initiations on the topic, please introduce them in details, with the mentioned parameters below. Increase the number of rows as needed.}

Number of existing companies or shops	Category name	Form of organisation (profit-oriented, non-profit)	Do they employ socially disadvantaged or handicapped people?	Average number of employees	Other comments
99	Repair shop (member of a repair network)	Profit-oriented	No/not primary (with the exception of NPOs/SEEs)		The number of shops is calculated using the existing member lists of the four Austrian repair networks (for more information see Chapter 7.5)
1352 (estimation)	Repair shop (no membership in a repair network)	Profit-oriented	No/not primary		
80	NPO	Non-profit	Yes	~25 (between 5 and 70)	WISEs, SEEs
800	Profit	Profit-oriented	No/not primary	~2 (between 1 and 5)	







5.3 Analysis/Conclusion: Are the existing structures and companies in your country beneficial or obstructive for the establishment of repair and reuse centres and networks? – (A and C)

{Please tick and explain why you think it is beneficial, neutral or obstructive.}

□ beneficial
neutral
obstructive

The existing structures and companies in Austria provide an extensive base and lots of opportunities for the establishment of repair and re-use networks. There are not many superregional or national networks active, however the existing projects have brought about positive results and there are several intentions to implement new projects (most of them are already in the planning/preparation stage) and/or to extend existing projects beyond their current borders (for example, the expansion of the ReVital product brand to other federal states, for more details please see Chapter 5.6.). The main challenges can be seen in the lack of networking between most of the small actors like repair businesses or second-hand shops and regional networks, but projects with the aim to improve networking and communication, as well as studies on that issue have shown both potential and will for improvements. Therefore, the existing structures and companies can, in total, be regarded as beneficial for any future projects and initiatives.

5.4 Is there any "know-how" in the field of repair and re-use (procurement, treatment, repair and refurbishing business, marketing) or a knowledge transfer from other countries is necessary? – (C)

{Introduce the existing "know how" like activities of RNA(look up the methodology paper for the definition). Are there experts, research & development activities in the field, existing literature, guidelines, manuals etc.? If yes, please introduce what they are about.}

Although there is certainly a lot of know-how in the field of repair and re-use in Austria, the de-centralized nature of the existing initiatives combined with the dominantly small repair and re-use company size and informal proceedings results in most of the existing know-how being informal and confined inside the individual companies. In the following lines there is a presentation of written know-how (the criteria for it was that it is defined or condensed in the form of a document or as a part of one) on repair and re-use. At the end of the chapter there







is an overlook over possible needs for knowledge transfer from other countries in the planned initiative towards Austria.

QualiPro Second Hand and QualiPro Second Hand II project documentation

A significant amount of know-how is synthesised and captured in the project documentation of the EU-funded QualiPro Second Hand project, and its follow-up, the QualiPro Second Hand II project. The aim of the first project was to enable an overview over the second hand sector in the participating countries through a survey which in particular focused on professionalization, and, based on the results of the survey, to compose a European qualification profile specific for the second-hand sector. The second project continued the development of the qualification profile by transferring the qualification profile composed in the first project into country-specific concepts, and extending the qualification profile to include quality standards for all stages of the repair and re-use (http://www.qualiprosh.eu/products.html, 07.03.2012). The project documentation know-how includes a European second-hand sector analysis, Good Practice reports from all participating countries, an instrument for identification of a need for qualification, the concept for a qualification profile, proposals for network design and quality standards, instruments for a quality check of the qualification measures and didactical and teaching materials for qualification modules as proposed in the qualification profile, which are the following: Acquisition of Customers and Goods, Administration and Business Processes, Cleaning and Repairing Textiles, Organisation of Goods Receipt, Purchase and Receipt of Goods and Sales. In addition, there are several articles and written contributions regarding second-hand issues (http://www.gualiprosh.eu/downloads.html, 07.03.2012).

KERP Guideline for re-use of electronic and electrical waste in Austria

This guideline was designed in an expert cooperation of the RepaNet repair network and the Competence Centre Electronic and Environment with the goal of providing a comprehensive and detailed overlook over all aspects of the re-use process for electronic appliances. It includes a current-state analysis of the repair and re-use situation regarding electronic appliances in Austria and the existing potentials, a description of the re-use platform through which the guideline was realised, an overlook over legal issues and obligations including both international (EU) and national law. The guideline also includes a listing of general obligations and advice on actions for repair/re-use companies working with electronic appliances, detailed procedural and legal descriptions of collection possibilities (direct





donation, communal collection sites), a guide on the process of preparation for re-use and also legal and practical advice on sale of re-used appliances both in the country and by export.

Final Report on the project Re-Use of Waste Electronic and Electrical Appliances in Vienna

The contents and scope of the presented guideline were both tested and expanded in the course of a pilot project undertaken by the Competence Centre and the "umweltberatung" (Environmental Consulting) and members (repair companies) of the Repair Network Vienna. The report represents a wrap-up of the gained knowledge and insights into repair and re-use of waste electronic and electrical appliances and also includes procurement and repair standards (further described in Chapter 5.7), information about procurement and legal obligations and tips and manuals for the fulfilment of legal obligations for repair initiatives, especially in regard to the Waste Balance ordinance.

Guideline "How to develop a regional repair network"

The guideline was written by ARGE Müllvermeidung and the RepaNet association as a collection knowledge gained after the implementation of four repair networks in Vienna, Graz, Liezen and Ried im Innkreis. The knowledge was collected in the course of several workshops and synthesised in the form of this guideline. It includes a demonstration of the benefits gained from the implementation of a regional repair network, starting tips and requirements and proposals and possibilities for the design and scope of the network. There is also a collection of inputs gained directly from the workshops.

Business Plans "ruso" and "Re-use shops in Styria"

Both of those business plans/feasibility studies include an extensive collection of know-how based on both national and international experiences (the kringwinkel second-hand store project in Flanders is often used as an example). The collected know-how is mainly in the fields of existing framework conditions, especially regarding the legislature, and market studies and predictions about the current material flows and potentials for re-usable product collection and their future development. The plans further include descriptions for business strategies of the proposed projects (ruso and the Styrian re-use shop network), which can be used as a starting point for newcomers in repair and re-use. More information about the business plans can also be found in Chapter 7.2.







Regarding the need for knowledge transfer from other countries, it can be stated that the knowledge base regarding both the legal and organisational aspects of repair and re-use and also its marketing and sales is quite extensive. Additional knowledge is however required in the field of repair itself, with regard to repair tips and procedures and the possibility for exchange between the individual repair shops/initiatives. It is proposed that an exchange base can be implemented as an Internet portal or website with a discussion forum where all members of the planned initiative could exchange tips and share their experiences (interview with M.Neitsch, 08.02.2012). A second area where more know-how should be obtained concerns the legal requirements and definitions connected with re-use, in an international concept especially regarding export of second-hand re-usable products in neighbouring countries in the case the domestic market is over-sated (interview with M.Meissner, 27.02.2012). Finally, from the viewing point of a re-use enterprise, know-how is especially important concerning the implementation of new and optimisation of existing collection systems for re-usable products. However, caution should be exercised in the implementation of those systems because the framework conditions might be different in different regions (interview with C. Wolf, 14.03.2012).

5.5 Which are the typical ways of collecting the WCP-s (Waste Considered Products)? – (B)

{Please estimate the rates among the different ways (sum should be 100% in a row).}

For more information on the method used to calculate/estimate the ratios, please refer to Chapter 2.1.

Product category	Bulky waste collection [%]	Waste collection centres	Drop-off- systems (ie. with containers, charitable organisations) [%]	collection on demand (i.e. by phone calls)	Total
electric/electronic appliances: according to					100





	the WI	EEE directive,					
	0	Large household	0	70-80	0-30	20	100
		appliances					
	0	Small household	0	70-80	0-5	20	100
		appliances					
	0	IT and	0	70-80	0-5	20	100
		telecommunicati					
		ons equipment					
	0	Consumer	0	70-80	0-5	20	100
		equipment					
	0	Electrical and	0	70-80	0-5	20	100
		electronic tools					
		(with the					
		exception of					
		large-scale					
		stationary					
		industrial tools)					
	0	Toys, leisure and	0	70-80	0-5	20	100
		sports					
		equipment					
•	non el	ectric driven	0	50-100	0	0-50	100
	house	hold appliances					
•	furnitu	re	0	75-90	0	10-25	100
•	non el	ectric toys / sport /	0	75-100	0	0-25	100
	leisure	equipment					
•	garme	nts and textiles	0	10-20	60-80	0-30	100
•	furnish	ning equipment	0	50-90	0	10-50	100
•	other (books, CD, DVD,		90	0	10	100
	LP, oth	ner audiovisual					
	media	and different					
	specia	lised product					
	groups	5)					





5.6 Describe the current infrastructure of the re-use network! – (C)

{Collection via bulky waste collection, waste collection centres, clearing out (of apartments or bureaus), drop-off-systems with containers (e.g. of charitable organisations), 1/1 taking back, flea markets,...}

In the following sentences, a short overview of the infrastructure of repair and re-use networks and initiatives in Austria will be given on two best practice examples of already existing and active initiatives: the repair network RepaNet in Vienna respectively its pilot project on re-use of waste electronic and electrical appliances, and the ReVital product brand for second-hand products functioning in Upper Austria, but with possibilities of a extension to other Austrian federal states in the near future. For more overall description of the initiatives and descriptions of their quality standards, please see Chapter 5.7 and Chapter 7.5. Concluding, a short overview of the current stage of market development for repair and reuse in Austria, based on an expert interview, will be provided.

