



## End-of-waste for re-usable products

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**RepaNet (Austrian Re-Use and Repair Network)**

**Webinar**

**„Strengthening the re-use of products and re-use centres in Croatia“**

**12 July 2022**

# Background and motivation

## **Policy background/motivation:**

- **Waste framework directive, Circular economy action plan**
- **Quotas (e.g. WEEE)**
- **Illegal (waste) exports, improper conduct**

## **Re-use operators:**

- **need support (esp. in the social economy)**
- **need business**
- **need legal certainty**

# Development

- **Preparatory project on end-of-waste criteria for re-use**
- **Presentation at municipal and federal working groups**
- **Assignment from the Federal Ministry for Sustainability and Tourism and 7 federal provinces to create a comprehensive (and agreed upon) guide**
- **Developed with practical input from re-use enterprises**



# Reuse of products

Guide to determining the end-of-waste status  
in the preparation for reuse



pulswerk



DIE UMWELT  
BERATUNG



Leitfaden zur Feststellung des Abfallendes bei der Vorbereitung zur Wiederverwendung

### 5.4 Prüfprotokoll zu Hauptblatt E - Elektroaltgeräte

Geräteidentifikation:	Identifizierte Mängel
Marke/ Type/ Nummer	Folgende geringfügige Mängel wurden identifiziert. Diese sind von der Gewährleistung ausgeschlossen:
Prüfschritte Bei dem Gerät wurden folgende Prüfungen durchgeführt und positiv abgeschlossen: <b>Sicherheitsprüfung und visuelle und manuelle Sicherheitsprüfung</b> zur Minimierung von u.a. mechanischen Verletzungsrisiken <b>messtechnisch unterstützte Sicherheitsprüfung</b> zur Minimierung von u.a. elektrischen Verletzungsrisiken gemäß den Prüfstandards der ÖVE/ÖNORM E 8701-1, bei Elektrowerkzeugen auch nach ÖVE/ÖNORM E 8701-2-2 <b>Reinigung:</b> Entfernung grober und sonstiger, die Hauptfunktionen oder die Nutzungssicherheit beeinträchtigender, Verschmutzungen	
Die Prüfung wurde durchgeführt von (Angabe des durchführenden Betriebs und Name MitarbeiterIn <sup>46</sup> ):	
Datum:	
Allgemeine Anmerkungen, Gewährleistung	
Bitte beachten Sie die Sicherheitshinweise des Herstellers!	
Informationen zur Gewährleistungsabwicklung (Kontakt, Vorgangsweise, erforderliche Dokumente, Gewährleistungsfrist)	

Leitfaden zur Feststellung des Abfallendes bei der Vorbereitung zur Wiederverwendung

### 5.3.5 Beiblatt 5: Elektrische Handwerkzeuge in Zusammenhang mit dem Hauptblatt E anzuwenden

Prüfcheckliste zur Feststellung des Endes der Abfalleigenschaft

Warengruppe:	Anmerkungen
<b>Elektrische Handwerkzeuge</b> Beschreibung der Warengruppe: handgeführtes Elektrowerkzeug (Geräte, deren Betrieb nur möglich ist, wenn sie in der Hand gehalten werden, z.B. Bohrmaschine, Stichsäge, Kettensäge etc.) Ausgenommen: Elektrowärmewerkzeuge (z.B. Lötkolben), Standgeräte (Häcksler, Tischkreissäge etc.). Diese sind aus der entsprechenden ÖVE/ÖNORM E 8701 ausgenommen.	Eine kostendeckende Vorbereitung zur Wiederverwendung erscheint derzeit nur bei mittel- und höherpreisigen Werkzeugen in gutem und vollständigen Zustand gut erreichbar, da in dieser Waren-gruppe ein vergleichsweise hoher Prüfaufwand notwendig ist.
Prüfschritt: <b>Vorauswahl</b>	notwendige Qualifikation: entsprechend Hauptblatt E notwendige Infrastruktur: entsprechend Hauptblatt E
Prüfkriterien Im Betrieb angewendete Auswahlkriterien: ... Gesetzlich vorgegebene Auswahlkriterien: ...	notwendige Qualifikation: entsprechend Hauptblatt E notwendige Infrastruktur: entsprechend Hauptblatt E
Prüfschritt: <b>Sicherheitsprüfung</b>	notwendige Qualifikation: entsprechend Hauptblatt E notwendige Infrastruktur: entsprechend Hauptblatt E
Prüfkriterien <b>Visuelle und manuelle Sicherheitsprüfung</b>	notwendige Qualifikation: entsprechend Hauptblatt E notwendige Infrastruktur: entsprechend Hauptblatt E
Prüfschritt: <b>messtechnisch unterstützte Sicherheitsprüfung</b>	notwendige Qualifikation: entsprechend Hauptblatt E notwendige Infrastruktur: entsprechend Hauptblatt E
Prüfkriterien Zusätzlich zu den Bestimmungen des Hauptblattes E: • messtechnische Sicherheitsprüfung nach ÖVE/ÖNORM E 8701-1 und ÖVE/ÖNORM E 8701-2-2	notwendige Qualifikation: entsprechend Hauptblatt E notwendige Infrastruktur: entsprechend Hauptblatt E
Prüfschritt: <b>Funktionsprüfung Hauptfunktionen</b>	notwendige Qualifikation: entsprechend Hauptblatt E notwendige Infrastruktur: entsprechend Hauptblatt E
Prüfkriterien entsprechend dem Hauptblatt E	
Prüfschritt: <b>Reinigung</b>	notwendige Qualifikation: entsprechend Hauptblatt E notwendige Infrastruktur: entsprechend Hauptblatt E
Prüfkriterien entsprechend dem Hauptblatt E	

