# STANDARDS PUBLISHED AND IN DEVELOPMENT

## GENERAL

| | |
|---|---|
| Quality management systems | ISO 9001 |
| Energy management systems | ISO 50001 |
| Environmental management systems | ISO 14001 |
| Life cycle assessment (LCA) of GHG | BS PAS 2050 |
| Environmental management LCA | ISO 14040   ISO 14044 |
| LCA of ICT systems | ETSI 103 199   ITU-T L.1410 |

## DATA CENTRE

### RESOURCE MANAGEMENT

| Information security | ISO 27001 |
|---|---|

| | |
|---|---|
| KPIs | ETSI EN 305 200-3-1: Gobal $KPI_{DCEM}$ |
| | ETSI EN 305 200-2-1: Gobal $KPI_{EM}$ |
| | ISO/IEC 30134-6 = EN 50600-4-6: ERF |
| | ISO/IEC 30134-3 = EN 50600-4-3: REF |
| | ISO/IEC 30134-2 = EN 50600-4-2: PUE |

| Sustainability: Recommended practices | CLC/TR 50600-99-2 |
|---|---|

CLC/TR 50600-99-1   ISO/IEC TR 30133   ITU-T L.1300

### ICT EQUIPMENT

| Storage KPI | ETSI EN ???? | | ETSI EN 305 174-8 |
|---|---|---|---|
| Servers KPIs | ETSI EN 303 470 | | |
| | ISO/IEC 21836:SEEM | ISO/IEC 30134-4 = EN 50600-4-4: $ITEE_{SV}$   ISO/IEC 30134-5 = EN 50600-4-5: $ITEU_{SV}$ | |
| Software | No standards activity for "data centre"-specific software (function or efficiency) | | |

### INFRASTRUCTURE

EN 50600-1 = ISO/IEC TS 22237-1

Availabiity Classification

| | | |
|---|---|---|
| Telecomms/Network | EN 50600-2-4 = ISO/IEC TS 22237-5 | |
| Environmental control | EN 50600-2-3 = ISO/IEC TS 22237-4 | |
| Power | EN 50600-2-2 = ISO/IEC TS 22237-3 | Operational and management information |

EN 50600-3-1 = ISO/IEC TS 22237-7

Risk analysis and availability

| Physical security | EN 50600-2-5 = ISO/IEC TS 22237-6 |
|---|---|
| Construction | EN 50600-2-1 = ISO/IEC TS 22237-2 |

| DESIGN | OPERATION | End-of-Life |
|---|---|---|

# INITIATIVES AND OTHER APPROACHES

| GENERAL | EMAS | EU Eco-Management and Audit Scheme |
|---------|------|-------------------------------------|
| | Energy and Buildings | Building Energy Modeling Professional Certification (ASHRAE) |
| | | Building Reasearch Establishment Environmenatl Assessment Method (BREEAM) |

**DATA CENTRE**

**RESOURCE MANAGEMENT**

| Green Public Procurement | EU Green Public Procurement (GPP) criteria for Data Centres |
|--------------------------|------------------------------------------------------------|
| Green House Gas | GHG Protocol ICT Sector Guidance (WRI, WBCSD, CT etc) |
| Energy efficiency: Best practices | EC DG JRC Code of Conduct (standardised in CLC/TR 50600-99-1) |

**ICT EQUIPMENT**

| Storage | EC LOT9 |
|---------|---------|
| Servers | EC LOT9 |
| | UK Government |

| Software | All4Green etc. |
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**INFRASTRUCTURE**

UPTIME INSTITUTE TIERING

- Availabiity Classification
  - Telecomms/Network
  - Environmental control
  - Power
- Availability

ANSI/TIA-942-B

AHSRAE TC9.9

BICSI 002

Physical security

Construction

| DESIGN | OPERATION | End-of-Life |
|--------|-----------|-------------|