

German Environment Agency



Environmental Aspects in Public Procurement in Europe

October 1-2, 2020

<https://www.umweltbundesamt.de/en/conference-environmental-aspects-in-public>

Workshop I: ICT in Public Procurement

Maïke Janßen

German Environment Agency

Section III 1.1

Fundamental Aspects of Products, Sustainable Consumption, Investment Program

Green IT in Public Procurement

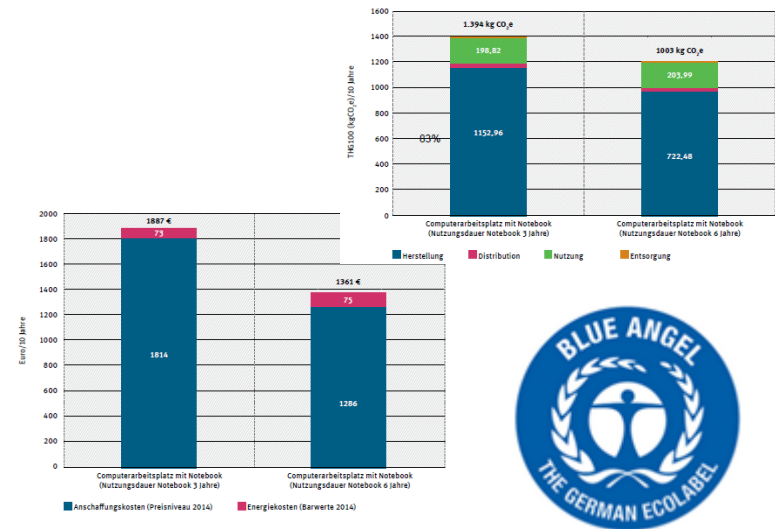
1 ICT products

LCA: GWP mainly from production

=> **increase (minimum) service life** (will also reduce costs)

ICT products w. „Blue Angel“:

low energy consumption, durable, recyclable



2 Data Centers

Data Centers / Servers: CPU utilization mostly below 20%

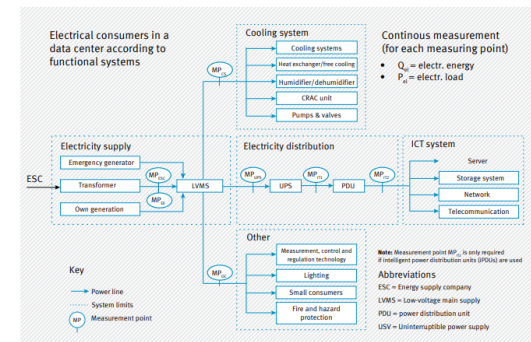
=> **Increase utilization; monitor efficiency**

New Indicator:

KPI4DCE (Key Performance Indicator for Data Center Efficiency)

„Blue Angel“: Energy-Efficient Data Center Operation,

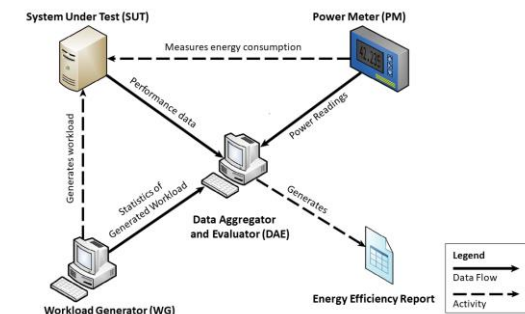
Climate-Friendly Colocation Data Center



3 Software

energy consumption; obsolescence

„Blue Angel“ for Resource and Energy-Efficient Software Products



1. ICT products

Brochure: Computer at the Workplace; Recommendations for Public Bodies (only in German)

- <https://www.umweltbundesamt.de/publikationen/computer-am-arbeitsplatz-wirtschaftlichkeit>

Position: Service Life Of Computers at the Workplace in Federal Administration (only in German)

- <https://www.umweltbundesamt.de/publikationen/paradigmenwechsel-in-der-green-it-notwendig-0>

Excel tool for calculation of CO₂ and costs (only in German)

- <https://www.umweltbundesamt.de/dokument/oeko-vergleichsrechner-fuer-arbeitsplatzcomputer>

Research Report [„Öko-APC“] (in German; with English summary)

- (Ecological and economical aspects in a comparison of desktop computers intended to be used by public authorities, under consideration of the user behavior). <https://www.umweltbundesamt.de/publikationen/oekologische-oekonomische-aspekte-beim-vergleich>

Overview on all Guides on Green Public Procurement

- English: <https://www.umweltbundesamt.de/en/topics/economics-consumption/green-procurement/recommendations-for-your-tender>
- German: <https://www.umweltbundesamt.de/themen/wirtschaft-konsum/umweltfreundliche-beschaffung/empfehlungen-fuer-ihre-ausschreibung>

Blauer Engel / Blue Angel for ICT products

Blauer Engel / Blue Angel; Overview of all Basic Award Criteria:

