



Cisco Borderless Networks: Green IT

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“Bern, 24.02.2010 - Der Bundesrat schliesst sich dem an der Weltklimakonferenz von Kopenhagen ausgehandelten "Copenhagen Accord" an. Er meldet der UNO-Klimakonvention, dass die Schweiz den Treibhausgasausstoss bis 2020 um mindestens 20 Prozent senken will.”

<http://www.uvek.admin.ch/dokumentation/00474/00492/index.html?lang=de&msg-id=31937>

“Manager denken zu kurz, wenn sie die Diskussion um die globale Erwärmung nur als Herausforderung für ihre Öffentlichkeitsarbeit begreifen. Viele operative Verbesserungen schützen die Umwelt und senken die Kosten gleichermaßen. Strategische Initiativen können sogar zum entscheidenden Wettbewerbsvorteil werden.” (Michael E. Porter)

<http://www.harvardbusinessmanager.de/heft/artikel/a-713450.html>

Was bedeutet “Green IT” für Cisco ?

- **Produkte:**

Produktion energieeffizient
konzipieren und den Stromverbrauch
der Produkte durch innovative
Ansätze reduzieren !

- **Kunden:**

Wir bieten Lösungen an, welche
unsere Kunden dabei unterstützen
ihre Umweltschutz-Ziele zu erreichen.

- **Mitarbeiter:**

Wir motivieren unsere Mitarbeiter sich
mit dem Thema auseinanderzusetzen
und sich zu engagieren.

- **Geschäftsprozesse:**

Unsere eigenen Arbeitsabläufe
optimieren !

“By 2012, we
will reduce
our total
greenhouse
gas emissions
by
25%”

Was wir direkt beeinflussen können !

Virtual Worker
Remote Collaboration
Resource Virtualization

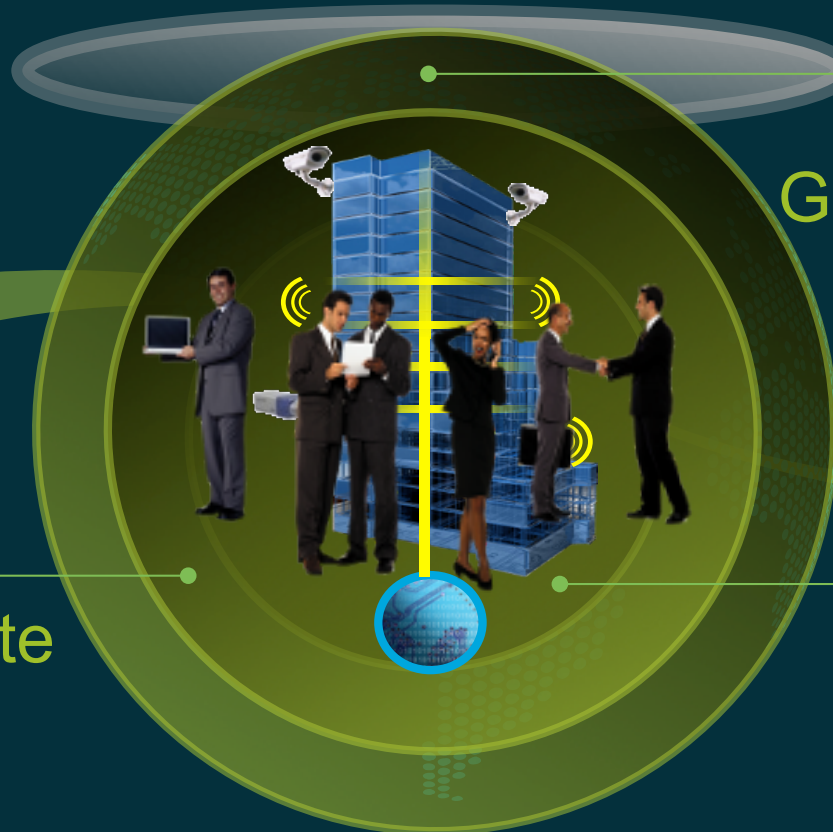
**Innovative
Geschäftsprozesse**

**Energieeffiziente
Produktion**

Extended Lifecycle
Optimized Processes
Simplified Architectures

**Weniger Energie
verbrauchen**

Power Management
Tracking & Reporting
Infrastructure Consolidation



Wie erreichen wir unser Ziel bis 2012 ?

1

Cisco Green Datacenter: Konsequente Server und Netzwerk Virtualisierung mit Cisco UCS und Cisco Nexus, Konsolidierung von Anwendungen und Implementierung eines intelligenten Strommanagements.

2

Cisco 3.0 Technologien: Einsatz unserer Collaboration Technologien wie Cisco WebEx, Cisco TelePresence und Cisco Unified Communications um Geschäftsreisen auf ein Minimum zu reduzieren.

3

Green culture: Mitarbeiter motivieren über ihren möglichen Beitrag zum Umweltschutz der Firma nachzudenken und alle dazu nötigen Ziele und Informationen vergügbar zu machen.

