

# Green IT

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# Overview

- Introduction
- Fundamental Concepts
- Main Obstacles and Benefits
- Real Use Cases
- Conclusion





# Introduction

- Set of guidelines that help manufactures and end-user to use technologic solutions in a more efficient way. For example, instead of a pc per workstation, use low-power equipment and deploy virtualization in a server.
- Trend created in 1992 by the american Energy Star. This program consisted in a catalog with efficient hardware used by companies at the time choosing which component to buy.



# Fundamental Concepts

- Reduction in Energy Consumption
- Efficient Recycling of Electronics
- Deployment of Virtualisation Techniques
- Adoption of Cloud Computing

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## BENEFITS OF REDUCING U.S. COMPUTER AND MONITOR ENERGY USE BY 30 PERCENT

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### *Energy Savings*

**29 BILLION**  
KILOWATT-HOURS PER YEAR

Equivalent to the electricity use of  
all the households in Indiana



### *Electricity Bill Savings for U.S. Consumers and Businesses*

**\$3 BILLION**  
PER YEAR



### *Pollution Reduction*

**20 MILLION** METRIC TONS  
OF CO<sub>2</sub> PER YEAR

*Or the equivalent emissions of*

**10 COAL-FIRED POWER PLANTS** (500 MEGAWATTS EACH)

*Plus large reductions in other pollutants  
from coal power plants that cause a range  
of illnesses from asthma to heart attacks*

in Delforge, Pierre. (2016). New Report: Computer Energy Use Can Easily Be Cut in Half. Accessed 2 Dec 2020.



# Main Obstacles and Benefits

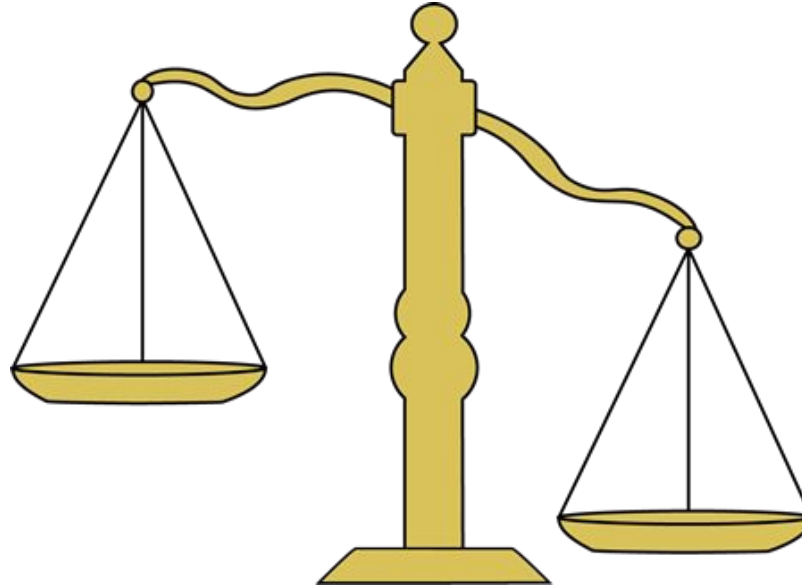
## Obstacles

Initial Investment

Resistance to accept a  
new paradigm

Challenge of  
redesigning processes

Lack of incentives



## Benefits

Modernisation of the  
business model

Improved efficiency

Compliance with  
formal regulations

Good public relations



# Real Use Cases



Replacement of high-consumption by low-consumption devices

Automatic Switch-Off and Switch-On in house

Employee training on green habits



Refurbishment of donated devices

This devices goes to third world country allowing people in need to learn XXI century tech skills



Set carbon neutral by 2030

New devices are made by recycled materials. The same as their following packages

Reduced plastic usage to 60% in the space of four years



# Conclusion

- New ecological movements brought awareness to manufacturers and end-users about problems such as origin of the components and energy consumption;
- “Going green” also allow companies to have a social impact at the time of hardware renewal;
- Future of information technologies. Eventually, each new project and company will take in account it ecological impact at the time of formulation.



# References

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