



Save@work4homes

Moulins Habitat Project in Moulins

Ancona 21-22/04/08

Specification for Energy Awareness Services

Site of Moulins

- The Save@work4homes project joins in a more global method of rehabilitation of 2 000 apartments
- The south districts of Moulins were thus appointed as main experimental site to achieve the Save@work4homes project

- Main experimental site: south districts of Moulins (Champin, Ilot Thonier, Champmilan, Nomazy)
- Furthermore, MH decided to extend the field of studies to 100 flats in city center and to his offices to make sensitive the staff in energy savings

- Final objective: to generalize the data collection of energy consumptions to its whole patrimony not only to make sensitive his tenants in energy savings as well as to allow a decline of maintenance costs but also to estimate the performance of the various modes of construction or rehabilitation used

Data collection on the various energy consumptions and in various scales

- Partnership with EDF and VIZELIA on the implementation of a system of follow up of the energy consumptions
- Various global energy consumptions of each of the concerned buildings measured and transmitted to MH

- With the data collection, MH will be able to estimate the performance of these buildings and to detect possible problems of leak and decrease
- Furthermore, these data collected by apartments will be transmitted individually to the tenants who can then follow in almost real time their current level of consumption

Tested prototypes of energy awareness services

Context, origins and objectives

- To have a better control of energy expenses to reduce the cost for our tenants
- To have a fine control of energy expenses: to make our tenants aware of necessity to adopt some new behaviours

- 3 essential points of the MH field trial are:
 - reorganisation of boiler room control;
 - installation of heat consumptions displays in apartments
 - awareness-raising measures to be launched based on this infrastructure

- Tenants will be provided with status information on Web-TV and Agir
- Each apartment will be provided with a display showing the state of energy consumption (heating, domestic hot water, electricity, gas) in real time.
- Informations gained from sensors on the rising feeds

- The display will be simple and visual
- The display will indicate if consumption is excessive or not
- Information on consumption will be added to the dialogue box that each tenant has at his disposal via the intranet (including communication on the dangers of excess energy consumption)



The VIZELIA Green Building Solution

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January 25th, 2008

VIZELIA Green Building

**IT system for owners performance driving
and tenants pro-active utilities saving**

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Agenda



Vizelia introduction

Main challenges

Solution

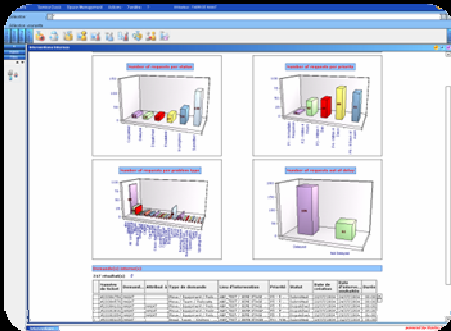
Deployment

User case

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VIZELIA

Company



- VIZELIA software provider for Global Building Management
- Unequaled experience in high volume projects
- Full web collaborative framework

- Unique solution which combines:
 - Knowledge database
 - Collaborative tools
 - Dashboard

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Buildings burn the 46% of total final energy in France...

24/01/2008 Source
ADEME

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... and generate the 23% of green house effect gases, hence aprox. 2 tons of CO₂ per year per person

- Aiming at an eco-efficient building portfolio



How to combine Building Performance and Sustainable Development ?

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■ Incentive to manage energy

■ **Operating costs**

- Decrease operational costs by utilities efficient policy

■ **Regulatory compliancy**

- Continuous utility monitoring to be compliant with EU rules and recommendations, today and tomorrow (CO2 emissions, efficiency certificates...

