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Chapter 5:

End-of-life opportunities for computers
and computer parts

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Introduction

- Computers are made from valuable resources and materials
- Donating or recycling computers conserves natural resources → avoids air and water pollution and GHG emissions
- Before disposing, donating or recycling used computers and laptops, IT experts recommend to follow some rules

End-of-Life (EOL)

- Product has reached EOL-phase
- Terminology used in product lifecycle management
 - Products have different lifecycle curves: short-term items and long-term items
 - Lifecycle phases are same: development, introduction to market, growth, maturity, decline and EOL
 - Long-term items primary objective (company will get returns from all the investments made for the item)

Flow diagram processes

- Deleting personal information
 - Security reasons
 - Almost impossible to wipe out hard disk manually so that it cannot be reconstructed
 - Rules from IT experts: save personal data, download data destruction software program...
- Possibility for upgrading software/hardware instead of buying new?
 - Could decrease negative environmental impacts
 - 2-4 year-old computers good for upgrade (older are unable to take advantage of newest components)

Flow diagram

- Computer Donation/Reuse
- Computer Storage
- Computer Recycled

The European Union Waste Electrical and Electronic Equipment (WEEE) Directive sets the criteria for correct disposal of electronic waste e.g., companies in B2B environment have a legal responsibility to disposals

- Computer Landfilled
 - dispose them where toxic materials will be appropriately handled
 - without proper attention and care to this issue, more money will be spent on medical bills

Product take-back

- It's an emerging international paradigm
 - firms organize methods to reclaim their products at EOL
 - no additional cost by manufacturer or distributors for recovery and recycling of the product
- EU have some form of take-back legislation based on WEEE
- Storing an old computer instead of reusing or recycling it, isn't a profit-maximizing or cost-effective solution
- Reuse and recycling should forcefully promoted as options to maximize lifecycle values of computers

Thanks for your attention

What motivates you to product take-back solution?

Why it's not widespread yet? Is it company's fault, lack of tight legislation, our security & privacy concerns or ...?