

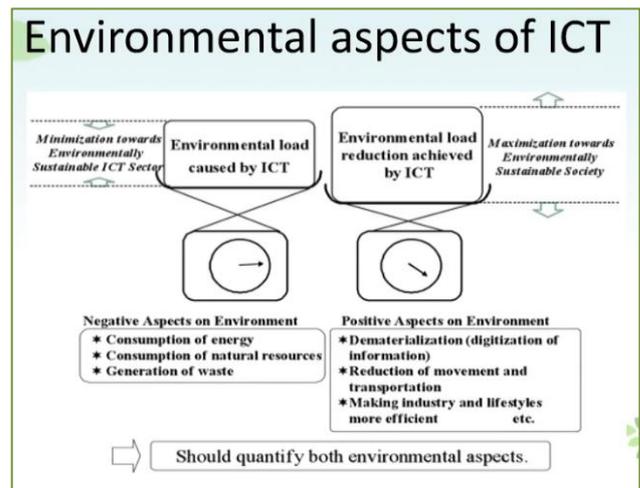
## “Industrial approach & support from standards in minimising ICT carbon footprint” - ICTFOOTPRINT.eu Webinar Report

In less than 1 hour, three experts on energy efficiency in ICT gave some valuable information about the use of standards & methodologies for a sustainable ICT, along with some insights to minimise ICT corporate footprint.

Lance Rütimann (Vice-President of The Green Grid) and Jean Manuel Canet (Vice-Chairman Working Party “ICT and climate change” at International Telecommunication Union) explained European EN 50600 Series of Standards and ITU-T methodologies, respectively. Joe Baguley (Vice President & Chief Technology Officer, EMEA at VMware) gave an industrial perspective on VMware recommendations for a sustainable ICT.

### ICT matters for a sustainable environment

Jean Manuel Canet stated that ICT can have two sides of the same coin, when considering Environmental issues. The use of ICT is responsible for an increase of environmental impact, due to natural resources and energy consumption, on the other hand, ICT can considerably reduce the environmental load as well decreasing the overall carbon footprint and thus improving the environmental sustainability of society. To reinforce the importance of ICT in environment sustainability, Joe Baguley mentioned that in 2010 ICT was responsible for 2% of global emissions. Estimates about 2020, foresee that this number will increase to a maximum of 10%, due to an increased use of IoT, networking and other IT technologies.



The use of ICT Standards and methodologies, along with recommendations and insights towards a low ICT carbon footprint, helps organisations to increase the sustainability of their ICT.

### Sustainable & Environmental friendly Data Centres? The EN 50600 Data Centre Standard Series

#### The series includes in its scope

- Issues for business risk and operating cost analysis
- General aspects required to support effective operation of telecommunications
- Classification system for “availability”, “security” and “energy efficiency”
- Lifetime of the data centre
- General design principles including symbols, labels, coding in drawings, quality assurance and education

Lance Rütimann explained the meaning of EN 50600 Standard for Data Centres, which is a comprehensive standard focused on infrastructures and facilities of data centres, rather than on the associated equipment (such as telecommunication, software and associated configuration).

The EN 50600 series provides a framework for consultants, designers, installers, service providers, as well as owners and operators, that encompasses the key aspects to be considered during the life time of a data centre, namely the methods and processes to address energy efficiency & sustainability.

The standard is organised into 5 main categories where data centre professionals can focus on when addressing sustainably: Concept, Design & Build, Operation, KPIs and Best Practices. All together they provide a fully holistic approach to analyse Data Centre sustainability.

First it must be defined what needs to be achieved, followed by how it will be achieved thanks to design, build and commission and, last but not least, how to maintain and improve the objectives defined in the first step, thanks to expertise and best practices.

### Assessing the impact of ICT- The ITU-T methodologies approach

Jean Manuel Canet gave an overview of ITU-T methodologies available for increasing ICT energy efficiency and reduce its carbon footprint, which can be applied to different aspects of the ICT landscape.