RepaNet

The infrastructure of the repair and re-use network RepaNet is set up in a rather individual way with regard to the rather decentralised nature of the network. As the central organisational body, the RepaNet association takes the role of network coordinator and knowledge hub, but procurement, preparation for re-use/repair and sales are left to the individual partners. It has to be noted that the RepaNet is mostly a repair network, with second-hand sales playing a secondary role. An example for a more formalised infrastructure was given in the pilot project "Re-Use of waste electronic appliances by commercial repair shops of the Repair Network Vienna", which was implemented as a cooperation of waste management, NGO/NPO and public authority actors in 2010 and 2011. The project included collection of waste electronic appliances, their testing and repair according to pre-set standards (for more information on the standards please see Chapter 5.7), and sales of those appliances in repair/second-hand shops on the second-hand market (Leutgöb, Schwarzlmüller 2011, P. 3(I) cont.). Collection of re-usable appliances according to set collection prerequisites (for more details, please see chapter 5.7) was done by a waste management company (Saubermacher) in a general waste collection site, and an electronics retail store as part of a 1:1 appliance return programme. The appliances were then examined and, if necessary, repaired in one of eight participating RepaNet Vienna member companies according to the already mentioned repair and safety standards, and then sold by those companies. Project coordination, networking and know-how were provided by a cooperation







of public (Vienna Waste Management Department and private (KERP, die umweltberatung, RepaNet) actors (Leutgöb, Schwarzlmüller 2011, P. 5(I) cont.).

ReVital

The infrastructure of the ReVital product brand line is structured within a two-level hierarchy (the state waste management association on top as the license provider, sales points, repair and testing sites and collection centres as license partners) with a three-level hierarchy planned for an eventual expansion to other regions and/or federal states (a middle hierarchy level would be implemented in the form of super-regional coordinators) (Anderer 2011, P.6). Regarding the current infrastructure of the ReVital product brand, it is divided into the three stages collection, repair/testing and sales. Collection of re-usable products for ReVital is done in 57 collection sites, consisting of 56 municipal waste collection centres and one association which is also active as a repair/testing partner. The collected products are then tested, refurbished and repaired in one of five repair companies, which are all at least partly socioeconomic enterprises or directly by the sales partners. On the last stage, the prepared (according to the ReVital standards presented in Chapter 5.7) products are then sold in nine re-use shops, four of which are operating directly under the ReVital brand and the rest being partner shops (Volkshilfe and the Braunau Recycling Centre) (www.revitalistgenial.at, 23.02.2012).

The current development stage of the repair and re-use market deals with the building of networks and cooperation between the municipal/public waste management structures and socioeconomic enterprises (SEEs). After completion of this stage, the next step focuses on direct collaboration with individual enterprises (for example, in the form of B2B (Business-to-Business) product cycling systems). The most important open possibilities in this stage are an expansion of the whole industry with the main goals being better regional coverage and increasing the supply of second-hand products, exchange of experience and know-how (which is already executed in the various implementation projects for repair and re-use throughout Austria – for more information, see the following chapter) and improvement of waste management logistics (based on the category "Input preparation for re-use" of the EU Waste Framework Directive), where a build-up of understanding and acceptance is currently ongoing in the waste management sector (interview with M.Meissner, 27.02.2012).





5.7 Do (uniform) quality standards or guidelines exist? If yes, for which parts of the process chain do they exist (repair, training of employees, marketing, etc.)? – (C)

{Please list the related existing guidelines and/or standards for any segment of RNA and describe their roles.}

Because there is no central organisation or initiative governing the quality of repair and/or reused products in Austria, there are no uniform quality standards or guidelines. However, there are internal quality standards and guidelines that are implemented by the two existing larger repair/re-use initiatives, which will be presented in detail, and also a larger number of company-internal or small-scale association standards and guidelines which are used by a single or, at the best, a few businesses and which usually are not accessible to the public and in some cases do not even exist in written form.

Regarding general standards for quality management in enterprises, socio-economic enterprises and commercial repair and second-hand shops can implement a general quality management standard/system, such as the ISO 9001 or the European Foundation for Quality Management (EFQM) standard. Those quality management standards are however general and designed to be applicable for any type of enterprise, so they cannot be regarded as specialised quality standards for repair and/or re-use.

As an example, the socio-economic enterprise BAN from Graz bases its internal quality management on the EFQM standard, with the CEO having the opinion that a quality standard should be regarded as a natural thing for enterprises active in the repair and re-use sector (interview with C.Wolf, 14.03.2012).

A possibility for socio-economic enterprises is the certification with the seal of quality for socio-economic enterprises, which is performed by an external assessor working for Quality Austria. A prerequisite for the seal of quality is the implementation of a quality management system based on the EFQM standard by the SEE (Guideline for the Seal of Quality for socio-economic enterprises 2011, P. 2 cont.). Currently there are 26 certified socio-economic enterprises in Austria, with some of them, such as the BAN in Graz or the GBL in Liezen active in the repair and re-use sector (http://www.bdv.at/guetesiegel-fuer-soziale-integrationsunternehmen/preistraegerinnen/, 14.03.2012).







Following, the quality standards and guidelines implemented by the two active repair and reuse initiatives, RepaNet and ReVital, will be presented, as well as the quality standards and recommendations developed in the course of two projects focused on repair and re-use, the Reparaturnetzwerk Wien waste electronic and electrical appliance re-use pilot project and the international QualiPro Second Hand project. For detailed information about the initiatives, see Chapter 7.5. and for more information about the projects, see Chapter 5.4.

RepaNet repair network quality standards

There is a fixed set of standards implemented by the RepaNet repair network and applied to all members of the network. Those standards cover the business areas of legal security, repair quality, repair will (described as the will and intention to actually perform a repair), environmental and social justice and cooperation in the RepaNet network. As the quality standards are best defined through the regulations for repair quality, following is an overview over the repair quality demands set to all network members (www.repanet.at, 07.03.2012):

- o Maximal fee of €30.- can be demanded for a binding cost estimate
- The customer has to be actively informed about the fee for the cost estimate before requesting one
- The cost estimate fee has to be covered by the customer even in the case the appliance cannot be repaired
- If the appliance is being repaired, the cost estimate fee has to be subtracted from the total repair fee
- Cost Warranty: the binding cost estimate can not be exceeded later
- o A warranty of 24 months is given on performed repairs
- At least 50% of the workplaces must be in the repair area (excluding administrative jobs)
- Universal repair business: at least five mutually independent brands must be repaired by the business

The RepaNet standards cover the process chain parts of business organisation, repair, customer relationships, material flow management, recruitment of employees (HRM) and cooperation with other companies (in this case, other members of the RepaNet network).

Repair network Vienna Waste Electronic and Electrical Appliances Procurement and Quality Standards





Those standards were determined in the course of a pilot project on re-introduction of WEEE in the re-use cycle. This pilot project was implemented in the city of Vienna by the "umweltberatung" (Environmental Consulting) and the KERP Competence Centre Electronics and Environment in cooperation with member shops and companies of the Repair Network Vienna. The procurement standards include a listing of appliances suitable for repair and re-use sorted by the categories large household appliances, audio, television and video, computers including notebooks and output components, small kitchen appliances, other small household appliances and flipper machines. The requirements for each of those appliances are related to the original manufacturer and appliance type, its age and general requirements regarding the material properties of the appliance (Leutgöb and Schwarzlmüller 2011, P.10 cont.). An example for procurement standards is given on the requirements set for small kitchen appliances:

Appliance	Appliance Type	Manufacturer	Age	Further
Category		and Model		Remarks
Small kitchen	Espresso	All ESPRESSO,	Any	Optical condition
appliances	machines	no coffee tab		is OK, all parts
		machines or		are available
		filtered coffee		
		machines		
	Kitchen	Kenwood	Max. 7 years	Mostly for spare
	machines			parts
	Microwave	Any	Any	-
	ovens			