**Feststellung Ende der Abfalleigenschaft**

Empfehlungen für Maßnahmen außerhalb des Abfallregimes entsprechend dem Hauptblatt E

Zusätzliche Empfehlungen:  
Mögliche geringfügige Mängel:  
• entsprechend ÖVE/ÖNORM E 8701-1 und ÖVE/ÖNORM E 8701-2-2

Empfehlungen für Maßnahmen außerhalb des Abfallregimes:  
• ...

Anmerkungen des Betriebes:

[Download-Link](#)  
(German and English version)

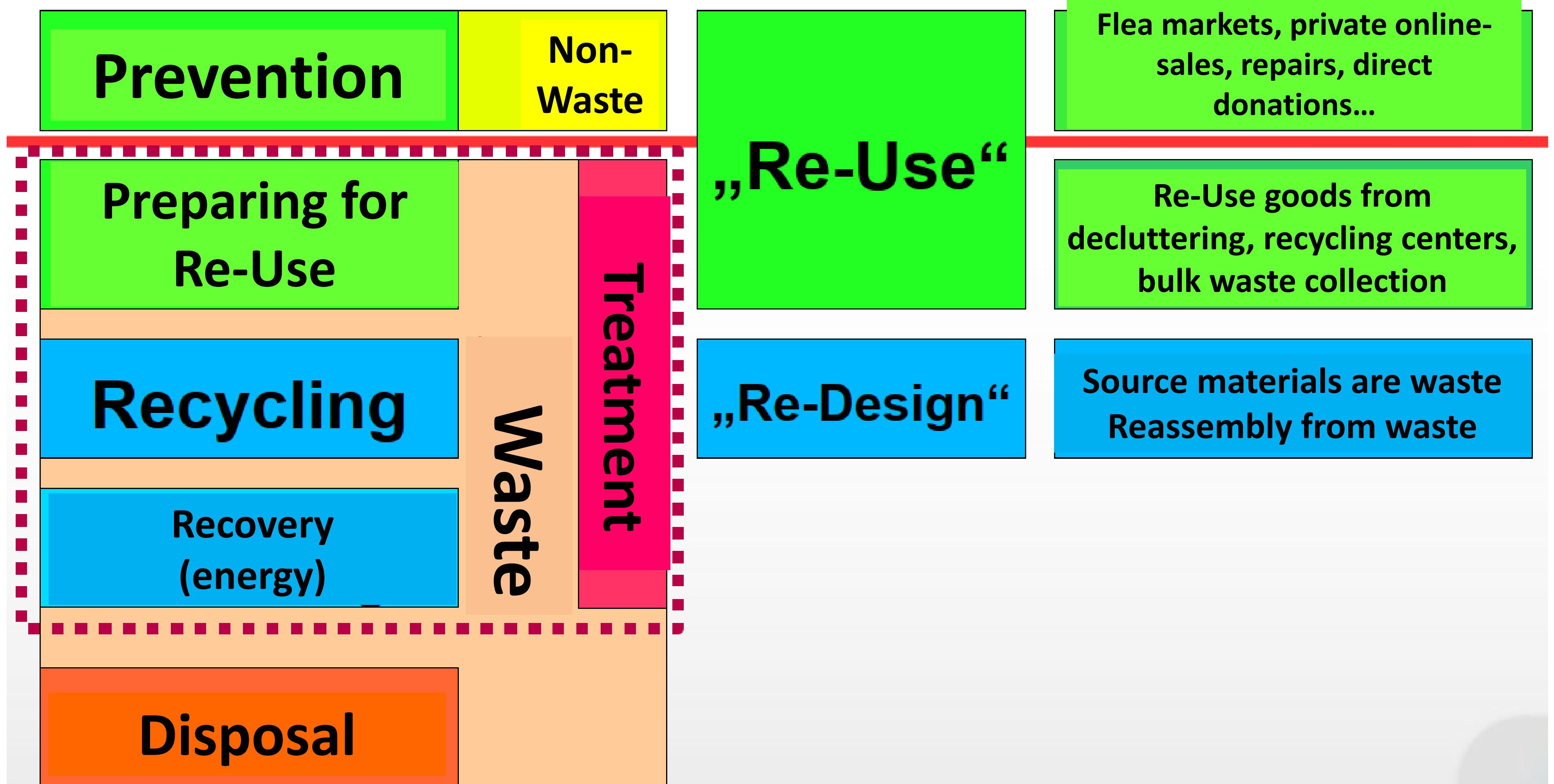


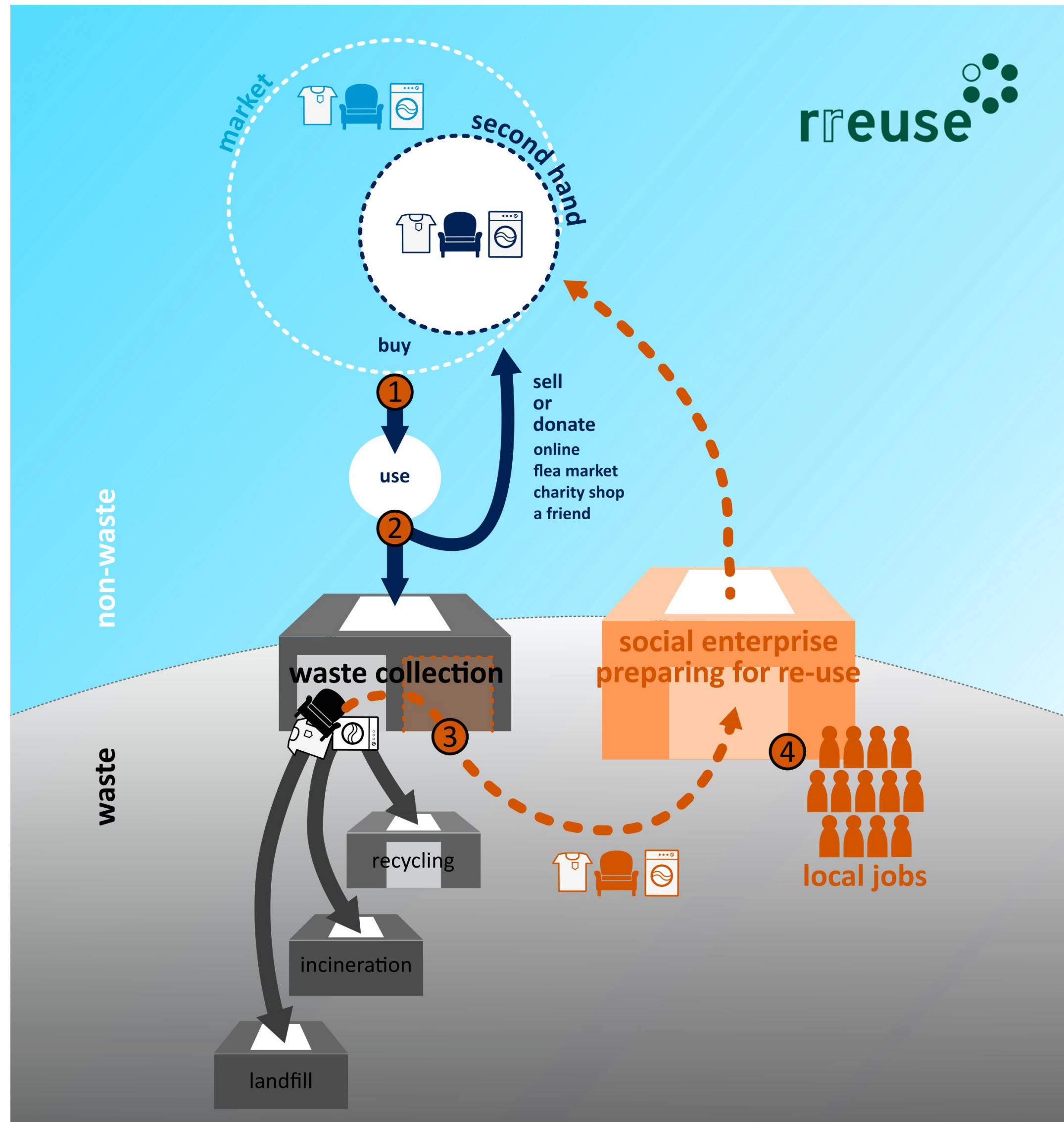
# Purpose and legal disclaimer

**“The purpose of this guide is to provide a procedure for classifying product groups as eligible to be prepared for re-use and the corresponding criteria leading to this decision. The following testing checklists are a proposal of which test steps and test criteria are to be observed for the respective product groups in order to reliably determine the end-of-waste status.”**

