



"If you can not *measure* it, you can not improve it."
Lord Kelvin 1824-1907

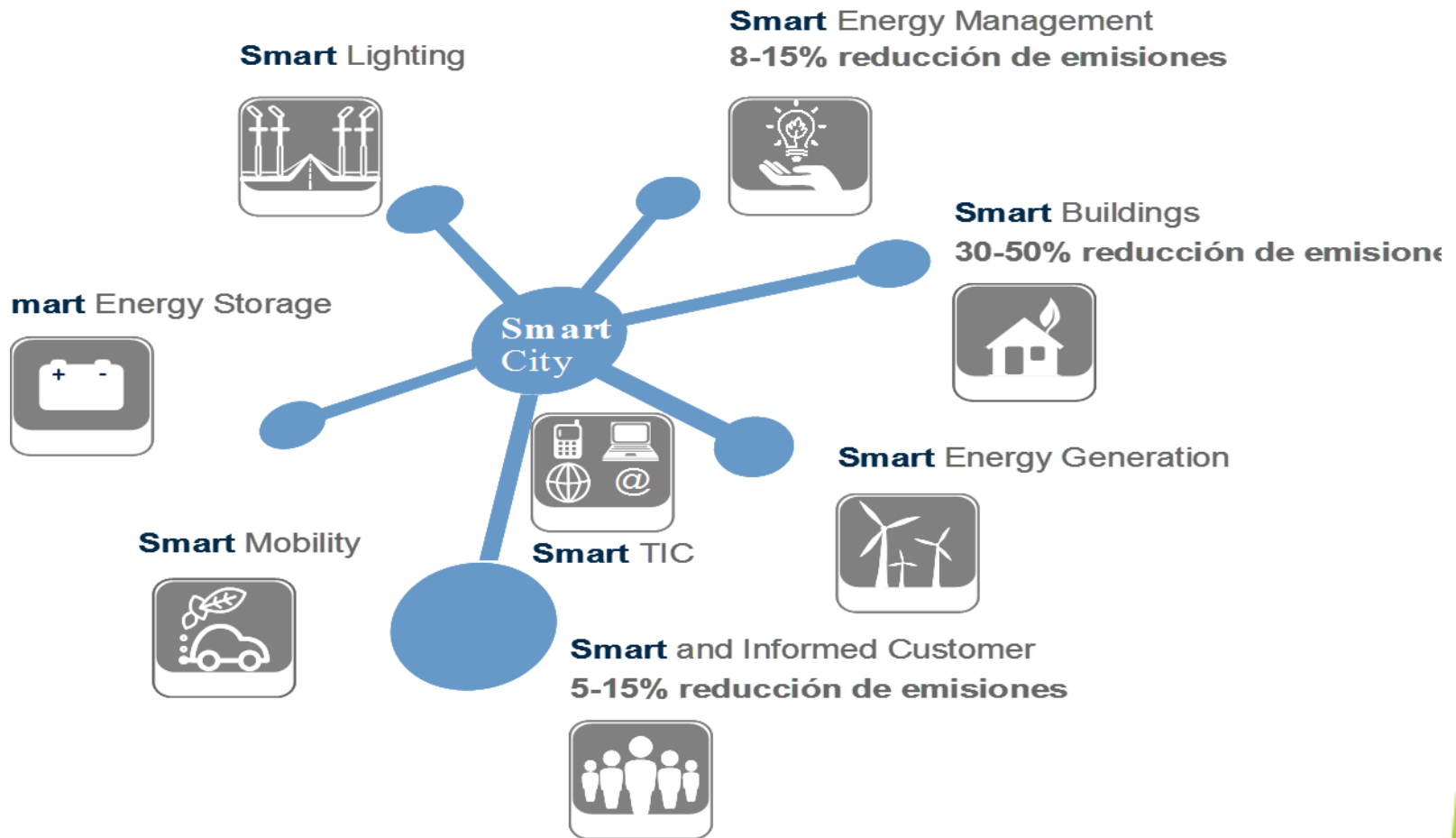
A close-up photograph of a hand holding a stack of five glowing, spiral-shaped light bulbs. The bulbs are illuminated from within, casting a warm, yellowish glow. The background is blurred, showing other hands and more light bulbs.

