

“New GHG ICT Sector Guidance, SAT-S Ready to Use & Data Centres Standards” ICTFOOTPRINT.eu Webinar Report

ICTFOOTPRINT.eu proudly hosted its 6th webinar edition with an esteemed line-up of **experts on ICT sustainability**. **Alex Bardell**, Member of Executive Board at Sustainability for London, focused his presentation on Data Centres standards, reviewing them in relation to energy efficiency and sustainability. **Silvana Muscella**, founder/CEO of Trust-IT Services and Project Coordinator of ICTFOOTPRINT.eu, introduced the Self-Assessment Tool for ICT Services (SAT-S). SAT-S is a useful, free, quick and easy-to-use tool to calculate the carbon footprint of ICT services. Furthermore, **Andie Stephens**, Senior Customer/Project Manager at Carbon Trust and member of [ICTFOOTPRINT.eu External Advisory Group](#), shared insights from the ICT Sector Guidance for the GHG Protocol Product Standard, which provides detailed guidance for the foot-printing of ICT products and services

What European Data Centres Standards are out there for us?

A standard is a technical document designed to be used as a rule, guideline or definition. It is a consensus-built, repeatable way of doing something¹. It is important to understand what different types of standards are available, regardless their scope and Alex Bardell wanted to clarify any confusion about what different standards are available for users.

“Standards” (note the capital S) are created by **International or National Standards Organisations supported by National Standards Bodies or National Governments**, respectively. In Europe, there are 3 recognised organisations for Standards: CEN, CENELEC & ETSI. In addition to these 3 international bodies, there are many National ones (e.g. BSI – United Kingdom, DIN – Germany) which create standards for use within their own country. However, standards can be created by anyone, such as private companies and NGO’s, but their credibility is limited, since they are not independently reviewed by external organisations. These standards are registered with a “lower s”.



Regarding Standards/standards and guidelines for data centres, there are several ones available around the world. There are standards created by associated organisations (e.g. American Telecommunications Industry Association or TIA), and rating systems, like the one from Uptime Institute, which focuses on resilience and uptime. Lists of best practices are also available, such as the EU Code of Conduct for Data Centres (Energy Efficiency), with 153 best practices relating to energy efficiency. These best practices were incorporated into the EN 50600 series as a technical report.

Magnificent “7”	ISO 9001 :2015
	ISO 14001:2015
	ISO 22301:2013
	ISO 27001: 2013
	ISO 50001:2013
	EUCOC Participant
	XX EN50600 Series

The EN 50600 series, explained in [ICTFOOTPRINT.eu 3rd webinar](#), provides a holistic overview of data centres, focusing on different areas such as building construction, power distribution and management and operational information. A dedicated factsheet, with more and easy information about EN 50600 series, can be found [in ICTFOOTPRINT.eu Map of ICT Standards](#).

The [Eureca project](#) which tackles the lack of knowledge and awareness on how to identify and procure environmentally sound and sustainable data centres, created a list of

“Magnificent 7” of “must haves” for those who want to make their data centres sustainable, for both enterprise and colocation organisations.

Easy tool to understand the carbon footprint of ICT Services? Try SAT-S tool

ICT industry accounts for approximately 2 percent of global CO2 emissions and -a decrease of emissions of just 15% has the potential to generate savings of €600 billion by 2020². To become “green in ICT”, not only the energy consumed by IT equipment is important, but also all the steps from in the life cycle of ICT products and services, such as extraction of raw materials, manufacturing process, and transportation.

As highlighted by Silvana Muscella, **there are many complex Standards and methodologies for green IT, which aren’t easily understood** by professionals who do not have a strong technical background. The relevant ones are mapped in the [ICTFOOTPRINT.eu Map of ICT Standards](#), with dedicated templates with simple information on how to use them. Nevertheless, being aware of the difficulty of becoming green in ICT, **ICTFOOTPRINT.eu developed the SAT-S (Self-Assessment Tool for ICT Services)**, a first easy-to-use practical tool for approaching the measurement of carbon footprint of ICT Services. With only 5 minutes, all those who complete the SAT-S get a **personalised report about the carbon footprint produced by their ICT Service**.



¹ Source: European Committee for Standardization <https://www.cen.eu/work/endeve/whatisen/pages/default.aspx>

² Source: SMART 2020: Enabling the low carbon economy in the information age http://files.kimjoar.net/ttm4165_smart-2020.pdf

The tool is made up of a simple guided questionnaire and a calculation engine was built based on a simplified Life Cycle Assessment loosely based on standard methodologies (GHG and ETSI, available as well on [ICTFOOTPRINT.eu Map of ICT Standards](https://ictfootprint.eu/Map-of-ICT-Standards)). **SAT-S provides the approximate climate change & primary energy footprint of your ICT service over one year**, indicating also intuitive equivalents of the amount of energy consumed and carbon emissions produced for an easy understanding (i.e. emissions of an average car travelling for 1 Km).

To better support the ICT sector in its quest towards sustainability, **ICTFOOTPRINT.eu will launch** by end of 2017 the **SAT-O (Self-Assessment for Organizations)**. SAT-O will be even more useful, with a more holistic approach thanks to more complex calculations, while keeping user interface, questions and results simple.

ICT players are welcome to try for free the SAT-S, available on <https://ictfootprint.eu/en/self-assessment-tool>

New and Fresh Guidance for assessing the life cycle GHG emissions of ICT services

The brand-new ICT Sector Guidance was created by a group convened to build consensus on guidance to perform a product & service GHG inventory in the ICT sector, with the support of an Advisory Board of 200 people from 50 companies in over 45 different countries around the world. **The guide, to be published and publicly available in July/August 2017 from the GHG Protocol Website, was based on the GHG Protocol Product Life Cycle Accounting and Reporting Standard**, one of the most widely used methods to measure carbon footprint in the world.