■ **Quality and image**

- Strengthen innovative image and company performance improvement
- Factually display utilities efficiency of buildings portfolio

Utilities optimization is a fantastic opportunity to catch both for : tenants and social housing companies



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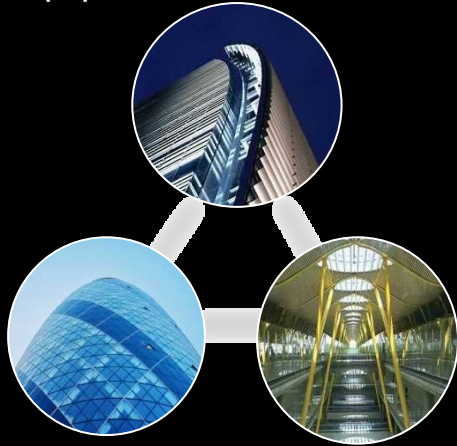
User case

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■ A multi-factor issue

Buiding and Maintenance

Materials, isolation, lighting
Equipments maintenance



Per day medium electricity consumption



External factors

Brightness, external
temperature
Contacts

Usage

Destination of buildings
Human behaviour

Utilities consumptions are linked with global package of heterogeneous factors

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- Benefits

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**Real
time**



**Remote
management**



**Performance
driving**

**IT system allows mutualize driving of
heterogeneous building portfolio**

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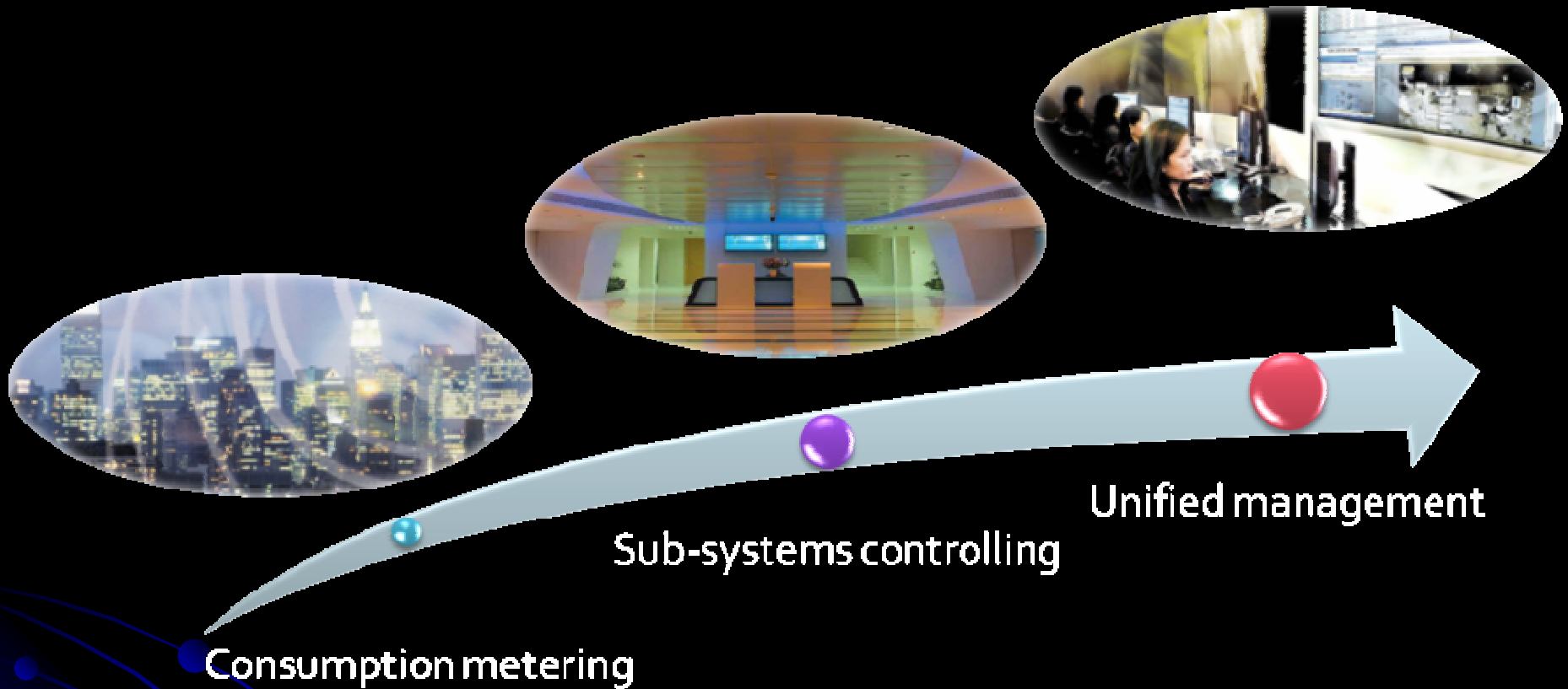