The quality standards proposed in this report relate to the process steps during the repair of an appliance and the required functionality and quality tests for the device. The standards were set for the following appliances: washing machine, PC/storage medium, display screen equipment and mobile phone, with the safety testing according to the ÖVE/ÖNORM E-8701-1 standard (Spitzbart 2009, P. 71. cont.). The following table gives a structural overview over the testing process required for maintaining the quality standards (Leutgöb, Schwarzlmüller 2011, P. 7 (III)):

Process part	Description of the work		Documentation and	
	procedures		recording requirements	
Visual inspection	Visual	determination	of	Documentation of the





	fundamental suitability for re-	testing results in the
	use, for example:	testing protocols
	Condition/wear-out of	Storage of the testing
	visible parts	protocols for at least
	Condition of electrical	seven years
	isolation	Whether the testing
Functional examination	Functionality check of	protocols are passed
	all relevant functions	on to the customer
	of the appliance	can be decided by
Safety testing	Inspection of:	the re-use company,
	Conductor resistance	it is however
	Insulation resistance	recommended
	> Protection conductor	Special information is
	current	available regarding
	Leakage/touch	export (more
	current	information in
	for all mains-operated	Chapter 7 of the cited
	appliances	report)
Data protection	For appliances and	Documentation in the
	appliance parts with data	testing protocol, the
	storage, the data has to be	company which
	destroyed	provides the re-
		usable appliances
		can request a
		declaration on secure
		destruction of data
		from the re-use
		company

ReVital quality standards

The ReVital product brand has composed a series of quality standards that apply to products sold under the ReVital brand. Those standards must be respected by all selling partners of ReVital.

ReVital products are guaranteed to be (http://www.revitalistgenial.at/was.html, 07.03.2012):







- Complete and undamaged
- Visually appealing
- In working order (including a test certificate for large electronic and electrical waste appliances)
- Safety-tested (for electronic and electrical appliances)
- Hygienically harmless

As those standards, as previously stated, apply to the products, the affected parts of the process chain are repair and sales.

QualiPro Second Hand Sector qualification quality standards

In the course of the QualiPro Second Hand (I and II) EU project, a proposal for quality standards in the qualification process of employees in the second hand sector, with a special regard for non-profit/socioeconomic enterprises and therefore transit employees, was given. The quality standards were divided in the three main categories "input", "process" and "output" quality standards, with the main points respectively issues of those categories being the following (Arold, Windelband 2011, P. 6 cont.):

Input quality standards
Number of and conditions for participants
Consideration of previous knowledge and experiences
Teaching and learning places
Fixed uniform time frame
Qualified teacher/trainer
Adaptation of the qualification process to national conditions
Fixed basic structure of qualification process
Support through networking and cooperation
Curriculum
Regular exchange between the qualifier and the teacher/trainer
Teaching and learning materials
Process quality standards
Performance test and quality check of the learned knowledge
Qualification leaving examination
Regular quality control
Overview over all relevant sector-specific business fields





Overview over all courses of business and working processes			
Sector-specific know-how			
Output quality standards			
Certificate for the qualification			
Partly qualification			

With regard to the different stages of the process chain, those quality standards are designed to be applied for the training of employees.

Concluding, although there are currently no uniform repair/re-use quality standards for any part of the process chain, standards still exist in form of the two presented quality standards used by the currently existing large repair and re-use initiatives and the standards used by small associations or individual businesses. As a uniform quality standard would be very hard to implement without the existence of a central authority, development and implementation of such standards can not be expected prior to implementation of a central or at least very extensive Austrian repair and/or re-use network.

5.8 What are the methods of distribution of the repaired products? (i.e. shops, internet, etc.). Please name some examples! – (C)

{Here the aim is to reveal all the existing methods of distribution (it means the channel where the products get to the new user of the refurbished product).}

In Austria, repaired products are distributed via different channels. The first distribution channel are Socioeconomic Enterprises (SEE), also including specialised re-use Shops, such as ReVital in Upper Austria, which primary target is assistance for long-time unemployed persons and their (re-)integration in the primary labour market as well as procurement of cheap products and waste avoidance through extending the useful life of products. A study in 2007 found a total of 85 socioeconomic second hand/re-use shops in Austria (Arold, Koring 2007, P. 13). Other distribution channels are second hand shops (SHS) and used/junk good shops (JGS). In 2007, there were 215 second hand shops and 157 used/junk good shops in Austria (Arold, Koring 2007, P. 12), in 2012, the number of second hand shops has increased to 255 and the number of used/junk good shops has decreased to 139 shops (own inquiry, 3.2.2012) The distribution of repaired products is also





undertaken in a less organized way via flea markets and second-hand trading portals on the Internet (Meissner 2010, P.22). Unfortunately, because of the decentralized and informal nature of that distribution channel, it is virtually impossible to make any kind of quantitative estimation of its size or reach.

For example, the ReVital brand network in Upper Austria is an example for distribution through socioeconomic enterprises, where 10 shops throughout Upper Austria sell second-hand goods with the ReVital brand. Those shops are partly specialised ReVital stores, but also Volkshilfe shops and a recycling site. Further examples for sales through SEEs are the companies BAN in Graz and Ho&Ruck in Innsbruck, who have a sales location included in their company site.

Second-Hand shops and used/junk good shops are predominantly individual enterprises, which are most often located in the textile, furniture or electrical appliance sectors. Examples for second-hand shops would be the Volkshilfe shops in Upper and Lower Austria and the CARLA shops (Caritas) throughout Austria.

Flea markets and second-hand trading portals constitute the informal and unorganised side of the distribution methods. Because of this informality and lack of fixed organisation, it is very complicated to perform studies about their characteristics. Most flea markets are organised as private initiatives or by individual municipalities (or parts of those municipalities). However, there are a few examples of flea markets established more firmly, such as the "48er Basar" in Vienna, which is fixed and organised by the Department 48 of the City Magistrate of Vienna, which is, as previously stated, the central waste management authority of the federal state of Vienna, and the traditional "Feuerwehrflohmärkte" (Fire brigade flea markets) which are organised in the individual municipalities by the municipal fire brigades. Examples for internet trading portals include eBay, but also national trading portals such as willhaben.at.







6 Public awareness

Successful re-use highly depends on the public awareness, as people using the products in their first life cycle have to handle it back to repair in an "acceptable" status. Thus two key points are the "use with care" and the "handle it back". Main points on public awareness have to be analysed in detail.

6.1 How relevant is the public awareness on this topic? – (C)

{The aim is to investigate the information availability and awareness of the public. This will be useful when comparing the actual situation in different countries/regions. Please describe it in some sentences.}

As the market studies and business plans by Niederer and Meissner and Pladerer as well as the implementation concept by Schleich, Hammerl and Neitsch have shown, public awareness can be regarded as a critical component in the implementation, promotion and expansion of repair and re-use centres and networks. As better marketing and market penetration as well as quality and warranty improvements can be listed as critical factors for the success of those initiatives, an aware and sensitised public should be regarded as one of the basic frame condition for implementation of repair and re-use.

Public awareness can be created using public relations work and public relation techniques, which will be described in more detail in the following chapter. Examples for public relations work are active marketing and promotion of the ideas of repair and re-use to the general public as it is done by the ReVital product brand through its web presence and in the ReVital shops, or providing information to certain stakeholder/interest groups such as entrepreneurs in the waste management sector, general business owners scholars/students/researchers through schooling, workshops and project actions as done by the ARGE waste prevention. Both of the presented methods contribute to raising public awareness, one by addressing the public directly and the other by using individuals and/or interest groups as multipliers for the promotion of repair and re-use ideas.

Regarding the relevance of public awareness on the topic of repair and re-use for the implementation of repair and re-use initiatives and networks, the importance of public awareness rises with the scale and scope of the project, i.e. while the project is in its beginning/planning stage, it will be confined to a relatively small group of actors and stakeholders, while any form of public introduction of such projects necessitates public awareness on the addressed topics to ensure a successful project introduction and long-time







perspective. This is especially true for the sales sector, which is completely dependent on customers and their interest respectively their level of information. Public awareness is also important for obtaining assistance from both individuals and public authorities, for example, informed individuals can contribute towards the project's success both through acting as multipliers for their direct surroundings and direct action such as collection of re-usable products. Awareness and interest of public authorities is crucial for the implementation of any public initiative or network, both because of financial and legal provisions and organisational assistance. Concluding this topic, it can be stated that even if public awareness can be regarded as having less importance in the beginning stages of a project, work on improving public awareness for repair and re-use should be started as soon as possible to create a fertile environment for the public introduction of the project.

