The Evolution of the B2 Phase

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ecoRaee

Life

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revertia

THE EVOLUTION OF THE B2 PHASE

Over the past months we have successfully prepared a process manual which outlines the various phases of the work at hand:

B.2.1. Waste catchment (Process 1)
B.2.2. Traceability (Process 2)
B.2.3. Dismantling processes (Process 3)
B.2.4. Cleaning processes (Process 4)
B.2.5. Operational control processes (Process 5)
B.2.6. Storage control processes (Process 6)
B.2.7. Control and management of dispatch to final handler processes (Process 7)
B.2.8. Control and management of dispatch to user of reused element processes (Process 8)

Analysis of these processes had two main objectives:

- To minimise the environmental impact of both transportation and the processes.
- To maximise the number of elements treated for reuse.

As was planned, an engineer who is an expert in process design was brought in. Basing his work on the Main Partner's state-of-the-art design, he worked with revertia employees on the basic design of the required processes.

The result was a complete manual covering the whole process, which aims to follow the structure and nomenclature of manuals of this kind, with operations divided into:

- Organisation
- Process Areas
- Directives and Processes
- Activities
- Tasks

For each of the processes, the following have been outlined:

- Objectives
- Input
- Output
- Those involved and their responsibilities
- Techniques and tolos
- Registrations used
- Forms
- Description

Each has to answer the following questions:

- What is to be done?
- Why do it?
- When must it be done?
- How should it be done?
- Who is going to do it?
- What are they going to use?
- What should be done then?
- What is the best way to leave a record of what has been done?

And in any case, the following tasks need to be carried out:

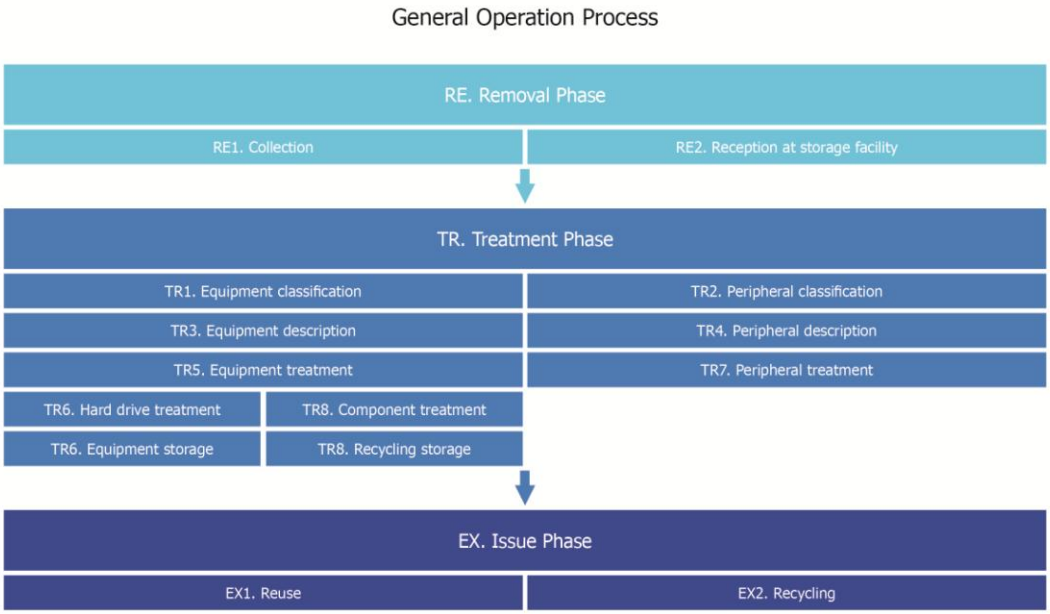
- Objectives
- Input
- Output
- Those involved and their responsibilities
- Techniques and tolos
- Registrations used
- Forms
- Description

The full process, described in depth in the manual which has emerged as a deliverable for this action, outlines the phases described below. These should be the framework for the whole organisation which seeks to make preparations for reuse.