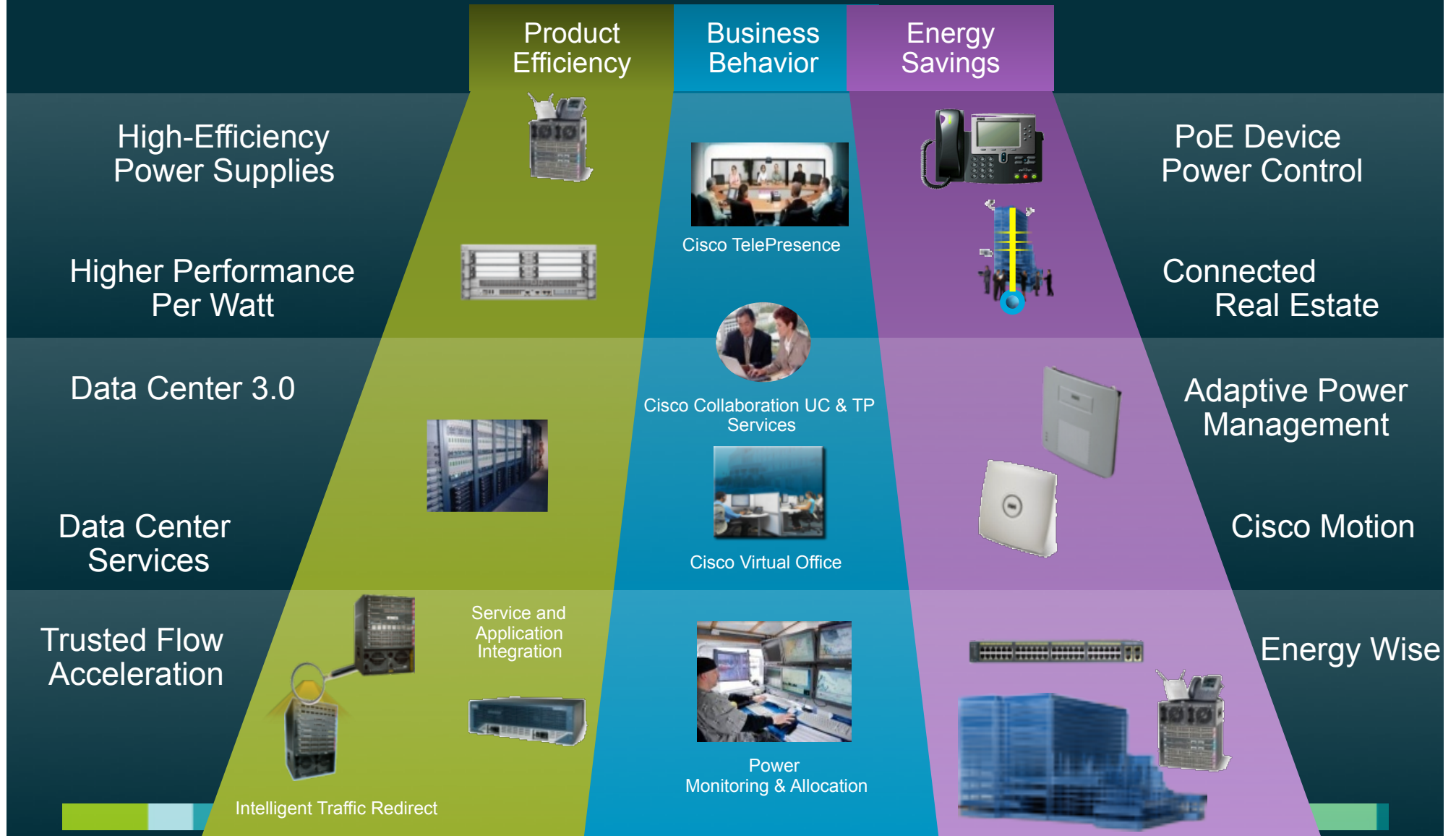
Und was haben wir schon erreicht ?

Mitte 2009: 40% Reduktion der GHG Emissionen !



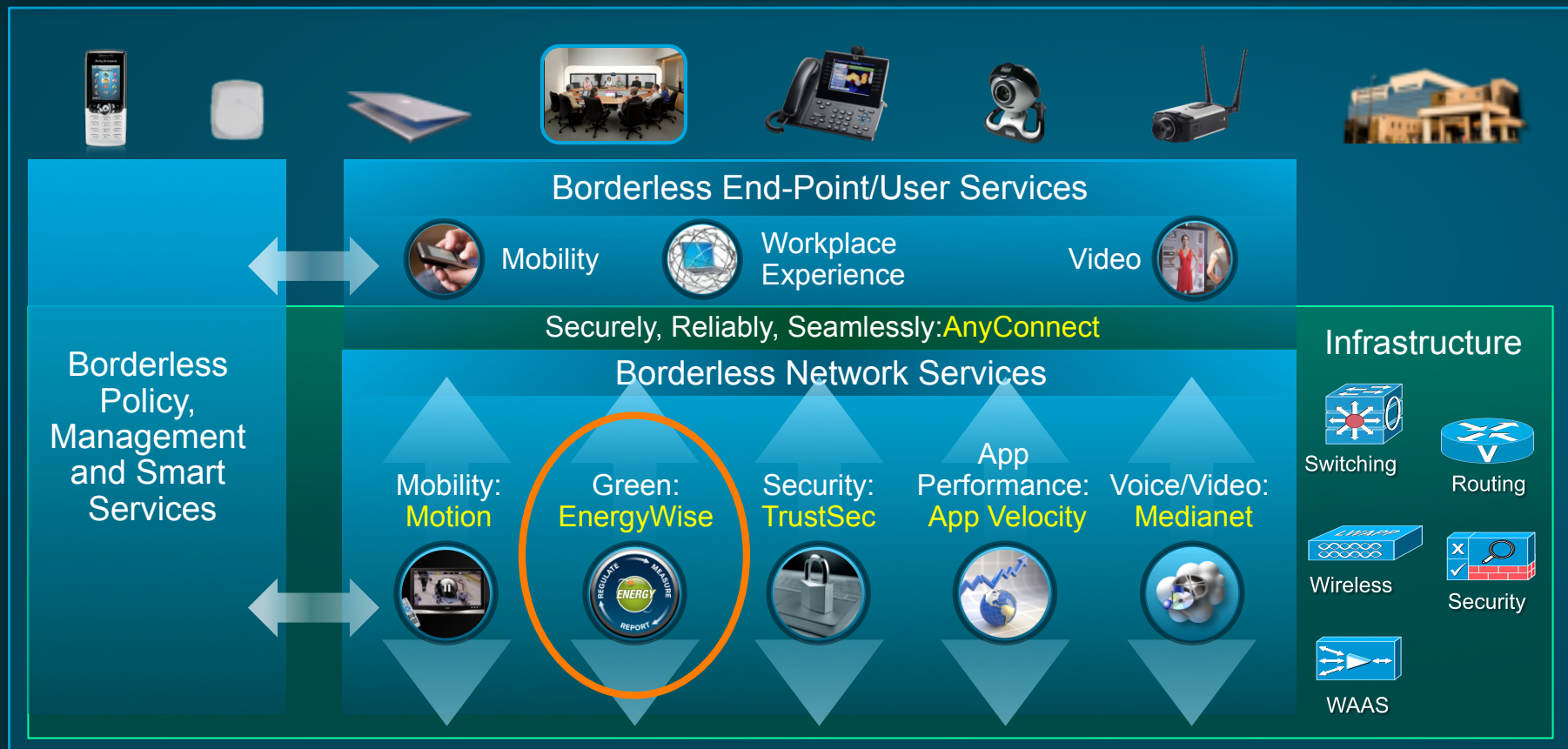
- Umbau von unseren Labs und Datacenter
- Cisco connected Workspace
- Einsatz von unseren eigenen Collaborations Technologien