6.2 Are there NGOs or other organisations that make public relations work (PR) on the goals of the revised WFD or on the topic of re-use? – (C)

In Austria, public relations work on the topic of re-use is undertaken by public authorities both on the federal and regional level, public waste associations and a number of NGOs who are either actively pursuing programs and/or projects connected to re-use, or are assisting in the implementation of re-use projects and networks. The main problem regarding the PR activities on the topics of repair and re-use is the lack of PR activities on a federal level (most PR activities on repair and re-use remain concentrated on the federal state which is implementing an action, and the lack of continuity of the PR activities (most of the PR activities are focused on an individual initiative and stop as soon as the initiative is finished). Almost all of the existing studies and established or planned initiatives are either directly implemented by NGOs or organised as partnerships between NGOs, companies and/or governmental institutions. However, the majority of the current PR activities are undertaken by the association of Austrian waste advisors (VABÖ), the ATM (Abfallwirtschaft Tirol Mitte) and the state waste management association of Upper Austria (LAV OÖ), which are profitoriented and/or public respectively semi-public organisations. The PR work includes presentation of the projects with the goal of gaining both broader public acknowledgement and approval and establishing relationships with potential customers, promotion of repair and re-use through education programs (for a closer look on education programs, see Chapter 4.1.) for stakeholders and interest groups as well as the general public and direct marketing measures which are mostly implemented by the existing initiatives RepaNet and ReVital and





individual enterprises. The following list shows exemplary PR initiatives undertaken by the listed actors, sorted by the actors beginning with the public authorities and including a short description of the PR activity and its features.

The Ministry of Agriculture, Forestry, Environment and Water Management (Life Ministry) as the highest Austrian federal authority on waste management is promoting the concept of reuse and re-use initiatives such as the RepaNet and repair and re-use of waste electronic appliances media (http://www.lebensministerium.at/umwelt/abfallressourcen/abfallvermeidung/RepaNet.html, 06.02.2012) as a part of its Waste Prevention Program 2011. As a central authority, they also serve as an information hub for the interested public by hosting and providing relevant documents and presentations on the topic of repair and re-use on their website (http://www.lebensministerium.at/suchergebnisse.html?queryString=re-use, 06.02.2012).

Further PR work is done by public authorities on a regional/federal state level, where repair and re-use concepts are promoted by the state governments respectively by their waste management departments and waste management associations both in their waste management strategies as presented in the Waste Management Plans (for more details, see Chapter 1.2) and on individual projects. Examples for such projects would be PR work done by the Upper Austrian State Waste Management Association working under the name "die umweltprofis" (The Environmental Professionals) promoting the ReVital (http://www.revitalistgenial.at/, 06.02.2012), PR work on the introduction of re-use shops in the RegioNext regions of Styria as part of the Vision 2020 (LAWP-STMK 2010, P. 161 cont.) and PR activities undertaken by the Burgenland Waste Association on the project of a Re-Use Network in Burgenland, where the Waste Association takes over the role of the central coordinating body for repair and re-use (interview with M.Premm, 16.02.2012). Another important PR activity of some of the regional/state public authorities is the promotion of repair initiatives through repair guides (Reparaturführer) providing a list of repair shops included in (http://www.abfallwirtschaft.steiermark.at/cms/beitrag/ the regional repair network 10004004/4335111/, 06.02.2012).

Regarding PR work by NGOs, the NGO/NPO ARGE waste prevention has undertaken PR activities regarding the issue of re-use for years, with one of the best practices being the promotion of repair and re-use through education programmes for Waste Advisors, who in the following are acting as multipliers for repair and re-use through their activities. The ARGE waste prevention is also strongly represented in the national Waste and Environmental Advisor Network (Netzwerk der Abfall- und Umweltberater), further expanding and using the





multiplier role. Additional educational PR work was and is still done through other programmes and workshops, as stated in the last chapter, implemented as part of the Zero Waste Academy. PR work is also done in national and international repair and re-use initiatives, such as regional implementation of repair and re-use networks in Austria or the transnational projects CERREC, Project Innovation 2020 and the Redesign Network. Public information and awareness raising is also done through studies and surveys concerning repair and re-use, the ARGE waste prevention newsletter and website (www.arge.at, 06.02.2012 and interview with B. Hammerl, 02.02.2012).

More PR work is done by NGOs and NPOs such as the already mentioned RepaNet repair network or the R.U.S.Z (Repair and Service Center) and, on a regional level, socioeconomic enterprises such as the BAN in Graz or networks such as the GBL in Liezen, Styria. Because the field of action of many of those NGOs and NPOs requires direct contact with the customer, their PR work also includes direct and more traditional marketing approaches.

In conclusion, it can be said that there is a lot of PR work regarding repair and re-use currently done in Austria, with contributions by both public and private/social actors, but also with consideration of the problems of scope and continuity explained at the beginning of this chapter. A further contribution to the problems faced is the fact that on an individual level repair and re-use initiatives undertake PR activities to promote their own operations (this is especially the case for the distribution channels, such as ReVital or the individual socioeconomic enterprises) and do not expand the PR activities beyond their operative borders. The need for more PR activities and a comprehensive PR strategy is acknowledged and stated in current studies on the issue of repair and re-use, so, for example, the business plan for the "ruso" network (re-use shops Upper Austria) acknowledges the need for PR and proposes a PR strategy in its business plan (Meissner, Pladerer et al. 2008, P.29 cont.).

6.3 Do you have green public procurement activities? – (C)

{It is a very important question. This could be an exemplary way for promoting the re-used products in every country/region. Hint: http://ec.europa.eu/environment/gpp .}

Austria has developed an action programme for sustainable procurement, which was ratified by the Council of Ministers in July 2010. The action programme defines four main goals which should promote and ensure sustainable procurement in the public sector:

Sustainable Procurement should be implemented by all public procurement operators
in Austria i.e. they should at least apply the core criteria of the action programme,





which include ecological, economic and social criteria. The core criteria are still being developed, for example there are ecological criteria for sixteen purchase groups

- The pioneer role of Austria in sustainable public procurement in Europe should be secured. Austria belongs among the seven best countries in Europe in the category of ecological public procurement, that position should also be achieved in socially responsible procurement
- The sustainable public procurement activities in Austria should be coordinated and the strengths focused
- Barriers for sustainable public procurement should be removed

There are five main steps within the action programme. These are cooperation of expert groups on the development of social criteria and removal of budgetary barriers, monitoring of the action programme, improvement of knowledge on the effects of sustainable procurement, providing information on the action programme to suppliers and public procurement operators and a periodical evaluation of the action programme. There are also support activities for public procurement operators which include both online and offline consulting, a yearly "Action Day" for sustainable procurement, and a Sustainable Procurement Award for good practice examples.

(Source: Austrian Action Programme for sustainable public procurement, Part I (2010) and Summary of the Austrian Action Programme for sustainable public procurement (2010))

6.4 Is the general public willing to make re-usable goods available and donate them to re-use centres? – (C)

{It is not a simple question. If you do not have studies answering this question, please write your opinions.}

The willingness of the general public to donate re-usable goods was investigated during a study undertaken by the ARGE waste prevention for the City of Graz which brought up the following results:

On the question whether there is a general agreement to donate re-usable products, 82% of the participants answered affirmatively (21% of the participants would be willing to donate all products, while 61% of the participants would donate only a part of the products) and only 13% answered negatively. The leading motives for donation of re-usable goods were named as environmental concern, followed by social motivations and a lack of storage space.





In addition to that, the study participants have shown a strong preference for having the donated re-usable products removed by a third party from their homes, either on an on-call basis or on a fixed schedule (Hammerl et al. 2011, P.13 cont.)

Additionally, an interview with the manager of a socio-economic enterprise active in the repair and re-use sector reaffirmed the assumption that the donation willingness of the general public is rather high, but also identified the main problems in re-usable product acquisition as a lack of information in the general public about the market value of second-hand products and the costs of their collection (especially in the case of collection on demand). Those issues often result in people approaching the product collectors with economically unfeasible requests. An example for this was given on the case of a potential customer offering a deconstructed closet which was located in a small town 40 km from Graz, where the potential market value of the closet would not even cover the transportation costs, without any regard to possible further assembly/repair costs. The proposed solution for those problems is an initiative for awareness raising in the general public, which could be implemented as a part of the PR activities addressed at the beginning of this chapter (interview with C.Wolf, 14.03.2012).

Because of the lack of available studies, it is very hard to draw a conclusion about the willingness of the general public for the whole of Austria. Based on the study and the information given in the interview, it can be concluded that the willingness to donate reusable goods is high, with a strong inclination towards collection on demand systems which do not cause any additional work for the donator. In connection with those systems, the interview with a representative of the re-use business field has shown that a need for more information of the general public exists, which could improve both the acceptance and realistic expectations towards re-use by the goods' owners and allow the collectors and collection systems to operate more efficiently both from the economic and the operational point of view.