The guides provide insights on assessing Life Cycle GHG emissions of both ICT goods and services, covering 3 main chapters:

Chapter	Domains
Telecom Network Service (TNS)	Customer domain (CPE) <ul style="list-style-type: none"> ICT equipment required for the TNS deployed at the customer premises. Cooling and ups equipment supporting this ICT equipment. End-user equipment (e.g. PCs and VC systems) that are part of the service provided.
	Service platform (the network) <ul style="list-style-type: none"> ICT network equipment used by the TNS provider to deliver the service. Cooling and UPS equipment supporting the network equipment. Electricity & other energy-related emissions associated with network equipment & infrastructure, provided as part of TNS.
	Operational activities <ul style="list-style-type: none"> People-related activities directly linked to the service (e.g. solution design, surveying, planning deployment / installation, maintenance, and technical support). Dedicated nontechnical support such as product management, sales, and marketing. Activities associated with decommissioning of ICT equipment.
Desktop Managed Services (DMS)	Main components available in a DMS (e.g. end user service & infrastructure, service desk, other deskside services, etc). It provides a process map, a typical deployment of a DMS into the different life cycle stages and how to allocate the emissions to each stage.
Cloud & Data Center Services	Data Centers (DC): capturing all DC emissions, including DC overheads, Fixed and variable emissions. Allocation to IT equipment and to cloud services.
	Network emissions: emissions per GByte data transferred (e.g. emails sent from end-user to data center).
	End-user device emissions: In-use and embodied emissions and Allocating end-user device emissions.

These 3 chapters are supported by 2 technical chapters on hardware and software, typical components available in ICT Services. Hardware chapter provides 4 different approaches to calculate and process hardware emissions according to life cycle stages. Software is split into 2 sections, the first focuses on emissions calculations during the Full Life Cycle Assessment, while the second one focuses only the emissions produced during the software usage stage.

According to **Andy Stephens**, *“The biggest benefit stakeholders can get from this guide, compared to others available, is that the guide goes into a lot more detail compared to formal ICT Standards. It addresses the most common ICT services and explains how a GHG product standard and other formal standards/methods can be easily applied. Plus, each chapter has practical examples, based on real life situations.”*

Dedicated factsheets of each chapter of ICT Sector Guidance for GHG Protocol Standard are available for download in [ICTFOOTPRINT.eu Map of ICT Standards](https://ictfootprint.eu/Map-of-ICT-Standards)

Both the video and the PowerPoint presentations are available on the webinar page at <https://ictfootprint.eu/en/webinar/new-ghg-ict-sector-guidance-sat-s-ready-use-data-centres-standards>




ICTFOOTPRINT.eu webinars are for any ICT player that needs to improve its energy efficiency in ICT. Don't miss out on these by registering for the ICTFOOTPRINT.eu newsletter (<https://ictfootprint.eu/#newsletter>).

About the speakers

Alex Bardell is an executive board member of Sustainability for London (SFL), SFL are a member not-for-profit group, with a focus on providing practical real-world solutions within the sphere of sustainable ICT. Alex comes from an Enterprise Architecture Background managing teams in the delivery of Technology Solutions. He is an expert in the area of Cloud Computing and Data Centre delivery, with 20 years' experience working for multinational Organisations. He has built up an expertise of Standards in the selection process of Data Centre services used in the creation of Technology Solutions.

Silvana Muscella is CEO & founder of Trust-IT Services. She tackles high-level strategy building, business acquisition, coordination and strategic marketing and communication developments in ICT, namely in cloud computing tools & services & cybersecurity, ICT in energy efficiency. She plays an instrumental role in connecting stakeholders around standardisation efforts in distributed computing (namely, IEEE, ETSI, OGF, SNIA, DMTF, OASIS, ITU-T) & excellent relations with NIST. Currently Coordinator of ICTFOOTPRINT.eu, the EU framework for energy & environmental efficiency in the ICT sector. Among her appointments, she is an ACM professional member, member of the Green Grid, member of ECSO & IEEE InterCloud Computing Initiative.

Andie Stephens has 8 years' experience of product carbon footprinting at the Carbon Trust, ranging from fruit to cement, including IT, publishing, dairy and paper. He leads the Carbon Trust work with ICT companies, having worked with AT&T, BT, Dimension Data, EE, O2, Samsung, Verizon and Vodafone on carbon measurement and reduction programs. He led the development of the ICT Sector Guidance for the GHG Protocol Product Standard; this initiative was supported by: Alcatel Lucent, BT, Capgemini, Cisco, Deutsche Telekom, EMC, Ericsson, Fujitsu, HP and Microsoft. He is at the forefront of methodology development for the quantification of carbon abatement from ICT enablement, having worked directly with ICT companies on carbon abatement measurement projects, and was the lead author for the Mobile Carbon Impact report, published by GeSI, December 2015. Prior to the Carbon Trust, he had a variety of experience including as an international consultant in supply chain and manufacturing, and as a general manager for a software and consultancy company.

WEBINAR BRIEF PRESENTATION		
Title	"New GHG ICT Sector Guidance, SAT-S Ready to Use & Data Centres Standards"	
Broadcast Date	27th June 12:00 CEST	
Webinar Video	ICTFOOTPRINT.eu Youtube https://www.youtube.com/watch?v=ni9pLnpuAWg Brighttalk https://www.brighttalk.com/webcast/13847/267069	
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