

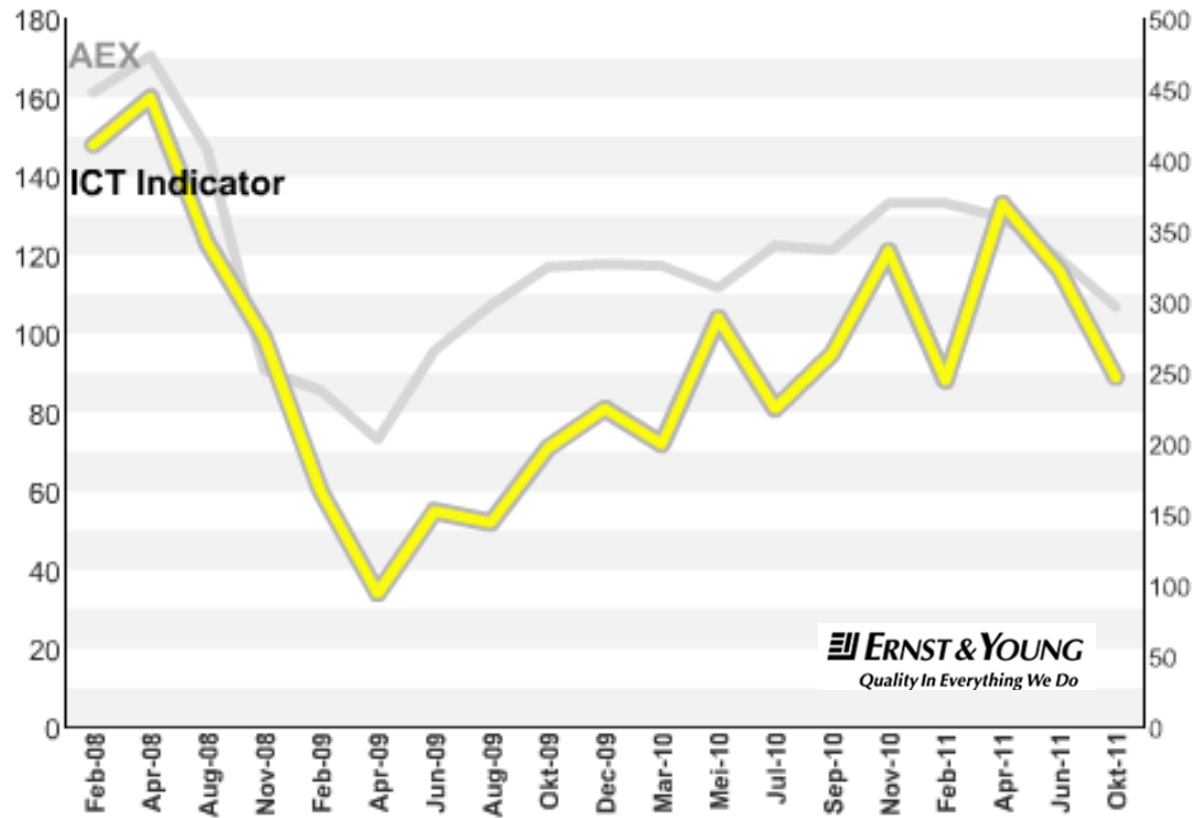
Green IT Highlights of the Green Deal in The Netherlands



Dr. Anwar Osseyran
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ICT Barometer in NL



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Report Dutch energy policy 13 January 2011

The Dutch lose faith in windmills

| Karel Beckman and Alexander Haje

The new Dutch right-wing government has announced a radical overhaul of Dutch energy policy. It is cutting subsidies for most forms of renewable energy drastically, and is even putting an end to all subsidies for offshore wind, solar power and largescale biomass. It has also announced a warm welcome for new nuclear power stations – the first time a Dutch government has done so since the

However, not all is lost for the renewable energy sector: the cabinet is still brooding on a long-term strategy and a “Green Deal” that might yet put the Netherlands back on a “greener” course.



