

## PRODUCTS RECOVERY OPPORTUNITIES AT THE END OF TECHNOLOGICAL CYCLE

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**Rezumat.** Pentru a evita retragerea costisitoare a utilajelor, ajunse la sfârșitul ciclului de exploatare, proiectanții trebuie să stabilească procedurile de recuperare, refabricare și reciclare, înainte de specificarea atributelor structurale ale acestora. Considerarea adecvată chiar din faza de proiectare, a reciclabilității utilajelor, întărește ecologia industrială prin utilizarea rațională a resurselor naturale și a energiei precum și reducerea deșeurilor. Refabricarea echipamentelor tehnologice poate fi îmbunătățită semnificativ, prin concepția și proiectarea acestora în direcția refabricării, având în vedere principiile dezvoltării durabile.

**Abstract.** In order to avoid costly retrieving of equipment on their end of life, the designers should state the recovery, remanufacturing and recycling procedures, before specifying their structural characteristics. Taking into account effectively the recycling capacity of equipment even since the design stage, enhances both the industrial ecology by rational use of natural resources and energy and the waste reducing. The remanufacturing of the technological equipment may be significantly increased by their projecting and design towards remanufacturing, looking for the principles of durable development.

**Keywords:** Remanufacturing, Recycling, Technological Cycle, Manufacturing Cycle, Economical Cycle.

### 1. Introduction

Intelligent original equipment manufacturers can use the remanufacturing to collect valuable information for projects, functions and after-sales activities improving. These advantages are lost if their products remanufacturing business is taken by third parties.

### 2. Remanufacturing

The remanufacturing practitioners give remanufactured products at least the same warranty as similar new products, showing that their products have the same quality as those new.

The technological equipment is considered remanufactured when, for its realization are necessary the following stages:

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