6.5 Is buying second hand goods accepted in your society or is it something people are ashamed of? – (C)

{It is the same situation, like in the previous question. Please give us your opinions in case of the lack of studies.}







The attitude of Austrian people towards buying second hand goods was examined using a Eurobarometer report to the European Commission about attitudes of Europeans towards resource efficiency from the year 2011. According to the report, 72% of Austrian citizens would be willing to buy second hand goods, which is slightly above the EU-27 average of 68% (Eurobarometer Analytical Report 2011, P. 24). The report further investigated the willingness to buy second hand products from the product groups textiles, electronic equipment and furniture, where the results obtained for Austria were 34,8% for textiles (EU-27: 35,9%), 50,2% for electronic equipment (EU-27: 45%) and 55,1% for furniture (EU-27: 55,5%) (Eurobarometer Analytical Report 2011, P. 57 cont.) Finally, the main reasons for refusing to buy second hand goods were also investigated, with 59,5% of Austrians (EU-27: 58,4%) citing quality/usability of the product as the main reason, 50,3% citing health and safety concerns (EU-27: 49,8%), 27,7% citing a less appealing look of the product (EU-27: 24,9%), 3,2% being afraid of the opinions of others (EU-27: 4,5%) and 11,4% citing other reasons (EU-27: 12,6%) (Eurobarometer Analytical Report 2011, P. 63)

Additionally, two local/regional studies were used to ascertain the acceptance of buying second hand goods in two regions of Austria: the study by the ARGE waste prevention for the City of Graz on re-use potential in Graz households and a market study on re-use in the federal state of Carinthia.

On the question whether their have bought second hand goods before, in both studies more than the half of participants answered affirmatively (52% in the Carinthian study compared to 78% in the Graz study). The readiness to buy second hand goods in the future was 78% and 88% in the two phases of the study that was undertaken in Carinthia.

According to both studies, the lower price of second-hand goods is the driving factor for buying, followed by environmental concerns and a wish for individuality. In comparison, the main reasons for not buying second hand goods were quality/warranty concerns, a bad image of second hand products and a lack of information or interest.

An interview with the manager of a socio-economic enterprise active in the re-use sector also confirms the existence of a certain inhibition threshold for buying second-hand products, with the main cause identified as the image of second hand goods (the assumption that second hand goods are bought by poor respectively socially disadvantaged people). According to the interview partner, however, this unfavourable image is unfounded, because second hand goods can also be sold for high prices and be of high quality. The image of second hand goods could be improved by improving the general quality of second hand products (interview with C.Wolf, 14.03.2012).







Drawing a conclusion for the whole of Austria, it can be estimated that the attitude towards buying second hand goods is slightly to moderately positive and there are no strong negative associations. While the financial benefit is the dominating cause for people buying second-hand goods, there is a significant component of buyers motivated by environmental concerns or individualization. While there is still a somewhat negative image of second hand goods as a detrimental factor, most of the people not buying second hand goods are doing so out of quality and/or warranty concerns.

6.6 Is the public awareness and reputation of second hand goods and products beneficial or obstructive for the establishment of repair and reuse centres and networks? – (A and C)

{Please tick and explain why you think it is beneficial, neutral or obstructive.}

☐ beneficial	
□ neutral	
obstructive	

The public awareness and reputation of second hand goods and products can be characterized as neutral or even slightly beneficial. To give a short overview, there are PR and awareness programs organized by a number of NGOs as well as a federal programme for sustainable public procurement which could under right circumstances be used to promote products and services offered by repair and re-use networks. The main problems of the PR programs are, as described in chapter 6.2., a lack of activities on the federal level and a lack of continuity of those activities, as well as the limitations of PR activities undertaken by individual initiatives. Public opinion, as previously stated, alternates between neutral and slightly positive, with most people ready to provide usable products for the purposes of repair and re-use, and more than half of the people ready to buy repaired or second-hand products. As stated in the conclusion of chapter 3, the main target groups are either people who buy second-hand and repair products out of (mostly financial) necessity, or niche groups of customers who do so out of personal convictions.







7 Economical, financial conditions and market potential

Systems for selling second-hand products are available in all EU member states. Special aims/targets/intentions/developments on national/regional/local levels on corresponding economical issues are to be collected if exist.

In order to enable small and medium social or private enterprises to set up repair and re-use businesses, the profitability (or at least financial viability) must be guaranteed. This means that there has to be a market with sufficient demand and – as mentioned before – the establishment of repair and re-use centres and networks is in many cases dependent on funding.

7.1 Which product categories are most interesting? – (B)

{Please fill in the table below. You should evaluate both the demand and the supply for second hand product by categories. Give "1" to the category with low and "5" with high demand/supply.}

For more information on the method used to calculate/estimate the ratios, please refer to Chapter 2.1.

Product category	Demand low (1) - high (5)	Supply low (1) - high (5)
electric/electronic		
appliances: according to the		
WEEE directive,		
o Large household	5	1
appliances		
o Small household	3-4	1-2
appliances		
o IT and	1-4	1-3
telecommunications		
equipment		
o Consumer	1-4	1-2
equipment		
o Electrical and	2-3	1-2
electronic tools (with		
the exception of		





large-scale stationary industrial tools)		
 Toys, leisure and sports equipment 	1-4	1
non electric driven household appliances	1-4	1-2
furniture	2-3	2-3
non electric toys / sport / leisure equipment	3-4	1-2
garments and textiles	3-4	3-5
furnishing equipment	5	1-4
other (books, CD, DVD, LP, other audiovisual media and different specialised product groups)	4-5	1-3

7.2 Are there any economical studies or analysis concerning the market share and potentials of the second-hand products? If yes, what are their aims and conclusions? – (C)

{The aim is to compare the market share to the new products.}

There are several market studies, business plans and analysis concerning the market situation, market share, opportunities and potentials for second hand-products and companies and/or networks working in the re-use business field. Following is a short overview over those studies including a description of each study, analysis or proposal and its goals.

Market analysis for the implementation of a re-use project in Carinthia

The main goal of this study was to reach an overview over the current market potential for implementation of re-use shops in Carinthia. Methodically, it was concluded as a series of public surveys with the aim of analysing the public opinion and identifying potential customers for the planned re-use shops. The conclusion made by the authors of the study is that there is certainly potential for re-use shops in Carinthia because potential demand is higher than the supplied quantity. They also identified six basic prerequisites for a successful





implementation of the re-use project: low price, good quality, warranty, an attractive store, differing target groups and a wide product sorting.

Sector analysis for second hand

This study made an encompassing sector analysis for the sale of second-hand products. It was written to give an overview over the current situation in the second hand sector, its economic development and the legal regulations that influence its business field, and a predicted outlook of the current and projected development of the sector. Concluding, it also analysed the provided and required qualifications for employees working in the sector.

ruso Business plan for re-use shops in Upper Austria

This business plan draws a proposal for the implementation of a centralized re-use shop network in the federal state of Upper Austria. The presentation of the concept also includes an analysis of the current second hand market situation in Upper Austria and a comparison with the example of re-use networks in the Flanders region of Belgium and a prediction of the market development up to the year 2015.

Guide for re-use of waste electrical and electronic appliances in Austria

The study gives a comprehensive overlook over all aspects of the re-use procedure for electrical and electronic appliances in Austria, starting from an overlook over the current situation and including all steps of the process from both a legal and an operational perspective up to the sale and/or export of re-used respectively repaired electrical and electronic appliances. It concludes with a listing of general, legal and organisational conclusions, where the main problems pointed out are the need for superregional marketing, cooperation and shared logistics, a need for a uniform quality management and a need for improvement of the business field through professionalization.

Re-use in Austria, Overview

This short study gives a general overview over the situation of re-use in Austria in 2010 regarding the implementation of the Directive 2008/98/EC. The main presented points are socioeconomic enterprises (SEE), requirements for a re-use network, the project "ReVital" in Upper Austria and a presentation of re-use shops in Styria. The main conclusions of the study are the existence of a reinforcing effect on re-use through the implementation of the







EC directive, the need for both regional and superregional cooperation and the important role of prolonged use of products regarding waste reduction.

Business plan for re-use shops in Styria

This business plan presents a project for the implementation of a network for re-use shops in the federal state of Styria. The project presentation includes an extensive analysis of the current situation of re-use initiatives and the market situation in Styria, as well as a projection of development in the period 2011-2015. The analysis includes a market analysis and a waste/material flow calculation. In some assumptions comparisons are made to the re-use network in Flanders, Belgium. The conclusion of the analysis confirms a potential for the implementation of the re-use network in Styria, both with regard to the projected material flows and the existing infrastructure and demand. Challenges for the project are identified in the shifting position of socioeconomic enterprises (SEEs) which are getting less substitutions, the market positioning of the planned network (no "trash stores", importance of quality) and the need for strong cooperation.

Implementation concept for re-use according to the Directive 2008/98/EC

The implementation concept is presented as an extensive study and proposal for measures to implement and promote the concept of re-use in Austria. This study also includes both a market analysis and a material flow analysis combined with proposals for measures in those sectors. Further on, a concept of regional re-use networks involving the municipalities is presented as a possible overall solution for re-use in Austria. Three main groups of measures are identified: extensive integration and economic consolidation of the re-use sector, improvement of market penetration for re-use products and quality management. There are also general critical factors that represent the crucial challenges for successful implementation of re-use: overregulation and under-regulation, which can either make implementation of re-use structures impossible or allow for export of re-usable products by external sources, and the need for networking and cooperation.

