

# Going **green** with CDIS

Work efficiency from anywhere

Hannover – March 4th, 2009  
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## Agenda

1. Ecological aspects of thin clients
2. The task
3. The solution
4. Future perspective
5. Q&A

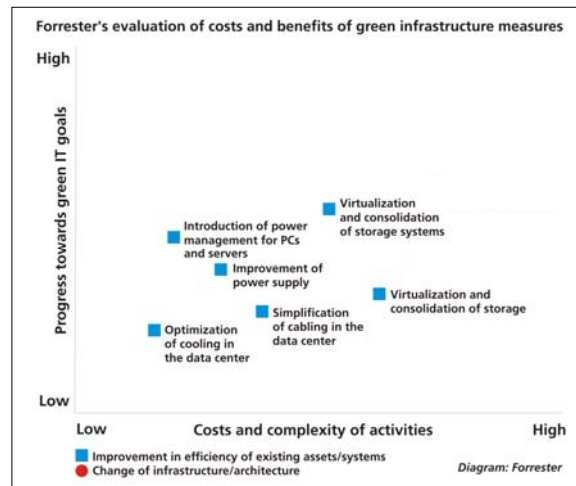
## 1. Ecological aspects of thin clients

- Fraunhofer UMSICHT
  - Terminal services and thin client in place since 1997
  - >50% of daily sessions running on terminal servers
- Report: “PC vs. Thin Client – Economic Evaluation”
  - TC and SBC help lowering TCO by 30%
  - <http://it.umsicht.fraunhofer.de/PCvsTC/>
- Report: “Environmental Comparison...”
  - TC and SBC help lowering CO<sub>2</sub>eq emissions by more than 54%
  - <http://it.umsicht.fraunhofer.de/TCecology/>

## 1. Ecological aspects of thin clients

- Life cycle assessment (LCA)
  - Production, manufacturing, distribution, operation, eol
  - EuP Lot 3 final report: <http://www.ecocomputer.org>
  - Aggregated data set per standard PC, notebook, monitor...
  - Exemplary comparison with “IGEL 3210 LX Compact”
  - Global Warming Potential (GWP) → “CO<sub>2</sub> equivalent (CO<sub>2</sub>eq)”
  - More than 54% savings of kg CO<sub>2</sub>eq emissions possible
- Calculation based on “conventional” technology
  - Standard 19“ rack servers
  - 32-bit operating systems

## 1. Ecological aspects of thin clients



Source: Computer Zeitung No. 6 (February 4th, 2008)

## 2. The task

- Our goals
  - Improve technology
  - Transfer technology
  - Change...
    - Infrastructures
    - Architectures
    - Workflows
    - ...if necessary
- Our project
  - Renewable energies
  - Development of a "Woodchip Gasifier Plant"



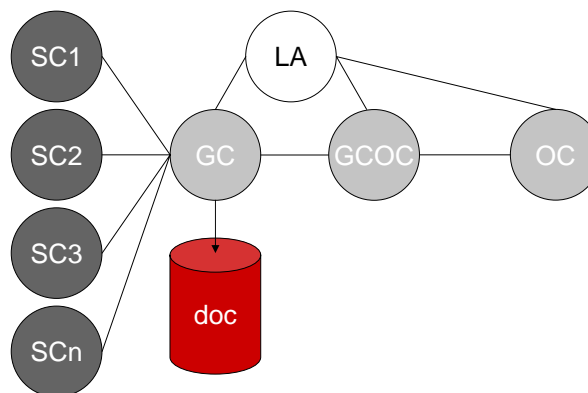
## 2. The task

Planning a power plant: How it works today

- A lot of project partners with different scopes
- A lot of documentation, which is paper based!
- Static documents, linkage between the documents is bad
- Acceptance process needs a lot of time
- Delay in payment due to long acceptance process
- Changes produce a new set of paper based documents
- Documentation costs about 6-10% of the budget

## 2. The task

Overview of the partner relation

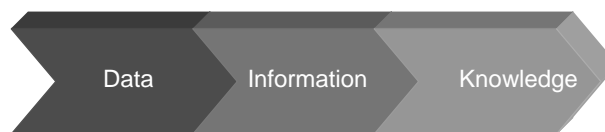


## 2. The task

- Phases of the plant's lifecycle
  - Engineering
  - Clearance
  - Construction, acceptance
  - Operation & maintenance
- Trouble exceeds throughout the plant's lifecycle
  - Distribution of new revisions of documents
  - Hard to keep documents compliant with each client's guidelines
  - Backup of documents is expensive
  - Information will be lost if documents are destroyed by fire or theft

## 3. The solution

Our Vision:



Access, view and edit information any time,  
anywhere, from any device!

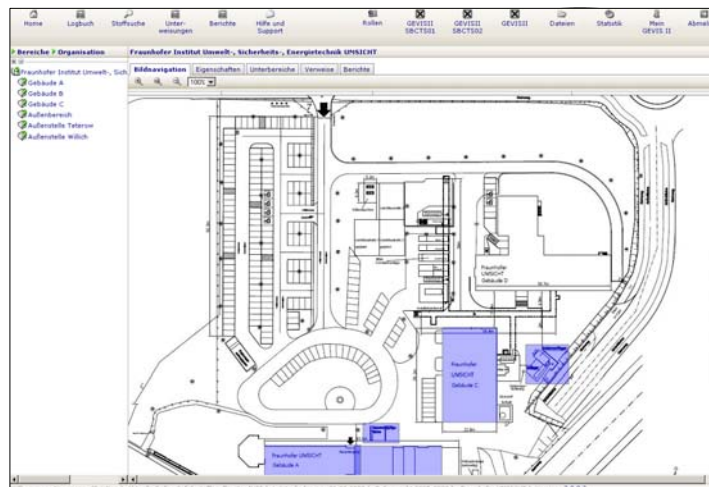
### 3. The solution

Objectives:

- Information Management
- Rights Management
- Collaboration: Access to shared documents
- Workflows: Coverage of recurring business processes
- IT operations based on ITIL and/or COBIT
- Consistent online backup
- Scalability, Reliability

### 3. The solution

From GEVIS...



### 3. The solution

...to CDIS



### 3. The solution

- Expected benefits: less expensive, faster, better!
  - Shorter ways between different suppliers
  - Efficient collaboration
  - Less redundancy in content
  - Changes in documents directly trigger customizable workflows
- Saving money *and* CO<sub>2</sub>eq emissions!
  - Expected cost reduction including all effects of about 500,000 €
  - Expected savings of CO<sub>2</sub>eq emissions more than 32.8 t
  - In spite of expanding IT usage during the lifecycle!
  - Potential in Germany > 100 woodchip gasification plants

## 4. Future perspective

- Additional modules to ease access for mobile users
- Integration of online conferencing
- Software-as-a-Service (SaaS)
  - Develop platform to become a shared hosting solution
  - Transfer technology to other businesses
- Business agility and expansion
- Additional CO<sub>2</sub>eq savings
- Many additional financial and security benefits

Thank you for your attention – Questions?