The sun goes down for Dutch green subsidies

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ICT & Sustainability in NL

- ❑ More focus on Sustainability (raise 52% compared to 2010)
- ❑ Green IT is important focus point for 500+ companies
- ❑ About 80% use Green IT for cost reduction
- ❑ Service sector leading in teleworking (Het Nieuwe Werken)
- ❑ Public Sector needs to catch up in Green-IT with the rest



The Dutch Green Deals



Environmental Finance

Natural Gas — energy in either direction.



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Dutch government signs 59 Green Deals

6 October 2011

The Dutch government signed 59 'Green Deals' with businesses and citizen groups on Monday, in a bid to increase the generation of renewable energy.

Coal-fired power plants agreed to burn 10% biomass in one of the deals, reducing their reliance on subsidies.

A spokeswoman for the Dutch economics ministry explained that the utilities will be required to meet this target from 2015, when a new energy obligation is due to come into force, but the Green Deal will see them voluntarily meeting the target in the interim.



Netherlands aims to reduce its carbon clog-print ([Photocredit](#))

The municipality of Groningen will look to develop a financing model for domestic



By closing Green Deals, the national government hopes to boost green projects and eliminate barriers. For example, by adapting laws and regulations, supporting new markets for green technologies, providing good partnerships and improving access to capital.



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Examples of Green Deals in NL



Amsterdam International Fashion Week signs Green Deal with Dutch Design Week and the Netherlands Architecture Institute

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Dutch Government Signs Green Deal with NWEA

Posted on Oct 10th, 2011 with tags [deal](#), [Dutch](#), [europe](#), [government](#), [green](#), [NWEA](#)

The Dutch government and the Netherlands Wind Energy Association (NWEA) have signed a Green Deal on offshore wind energy.

For further development of wind energy in the North Sea a substantial reduction of emissions is required, increasing to 40% in 2020. Innovation and policy adjustments form an essential part. The Green Deal incorporates pilot projects to test innovations. The Ministry of Economic Affairs, Agriculture & Innovation (EL&I) and the Ministry of Infrastructure & Environment (I&M) establish a round table council with the industry to effectuate the Green Deal.



Home » Tata Steel Pens Green Deal with Netherlands

October 6, 2011

Tata Steel Pens Green Deal with Netherlands

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Tata Steel has signed an energy efficiency deal with the Dutch government.

The so-called "green deal" commits Tata Steel's plant in IJmuiden, Netherlands, to three projects totaling €10 million (\$13.3 million) that should lead to annual energy savings of 83333 MWh – enough to power 20,000 Dutch homes for a year.

Projects will be carried out in the IJmuiden plant's blast furnaces, steel meltshop and wide hot strip mill.

Other "green deals" have been signed by 40 Dutch companies and industry bodies. The deals stem from the government's coalition agreement that states it will make such agreements with citizens, companies and NGOs to stimulate the development of plans that combine economic growth and sustainability, Tata says.

RELATED STORIES

[Tata Steel Plans 9% Emissions Cut by 2012](#)

[Pilot Pen Launches Green Line](#)

[Corus Installs Gas Recovery System at Steelworks in Wales](#)

Green Deal Amsterdam

1. ICT and Datacenters
2. 'Inner Ring' district heating in Amsterdam
3. Climate-neutral construction in 2015
4. Electric transport
5. Amsterdam Smart City / Smart grids
6. Support open platform Amsterdam Smart City
7. Temporary wind energy in some urban area's
8. Green investment Fund
9. Green Finance Lab
10. Housing insulation



Amsterdam to Cut CO2 Emissions by 40% by 2025



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The screenshot shows the website for 'Organisatie voor Duurzame Energie' (ODE). The header features the ODE logo and the text 'Organisatie voor Duurzame Energie'. Below the header is a navigation menu with links: Home, Nieuws, ODE, ODE Media, Energie, Forum, Sitemap, and Log in/uit. A search bar is located on the left side. The main content area displays a news item titled 'Amsterdam wil 40% CO2-reductie in 2025' dated 11 dec 07. The article text states: 'Vandaag heeft het gemeentebestuur van Amsterdam in het Tropenmuseum haar plannen voor een Klimaatprogramma gepresenteerd in een 'Warming up' met 'Bouwstenen voor CO2-reductie'. Het voltallige college van B&W was daarbij aanwezig. De klimaatambitie van Amsterdam is: In 2025 is de CO2-uitstoot van de stad 40% lager dan in het peiljaar 1990. Daarnaast is de klimaatambitie van de gemeentelijke organisatie: In 2015 is de gemeentelijke organisatie klimaatneutraal.' Below the text are three small images showing people at a presentation. A sidebar on the left lists various news items under 'Nieuws items'.