By making an overview over the presented studies and business plans, it can be noted that there is a number of central challenges identified independently by each one of them. Those central challenges can be seen as critical factors for any project or change proposal in the field of re-use in Austria.







The main critical factor is the need for cooperation of the different re-use networks and companies. Because the Austrian second-hand product market is regional or even sub-regional, there are almost no initiatives that overstep the boundaries of the federal states or are even active on a federal level. The second problem consists in the wide range of product categories that can be re-used and/or repaired, leading to communication problems between actors because they often belong to completely different business fields. Summarized, improvements and strengthening of networks are required for further successful implementation and promotion of re-use.

The second identified critical factor considers the need for better marketing and market penetration of second-hand products. As seen in Chapter 6 of this report, there is undoubtedly potential for buying second-hand products among the population, but currently second-hand and re-use initiatives often have problems with contacting potential customers. To counteract this, better marketing, product promotion and a recognizable design of sales stores is undoubtedly needed.

The third critical factor is closely connected to the second – the need for improved quality assurance and quality management. A significant part of potential customers name quality and/or warranty concerns as important or detrimental factors in their buying decisions. Therefore, re-use networks and businesses have to implement improved quality management, especially regarding uniform quality assurance and quality testing formalities and protocols.

7.3 What is the common way of selling used products and what are their ratios? – (C and B)

{Way of sales can be: second hand shop, discounters, internet shops like Ebay, flea markets. We need information on typical sale methods of the re-used products in the concerned country/region.}

The typical ways of selling used products in Austria can be divided in three main categories:

- 1.) First, there are socioeconomic enterprises (SEE), which are operating with a twofold aim of both including and re-integration socially endangered groups such as homeless or long-time unemployed persons in the labour market and providing members of those social groups with cheap, accessible but qualitative products.
- 2.) Second, there are commercial second-hand stores with predominantly commercial motivations, which are mostly selling clothing and/or furniture products. There are around 880 second-hand stores in Austria, the number including socioeconomic enterprises, private





second-hand stores, used/junk good shops and antique stores (Arold, Koring 2007, P.12), which amounts to one second-hand store or SEE for every 9356 inhabitants (Hackl, Leutgöb 2007, P.13). It has to be noted that the origin of the presented data is a study undertaken in the year 2007, before the implementation of the Directive 2008/98/EC, and the current situation has changed. Nevertheless, it was the authors impression that the 2007 data can still convey a good overlook over the sales situation in Austria, mostly because there have not been any critical structural changes.

3.) Last, there are different types of markets for used/second-hand goods, such as flea markets or internet services such as eBay or Willhaben (an Austrian selling portal) which are used both by private users and enterprises (Meissner, Pladerer et al. 2008, P. 14) The main difference of that last category to the former categories is in the fact that the products sold on those markets do not necessarily undergo any functionality checks nor do they meet defined quality standards, trade therefore occurs on a trust and interpersonal relationship basis (although, of course, there are certain formalized and informal rating methods that mostly rely on reputation, such as word-of-mouth information on flea markets or seller rating systems on the internet portals).

Unfortunately, no ratios for those categories can be presented, based on the lack of comprehensive information for the first two categories and the very informal and decentralized nature of the third listed category.

Concluding, it needs to be mentioned that the used product sale in Austria is organized on a sub-regional or regional level, and that there is a significant difference between the sales network structure in East and West Austria. In East Austria, there is a larger proportion of second-hand stores, such as the ReVital stores in Upper Austria, while in West Austria, socioeconomic enterprises represent the majority, with the example of Tirol where socioeconomic enterprises are organised under an umbrella organisation, the Tyrolean Socioeconomic Enterprise Association (tisöb) (Adensamer 2011, P. 3 and e-mail from 19.01.2012).

7.4 To which amount is the market potential in your country realized? Where are open possibilities? – (B and C)

{The aim is to collect relevant information in every PP country/region on existing and future potentials of the market for re-used products.}







Open possibilities for repair/re-use organisations can be found throughout Austria. As market studies (Niederer 2007, Meissner and Pladerer 2008, Meissner et al. 2010) have shown, there is high market potential especially for waste electrical and electronic devices, furniture (which is collected in Austria as bulky waste) and textiles, who have an especially high reuse potential with over 70% of the total mass being re-usable in the case of targeted collection (Meissner and Pladerer 2008, Meissner et al. 2010) and 20% of the overall mass being re-usable in other cases (Meissner 2012, Workshop Presentation). At the present, the market coverage in the field of repair and re-use in the whole of Austria is estimated at about only 5% (interview with M.Meissner, 27.02.2012), however, an estimation by the manager of a repair and re-use enterprise strongly diverges, putting the market coverage improvement potential at 30%, meaning that the estimated covered market potential is around 70% (interview with C.Wolf, 14.03.2012). Still, this estimation cannot be regarded as a reference value for the entirety of Austria, because of the limited scope of operations of the investigated repair and re-use enterprise (the city of Graz and to a certain extent the wider metropolitan area). Market potential can also be seen in the fact that there is still demand for second hand shops, with existing customer motivation for travelling a certain distance to buy in a second hand shop (Niederer 2007, P.29), while there is a relatively high number of second hand and repair organisations in larger cities like for example Vienna, where 33,29% of all Austrian second hand shops are located (Cf. Hackel and Leutgöb 2007, P. 13), there is relatively high market potential in smaller cities and rural areas where repair and re-use organisations are often underrepresented (See Meissner et al. 2010, P. 22; a description of the current state of repair and re-use organisations in Styria). Furthermore, one very important development possibility regards one of the main identified challenges for re-use: quality assurance. As market studies (Niederer 2007, Hackel and Leutgöb 2007) have shown, the dominant negative influence on buying decisions for second-hand products are quality concerns. If a repair/re-use centre or network could implement acknowledged uniform quality standards, those concerns could be partially lifted and potential customers acquired.

Similarly, open possibilities are identified by the manager of a socioeconomic enterprise active in the repair and re-use sector in the field of product supply, where product acquisition could be improved by optimising collection systems both in direct cooperation with enterprises and collection systems for private households, and in improving the image of second hand goods (also see Chapter 6.4.)(interview with C.Wolf, 14.03.2012).





Regarding the further development of the second-hand market, in the course of an expert interview done by the author the following four main trends which will lead to a further increase in re-use were identified:

• Increase of the general population leads to a market increase

The most general of the identified trends, it simply states that the currently existing market, which includes the repair and re-use market, will grow proportionally to the general population increase

• Increase of the amount of people with a low income

This trend argues that with a less stable economic situation caused by economic shortcomings and crises, the proportion of people with comparatively low incomes, which are not able to always buy new products and therefore are one of the main target groups for repair and re-use, will increase

• Increasing disappointment with new products

The tendency of new products, especially in the category of household and consumer goods, to have decreased quality and decreased lifetimes are met with increasing disappointment by the consumer according to this trend. Rising awareness about quality and reliability and mechanisms like for example planned obsolescence is leading to more motivation to buy and maintain high-quality products and also repair products instead of throwing them away.

Ageing populations

The worldwide (and especially in developed countries) ageing of the people is also presumed to contribute towards repair and re-use in the future. As the average age of the population rises and there are more and more old people, those people will generally be slower to instantly adapt to new technologies and therefore more probable to repair their existing appliances and even buy second-hand appliances they are acquainted with instead of new products.

In addition to those four trends which are forming a self-reinforcing cycle, there is also the presumption of a strong increase of official repair and re-use channels in the future. This will be achieved on one side through increasing competition to unofficial channels by larger and better-organised repair and re-use initiatives, and also through better cooperation with the existing waste management structures (interview with M.Neitsch, 08.02.2012).







7.5 Are there any intentions to set up such a system? Please list the availability of references! – (C)

{The aim is to collect the national intentions about the topic and find out the common points, synergies and co-operation possibilities.}

Regarding the strong regional orientation of Austrian used goods shops, most of the systems presented are developed and/or realized on a regional or, at most, federal state level. There is currently only one superregional repair/re-use network in Austria, the RepaNet. Following is a listing of all existing or planned used goods/repair/re-use systems with a short description of each one:

Existing initiatives

RepaNet

The repair and re-use network "RepaNet" is, as previously stated, the only re-use/second hand initiative in Austria operating at a superregional level. Its main function is a central coordinating authority for repair networks and repair/re-use organisations in Austria, currently coordinating two repair networks consisting of individual repair stores. The RepaNet association includes 11 repair/re-use organisations as members. RepaNet is also the national umbrella organisation for the European RREUSE (Recycling and Reuse of European Social Enterprises) network. Further functions of the RepaNet association are cooperation on projects such as the EU projects QualiPro Second Hand I and II or the Spare Part Network Austria, providing assistance and know-how in the organisation of new regional repair/re-use networks and guaranteeing standardised quality management for all network members by providing and enforcing centralised quality standards.