ITU-T Methodology	Scope	Description
L1400	General	Overview and general principles about assessment of energy and carbon footprint in ICT sector.
L.1410	ICT goods, networks & services	Covers 2 types of effect of ICT: <ul style="list-style-type: none"> <li>○ <u>1<sup>st</sup> Order</u>: guidelines on how to assess both energy &amp; carbon impact of some equipment (e.g. a mobile phone) over its full lifetime cycle, that is from its raw material acquisition, production, and use, till its end of life.</li> <li>○ <u>2<sup>nd</sup> Order</u>: potential benefits of ICT usage, with guidelines how to compare with reference scenarios. An example is to assess the impact of having a webinar, compared to bringing together all webinar participants to physical meeting.</li> </ul>
L.1420	ICT in organisations	<ul style="list-style-type: none"> <li>○ <u>ICT intensive organisations</u>: ICT sector organisations</li> <li>○ <u>Organisations that use ICT in their business</u>: insurance companies, public sector and more.</li> </ul>
L.1430	ICT projects	Projects aiming to reduce energy emissions & consumption.
L.1440	ICT in Cities	<ul style="list-style-type: none"> <li>○ <u>1<sup>st</sup> part</u>: first order effects from the use of ICT goods and networks in a city's households and organisations.</li> <li>○ <u>2<sup>nd</sup> part</u>: first and second order effects from ICT projects and services applied in a city.</li> </ul> <p>As a note, considering only households in a city, PCs are the main responsible for GHG emissions, followed by TV's, laptop and mobile phones.</p>

All ITU-T methodologies can be downloaded for free on ITU-T website.

### Server Virtualisation – A Sustainable Technology

Did you know what “Server Virtualisation” is? And for each “Server Virtualisation”, around 4 metric tons of CO2 are saved? Thanks to servers virtualisation VMware made since 2000 worldwide, the emissions saved correspond to powering all Spain, Italy, Germany and Switzerland households for one year.

Server virtualization helps optimising your server resources by migrating from dedicated physical hardware to a virtual server. This technology can allow energy consumption reduction around 80%, having a big impact on business sustainability. Plus, since less physical servers are needed, less are produced and then shipped to customers’ location, even more savings are achieved.

More valuable information about VMware “Force for Good” Global Impact Report is available on ICTFOOTPRINT.eu website: <https://ictfootprint.eu/en/news/environmental-impact-ict-reducing-ict-footprint-and-rethinking-progress-technology> .

Both webinar video and PowerPoint presentation are available on the webinar page at [“https://www.ictfootprint.eu/en/webinar/industrial-approach-support-standards-minimising-ict-carbon-footprint”](https://www.ictfootprint.eu/en/webinar/industrial-approach-support-standards-minimising-ict-carbon-footprint)

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

**To not miss any of them, just register to the ICTFOOTPRINT.eu newsletter (<https://ictfootprint.eu/#newsletter>).**

## About the speakers

Lance Rütimann is an active participant in The Green Grid’s EMEA Government Engagement Committee and the Board of Directors. He currently chairs the Program Committee, which manages the wide range of activity requests that drive content produced by members of The Green Grid. He is a member of the CENELEC technical committee responsible for the development of the EN 50600. Lance has more than 25 years of experience at Siemens, having held positions in various countries, including Germany, Switzerland and Canada.

Joe Baguley is VMware’s Vice President and Chief Technology Officer for EMEA. He helps develop and communicate VMware’s strategy and vision with customers and partners, using his wealth of experience to help organisations reduce costs, transform their businesses and better support users and business needs. As part of VMware’s Office of the CTO and its representative in EMEA, Joe assists VMware’s customers in understanding how to use today’s advances in technology to deliver real business impact.

Jean-Manuel Canet is a member of ITU-T Study Group "Environment and Climate Change" and serves as vice-chairman of the working party "ICT and Climate Change" and Rapporteur of the "methodologies" question. He works as well for Orange Consulting, where he is in charge of Sustainable Development. He has developed an expertise in the assessment of the environmental impact of ICT products, services and organizations. He has led numerous projects to assess and reduce GHG emissions related to IT, for customers such as the European Parliament, France Télévisions or Zurich Financial Services. He holds a certificate in carbon accountancy from the French National Agency for Energy and Environment.

WEBINAR BRIEF PRESENTATION		
<b>Title</b>	"Industrial approach & support from standards in minimising ICT carbon footprint"	
<b>Broadcast Date</b>	20th December 15:00 CET	
<b>Webinar Video</b>	<b>ICTFOOTPRINT.eu Youtube</b> <a href="https://www.youtube.com/watch?v=Qk6mMDoXhVM">https://www.youtube.com/watch?v=Qk6mMDoXhVM</a> <b>Brighttalk</b> <a href="https://www.brighttalk.com/webcast/13847/235707">https://www.brighttalk.com/webcast/13847/235707</a>	
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