"Green Policies, Green Labels and Virtualization Efficiency"
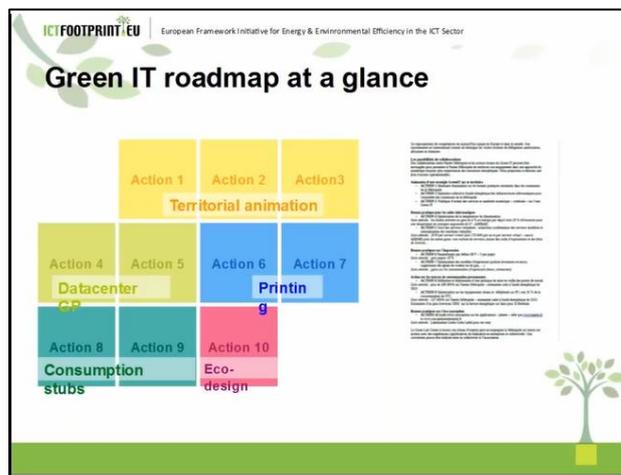
ICTFOOTPRINT.eu Webinar Report

The 10th in the series of ICTFOOTPRINT.eu webinars provided an informative overview on how green policies, green labels and infrastructure virtualization can have a positive impact in decreasing ICT energy consumption in SMEs. By being environment friendly, companies can save money at the same time, thanks to a more efficient use of ICT. It is imperative that Green Policies provide environmental parameters to reduce the carbon impact of business operations and promote sustainable development within the organization.

Proactive policy on energy transition – a Green IT roadmap for municipalities

Matthieu Clavier (Coordinator & formerly ICT Technical Architecture Officer at Nantes Métropole) presented on how the Nantes Métropole area decreased its IT energy consumption over the past years, thanks to the their Green IT roadmap, a document that describes this ambition.

The public structure manages IT services for numerous activities with over 400 software applications and numerous servers and IT equipment for more 7,000 users. Numerous opportunities were identified to improve IT efficiency, particularly over the past 4 years, to drastically decrease IT energy consumption and involve all local players on the territory. The Roadmap had contribution from green IT players based in Métropole area, namely from GREENSPECTOR and EasyVirt, both sustainable sellers registered in ICTFOOTPRINT.eu green IT marketplace.

How did Nantes Métropole decrease their IT energy consumption? Firstly, **a place to share good practices was created**. This way, members of the region could share their good practices on how they got competitive advantages thanks to green IT.

Secondly, **an energy audit was performed to first diagnose the priority improvement areas and then define a work plan towards energy consumption reduction.** Last but not least, the **third action was the definition of a Purchase Policy with Green IT criteria**. Now, the IT purchasing chief officer needs to be aware of energy issues in IT equipment and take into consideration green IT decisions in his global IT strategy. In case of Nantes Métropole, thanks to green IT purchase policies, the region is reducing their IT energy consumption. **By 2020, they are expecting to save 100.000 kWh annually, compared to the energy consumption registered in 2015**.

Focusing on datacenters, Métropole region **automatically removed unused virtual servers** (over 100 of 700 servers), **saving about 9.000 kWh per year**. Plus, they optimized datacenter air cooling from 19°C to 23°C, to decrease the energy costs of cooling data centers, without comprising their performance. Regarding office hardware, printers and copiers were configured to print on both sides of the paper (this saved around 14.000 reams of paper) and 5.000 workstations now switch to standby mode after 3 hours of activity.
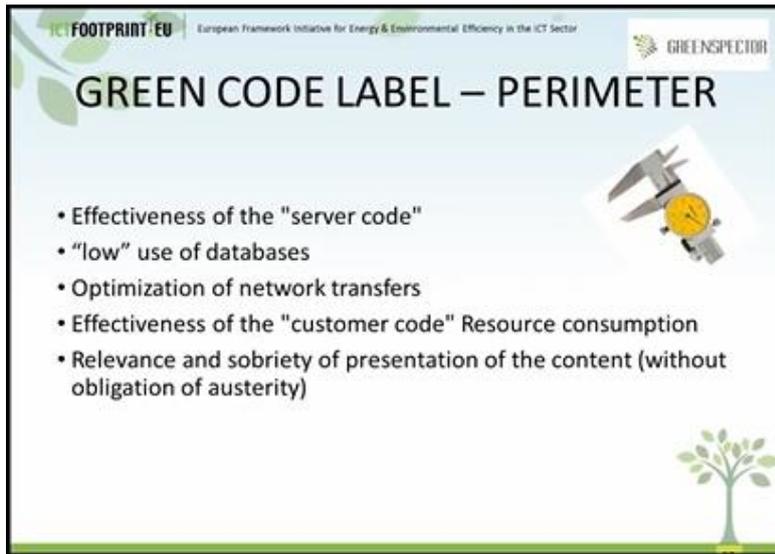
To go even deeper in its green IT journey, Nantes Métropole created the "Eco Energetic Audit", a mobile city application that allows citizens to easily detect a source of large energy consumption which affects the lifetime of the battery of the user and also give global savings.