The repair networks included in the RepaNet are the following:

Reparaturnetzwerk Wien

Reparaturnetzwerk Liezen

The repair networks Graz and Oberösterreich (Upper Austria)/Ried im Innkreis were also established as part of the national RepaNet network, but they are currently (March 2012) inactive and therefore not mentioned in the above list.

ReVital

The second-hand product initiative ReVital is a repair and re-use network in form of the "ReVital" product brand name implemented in the federal state of Upper Austria. The initiative, which has its origins in the "ruso" feasibility study for re-use shops in Upper Austria







made by the Austrian Institute of Ecology, is organized by the Waste Management Association of Upper Austria. Its activities include collection, assessment & repair and sale of waste electrical and electronic appliances, furniture, sports and leisure equipment and household goods. ReVital also imposes quality standards regarding usability and safety for all products carrying its brand name. For repair and sale of the products, contracting of socioeconomic enterprises and reintegration of unemployed people into the labour market is preferred. ReVital currently includes 57 collection centres, 5 repair and refurbishment organisations and 10 sales points.

Planned/Developing initiatives

Re-Use Shops Steiermark

This initiative for the development of a network of re-use shops in Styria is currently in the planning/development stage. A business plan was made as part of a feasibility study, and is now being used as the development plan of the whole initiative, which is implemented in the Styrian Waste Management Plan from 2010 as an aim to "until 2015 implement one socioeconomic second hand store in each RegioNext region of Styria". The initiative also includes the introduction of a network for collection, repair and refurbishment of re-usable products (Meissner et al. 2010, P. 5 cont.). The study also includes a market state and future potential analysis for re-used/second hand products in Styria. In addition to the feasibility study, the concerned stakeholders who were included in the making of the business plan are maintaining contact through a series of workshops. Details about the implementation of the second hand stores are being discussed, with one option being a license agreement with the already existing ReVital product brand. In that case, a central state coordination authority would be necessary, with the ARGE waste prevention being one of the probable actors to take over that role (interview with M.Premm, 16.02.2012).

Re-Use Network Burgenland

The initiative for development of a re-use/repair collection, refurbishment and sales network in the federal state of Burgenland is still in a planning phase. The project is carried out by a cooperation of ARGE waste prevention and the Austrian Institute of Ecology (Österreichisches Ökologie-Institut). Currently, two workshops with stakeholders and experts were organised, the results of which will be composed in a business plan/feasibility study (B. Schleich, verbal statement). As already mentioned in Chapter 6.2., the Burgenland Waste





Association (BMV) is also a cooperation partner and will take over the central coordination and public relations work role (interview with M.Premm, 16.02.2012).

Project Re-Use Network Tyrol

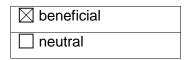
Although there is presently no re-use network in Tyrol, there is an ongoing initiative to implement and promote a re-use network through the CERREC project by the organisation Abfallwirtschaft Tirol Mitte (ATM). A business plan is being drafted in 2012, with the research and examinations starting in the spring of 2012. After the business plan is developed, pilot projects based on it will be started throughout the state of Tyrol, which will be assisted further by the Tyrolean government who is a project partner. As there are already a number of socioeconomic enterprises active in the second hand collection and sales field, the main aim of the network project will be to connect those enterprises with the waste collection centres (C. Leonhartsberger, E-Mail from 02.02.2012).

To give a short conclusion of the current situation regarding the planned and already existing repair/re-use networks and systems, it can be stated that currently there are two active networks, one of which is operating over multiple federal states, while the other is limited to Upper Austria. There are also three systems that are either in the planning stage or are already being developed. Of the remaining regions/federal states of Austria, the majority has shown some interest in developing and implementing some kind of repair/re-use network, with Salzburg, Lower Austria and Vorarlberg considering the implementation of a re-use network (a feasibility study will be made in the near future) and a second-hand store network similar to the Flemish "Kringwinkel" model.

In addition to the presented networks, there is a significant number of individual initiatives and organisations, but as they are active only on a sub-regional level with their business activities being small-scale, they were not considered in the making of this list.

7.6 Analysis/Conclusion: Are the financial conditions and market interests in your country beneficial or obstructive for the establishment of repair and re-use centres and networks? – (A and C)

{Please tick **and explain** why you think it is beneficial, neutral or obstructive}









obstructive	

The financial conditions and market interests regarding the establishment of repair and reuse centres should be regarded as beneficial. This can be explained by the following factors: studies show market potential for second-hand products; existence and further implementation of repair/re-use networks and working distribution and sale channels. All of the studies regarding the implementation of new repair/re-use initiatives or the assessment of the current state of repair/re-use in Austria who made a market analysis conclude on the fact that there is market potential for second-hand goods throughout the country, both in regard to potential customers/customer groups and material flow quantities. As shown in the last chapter, there are already a number of repair/re-use networks operating in Austria with a few more being planned and developed and also notable public interest for further development. The existence of those networks and systems definitively makes the task of establishing new centres and networks easier from both the organisational and the cooperation side. The existing networks provide know-how to potential newcomers (RepaNet) and also provide centralised quality standards for second-hand products (RepaNet, ReVital). Through implementation of those initiatives that are still in the planning/development phase, establishment of new centres and networks will be facilitated even more. Working distribution and sales channels are important because they offer newcomers experience with ways of selling their products and also provide them with possibilities for performing market studies and analyses prior to market entry.

As already stated in the previous chapters and concluded by existing studies, the three main challenges for all newcomers in the repair/re-use business field will be cooperation/networking, product marketing and ensuring product quality.





8 Final Conclusion

To give an overview over the national framework conditions for repair and re-use in Austria, a final short write-up will be provided based on the conclusions made in the individual chapters. For each chapter/sector, the situation and/or conditions for the establishment of repair and re-use centres and network were determined to be the following:

Legal framework	Beneficial
Waste management structures	Beneficial
Socio-economy	Beneficial
Existing structures and companies	Beneficial
Public awareness and reputation	Neutral
Financial conditions and market interests	Beneficial

Based on the conclusions made for the individual chapters, the overall framework conditions for the implementation of repair and re-use centres and networks in Austria can be regarded as beneficial. Advantages identified include a (on the federal level) fully implemented EU secondary waste legislation, a functional three-tier waste management system, beneficial conditions in the socio-economy sector with a number of implemented employment systems and initiatives for unemployed people, both existing and planned structures and companies which can provide valuable experience and know-how and high market potential for re-used products.

However, there are some issues which have to be considered when planning initiatives in the repair and re-use sector:

- The extensive legal framework requires good preparation and consideration to ensure that all legal obligations are met, this is especially true for small and micro enterprises who might encounter a lack of resources and/or know-how; this could however be alleviated through the use of external advisors or participation in existing associations
- The existing PR work could be considerably extended, especially regarding its scope (more PR actions on the federal level) and its consistency (continuous PR work)
- Regarding the second-hand products, the two main issues are the product marketing (which is also connected with the PR work mentioned above) and product quality and





warranty, which can be improved by using recognised/universal quality standard and communicating those facts to the general public







9 Bibliography

9.1 Written Sources

Adensamer, Gertrud (2011): Guidelines with proposals for network development for a sustainable use of the project products. Leonardo da Vinci programme of the European Union "QualiProSecondHand II"; Vienna, 2011

Amt der Bgld. Landesregierung, Abteilung 9 – Wasser- und Abfallwirtschaft, Referat Abfallwirtschaft (ed.): Landes-Abfallwirtschaftsplan Burgenland, Fortschreibung 2006; Eisenstadt, 2006

Amt der Kärntner Landesregierung, Abteilung 15 – Umwelt; Tschabuschnig, Harald (ed.): Kärntner Abfallbericht und Abfallwirtschaftskonzept, 2. Fortschreibung 2006; Klagenfurt, October 2006

Amt der NÖ Landesregierung, Abteilung Umweltwirtschaft und Raumordnungsförderung (ed.): Niederösterreichischer Abfallwirtschaftsplan Planungsperiode 2010-2015; St. Pölten, 2010

Amt der Oö Landesregierung, Direktion Umwelt und Wasserwirtschaft (ed.): Oberösterreichischer Abfallwirtschaftsplan 2011; Linz, August 2011

Amt der Steiermärkischen Landesregierung - Fachabteilung 19D (ed.):Landes-Abfallwirtschaftsplan Steiermark 2010; Graz, 2010

Amt der Vorarlberger Landesregierung, Abteilung Abfallwirtschaft (Vie) (ed.): Vorarlberger Abfallwirtschaftsplan, 2. Fortschreibung 2006; Bregenz, November 2006