Firstly, the **supervision process prior to removing the waste** is analysed:

Removal request
Processing of the removal request

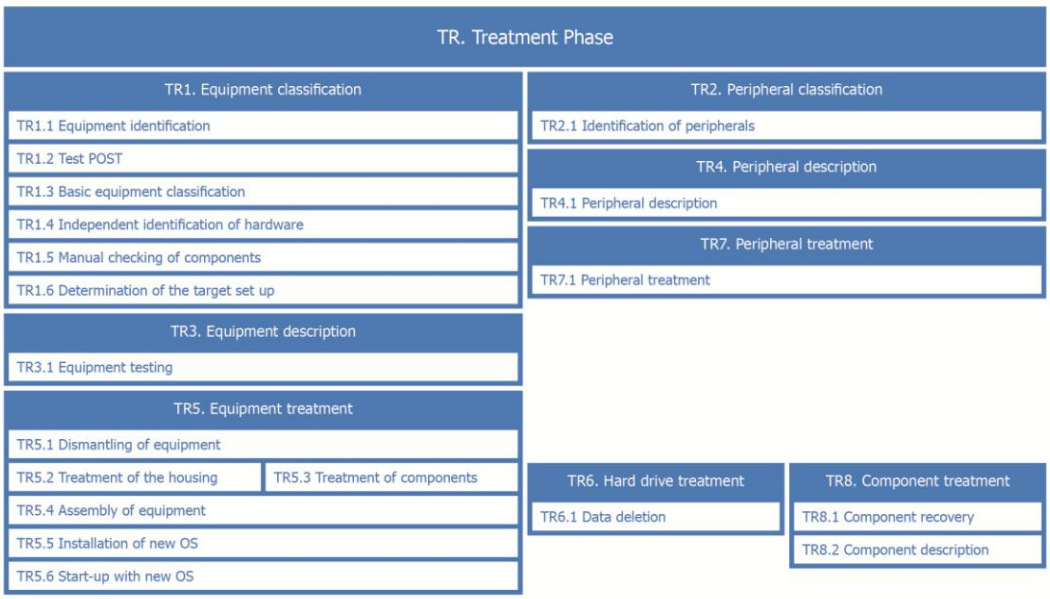
Producing a graph to illustrate the process, for example:



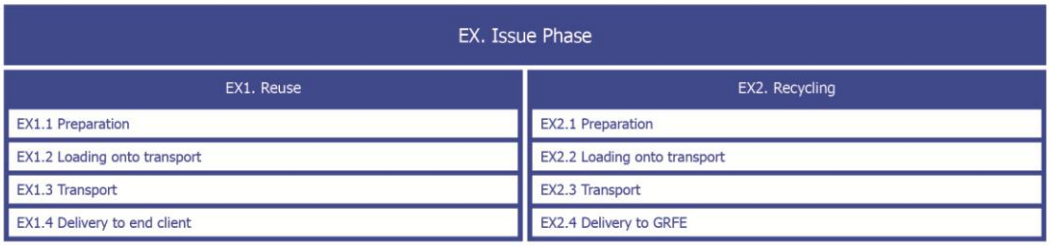
The following sub-tasks and activities have been outlined for the treatment phase:

- Equipment classification
- Equipment description
- Peripheral classification
- Peripheral description
- Equipment treatment
- Memory unit treatment (hard drives)
- Peripheral treatment
- Component treatment

Producing the following graph to illustrate these activities:



Finally, process analysis reviews the tasks required for the Issue Phase in which, in EcoRaee's case, the elements which may be reused are passed on to one of the four demonstration projects and those that are not reusable are sent on to the final waste manager.



Once we have analysed the theoretical processes which have to be carried out at the plant in preparation for reuse, more detailed analysis will then move on other activities, referred to as Directives. These are as follows:

- Storage organisation
- Labelling of equipment, components and peripherals
- Clearing of storage facility
- Storage facility inventory
- Collection planning
- Dispatch to final manager planning
- Workplace upkeep

As we stated at the outset, this manual seeks to provide the waste management organisation with a reuse structure that is economically viable and efficient. For this reason, in the Metrics

section, the indicators to be analysed over the next phases of the EcoRaee project are established and finally, a catalogue of techniques sets out ways of checking the equipment which will initially facilitate treatment techniques.

As can be clearly seen in the manual, throughout the process, special consideration has been paid to ensuring the traceability of the waste, its recording in the accounts and the technological component required to obtain the greatest reuse cost-effectiveness possible

In principle, there has been no sign of the risks that were taken into consideration, namely:

- The costs to be assumed (both financial and environmental) make the reuse alternative to recycling unfeasible.
- Plant costs and the severely reduced viability of small-scale plants. If the plant size has to be scaled down to the extent that profitability becomes unfeasible, the profitability of larger scale plants will be studied.
- Lack of control over waste traceability, with tracing taken as far back toward the original owner of the waste as necessary, from collection to final client reuse of the component(s).

This information was made available to the other partners and work groups for their analysis and subsequent implementation on revertia islands and the Universidade de Vigo's Office of the Environment (OMA).