ICTFOOTPRINT.eu
European Framework Initiative for Energy & Environmental Efficiency in the ICT Sector

"Calculation Tools & ICT Insights into energy saving: SAT-S, save@work, GREENSPECTOR" ICTFOOTPRINT.eu Webinar Report

The 4th ICTFOOTPRINT.eu webinar gave insight on how to make ICT energy efficient with new calculation tools & insights into energy savings from Industry experts on Sustainable Energy.

During the webinar, Frédéric Croisson, Manager at Deloitte Sustainability, showcased the **ICTFOOTPRINT.eu Self-Assessment Tool for Services (SAT-S)**, a useful, quick and easy-to-use tool that calculates the carbon footprint of ICT services. **Karen Robinson**, Project Manager at save@work, shared sustainable ICT practices and showed how employees can reduce energy consumption in their buildings by making small changes to their everyday behaviour. **Thomas Corvaisier**, CEO of GREENSPECTOR, introduced the company's eco-design software, which helps lower the consumption of IT resources, while safeguarding performance and user experience. The webinar was moderated by **Silvana Muscella**, CEO of Trust-IT Services and Project Coordinator of ICTFOOTPRINT.eu.

SAT-S, a self-assessment tool to raise awareness on low carbon ICT services

There is a pressing need for the European ICT sector to become energy efficient and sustainable. **ICT standards and other initiatives help the sector to decrease its energy consumption** and, consequently, its carbon footprint. However, only a few players are aware of their existence, have the knowledge to interpret them or financial resources to implement them.

Up against this reality, **ICTFOOTPRINT.eu has developed the Self-Assessment Tool for ICT Services (SAT-S), a free and easy-to-use application, which helps users without any knowledge or experience in this field to make informed decisions on how to make an ICT service sustainable**. By replying to 12 simple, non-technical questions about the ICT service, users will discover the impact of ICT devices & activities in terms of Green House Gas emissions and primary energy consumption.

As highlighted by Frédéric Croisson, SAT-S targets the following ICT players:

- ICT Intensive Organisations: companies that use ICT for their business (e.g. e-commerce);
- ICT System Integrators and Developers: organisations providing ICT services to other companies (e.g. customised software solutions);
- ICT Service Providers: large companies providing ICT services to other companies, including system integrators (e.g. Software products, data centres, ICT engineering software…).

SAT-S was developed on the basis of methodologies from the ICT standards and guides developed by GHG Protocol – ICT sector Guidance and ETSI 203, both ICT initiatives listed in the [Map of ICT Standards](#).

"*The tool is based on a multi-criteria and multi-step approach, allowing the calculation of two most known environmental aspects to calculate the carbon footprint of ICT services: the first is environmental and climate change indicator impact (also known as "GHG Emission Indicator"), while the second is primary energy consumption (also known as Cumulative Energy Demand*", stated Frédéric Croisson.

Furthermore, regarding the **multi-step approach,** SAT-S considers the 3 main steps of the lifecycle of ICT services: production, use, and end-of-life.

The tool was built on the expertise of Deloitte Sustainability in the field of sustainability consulting, and Trust-IT Services experience in developing solutions for ICT sector, namely for cloud computing, future internet, standards, big data and research infrastructures. The tool also benefited from the expertise of ICTFOOTPRINT External Advisory Group, leaders from reputable ICT organisations and Standard Development Organisations, which regularly give insights about the use of ICT methodologies, namely the SAT-S, for ICT end-users.