Cisco Green IT Innovationen



Cisco Borderless Network Architecture

Architecture for Agile Delivery of the Borderless Experience



Cisco EnergyWise

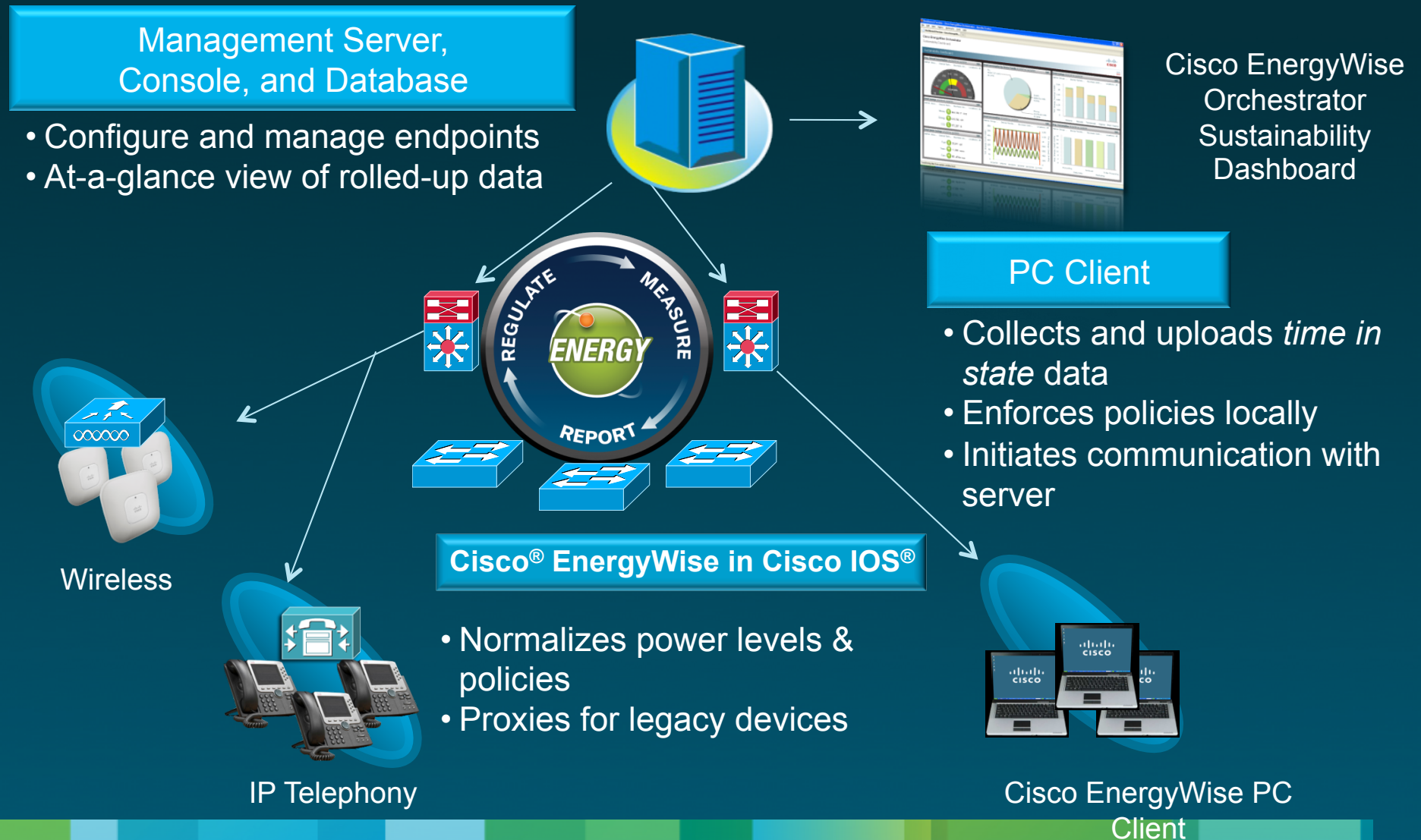
Policy basierende
Optimierung des
Stromverbrauchs