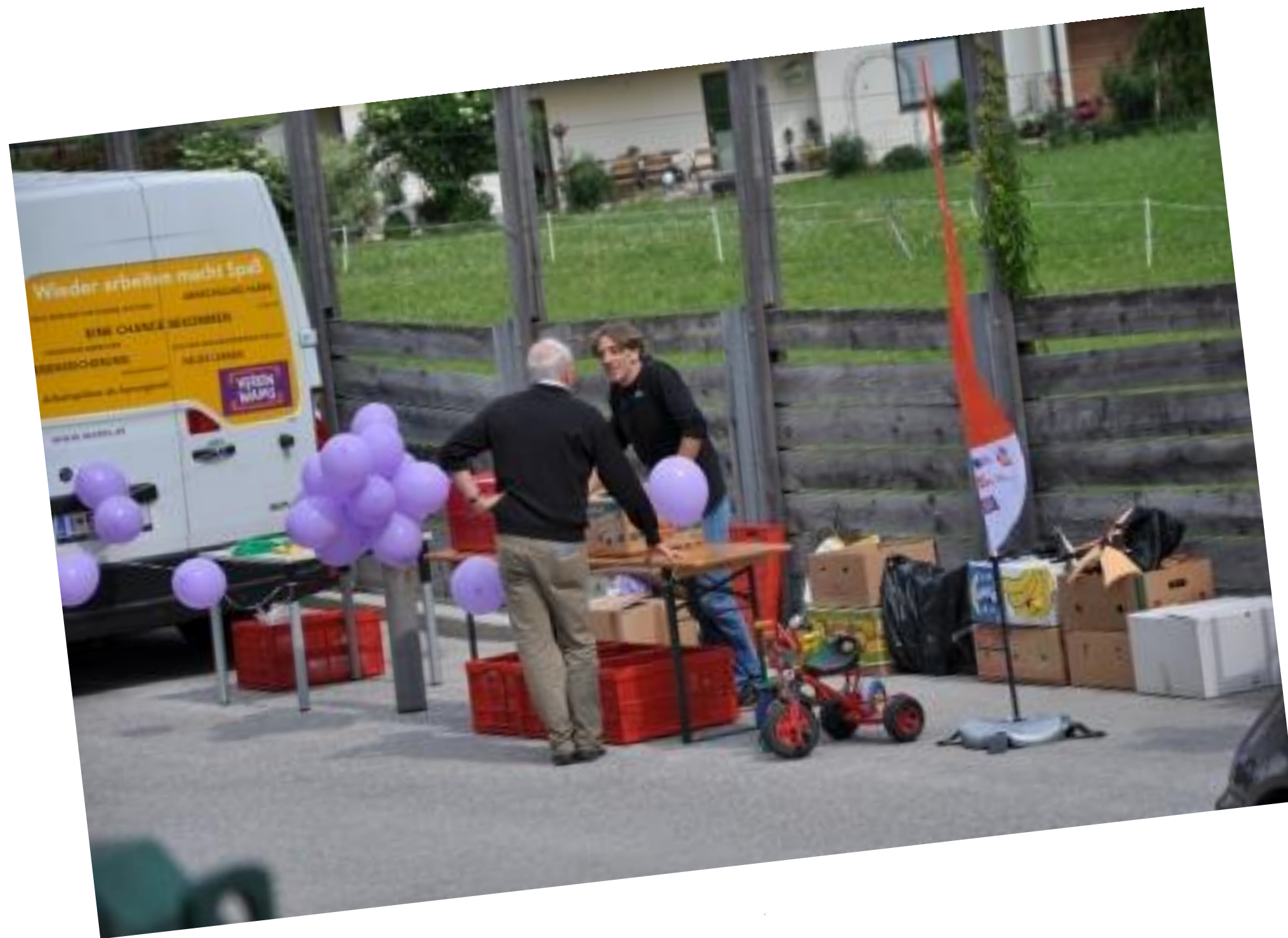
**The basic principles (end of waste) are EU legislation and adaptable. Certain procedures may differ between Austria and other countries.**