"*Despite it not yet being a certified tool, the project first & foremost for the SAT-S privileges ease-of-use and low entry barriers for end-users, so that they can start having a first contact with ICT sustainability*" stated Silvana Muscella. On being asked from the audience on how accurate the results of the SAT-S are, Silvana added that "*we are probably looking at a 30% margin of accuracy plus or minus. What we would like to do is to build upon the results we receive to help create our benchmarks, which we know in ICT are extremely difficult and at times, impossible to obtain*". Results will be made publicly available, although they will remain anonymous to respect privacy to the end-users, but the results will feed back into the SAT-S to improve them.
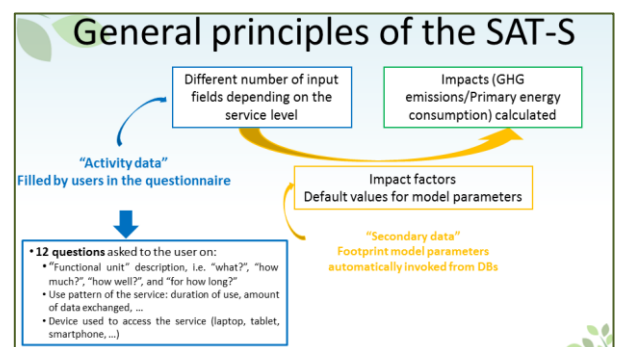
SAT-S will be launched the beginning of March 2017. Another version of the tool, Self-Assessment Tool -Organisation (SAT-O), to be launched in the near future, will calculate the carbon footprint of overall ICT services within an organisation.

Sustainable consumer behaviour towards a Sustainable ICT

Karen Robinson's presentation showed that small changes made by many people in the workplace can really make a difference in terms of sustainable ICT and cost savings. The project **save@work**, launched with the goal of helping public authorities reduce carbon emissions from their buildings, created a competition to make over 9,000 employees change their energy consuming practices. Regarding ICT devices, Karen brought the story of the Telford office of HM Land Registry, a UK government agency, to the table.

Despite turning off the computer, the **Telford office** realised that around 14% of their staff left their monitors on during meetings and overnight. "*If we consider only one monitor -said Karen - the amount of energy wasted is very small, taking 1.000 hours (41,5 days) to save 1 kW, but the scenario changes completely if we consider all of the computers from Telford, which thanks to almost 500 monitors, consume 1 kW in just 2 hours . If we include all HM Land Registry monitors (over 9.000 monitors), a 1 kW saving is easily achieved in 7 minutes*". **By turning off monitors during downtime, Telford decreased their electricity consumption by 40%.**

We did some calculations....
If 25% of the Land Registry's staff left their monitors on overnight...

(0.25 x 9000) x 1watt x 12 hours/1000 = 27kWh wasted per night.

27kWh x 14p/kWh = £3.78 per night

But....if they also left them on over the weekend that is an extra £15.12
So....
(£3.78 x 5) x £15.12 = £34.02 per week
Or £1,769.04 per year

If we consider that at least 25% HM Land Registry staff adopt this sustainable behaviour, the amount of energy saved after one year allows savings of almost 1,800 pounds. More energy and cost savings can be achieved if employees start these habits not only at work, but also in the home. Small changes made by many people do make a difference!

More valuable information on the Telford office Success Story on Sustainable ICT is available on the ICTFOOTPRINT.eu website: https://ictfootprint.eu/en/news/it-worth-it-save-energy-work

Eco-design - Low ICT energy consumption while safeguarding performance & user experience

In 2030, internet may consume as much electricity as all human kind in 2008 (Dresde University). Another startling observation is that ICT generates as much GHG emissions as the aviation sector.

"Software is eating the world" a sentence by Marc Andreessen (co-founder of Netscape) brought to the table by Thomas Corvaisier. Software developers face a big challenge. How to decrease the energy consumption of the 4.5 billion smartphones that existed in 2016 and of the 80 billion devices that are foreseen to be connected in 2020, without compromising speed and reliability of service or decreasing battery life? **With Software Eco-Design**.

A use case
- An IT services company was developing a fully integrated smartphone for defence purposes.
- Its battery life was down to 3 hours.
- With GREENSPECTOR the dev team was able to measure energy consumption, identify and correct an "energy bug".
- Battery life was upped to 11 hours in a few days.
- They now use our tool for continuous efficiency control.

Eco-design principles applied into all steps of software production lowers the consumption of IT resources, while preserving performance and consumer experience. GREENSPECTOR, a sustainable seller from ICTFOOTPRINT.eu marketplace, has been decreasing the energy consumption of ICT mobile devices, by automatically detecting power-draining patterns in source codes and energy bugs and providing other services, which allow easy verification of the energy consumed by ICT equipment and platforms, such as websites.

