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Green ICT?: current research into the environmental impact of ICT

Whilst many think that ICT is the hero of environmental action and indeed, it has the potential to be so, currently it is one of the villains, since ICT-related CO2 emissions rival those of the aviation industry. This report provides a practical guide for ICT managers who want to know what can be done to change this situation.

Part A - The green agenda

Section 1 Introduction

Public sector ICT is waking up to the demands of the green agenda. ICT could be as much a part of the problem as the solution. This report explains how to reduce this risk and develop environmentally-friendly ICT.

Section 2 Understanding the policy context

ICT is a fast-moving sector, but the environmental agenda is moving just as fast. The demand for a reduction in carbon footprints is increasing. ICT managers must respond by understanding the policy issues and initiatives.

Part B - The ICT perspective

Section 3 Measuring the impact

It is critical to measure the environmental impact on ICT and to understand the basis of analytical tools and their limitations. We explain the approaches to measurement and cover business cases for new developments that take into account environmental impact.

Section 4 Managing the life-cycle of ICT equipment

ICT may have the image of a 'clean' industry, but all stages of the life-cycle for ICT equipment (ie manufacturing, distribution, use, and disposal) have to be tightly controlled to protect the environment and human health.

Section 5 Reducing energy used by the data centre

The lifetime energy costs of powering and cooling servers are still overlooked by many ICT professionals, even though they are now as significant as purchase costs. As well as desktop equipment, we should investigate the environmental impact of the data centre.

Section 6 'Greening' the ICT function

'Do nothing' is not an option. Climate change and the increasing global scarcity of fossil fuels means rising electricity costs and ever more sophisticated initiatives to measure and reduce carbon emissions. What must the ICT manager do to put the house in order to reduce the environmental impact of ICT?

Section 7 Making the organisation greener through ICT

Carefully planned use of ICT is a major factor in any change programme designed to reduce the office estate and travel costs. However, realistic and accurate environmental accounting for new projects is essential.

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Part C Some good practice

Section 8 Learning from green pioneers

Implementing green practices is new ground for most ICT managers. We provide details of practical approaches to green ICT adopted by a range of UK public sector organisations plus one large corporate supplier of services.

Part D Conclusions

Section 9 Taking action

We produce a list of actions that are based on the research presented in this report. This is a topic where pre-conceived ideas may lead ICT managers down the wrong path. They must be flexible in developing strategies, policies and plans that will reduce the environmental impact of ICT.