Deployment

User case

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- A fully evolutive solution



**We illustrate the 3 steps deployment of the
the VIZELIA Green building solution**

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- Enhanced technology for Automatic data collection

Radio signal



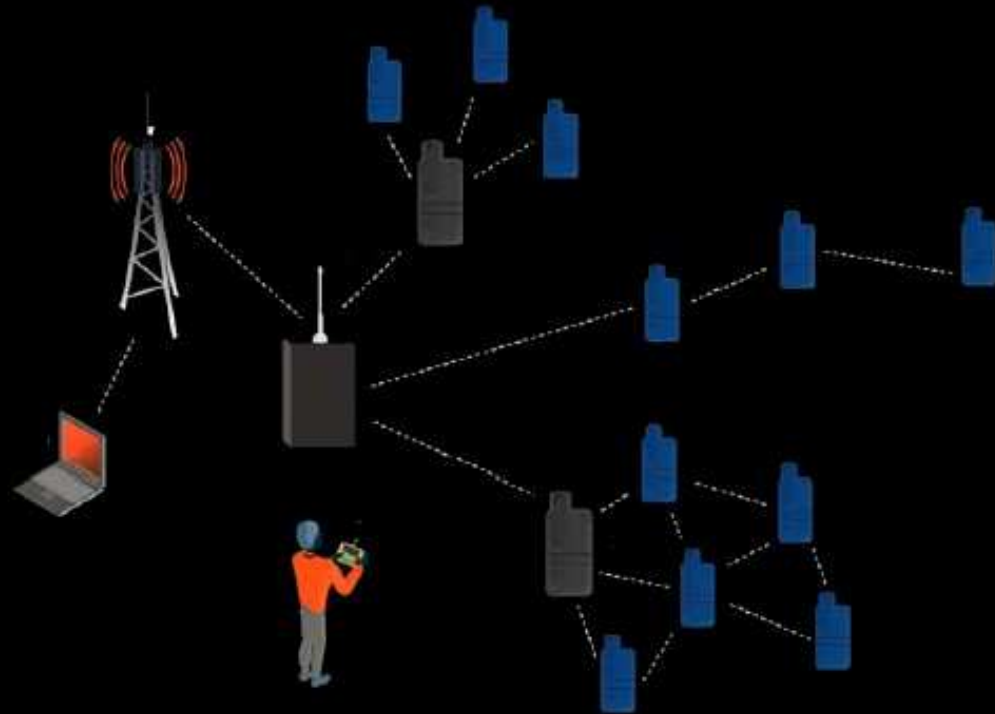
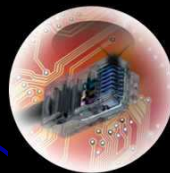
Wifi