# Waste hierarchy (EU-ARL 2008, AWG 2011):









**Re-Use**   
**Netzwerk Tirol**





ReUse  
Salzburg Stadt

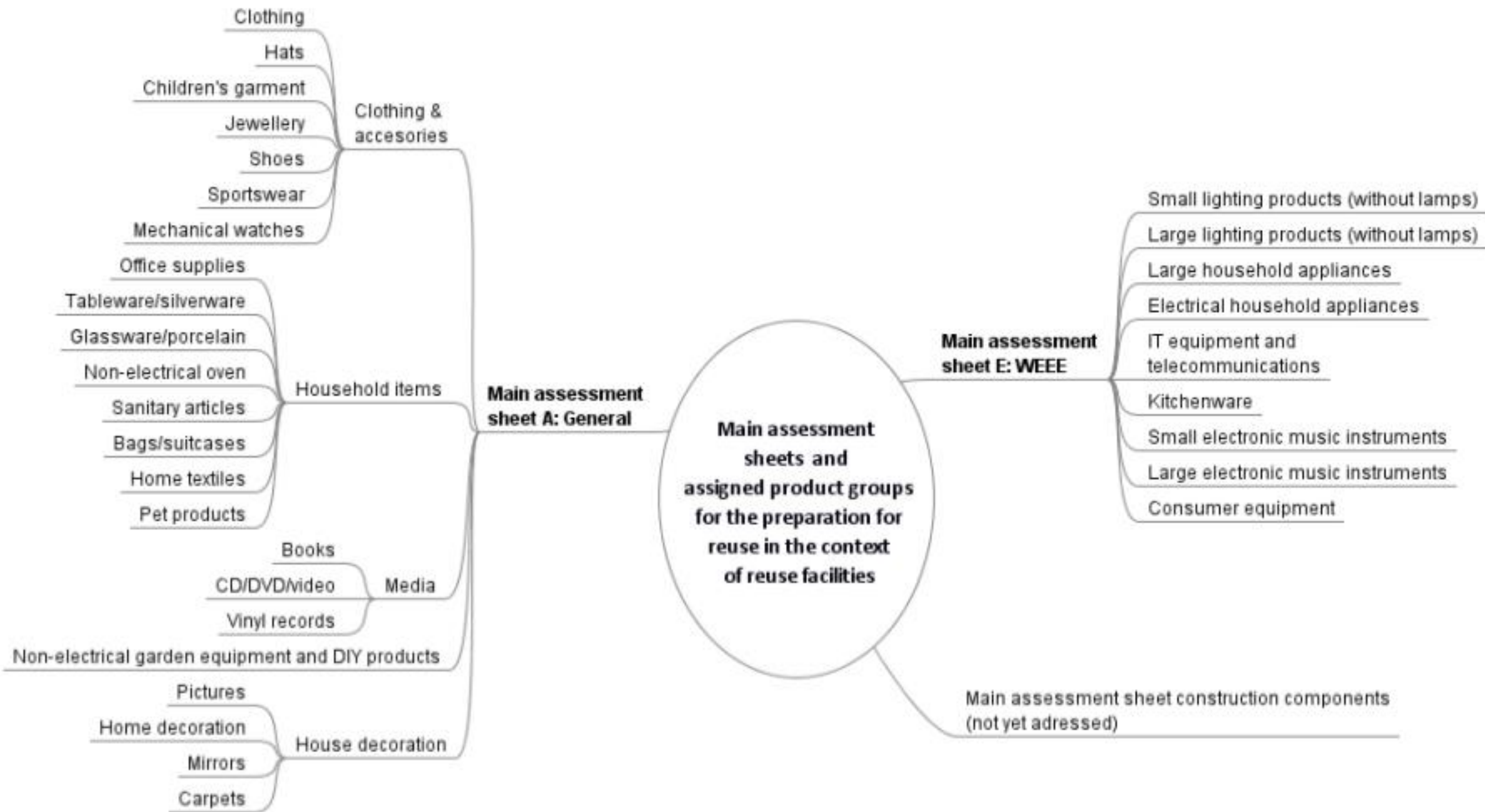




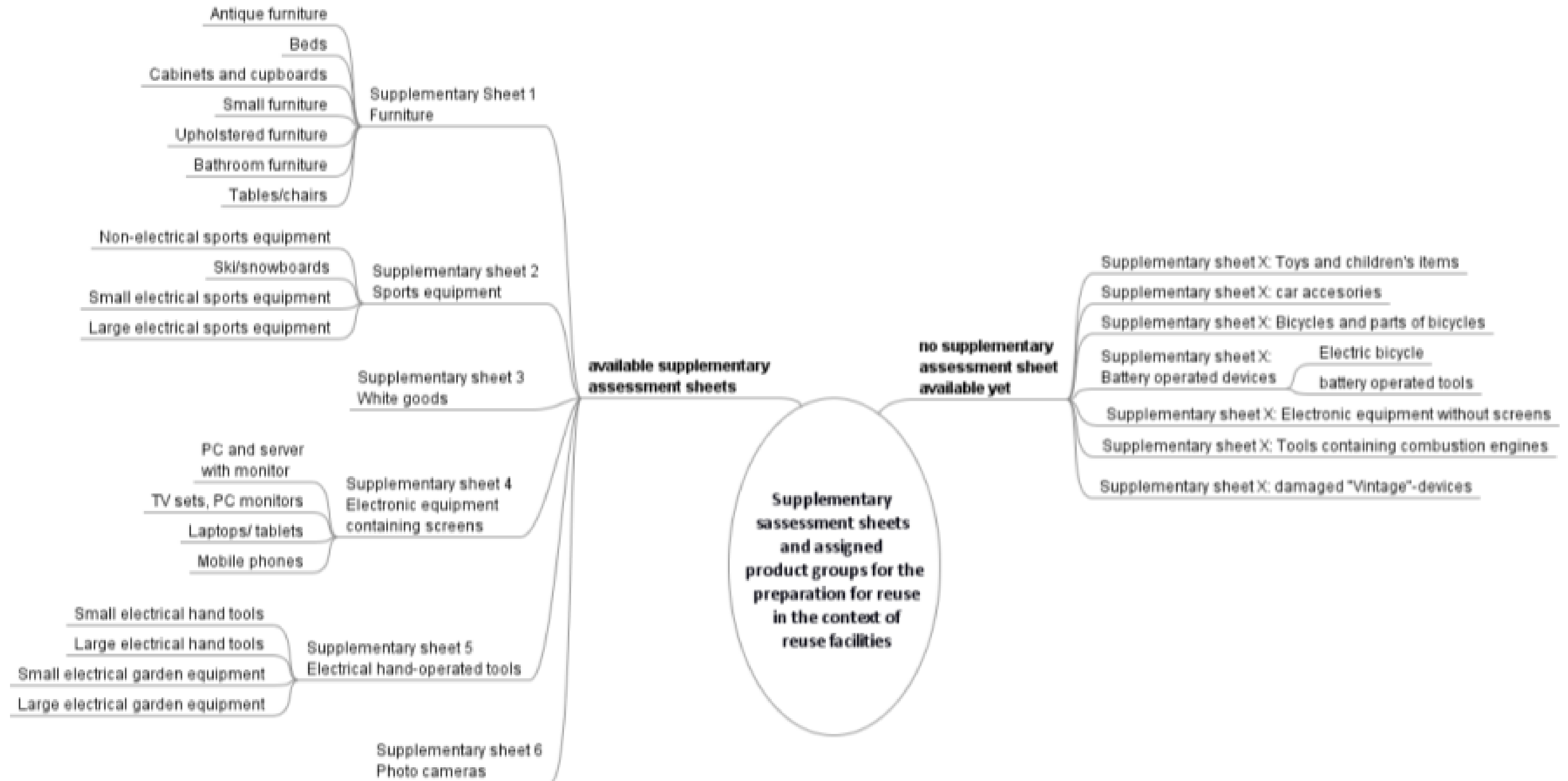




# Classification of product groups, main sheets



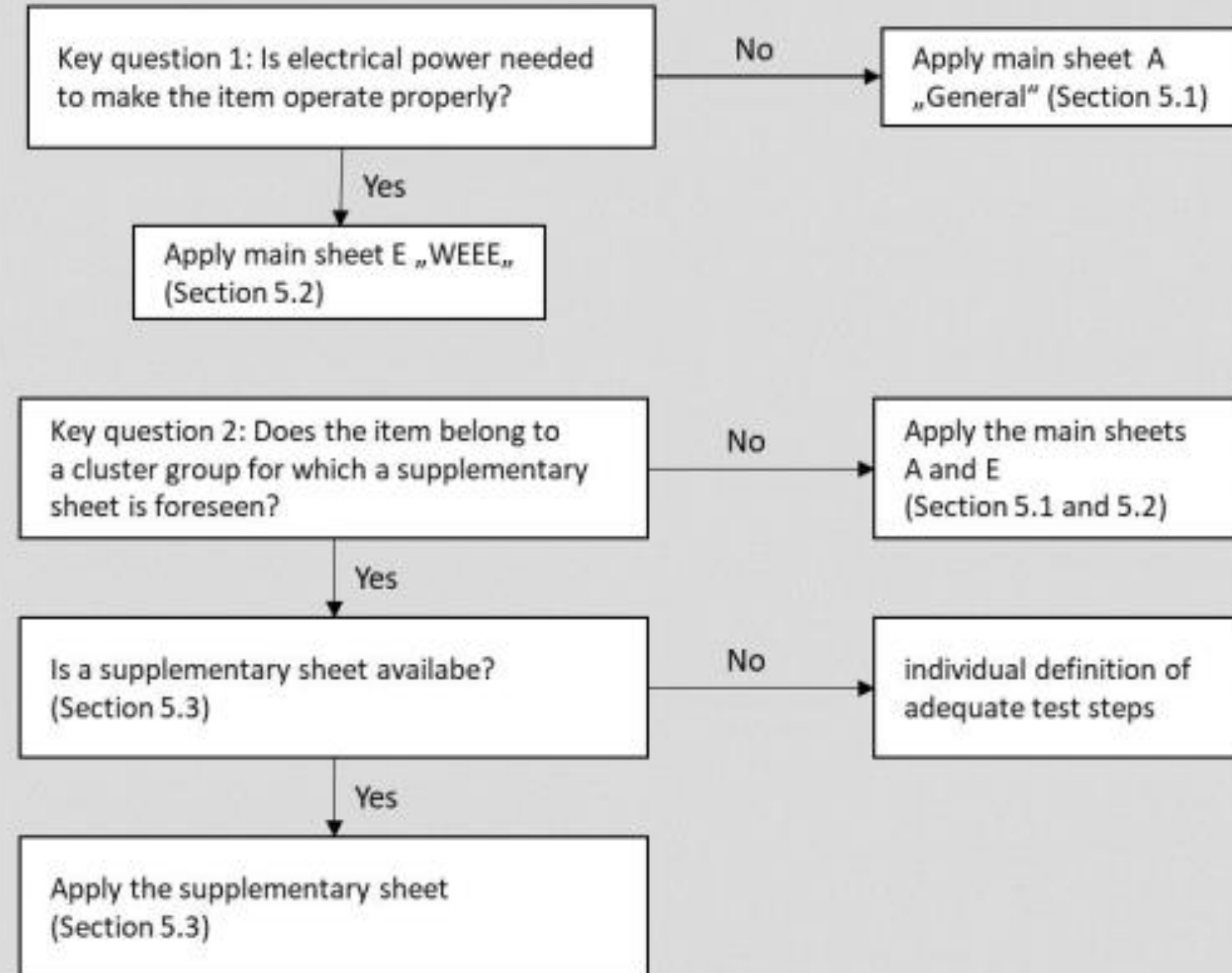
# Classification of product groups, supplementary sheets





## Operational Use of this Guide

### Introduction phase



### Use phase

**Training materials** within the training of involved staff by competent specialists on the basis of the testing checklists (Section 5.1-5.3)

**Verification of the training** of the staff by signing the „Form for proof of instruction“ (Section 5.5) and storage as part of the company documents.

**Storage of the test protocols** of the measurements of WEEE as part of the company documents. Chapter 5.5 contains a template for documenting. (editors note: Many measuring instruments create a protocol automatically)

# 5.1 Main assessment sheet A – General

Testing checklist for determining the end-of-waste status	