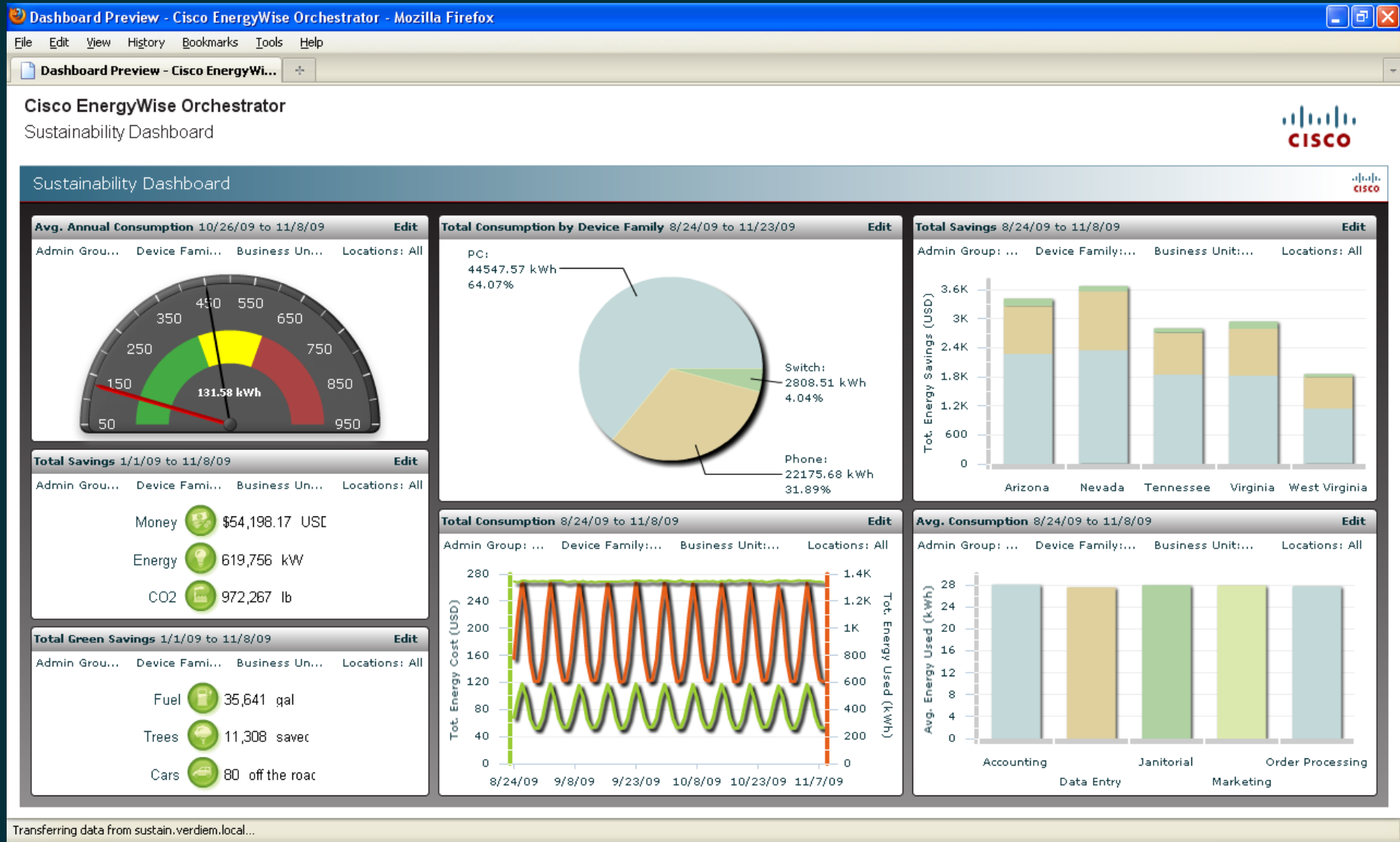
Regelmässige
Abfrage des
Stromverbrauchs von
Network-Attached
Geräten wie IP
Telefonen, WLAN
Access Points, PC's
und
Gebäudesystemen

Anzeigen des Stromverbrauchs
und Korrelation der Stromdaten
um Actions auszulösen

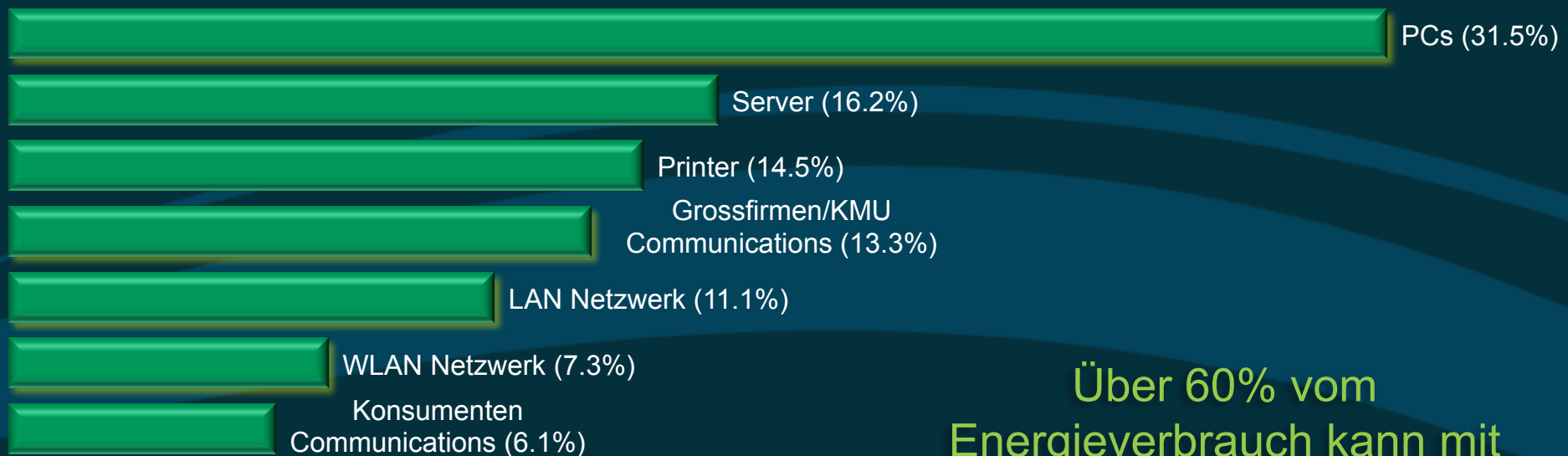
Cisco EnergyWise Funktionalität



Orchestrator Sustainability Dashboard



Wo wird Cisco EnergyWise eingesetzt?