ODE Organisatie voor Duurzame Energie

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Zoeken

zoeken...

Nieuws items

- AO Commissie WWI over energiebesparing gebouwen
- Bekijk de klimaatspecial van Natuur en Milieu!
- Windenergie op land blijft achter: budget gaat naar Zon en Bio-energie
- Alders op Energie 2009: daadkracht regering gewenst
- Oost Gelre gaat voor 100% duurzaam
- Prins Willem Alexander opent Stad van de Zon
- Toekomst ondenkbaar zonder zonne-energie
- NenM: Belastingbonus van 700 euro
- Kerncentrale blokkeert klimaatbeleid
- Verslag AO - EZ 3 spt 09 over energiezaken
- Cramer bezorgd over halen klimaatdoelen 2020

Amsterdam wil 40% CO2-reductie in 2025

11 dec 07

Vandaag heeft het gemeentebestuur van Amsterdam in het Tropenmuseum haar plannen voor een Klimaatprogramma gepresenteerd in een 'Warming up' met 'Bouwstenen voor CO2-reductie'. Het voltallige college van B&W was daarbij aanwezig. De klimaatambitie van Amsterdam is: In 2025 is de CO2-uitstoot van de stad 40% lager dan in het peiljaar 1990. Daarnaast is de klimaatambitie van de gemeentelijke organisatie: In 2015 is de gemeentelijke organisatie klimaatneutraal.

Externe partners spelen een belangrijke rol in het gemeentelijke klimaatbeleid. Samenwerking is de sleutel tot succes. De gemeente heeft het initiatief genomen om alle partijen bij elkaar te brengen en zet alle zeilen bij om samen met de belangrijkste partners nog voor de zomer van 2008 te komen tot een breed gedragen Klimaatprogramma Amsterdam. De samenwerking moet tot uitvoering leiden van de ambitieuze plannen.

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The Datacenter in the spot light



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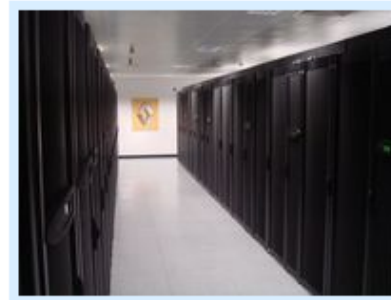
05-05-2008 16:29 | Door [Rian van Heur](#) | Tags: [Datacenters](#) | Gerelateerde bedrijven: [McKinsey](#) | Er zijn [3 reacties](#) op dit artikel | [Permalink](#)

Vervuiling datacenters meer dan CO2-uitstoot Nederland

De vervuiling van alle datacenters wereldwijd is groter dan de totale uitstoot van schadelijke broeikasgassen in Nederland. Bovendien zal de schadelijke uitstoot van CO2 de komende jaren alleen maar toenemen. Onderzoeksbureau McKinsey & Company voorspelt een verviervoudiging.

[Datacenters](#) verspreid over de hele wereld produceren per jaar 170 miljard kilo broeikasgas. Dat is meer dan de totale uitstoot van broeikasgassen in Nederland. Hier zijn auto's, fabrieken en vliegtuigen jaarlijks goed voor een uitstoot van 146 miljard kilo aan broeikasgas. Dat becijfert onderzoeksbureau [McKinsey & Company](#). Het onderzoeksbureau denkt dat de uitstoot van broeikasgassen door datacenters in 2020 zal toenemen naar 670 miljard kilo.

McKinsey denkt niet dat de technologie die nu voorhanden is om de energieuitstoot door datacenters te verminderen voldoende is om de trend te keren. Zo wordt nu slechts zeventig procent van de servers in een datacenter optimaal gebruikt. Ook is het ontwerp van applicaties in de basis slecht, waardoor er veel energie nodig is om deze applicaties te kunnen draaien.



