

DSI Framework Document Extract

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Introduction

Organisations find themselves under increasing pressure to both demonstrate (and improve) their 'green' credentials, and reduce their costs. Addressed intelligently, these two demands are more complimentary than conflicting, as efficiency is key to both.

Customers, shareholders, governments and regulators are increasingly environmentally aware and as awareness matures so the demand for serious, quantifiable and credible environmental improvement grows.

The present climate of global recession has sharpened the focus on cost reduction as never before and budgets are being cut across the board.

Information and Communications Technology (ICT) finds itself under intense scrutiny from both these agendas and the vision of a more sustainable and affordable ICT future is behind the creation of this framework.

The Dixon Sustainability Index or DSI, is a measurement framework for the ICT community and their stakeholders. Its purpose is to allow the accurate, meaningful and auditable assessment of the sustainability of an organisation's ICT facility (be that an in-house department or an external, third party supplied service), which can be compared against peers, against national and international targets or used as the quantifiable substance of compliance with relevant standards and regulations.

The DSI is designed to be comprehensive, quantifiable and constructive. It is comprehensive in that it addresses management intent, working methods and staff behaviour as well as electricity consumption and hardware utilisation levels. It is quantifiable in that it measures specific criteria and produces a numerical score against the index. It is constructive in that it highlights areas of good performance and areas of poor performance with the assessment and audit procedures including recommendations on how to improve.

As the DSI framework is built around efficient processes and behaviours, combined with maximised utilisation and minimised consumption it inevitably produces cost savings in addition to reduced environmental impact.

The DSI is also independent. It has been designed and produced by an organisation which is focused solely on facilitating the measurement of sustainable ICT, not one driven by hardware sales or revenues from large transformational programmes. As such the DSI is intended to serve organisations, governments, standards bodies and others, who genuinely wish to understand their current ICT sustainability status and improve it.

Objectives

The objectives of the DSI framework and supporting toolkit are to:

- Facilitate the benchmarking of environmental impact in ICT departments and/or outsourced ICT services
- Provide a valid mechanism for comparison of ICT departments/services across organisational or regional boundaries
- Underpin relevant environmental standards such as ISO 14001 with a quantifiable measurement framework and toolkit
- Enable and encourage progress towards a sustainable and affordable ICT future

Scope

The scope of the DSI framework is limited to the ICT dimension of an organisation. It does not concern itself with the environmental impact of that organisation in other areas e.g. manufacturing, distribution and so on.

The framework is applicable to any organisation which wishes to:

- Measure, categorise and understand its ICT environmental impact
- Identify and prioritise areas for improvement
- Demonstrate meaningful progress in sustainable ICT
- Make valid 'apples for apples' comparisons with other ICT departments or services
- Set quantifiable targets for sustainable ICT performance for:
 - Existing suppliers
 - Tender procedures for new suppliers or services
 - Partners
 - Government ICT departments at a national or local level

The DSI Framework, an Overview

The 5 Components

The DSI framework produces individual scores in each of 5 Component areas before consolidating these into a single overall score known as the Aggregate Score. This approach allows a more granular understanding of an organisation's strengths and weaknesses than would be possible with the Aggregate Score alone.

The 5 Components are:

1. Policy
2. Behaviour
3. Consumption
4. Utilisation
5. Process

The POLICY Component gauges the breath, depth and relevance of the **management intent** towards sustainability in ICT. Evidence is drawn from the organisation's published policies (or lack thereof), for **purchasing, operation** and **disposal** of ICT systems and applications, and from the clarity or otherwise of staff's accountability and responsibility for sustainability within ICT.

The BEHAVIOUR Component assesses the extent to which such policies are actually **implemented** and **observed** by staff in their day-to-day duties. It also examines the extent to which any such policies are embedded via automation or workflow technologies. Where policies are not defined auditors will still look for evidence of best practice behaviour occurring.

The CONSUMPTION Component calculates the power usage of ICT hardware. This component includes the **full hardware estate** of the organisation, both **data centre** and **distributed/desktop**. The DSI toolkit is able to calculate power consumption, express this in financial terms and produce the Consumption Score. This tool can also be used routinely by organisations as a modelling tool to inform sustainable decisions on purchasing, estate refresh options and so on.

The UTILISATION Component assesses the **wastage** inherent in the ICT estate from **installed but unused capacity** e.g. a server farm of 1,000 machines with an average utilisation of 20% theoretically wastes the equivalent of 800 servers (in the environmental impact of their manufacture, transport, power consumption and disposal as well as the costs of purchase, running and disposal). While 100% utilisation rates are not practical, techniques such as Virtualisation and Capacity Management can dramatically reduce waste in examples such as the one above.

The PROCESS Component determines the **process maturity and efficiency** of key ITIL¹ ICT management processes such as Strategy Generation, Service Portfolio Management, Service Design, Continual Service

¹ The IT Infrastructure Library from the UK's Office of Government Commerce

Improvement, Service Request Management, Problem Management, Capacity Management, Configuration Management and, Change Management. Particular attention is paid to the environmental impact of the processes so that for example, a Service Request Management process which was efficient and effective in pure Service Management terms but which included a highly environmentally-damaging shipment method for returned hardware, would be marked down in the DSI Process Component Score.

The Aggregate Score

The Aggregate Score is derived from the 5 Component Scores to produce a single score on the Sustainability Index which is then published in a league table on the Kudos Sustainability website. Organisations can use this score to demonstrate their externally audited achievement in sustainable ICT.

Organisations looking to buy-in ICT services (or any other kind of supplier/partner relationship) might wish to review the DSI scores of potential suppliers and may choose to set a specific DSI score as a minimum requirement for suppliers who wish to participate in the associated tendering process.

END OF EXTRACT