GSM network



Internet



**Data collection is fully integrated within
VIZELIA Green Building solution**

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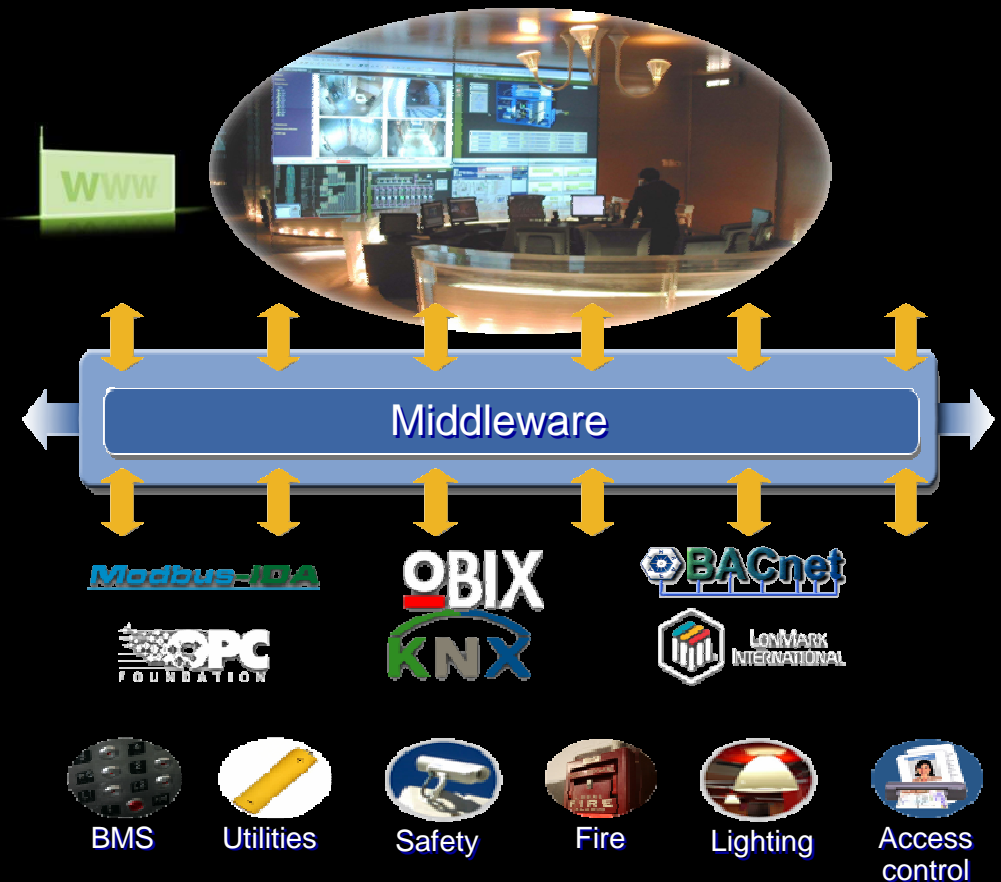
■ Build-up your Centralized Command Center

■ Mutualize your resources

- Make unique vision of technical equipments
- Centralize utilities metering
- Offer new services to tenants

■ User Case

- Remote control of heating temperature equipment of 50 buildings



Ressources mutualization in unified centralized command center allows significant costs cut

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■ Interactive Tenant portal



My Weather Forecast



My energy consumptions



My alerts



Alertes Trucs News

De: Alerte Conso. électrique

Cher locataire,

Votre consommation électrique a augmenté de 25% sur le dernier mois.

N'hésitez pas à contacter notre équipe technique si vous avez des questions

Making available Innovative Services for Tenants

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■ Driving all your consumptions