McKinsey&Company THE CONFERENCE BOARD

Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?

U.S. Greenhouse Gas Abatement Mapping Initiative
Executive Report
December 2007

Report to Congress on Server and Data Center Energy Efficiency Public Law 109-431

U.S. Environmental Protection Agency
ENERGY STAR Program

August 2, 2007

Gartner

Why Use Gartner Products & Services Analysts & Consultants

Gartner Says Data Centres Account for 23 Per Cent of Global ICT CO2 Emissions

Analysts to Examine Green Issues Including Data Centre Design and Cooling at Gartner's Data Center Summit 2007, 22-24 October 2007, London

Egham, UK, October 11, 2007 – Data centres that require energy to run servers and provide cooling account for almost a quarter of global carbon dioxide (CO₂) emissions from information and communications technology (ICT), according to Gartner. Gartner's estimate follows its finding in April 2007 that the ICT industry produces 2 per cent of global CO₂ emissions, placing it on a par with the aviation industry.

Speaking ahead of Gartner's Data Center Summit this month, Rakesh Kumar, research vice-president at Gartner said: "Although the figure compares favourably with the 40 per cent of emissions from PCs and monitors, it is much more concentrated and rising more quickly. Not enough attention has been paid to reducing the data centre's carbon emissions. Organisations should aim to keep their data centre CO₂ emissions constant. This will help curb excessive data center growth and act as a counterbalance to deploying energy-inefficient hardware."

"Data centres account for such a large portion of ICT CO₂ emissions for three main reasons," Mr Kumar said. "There is a lack of floor-space, a failure to house high-density servers and increased power consumption and heat generation. These three issues will affect the cost of running a data centre. For example, Gartner predicts energy consumption of microprocessors alone will rise for the next ten years."

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Competitiveness with Green IT



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- ❑ ICT infrastructure and applications are backbone of economy
 - Growth strategies are based on knowledge and information economy
 - Business cases depend on excellence of ICT infrastructure
- ❑ Growth of ICT energy use not sustainable
 - Growth rate data centre capacity approx 30% annually
 - ICT 10% of all electricity consumption
 - Energy availability is becoming an issue
- ❑ Sustainability is essential for regional competitiveness
 - Radical reduction of energy consumption needed
 - Renewable energy, carbon reduction towards zero
 - Tackling the energy loss chain
- ❑ Energy transition driven by
 - Market data centers
 - Business cases energy efficiency and sustainable growth
 - Government regulation