<p><b>Product groups:</b>            Garment/accessories: clothing, hats, children's garment, jewellery, shoes, sportswear, mechanical watches            Household items: office supplies, tableware and silverware, glassware and porcelain, non-electrical oven, sanitary articles, bags and suitcases, home textiles, pet products etc.            Media: books, CDs, DVDs and videos, vinyl records            Non-electrical garden equipment and DIY products: garden furniture, tools            House decoration: pictures, home decoration, mirrors, carpets            For <u>other non-electrical product groups</u>, the main assessment sheet has to be used in combination with the respective supplementary assessment sheets.</p> <p><b>Description of the product group:</b> articles whose testing is less extensive in scope and requires basic technical qualifications and simple tools</p>	
<p>Test step:  <b>Preselection</b></p>	
<p><b>Test criteria</b>            Selection criteria specified by the operator<sup>6</sup>:</p> <ul style="list-style-type: none"> <li>• ...</li> </ul> <p>Legally defined selection criteria:</p> <ul style="list-style-type: none"> <li>• ...</li> </ul>	<p><b>Notes</b>            The criteria are to be specified according to the requirements of the preparation for re-use operator with regard to marketability, testing possibilities, storage and transport capacities, ecological sense, e.g.</p> <ul style="list-style-type: none"> <li>- trademarks, types</li> <li>- quality classes</li> <li>- product age, generations of equipment</li> <li>- completeness</li> <li>- degree of soiling</li> <li>- reasons for exclusion (weapons, personal hygiene products)</li> <li>- legal provisions for placing onto the market (e.g. Chemicals Prohibition Ordinance)</li> </ul>
<p>Test step:  <b>Visual inspection</b></p>	
<p><b>Test criteria</b></p> <ul style="list-style-type: none"> <li>• All essential functional components are available and in useable or repairable condition.</li> <li>• There are no visible damages that significantly impair the function, safety or marketability of the product.</li> </ul>	