Green Code Label – certifying digital services as "Green IT"

Thierry Leboucq (Chairman at GREENSPECTOR), presented the **Green Code Label,** a label recently obtained by Nantes Métropole website. The Greencode label is a label for sustainable web introduced by Green Code Lab, a French association to help people in digital companies and jobs to provide their digital services using eco-design.
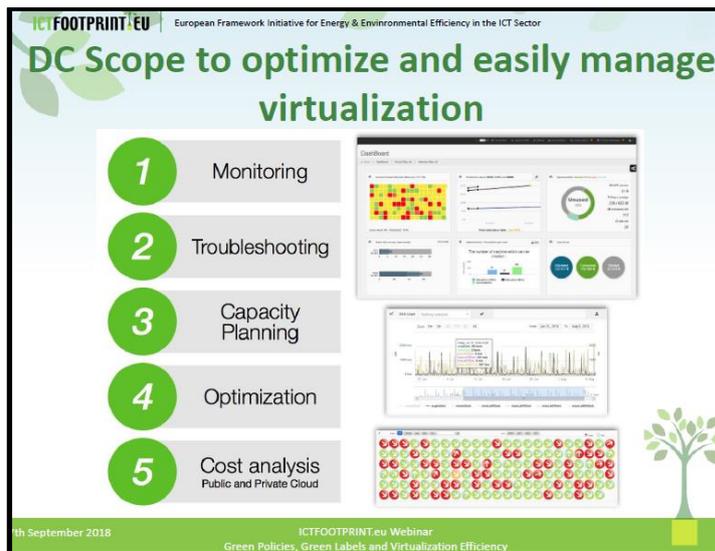
Briefly, the Green Code Label is a 32-rule repository, with 3 levels of labels (gold, silver, bronze), where users can self-assess their own website. The perimeters considered in the label consider the **effectiveness of the server code, the low use of databases, the optimization of network transfers, the effectiveness of the customer code, the relevance and sobriety of the presentation of the content.** Some examples of criteria that are consider in the assessment are: stop processing when the webpage is not being visualized by the user, optimization of videos and images, homepage energy consumption, amongst others.

When Nantes Métropole website, first performed the first Green Code Label assessment, it was classified as "bronze" and as "F" regarding energy consumption (from A-G scale, A being the most energy efficient). Thanks to the Eco-Design procedures applied in the homepage, the Nantes Métropole website was classified as "Gold"

How do we reduce the use of resources while improving performance and decreasing cost?

Martin (CEO at EasyVirt), demonstrated why virtualization is a relevant action to improve sustainability of IT equipment. Having fewer physical servers and having to rely on virtual machines (VM) allows lower levels of energy consumption. However, there is a rebound effect. VM are practical and easy to install, but, a high number of VM are installed, a new physical server needs to be bought, to bear with the huge amount of VM. Plus, for each 100W used by VM, only 2.5W represent useful computing power. It is crucial that VM energy consumption is optimized. EasyVirt developed a software to optimize the VMs, called DC Scope, a monitoring tool that makes it easy to control and optimize VM, transforming them into more efficient machines due to less waste at the sources.

Both the video and the PowerPoint presentations are available on the webinar page at
https://ictfootprint.eu/en/webinar/green-policies-green-labels-and-virtualization-efficiency

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

Matthieu Clavier (Nantes City Lab Coordinator & formerly ICT Technical Architecture Officer at Nantes Métropole) presented a proactive policy on energy transition launched by Nantes Métropole. This has been reflected in recent years in the establishment of a specific ICT roadmap for concrete actions to achieve energy savings of (hard and soft) IT tools.

Thierry Leboucq (Chairman at GREENSPECTOR), presented the Green Code Label, a label recently obtained by Nantes Métropole. His presentation showed the engagement of a "Green City", involving private partners and IT labs.

Martin Dargent (CEO at EasyVirt), demonstrated the importance of optimization of virtualised infrastructures. How do we reduce the use of resources while improving performance and decreasing cost?

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

WEBINAR BRIEF PRESENTATION	
Title	"Green Policies, Green Labels and Virtualization Efficiency"
Broadcast Date	27th September 11:00 AM CEST
Webinar Video	**ICTFOOTPRINT.eu Youtube** https://www.youtube.com/watch?v=jM4pGwVfwYw&feature=youtu.be
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