*Competitive regions of the future are **Green IT** regions*

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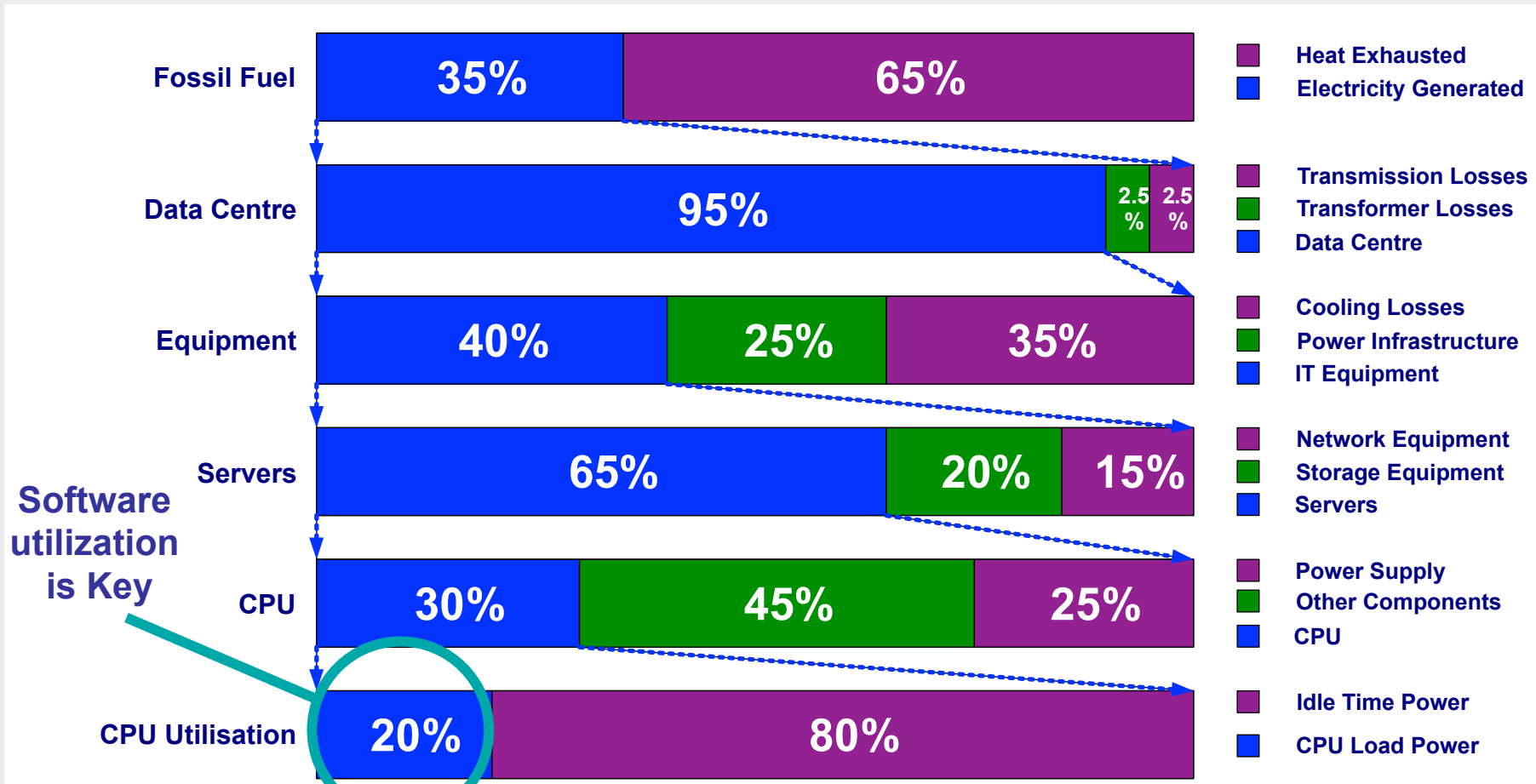
- ❑ Public-private network organisation (founded June 2010)
- ❑ Objective: to contribute substantially to the 40% CO2 reduction goal in 2025 in Amsterdam by:
 - Achieving substantial energy savings in the ICT sector itself: "Greening of IT"
 - Innovative use of ICT to reduce CO2 emissions in the region in many sectors: "Greening by IT"
 - Creating new business opportunities for the "Green Collar Economy".



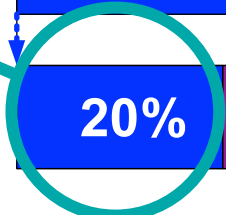
Active Power - EMC - M+W Group - APC - Equinix/IX-Europe – Parthenon Data Centres - ASP4all - EvoSwitch - Raritan - Atos - City of Amsterdam - Royal Haskoning - BIA - Hogeschool van Amsterdam - SIG - Bricks & Bits / TreFoil - HP - TEDD Search - Capgemini - IBM - Telecity Group - Cisco Systems - ICTroom - Terremark - Colt - Imtech - The Datacenter Group - De Stroomplantage - InterXion - The Network Institute - DELL - KPN - TNO - ECN - Mansystems - Universiteit van Amsterdam - Ecofys - MDES - Vancis - EnergyGO - Microsoft