Test step: <b>Visual inspection and manual safety check</b>	Required qualification: no specific Required infrastructure: cleaning utensils
<b>Test criteria</b>	
<ul style="list-style-type: none"> <li>• If protective devices are usual for the product, these must be in place and intact (e.g. blade cover of a paper cutting machine).</li> <li>• There are no unsecured pointed or sharp-edged areas (e.g. due to damage), unless these are necessary for the functionality of the product or are usual for the product in its original condition.</li> <li>• Necessary stability is given.</li> <li>• Mechanical strength under usual operating conditions is given.</li> <li>• All moving parts are properly mobile (and can be stabilised, if required).</li> <li>• There is no excessive or safety endangering wear.</li> <li>• There are no external and internal soiling, corrosion damages or aged plastic parts that could endanger safety.</li> <li>• All product markings necessary or legally required for the corresponding product type (e.g. child car seats) are available.</li> <li>• For children's items, there are no detachable, swallowable small parts. Absolutely necessary small parts (e.g. buttons) must be adequately fixed (according to standard EN 71-1). Children's textiles must not have drawstrings or cords in the neck area, and, in general, no cords from which a risk of strangulation emanates.</li> </ul>	
Test step: <b>Technical safety check</b>	Required qualification: no specific Required infrastructure: no specific
<b>Test criteria</b>	
<ul style="list-style-type: none"> <li>• Not applicable (unless defined in supplementary sheets for specific product groups)</li> </ul>	
Test step: <b>Functionality testing of main functions</b>	Required qualification: no specific Required infrastructure: no specific
<b>Test criteria</b>	
<ul style="list-style-type: none"> <li>• Checking the product-specific main functions for proper functionality (for some product groups, visual inspection will be sufficient, e.g. for unscratched CDs, DVDs, vinyl records, complete books etc.)</li> </ul>	
<b>Cleaning</b>	
<ul style="list-style-type: none"> <li>• Removal of dirt and other soiling affecting main functions or safety of use</li> </ul>	
<b>Determination of the end-of-waste status</b>	

**Recommendations for measures outside of the waste regime:**

## 5.2 Main assessment sheet E - WEEE

**General note:** The Austrian standard ÖVE/ÖNORM E 8701-1 must be observed in the testing of any electrical equipment. For electrical tools, additionally the standard ÖVE/ÖNORM E 8701-2-2 must be taken into account. This applies in particular to Technical safety checks, but also to the other test steps. For protection classes I to III, the standard specifies different test procedures for granting electrical safety<sup>7</sup>. The Electrical Engineering Ordinance<sup>8</sup> declares this standard to have the force of law<sup>9</sup>.

Testing checklist for determining the end-of-waste status	
<p><b>Product group:</b> small and large lighting products (without lamps), large household appliances, electrical household appliances, IT equipment and telecommunications, kitchenware, small and large electronic music instruments, consumer equipment<sup>10</sup></p> <p>For <u>other product groups including electrical and electronic equipment</u> the main assessment sheet has to be used in combination with the respective supplementary assessment sheets.</p> <p><b>Description of the product group:</b> electrical and electronic equipment</p>	
<p>Test step: <b>Preselection</b></p>	
<p><b>Test criteria</b> Selection criteria specified by the operator:<sup>11</sup></p> <ul style="list-style-type: none"> <li>• ...</li> </ul> <p>Legally defined selection criteria:</p> <ul style="list-style-type: none"> <li>• ...</li> </ul>	
<p>Test step: <b>Visual inspection</b></p>	<p>Required qualification:</p> <ul style="list-style-type: none"> <li>- basic technical understanding, instruction by a competent expert</li> </ul> <p>Required infrastructure: no specific infrastructure required</p>
<p><b>Test criteria</b></p> <ul style="list-style-type: none"> <li>• All essential functional components are available and in useable or repairable condition.</li> <li>• There are no visible damages that significantly impair the function, safety or marketability of the product.</li> </ul>	