The use case from GREENSPECTOR illustrates that, thanks to eco-design, the battery life of a smartphone from an IT company was increased from less than 3 hours to 11 hours, by measuring the device's energy consumption behaviour and correcting energy bugs. Eco-design is a way to go towards ICT sustainability, allowing lower levels of carbon and energy footprint.

Both the webinar video and PowerPoint presentations are available on the webinar page at "https://www.ictfootprint.eu/en/webinar/calculation-tools-ict-insights-energy-saving-sat-s-savework-greenspector"

ICTFOOTPRINT.eu webinars are for any ICT player that needs to improve its energy efficiency in ICT.

In order not miss any, just register for the ICTFOOTPRINT.eu newsletter (https://ictfootprint.eu/#newsletter).

About the speakers

Frédéric Croisson is a Manager at Deloitte Sustainability, an institution specialised in research and consultancy in the field of environmental information on products, being its expertise is widely recognised in France and in Europe. A pioneer in the domain of life cycle assessments, Deloitte offers a wide range of services covering the entire life cycle of environmental information on products & services to expert and non-expert audiences.

Karen Robinson works as a project manager for Severn Wye Energy Agency, a UK charity concerned with addressing fuel poverty and promoting sustainable energy. In the 7 years she has been at Severn Wye, Karen has managed a number of European Commission funded initiatives including Energy Neighbourhoods2, EnergizAIR and more recently save@work. The majority of these projects focus on using behaviour change to reduce energy consumption and thus carbon emissions, including the current save@work project. As such Karen has developed considerable experience not only in understanding which behaviours are likely to make the greatest energy savings but also in what makes people tick, their different drivers and how they can be engaged to get involved in such initiatives.

Thomas Corvaisier has been involved in the Green IT field for 9 years, first as head of environment responsibility for Logica in France (now CGI), then counselling corporate companies and public organisations on lowering the carbon footprint of their IT. He's the CEO of GREENSPECTOR, a start-up editor specialized in software eco-design. This innovative approach aims at helping developers produce their applications with better performance for a lesser consumption of resources, hence lowering the impacts while improving user experience.

The webinar was moderated by **Silvana Muscella** (Project Coordinator of ICTFOOTPRINT.eu and CEO of Trust-IT Services) who boasts has over 20 years' experience a broad experience in stimulating topics in the ICT sector. In recent years, her drive has been in getting her team to turn its expertise into developing useful ICT tools and services for smaller companies, like Trust-IT, in the areas for ICT for energy efficiency, cloud procurement, cybersecurity and providing online tools for making cloud computing easier for novices especially.

WEBINAR BRIEF PRESENTATION	
Title	"Calculation Tools & ICT Insights on energy saving: SAT-S, Save@Work, GREENSPECTOR"
Broadcast Date	23rd February 15:00 CET
Webinar Video	**ICTFOOTPRINT.eu Youtube** https://www.youtube.com/watch?v=nM4v03GuEhM **Brighttalk** https://www.brighttalk.com/webcast/13847/245377
SPEAKERS	
Frédéric Croisson	**LinkedIn:** https://www.linkedin.com/in/fr%C3%A9d%C3%A9ric-croison-15143810/ **Company Website:** https://www2.deloitte.com/fr/fr/services/developpement-durable.html
Karen Robinson	**LinkedIn:** https://www.linkedin.com/in/karen-robinson-8b091357/ **Project:** https://www.saveatwork.eu/ **HM Land Registry Success Story:** https://ictfootprint.eu/en/hm-land-registry-uk **HM Land Registry Piece of News:** https://ictfootprint.eu/en/news/it-worth-it-save-energy-work
Thomas Corvaisier	**LinkedIn:** https://www.linkedin.com/in/thomascorvaisier/ **Twitter:** https://twitter.com/LittleGreenThom **Company Website:** https://greenspector.com/en/
MODERATOR	
Silvana Muscella	**LinkedIn:** https://www.linkedin.com/in/silvana-muscella-5857828/ **Twitter:** https://twitter.com/silvanamuscella **Company Website:** http://www.trust-itservices.com/