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The Power Loss Chain



Software utilization is Key



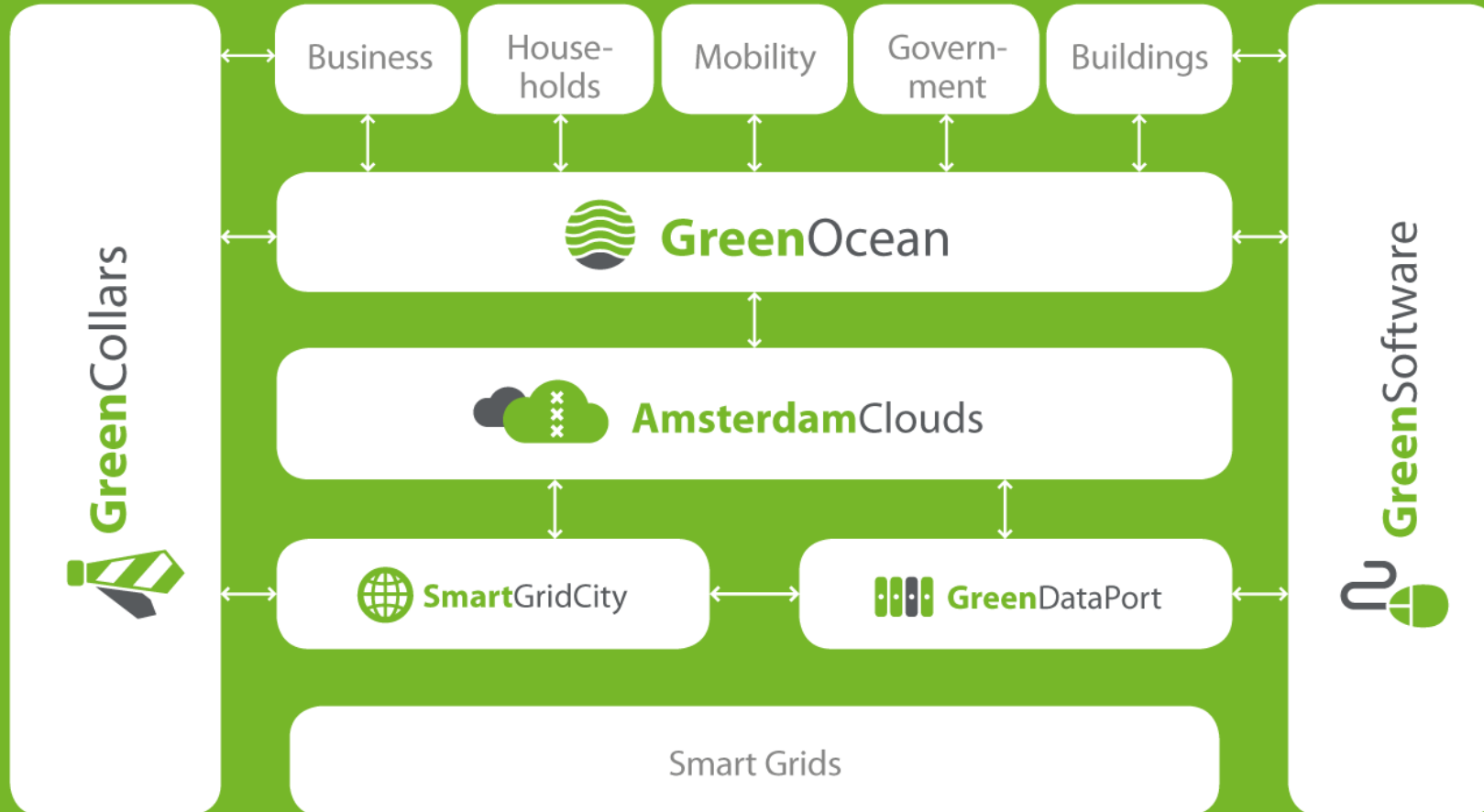
CPU energy yield: 0.5% of fossil fuel used!

Source: British Computer Society

Amsterdam Focus Areas



Urban Green ICT Infrastructure



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Green IT Projects



- Test bed for smart grids
- “Powermatcher” at Science Park Amsterdam



- Urban planning and green infrastructures for data centre development
- ICT service innovation for energy efficiency
- Framework for transition “older” data centres