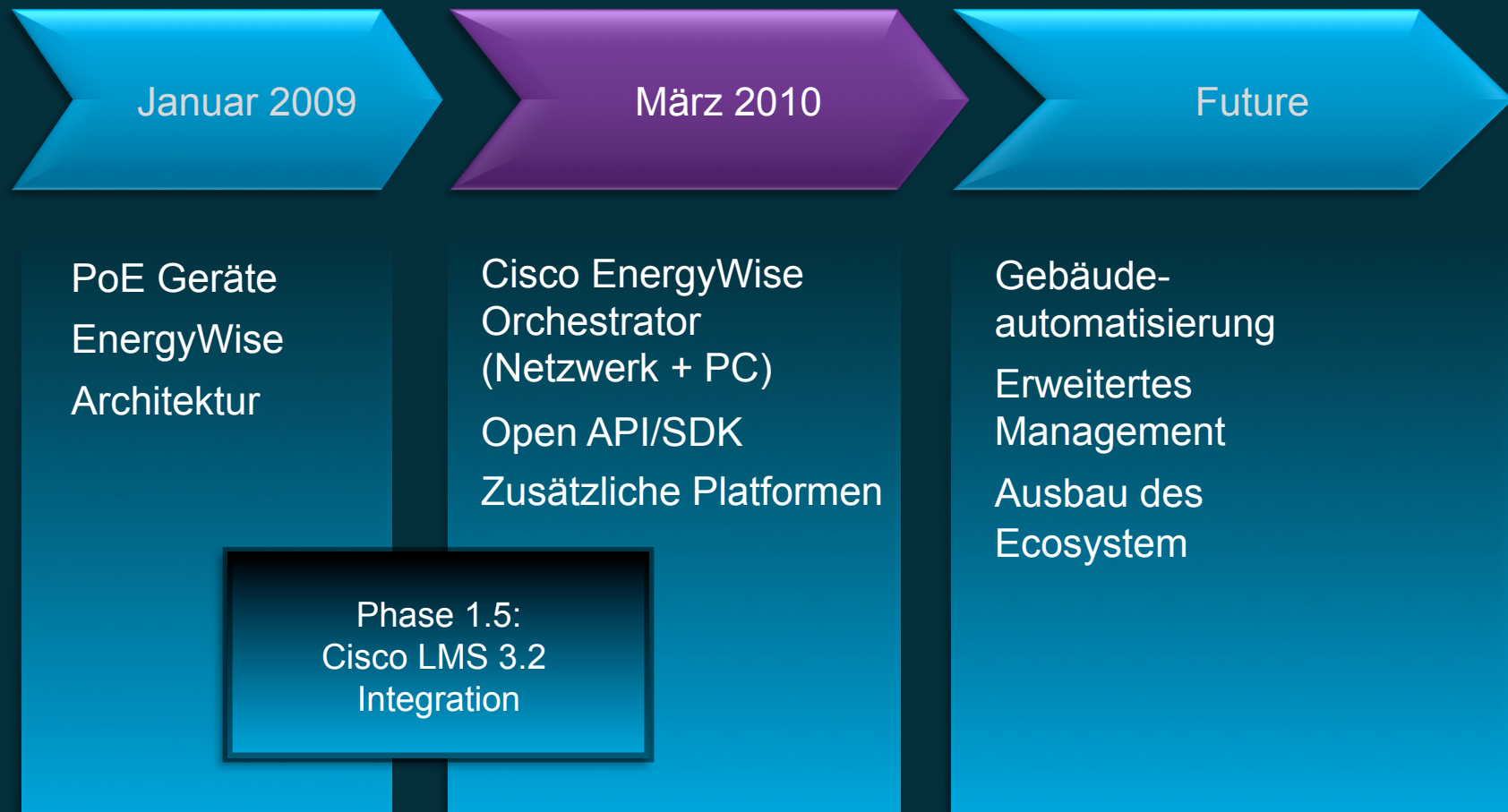


Über 60% vom
Energieverbrauch kann mit
Cisco EnergyWise
gemanaged werden.

**Source: Gartner Dataquest, Forecast of IT Hardware Energy Consumption, Worldwide, 2005-2012.*

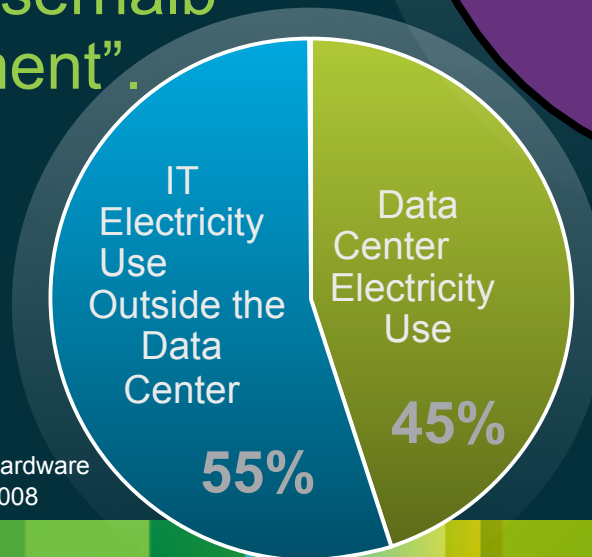
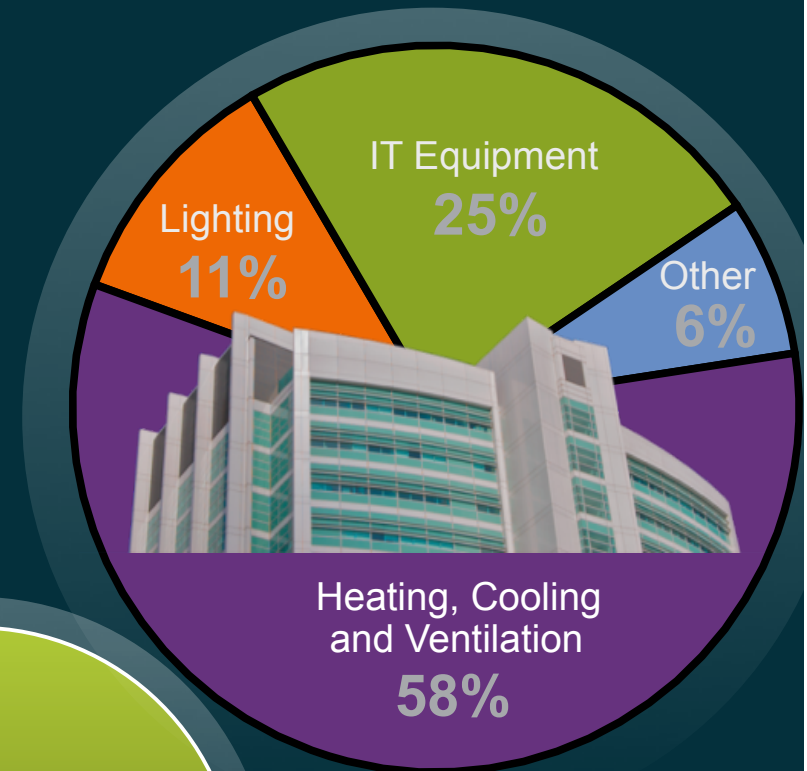
Cisco EnergyWise Roadmap