Water
metering



Electricity
monitoring

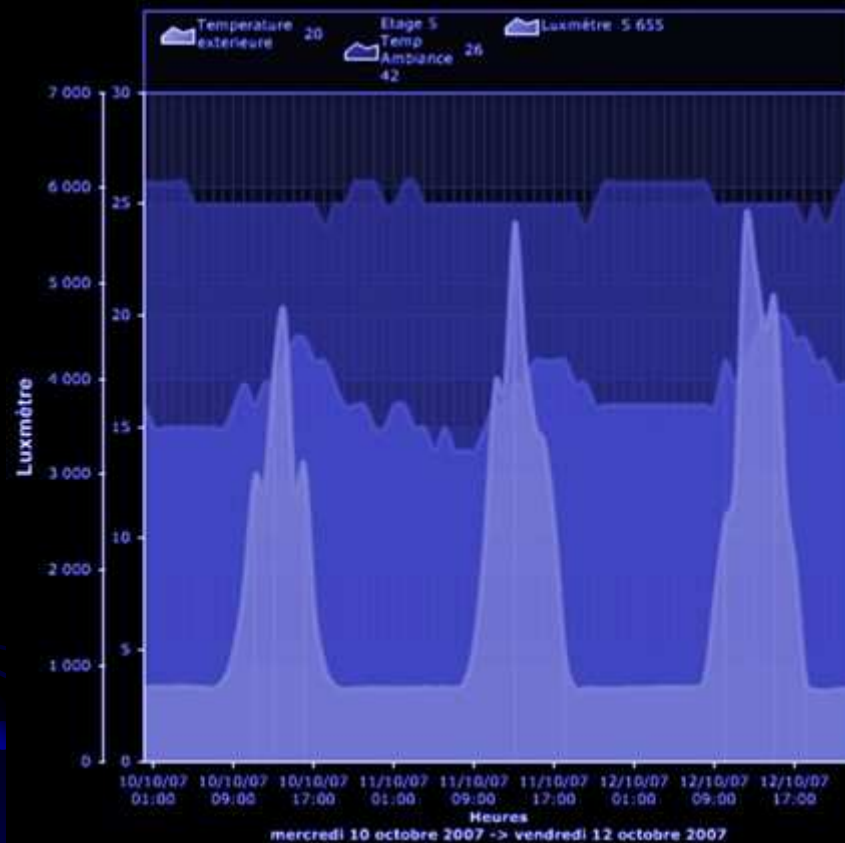
Gaz metering

Pro-active multi-utility metering: water, gaz, electricity, technical fluids, temperature...

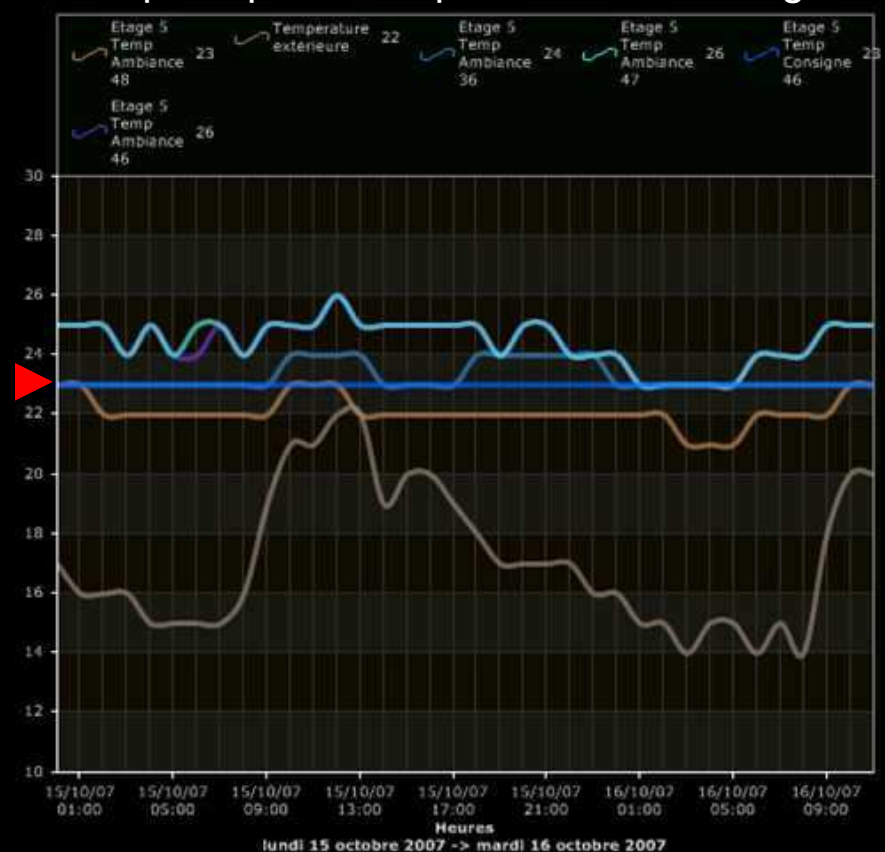
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■ Driving temperature

Thermal building profile



Open space temperature monitoring



A pro-active monitoring of facilities for tenants improved confort

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■ Automatically calculate home CO2 emissions