# Main assessment sheet E/WEEE

Test step: <b>Visual inspection and manual safety check</b>	Required qualification: - performance by or under the responsibility of qualified staff Required infrastructure: - basic equipment of hand tools (wrenches etc.) - cleaning utensils
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<b>Test criteria</b> <ul style="list-style-type: none"><li>• Necessary stableness is given.</li><li>• All protective devices must be in place and intact (e.g. cover of high-speed rotating parts).</li><li>• All components must be original parts or original spare parts or equivalent spare parts.</li><li>• No modified or converted devices! Alterations only after an assessment took place and only if carried out under the responsibility of a specialist as well as in accordance with the applicable regulations and standards<sup>12</sup></li><li>• The electricity connection must be intact (no material damage, e.g. cracks or age-related material changes (porous, hardened, sticky etc.) in cables and insulation, plugs, entry point to the housing, strain relief, kink protection.</li><li>• The housing has to be intact (no damage that significantly impairs the function and safety or marketability such as cracks and rips, missing parts etc.)</li><li>• Ventilation systems must be intact and working properly (ventilation slots must not be closed, air filters have to be available if intended for the device etc.)</li></ul>
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Test step: <b>Technical safety check</b>	Required qualification: - performance by or under the responsibility of qualified staff Required infrastructure: - power connection, insulation tester, power meter, test finger, basic equipment of hand tools (wrenches etc.)
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<b>Test criteria</b> <p>Technical safety check according to ÖVE/ÖNORM E 8701-1, which is to be carried out regardless of whether any repair or modification has taken place or not.</p> <ul style="list-style-type: none"><li>• Supplementary information:<ul style="list-style-type: none"><li>○ The technical safety check must be carried out as a final safety test in any case, (also) if maintenance or repair work has taken place.</li><li>○ In addition, any accessory (e.g. chargers) has to be tested.</li><li>○ All live parts, regardless in which operating condition, must be protected from contact by users (check by means of a test finger, if necessary).</li></ul></li></ul>
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# Main assessment sheet E/WEEE

<b>Test step:</b> <b>Functionality testing of the main functions</b>	<b>Required qualification:</b> - basic technical understanding, instruction by a responsible expert <b>Required infrastructure:</b> - power connection - additional infrastructure according to equipment type, e.g. for water connections – water inlet and water outlet, or for tools – workable material (wood, stone or paper for printers etc.)
<b>Test criteria</b> <ul style="list-style-type: none"><li>• checking the device-specific main functions for proper functionality (e.g. correct direction of rotation)</li><li>• For battery-operated appliances, sufficient charging capacity for typical use has to be ensured (recommendation for IT devices: &gt;40% of nominal capacity)<sup>13</sup>.</li></ul>	
<b>Cleaning</b>	
<ul style="list-style-type: none"><li>• removal of coarse and other soiling affecting the main functions or safety of use</li></ul>	
<b>Determination of the end-of-waste status</b>	

## **Recommendations for measures beyond the waste regime:**

### Potential minor deficiencies/defects:

- minor damage, e.g. scratches on the housing that do not impair the functionality or safety of the device
- minor defects according to ÖVE/ÖNORM E 8701-1
- deficient subfunctions or defective additional functions that do not affect the main functions and safety of the device, e.g. not working battery status display, hi-fi system with defective turntable or audio equipment with deficient equalizer

### Recommendations for measures beyond the waste regime:

- data deletion<sup>14</sup>
- if possible, further repairs
- detail cleaning to increase marketability
- provision of operating instructions



# 5.4 Test protocol to the main assessment sheet E - WEEE

TEST CRITERIA	
Device identification:	
Trademark/ type/ number	
<b>Test steps</b> The following tests were carried out on the device and completed successfully:	<b>Identified defects</b> Following minor deficiencies were identified and are excluded from any warranty:
<b>Visual inspection</b> and <b>manual safety check</b> to minimize mechanical risks of injury etc.	
<b>Technical safety check</b> to minimize electrical injury risks etc. according to the test standards ÖVE/ÖNORM E 8701-1, for electrical tools also according to ÖVE/ÖNORM E 8701-2-2	
<b>Cleaning:</b> Removal of coarse and other soiling impairing the main functions or safety in use	
The test was carried out by ( <i>operators name and name of the respective staff member having conducted the testing<sup>16</sup></i> ):	
Date:	

General remarks and warranty
Please follow the safety instructions of the manufacturer!
<i>Information on warranty processing (contact, procedure, required documents, warranty period)</i>



## 5.5 Form for proof of training

<b>Subject:</b> Training on the preparation of reuse as part of the work in the company:  (Operators name)	
<b>Conducted by (name):</b>  <b>Signature:</b>	<b>Date:</b>
<b>Content:</b> <input type="checkbox"/> Main sheet A General <input type="checkbox"/> Main sheet E - WEEE  Supplementary sheet: <input type="checkbox"/> Supplementary sheet 1: Furniture <input type="checkbox"/> Supplementary sheet 2: Sports equipment <input type="checkbox"/> Supplementary sheet 3: White goods <input type="checkbox"/> Supplementary sheet 4: Electrical and electronic equipment including screens <input type="checkbox"/> Supplementary sheet 5: Electrical hand tools <input type="checkbox"/> Supplementary sheet 6: Photo cameras	Further supplementary sheets: <input type="checkbox"/> Supplementary sheet:  <input type="checkbox"/> Supplementary sheet:  <input type="checkbox"/> Supplementary sheet:

<b>Documents and materials handed out:</b>
By my signature I confirm that I have participated in the training and that I have understood the contents.
First name, surname <span style="float: right;">Signature</span>





# Conclusions

- **Importance of end-of-waste**
- **Advantages for all involved**
- **Not rocket science – easy to adapt**

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