FY10



Beitrag von Cisco EnergyWise

- Die IT Industrie erzeugt 2% von den weltweiten GhG Emissionen.
- Belichtung erzeugt 20% von den weltweiten GhG Emissionen.
- Cisco EnergyWise adressiert auch Sparpotenziale ausserhalb der Kategorie "IT Equipment".



Source: Forrester, Enterprise And SMB Hardware Survey, North America And Europe, Q3 2008

Source: UK Energy Efficiency Best Practice Program; Energy Consumption Guide 19: Energy Use in Offices

Cisco Green Business Value Calculator

**CISCO** Cisco Green Business Value Calculator

DATA

Your Profile

Assumptions

Notes

Your industry or vertical market

Select One

Predominant company location

Select One

Number of employees in your organization

0

Number of large sites (200+ employees)

0

Average number of employees at each large site

0

Number of medium sites (50-199 employees)

0

Average number of employees at each medium site

0

Number of small sites (1-49 employees)

0

Average number of employees at each small site

0

RESULTS

Effects Summary

Costs and Savings

GHG Emissions

Energy Savings

Watts

10X
8X
6X
4X
2X

Year 1

2

3

\$

10X
8X
6X
4X
2X

Year 1

2

3

GhG Emission Reduction

CO₂ tons

10X
8X
6X
4X
2X

Year 1

2

3

82% of goal



Trees Saved
X 100,000



Mid-Sized Cars Removed
X 10,000



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<http://www.cisco.com/go/energywise/>

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Cisco Confidential

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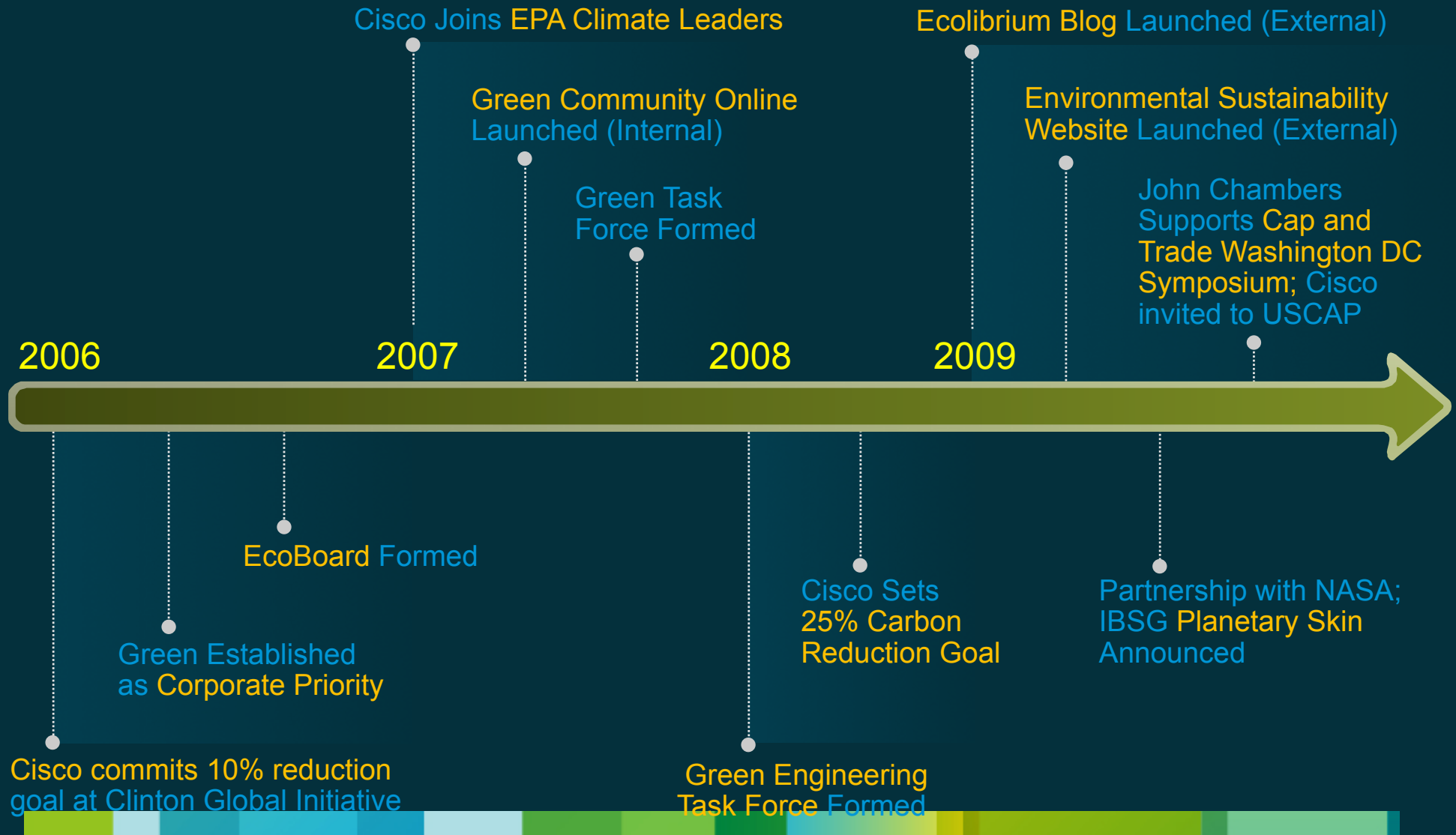
Thank you.