■ Regulations

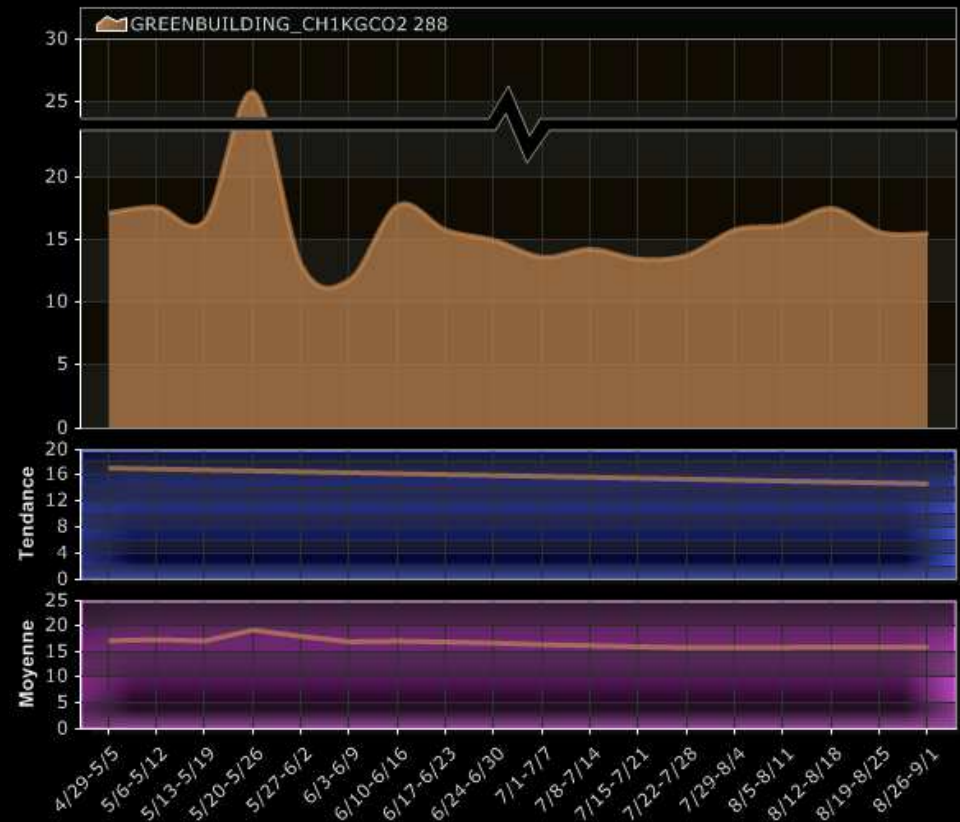
- CO2 emissions allowances market

■ CO2 emissions calculations

- CO2 emissions derives directly from overall energies metering (in kWatt)

■ Automatic integrated algorithm calculator

Real time CO2 emissions metering



CO2 management requires global vision of building opérations

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■ Interactive displaying in common areas

■ **Promote**

- Deploy an efficiency improvement strategy
- Improve corporate image

■ **Communicate**

- Influence tenants behaviour
- Show facts and results

■ **Broadcast**

- Follow-up Key Performance Indicators
- Issue automated News letters



Broadcast indicators and messages to influence tenants behaviour and public information

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■ Automatically generate alerts and work orders

■ Make your devices « talk »

- Automatically generate alerts and work orders based on sub-system management rules
- Eliminate complains from tenants and heavy administrative follow up
- Replace recurring control visits by « under condition » tasks

✓	%	Case Number	Requestor	Request type	Request location	Comments	Priority	Status	Creation Date	Required Date	Dur...
		#10001474	MAJAT	Conferenc...	PARIS - ATL...		P3 - Wd...	Submitted	27/10/2006	29/10/2006	30:23
		#10001472	MAJAT	Visit / Sub...	PARIS - ATL...		P3 - Wd...	Submitted	26/10/2006	30/10/2006	25:00
		#10001468	MAJAT	Visit / Sub...	PARIS - ATL...	reg old be changed	P3 - Wd...	Submitted	25/10/2006	26/10/2006	36:55
		#10001464		Fax - Copi...	PARIS - ATL...	Name : Xerox 84c1 Inferieur... Current value : 125 Date and Time : 10/24/2006... State : Normal	P3 - Wd...	Submitted	24/10/2006	25/10/2006	43:12
		#10001461	MAJAT	Conferenc...	PARIS - ATL...	Formular condition in PSETdd...	P3 - Wd...	Submitted	24/10/2006	25/10/2006	45:53

REQUEST DETAILS | HISTORY | ACTION PLAN | EQUIPMENT

Case Number: #10001464

First Name: []

Last Name: []

Initiated by: WPR

Request location: PARIS - ATLANTIS

Request type: Fax - Copier - Printer / Copier / Requires re-stocking

Priority: P3 - within 1 Day

Status: Submitted

Creation Date: 24/10/2006 14:13

Required Date: 25/10/2006 12:11

Comments: Name : Xerox 84c1 Inferieur 49
Current value : 125
Date and Time : 10/24/2006
State : Normal