- IAAS, SAAS and PAAS: green sector clouds



- Green leverage services for key economic clusters



- Knowledge network green software



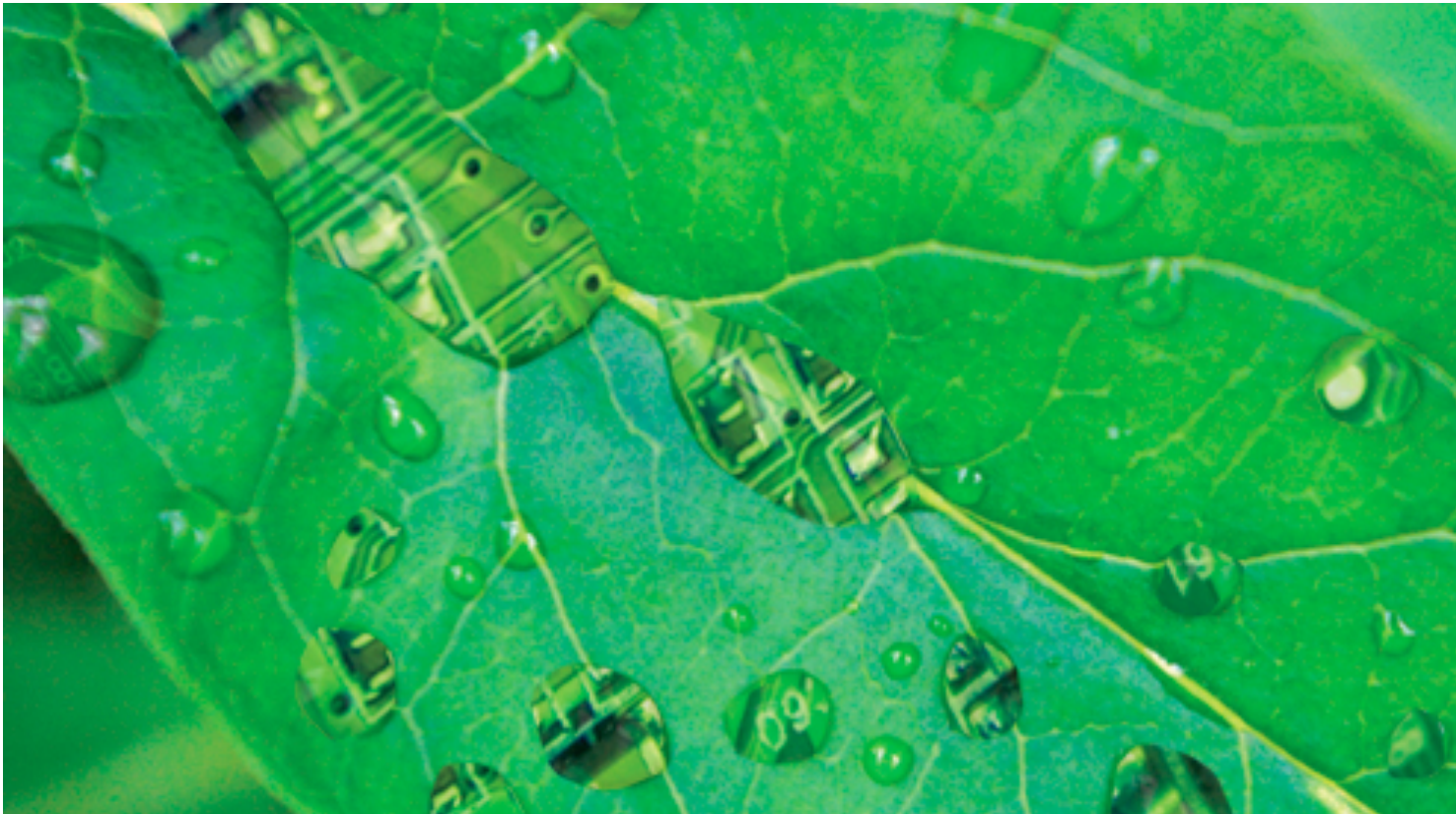
- Green education and on the job learning

Framework for transition of “older” data centres

- ❑ Multi Annual Agreements: 2% saving yearly 2005-2020
- ❑ Develop regulation
 - Mandatory energy efficiency plans
 - Clear targets
- ❑ Level playing field
- ❑ Connect to measuring and labeling initiatives
- ❑ Transparent market for energy efficiency services
- ❑ Develop national model for data centre sustainability



Green IT Together



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