Backup Slides



Cisco's Green Milestones



Highlights aus dem letzten Geschäftsjahr

FY10 Performance Highlights

- Cisco TelePresence facilities introduced by partners in 25 public locations, extending access to virtual face-to-face meetings that reduce travel impacts
- An average of 225,000 virtual meetings per day hosted on our online collaboration tool Cisco WebEx
- One additional site certified to ISO 14001, bringing the total of Cisco sites certified to 26
- 12 percent reduction in Scope 1 and 2 GHG emissions from operations. Scope 3 GHG emissions from air travel were 45 percent lower than the FY06 baseline. Both are in line with our commitment to reduce all Scope 1, 2, and business-air-travel Scope 3 greenhouse gas emissions worldwide by 25 percent absolute by calendar year 2012
- 19.3 million people hours of virtual meetings at Cisco using our collaboration solutions
- 4128 "green pledges" made by employees

See our [Report Card](#) for full data on our environmental performance.

<http://www.cisco.com/web/about/ac227/csr2010/environment/index.html>



Summary 70/100

Cisco leads the field on the second straight Leaderboard, showing strong leadership in solutions and advocacy. Along with [Fujitsu](#), Cisco has demonstrated quality analysis and metrics associated with its solutions offerings, and should follow Fujitsu and [Wipro](#)'s lead in putting this toward a future savings goal for its products and services. Cisco marked the largest point gain in advocacy since [Version 3](#), primarily for its strong work in the European Union.

While Cisco did finally [weigh in](#) to oppose Proposition 23 in California, its policy advocacy in the U.S remains far behind its efforts in the EU, and stronger statements from CEO John Chambers on the need for government policies to drive IT solutions would significantly enhance Cisco's leadership standing.

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- › Supply Chain Footprint
- › Political Advocacy
- › Speech
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- › Repetition Bonus
- › Negative Lobby Penalty
- › Cisco's scores to date

Climate Solutions

31/40

Current Savings Calculations

19/20

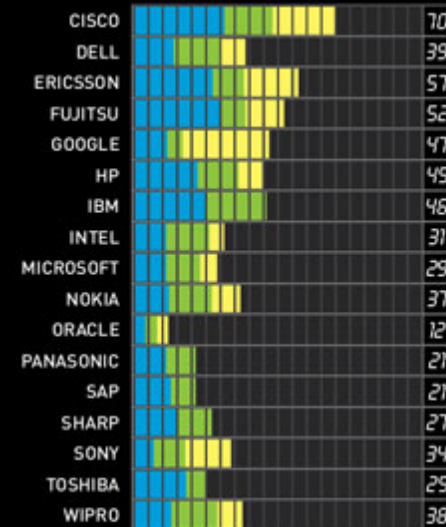
Cisco sets the bar for the solutions category by providing an extensive and detailed submission with strong pre- and post-intervention data, well-explained assumptions, and support for the development of standards. Cisco provides numerous energy management solutions, such as

Leaderboard

Cisco

COOL IT LEADERBOARD

VERSION 4: NOVEMBER 2010



SOLUTIONS

ENERGY IMPACT

ADVOCACY

The Cool IT leaderboard evaluates top IT companies on their efforts to provide economy-wide climate solutions, reduce emissions from their own operations, and lobby for science-based climate and energy policies.

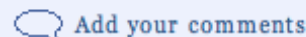
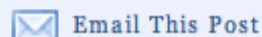
GREENPEACE

www.greenpeace.org/coolit

<http://www.greenpeace.org/international/en/campaigns/climate-change/cool-it/leaderboard/Cisco/>

December 8, 2009

Cisco Reduces Net GHG Emissions by 40%



Indicators	FY06	FY07	FY08	FY09
GHG Emissions				
Net global GHG emissions Scope 1 (metric tons CO ₂ e)	270,000	50,400	50,000	50,100
Net global GHG emissions Scope 2 (metric tons CO ₂ e)	370,000	400,000	350,000	370,000
Net contractual GHG emissions Scope 2 (metric tons CO ₂ e)	240,000	400,000	240,000	220,000
Net annual GHG emissions Scope 1 (metric tons CO ₂ e)	100,000	200,000	100,000	100,000
Change in net GHG emissions from FY06 to FY09 (net global)		-85%	-85%	-85%
Net contractual GHG emissions Scope 1, 2 and 3 (metric tons CO ₂ e)	500,000	500,000	500,000	500,000
Change in Scope 1, 2 and 3 net GHG emissions from FY06 to FY09 (net global)		-40%	-40%	-40%

[click to enlarge image](#)

RELATED STORIES

Green Tech Helps Cisco Cut Emissions

Cisco has reduced its greenhouse gas emissions (GHG) for scope 1, 2 and 3 by 40 percent compared to fiscal year 2007, by implementing energy-efficiency programs, using collaboration technologies to reduce business air travel, and contractual efforts including the purchase renewable energy, according to the company's fifth annual **corporate social responsibility report** (PDF).

The **environmental portion** (PDF) of Cisco's CSR report focuses on environmental impact, GHG emissions, product materials content, waste, water supplies and land use/biodiversity.

Here are some of the highlights.