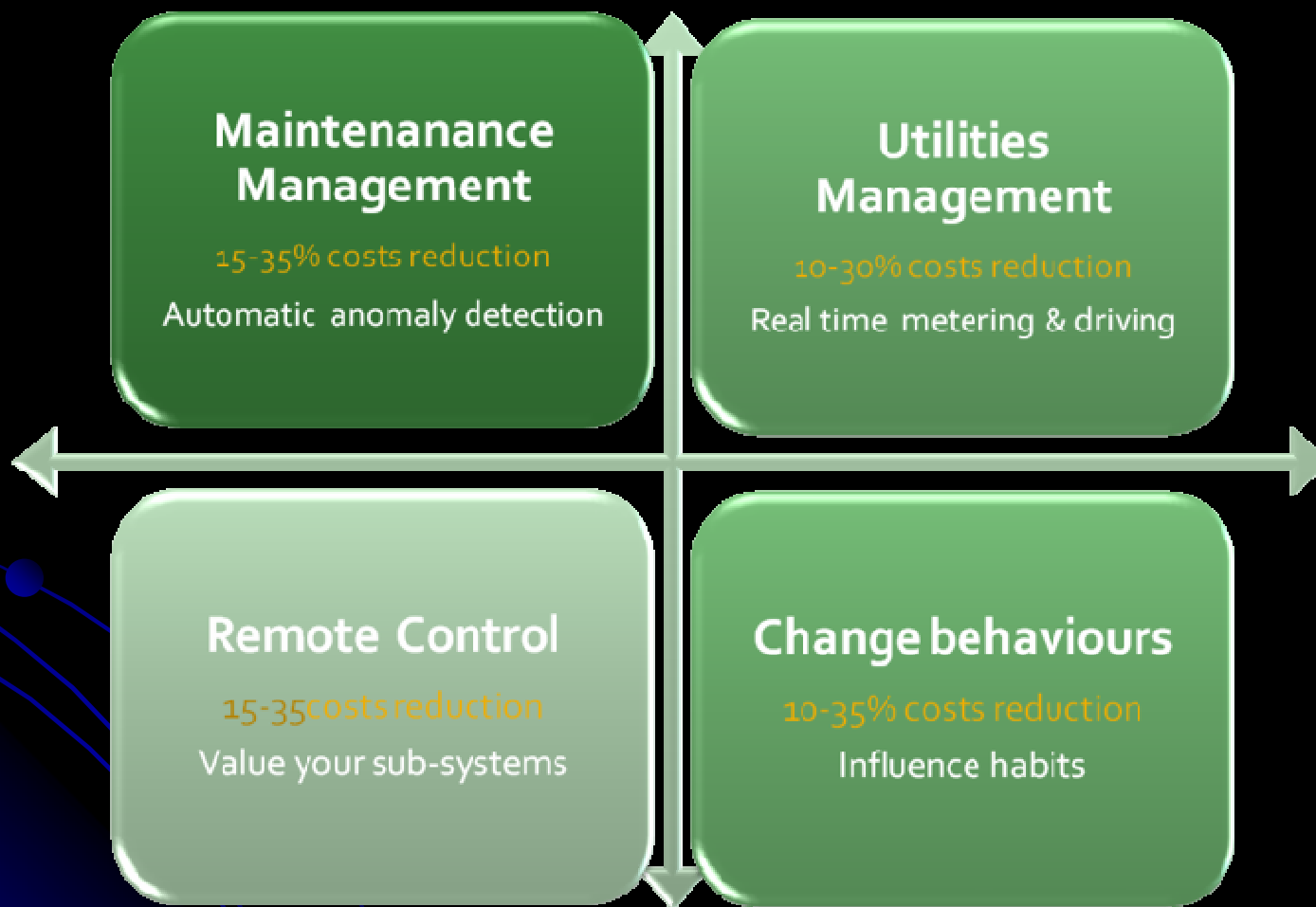
Automated request linked to abnormal utility pressure

Workflow integrated request

Act « just in time »

Synthesis

Return on investment



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More about us



Green Building Solution



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Thank you for your attention



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