- English: <https://www.blauer-engel.de/en/node/823>
- German: <https://www.blauer-engel.de/de/fuer-unternehmen/vergabekriterien>

Computers and Keyboards / Arbeitsplatzcomputer und Tastaturen (DE-UZ 78)

- English: <https://www.blauer-engel.de/en/products/electric-devices/computers-and-keyboards>
- German: <https://www.blauer-engel.de/de/produktwelt/elektrogeraete/computer-und-tastaturen>

Mobile Phones / Mobiltelefone (DE-UZ 106)

- English: <https://www.blauer-engel.de/en/products/electric-devices/mobile-phones>
- German: <https://www.blauer-engel.de/de/produktwelt/elektrogeraete/mobiltelefone>

Router (DE-UZ 160)

- English: <https://www.blauer-engel.de/en/products/electric-devices/router>
- German: <https://www.blauer-engel.de/de/produktwelt/elektrogeraete/router>

Printers and Multifunction Devices / Drucker und Multifunktionsgeräte (DE-UZ 205)

- English: <https://www.blauer-engel.de/en/products/electric-devices/printers-and-multifunction-devices>
- German: <https://www.blauer-engel.de/de/produktwelt/elektrogeraete/drucker-und-multifunktionsgeraete>

Server and Data Storage Products / Server und Datenspeicherprodukte (DE-UZ 213)

- English: <https://www.blauer-engel.de/en/products/electric-devices/server-and-data-storage-products>
- German: <https://www.blauer-engel.de/de/produktwelt/elektrogeraete/server-und-datenspeicherprodukte>

2. Data centers

Key Performance Indicators for the Ecological Assessment of Data Centers (KPI4DCE; research report; in German with English summary)

- <https://www.umweltbundesamt.de/publikationen/kennzahlen-indikatoren-fuer-die-beurteilung-der>
Within the framework of this research project an expert tool to help data centers calculate and monitor their efficiency is currently being developed (in German; available on request by the end of 2020)

Tool for the calculation of GHG emissions from video conferencing

- currently being developed by the German Environment Agency; will be available (in German) by the end of 2020 on our website (www.umweltbundesamt.de)

Guide on Green Public Procurement: Products and Services for Data Centres and Server Rooms

English: <https://www.umweltbundesamt.de/en/publikationen/guide-on-green-public-procurement-products-services>

German: <https://www.umweltbundesamt.de/publikationen/leitfaden-zur-umweltfreundlichen-oeffentlichen-14>

Blue Angel for Data Centers

Blauer Engel / Blue Angel; Overview of all Basic Award Criteria:

- English: <https://www.blauer-engel.de/en/node/823>
- German: <https://www.blauer-engel.de/de/fuer-unternehmen/vergabekriterien>

Energy Efficient Data Center Operation / Energieeffizienter Rechenzentrumsbetrieb (DE-UZ 161)

- English: <https://www.blauer-engel.de/en/products/electric-devices/data-centers>
- German: <https://www.blauer-engel.de/de/produktwelt/elektrogeraete/rechenzentren>

Climate-Friendly Colocation Data Center / Klimaschonende Colocation-Rechenzentren (DE UZ 214)

- English: <https://www.blauer-engel.de/en/products/electric-devices/climate-friendly-colocation-data-center>
- German: <https://www.blauer-engel.de/de/produktwelt/elektrogeraete/klimaschonende-colocation-rechenzentren>

Server and Data Storage Products / Server und Datenspeicherprodukte (DE-UZ 213)

- English: <https://www.blauer-engel.de/en/products/electric-devices/server-and-data-storage-products>
- German: <https://www.blauer-engel.de/de/produktwelt/elektrogeraete/server-und-datenspeicherprodukte>

3. Software

Guide on Green Public Procurement of Software

- English: <https://www.umweltbundesamt.de/en/publikationen/guide-on-green-public-procurement-of-software>
- German: <https://www.umweltbundesamt.de/publikationen/leitfaden-zur-umweltfreundlichen-oeffentlichen-21>

Blue Angel: Resource and Energy-Efficient Software Products /

Blauer Engel: Ressourcen- und energieeffiziente Softwareprodukte (DE-UZ 215)

- English: <https://www.blauer-engel.de/en/products/electric-devices/resources-and-energy-efficient-software-products>
- German: <https://www.blauer-engel.de/de/produktwelt/elektrogeraete/ressourcen-und-energieeffiziente-softwareprodukte>

Lecture „How Climate Friendly Is Software?“ at the 36th Chaos Communication Congress (36c3; Dec. 2019, Leipzig; 58 min.)

by Dr. Eva Kern (Trier University of Applied Sciences) and Marina Köhn (German Environment Agency)

- In German; English and French translation available:
https://media.ccc.de/v/36c3-10852-wie_klimafreundlich_ist_software

Thank you for your kind attention

Maike Janßen

maike.janssen@uba.de

ph. +49-340-2103-3385

www.umweltbundesamt.de/en