<http://www.environmentalleader.com/2009/12/08/cisco-reduces-ghg-emissions-by-40/>

Personalized Business Power Savings

Business Objectives:

- Eliminate unoccupied energy waste

Solution:

- Catalyst® Switches with EnergyWise
- IP Phones, WLAN, PC, IP connected HVAC, lighting, Identity Reader

Business Value:

- Saves energy when employees away
- Increases security
- Saves about 0.8 tons/carbon/person
- Total savings for a 200 person office:
325,850 kWh – 163 tons CO2 -
€22,800 annually - like driving a car
around the world 22 times

Employee Arrives -
EnergyWise Notified



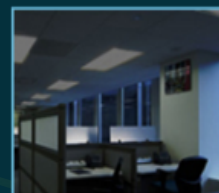
Temp



Phone



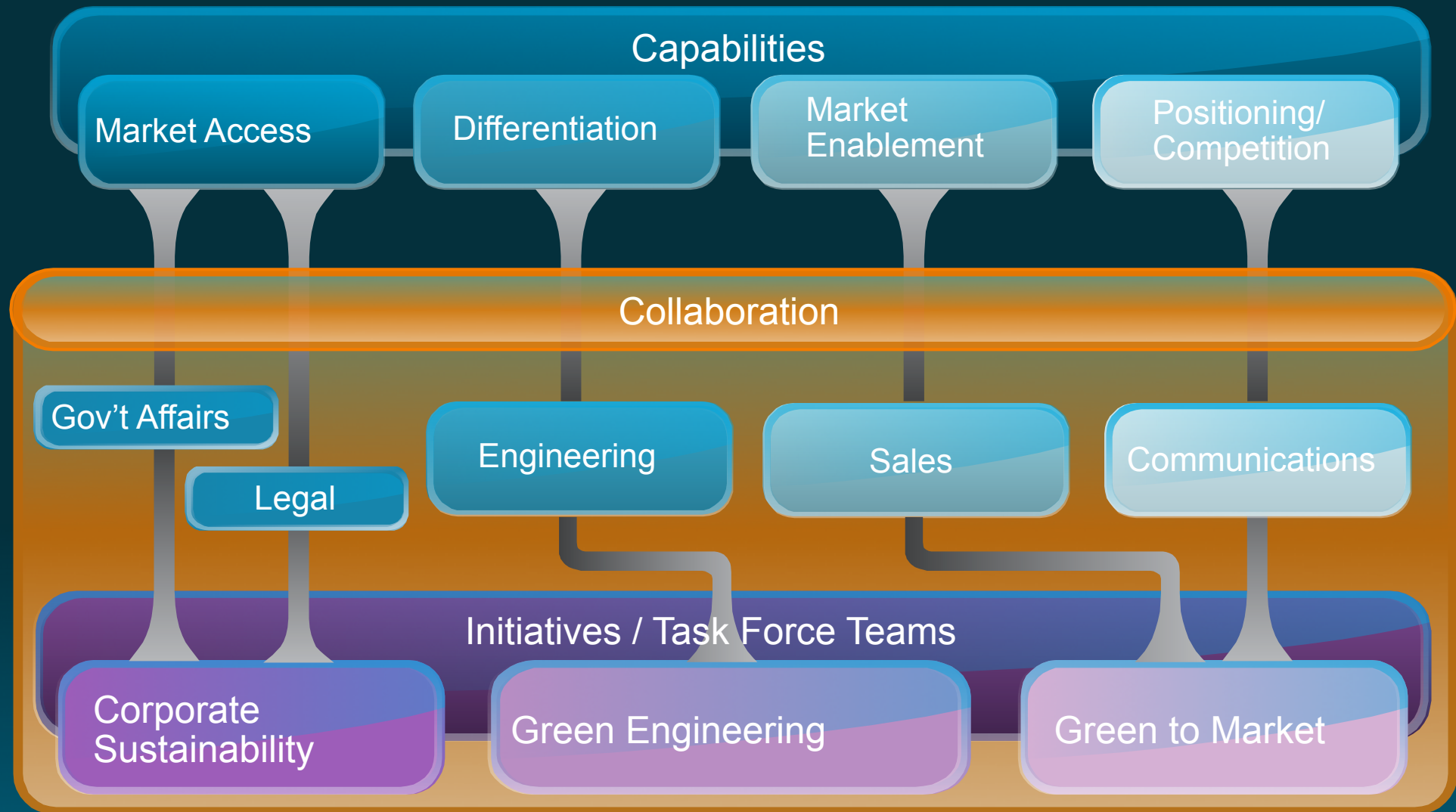
WLAN



Lights



EcoBoard Cross-Functional Structure



Innovations to Network Architecture

Network Architectures



Greener Events

- Event Marketer magazine recognized Cisco's 2008 CIO Summit with a silver award in the Best Green Event/Tradeshow category of its annual Ex Awards.
- In May 2009, Cisco held its inaugural Virtual Strategic Leadership Offsite. More than 3,000 participants rated the event a 4.3 on a scale from 1-5 (5 being the highest rating).
- In September 2009, 19,000 sales employees gathered for GSX — the first ever program of it's size. The event saved 150,000 hours in air travel and reduced Cisco's carbon emissions by 37,500 tons



Commitment to Standards

Cisco is playing a leadership role in the development and consistent application of environmental standards.

By actively participating in these organizations, groups, and others.



How a Small Part of the Problem Can Be a Big Part of the Solution



SMART 2020: Enabling the low carbon economy in the information age

- According to the SMART 2020 Report, **ICT could reduce global emissions up to 15% by 2020**; five times its own footprint in 2020.
- Key requirements to capture opportunity:

New Business Models
Energy Efficiency
R&D Investments
New Ecosystems
New Regulatory Models
Active Carbon Markets

How a Small Part of the Problem Can Be a Big Part of the Solution



MONITOR

MANAGE

REDUCE

Make Every Connection a Greener Connection

- Electricity use in offices
- Appliances in homes
- Traffic flows in cities

“Through enabling other sectors to reduce their emissions, the ICT industry could reduce global emissions by as much as 15 per cent by 2020 - a volume of CO₂e five times its own footprint in 2020.”

<http://www.theclimategroup.org/publications/2008/6/19/smart2020-enabling-the-low-carbon-economy-in-the-information-age/>