Anderer, Thomas (2011): Ausweitung ReVital-Produktlinie auf andere Bundesländer; concept presentation from 13.04.2011

Arold, Heike; Koring, Claudia (2007): An investigation and Analysis of the Second-Hand Sector in Europe, European Report; Leonardo da Vinci programme of the European Union





"QualiProSecondHand". A project for the professionalization of the second hand sector; Institut Technik und Bildung; Bremen, 2007

Arold, Heike; Windelband, Lars (2011): Quality standards for a sector-specific qualification concept in the European Second-Hand sector; Leonardo da Vinci programme of the European Union "QualiProSecondHand" and "QualiProSecondHand II", A project for the professionalization of the second hand sector; Institut Technik und Bildung; Bremen, 2011

Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft (ed.): Bundesabfallwirtschaftsplan 2011, Volume I and II; Vienna, 2011

Bundesgesetz über eine nachhaltige Abfallwirtschaft (Abfallwirtschaftsgesetz 2002 – AWG 2002); Version from 27.01.2012

The Gallup Organization (2011): Attitudes of Europeans towards resource efficiency; Flash Eurobarometer Series No. 316

Gesetz über die Vermeidung und Behandlung von Abfällen und die Einhebung einer hierfür erforderlichen Abgabe im Gebiete des Landes Wien (Wiener Abfallwirtschaftsgesetz - Wr. AWG); Version from 01.02.2012

Gesetz über die Vermeidung und Erfassung von Abfällen; Vorarlberg; Version from 01.02.2012

Gesetz vom 6. Juli 2004 über eine nachhaltige Abfall und Stoffflusswirtschaftin der Steiermark (Steiermärkisches Abfallwirtschaftsgesetz 2004 - StAWG 2004); Version from 01.02.2012

Gesetz vom 10. Dezember 1998 über die Vermeidung, Erfassung und Behandlung von Abfällen (Salzburger Abfallwirtschaftsgesetz 1998 - S.AWG); Version from 01.02.2012

Gesetz vom 21. November 2007, mit dem die Abfallwirtschaft in Tirol geregelt wird (Tiroler Abfallwirtschaftsgesetz); Version from 01.02.2012





Gesetz vom 29. November 1993 über die Vermeidung, Sammlung, Beförderung und Behandlung von Abfällen (Bgld. Abfallwirtschaftsgesetz 1993); Version from 01.02.2012

Hackel, Angelika; Leutgöb, Johannae (2007): Sektoranalyse für den Second Hand Sektor in Österreich; Leonardo da Vinci programme of the European Union "QualiProSecondHand". A project for the professionalization of the second hand sector; Vienna, 2007

Hammerl, Barbara; Premm, Martha; Sentic, Anton (2011): Erhebung des Re-Use Potentials in Grazer Haushalten als Basis für die Durchführung von Re-Use Pilotaktivitäten in Graz im Rahmen des Projekts CERREC; Arge Abfallvermeidung, Graz, 2011

Holoubek, Michael (2007): Handbuch des öffentlichen Wirtschaftsrechts, Band 1; 2nd Edition, Springer 2007

Kärntner Abfallwirtschaftsordnung 2004 - K-AWO; StF: LGBI Nr 17/2004 (WV); Version from 01.02.2012

Land Salzburg, Abteilung 16 – Umweltschutz; Glaeser, Othmar (ed.): Salzburger Abfallwirtschaftsplan 2006; Salzburg, May 2006

Land Steiermark, Fachabteilung 11A – Soziales, Arbeit und Beihilfen (2011): Antrag auf Fördermittel aus dem OP Beschäftigung Österreich 2007 – 2013, Schwerpunkt 3b "Integration arbeitsmarktferner Personen", 3. Antragsrunde mit einer Laufzeit bis 30.06.2013; Graz, July 2011

Landesgesetz über die Abfallwirtschaft im Land Oberösterreich (Oö. Abfallwirtschaftsgesetz 2009 - Oö. AWG 2009); Version from 01.02.2012

Leutgöb, Johanna; Schwarzlmüller, Elmar (2011): Endbericht Projekt Wiederverwendung von Elektroaltgeräten in Wien durch gewerbliche Reparaturbetriebe des Reparaturnetzwerks Wien; die umweltberatung; Vienna, August 2011

Magistratsabteilung 48 – Abfallwirtschaft, Straßenreinigung und Fuhrpark (ed.): Wiener Abfallwirtschaftskonzept 2007 im Rahmen der Strategischen Umweltprüfung 2006/07; Vienna, November 2007







Meissner, Markus; Bernhofer, Gabriele and Pladerer, Christian (2010): Re-Use Shops Steiermark, Businessplan; Österreichisches Ökologie-Institut; Vienna, September 2010

Meissner, Markus; Pladerer, Christian; Huber, Thomas; Pflügl, Manfred and Bauer, Dietmar (2008): ruso – reuse shops oberösterreich, Businessplan; Österreichisches Ökologie-Institut, ÖSB Consulting, ThinkAustria Unternehmensberatung; Vienna, April 2008
Meissner, Markus (2012): Re-Use Burgenland, Masterplan zur Umsetzung von Re-Use Maßnahmen im Burgenland; workshop presentation materials from 06.02.2012

Neitsch, Matthias; Spitzbart, Markus; Hammerl, Barbara and Schleich, Berthold (2010): Umsetzungskonzept zur Implementierung des Gebotes der "Wiederverwendung", Verein RepaNet – Reparaturnetzwerk Österreich; Vienna, April 2010

Niederer, Elisabeth (2007): Marktforschung zur Umsetzung eines Re-Use Projektes in Kärnten; EcoNet Austria; Klagenfurt, 2007

NÖ Abfallwirtschaftsgesetz 1992 (NÖ-AWG 1992); Version from 01.02.2012

Spitzbart, Markus; Thaler, Astrid and Stachura, Marek (2009): Leitfaden für die Wiederverwendung von Elektroaltgeräten in Österreich; KERP Kompetenzzentrum Elektronik & Umwelt, November 2009

Verordnung des Bundesministers für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft über die Abfallvermeidung, Sammlung und Behandlung von Altfahrzeugen (Altfahrzeugeverordnung); Version from 27.01.2012

Verordnung des Bundesministers für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft über die Abfallvermeidung, Sammlung und Behandlung von elektrischen und elektronischen Altgeräten (Elektroaltgeräteverordnung – EAG-VO); Version from 27.01.2012





Verordnung des Bundesministers für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft über Behandlungspflichten von Abfällen (Abfallbehandlungspflichtenverordnung); Version from 27.01.2012

Verordnung des Bundesministers für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft über Jahresabfallbilanzen (AbfallbilanzV); Version from 27.01.2012

9.2 Internet Sources

Abfallwirtschaft Steiermark; http://www.abfallwirtschaft.steiermark.at; last access: 16.03.2012

AMS Berufslexikon; http://www.berufslexikon.at; last access: 28.03.2012

Arbeitsmarktservice Österreich; http://www.ams.at; last access: 28.03.2012

Arge Abfallvermeidung; http://www.arge.at; last access: 28.03.2012

Bundes-Abfallwirtschaftsplan; http://www.bundesabfallwirtschaftsplan.at/; last access: 07.03.2012

Bundesdachverband für soziale Unternehmen; http://www.bdv.at/; last access: 07.03.2012

Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft (Lebensministerium); http://www.lebensministerium.at; last access: 28.03.2012

Bundesministerium für Unterricht, Kunst und Kultur; http://www.bmukk.gv.at/; last access: 28.03.2012

Caritas Wien; http://www.caritas-wien.at; last access: 28.03.2012

Der Mikrokredit; http://www.dermikrokredit.at/; last access: 07.03.2012

Die Umweltberatung; http://www.umweltberatung.at/start.asp; last access: 28.03.2012





E:job Mobilitätszentrum Energie und Umwelt; http://www.ejob-steiermark.at/; last access: 28.03.2012

Kommunale Abfallwirtschaft Steiermark; http://awv.steiermark.at; last access: 28.03.2012

Nachhaltigkeit Steiermark; http://www.nachhaltigkeit.steiermark.at/; last access: 28.03.2012

QualiPro Second Hand project; http://www.qualiprosh.eu/index.html; last access: 07.03.2012

RepaNet; http://www.repanet.at/; last access: 07.03.2012

ReVital; http://www.revitalistgenial.at/; last access: 07.03.2012

Statistik Austria; http://www.statistik.at/web_de/statistiken/index.html; last access: 07.03.2012

Umweltbildung Niederösterreich; http://www.umweltbildung-noe.at/; last access: 28.03.2012

Umwelt-Bildungs-Zentrum Steiermark; http://www.ubz-stmk.at/; last access: 28.03.2012

Universität für Bodenkultur Wien; http://www.boku.ac.at; last access: 28.03.2012

Volkshilfe Beschäftigung; http://www.vhbi.at; last access 28.03.2012