Comunidades de Baixo Carbono

Oportunidades de negócio para as PMEs
J Basílio Simões

3ª Conferência Cidades Inteligentes –
Cidades do Futuro
Lisboa E-Nova, Fórum Picoas, 02 de dezembro 2015

Smart TIC como motor da economia de baixo carbono...



Our Vision

Smart Homes / Smart Grids / Smart Cities

Public Buildings

Hospitals

Offices

Shops

Schools



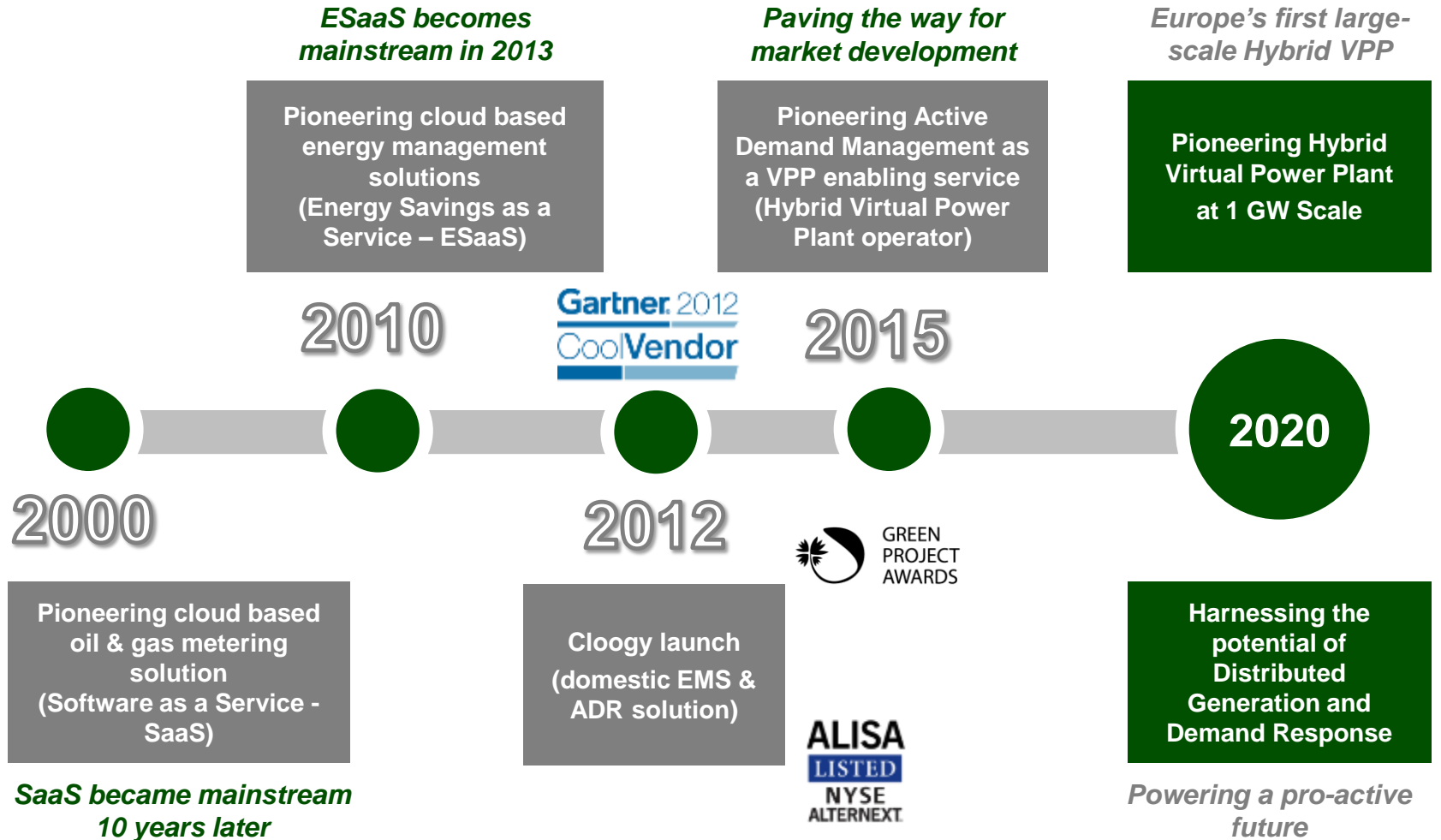
Retail

Water, Energy & Fuel

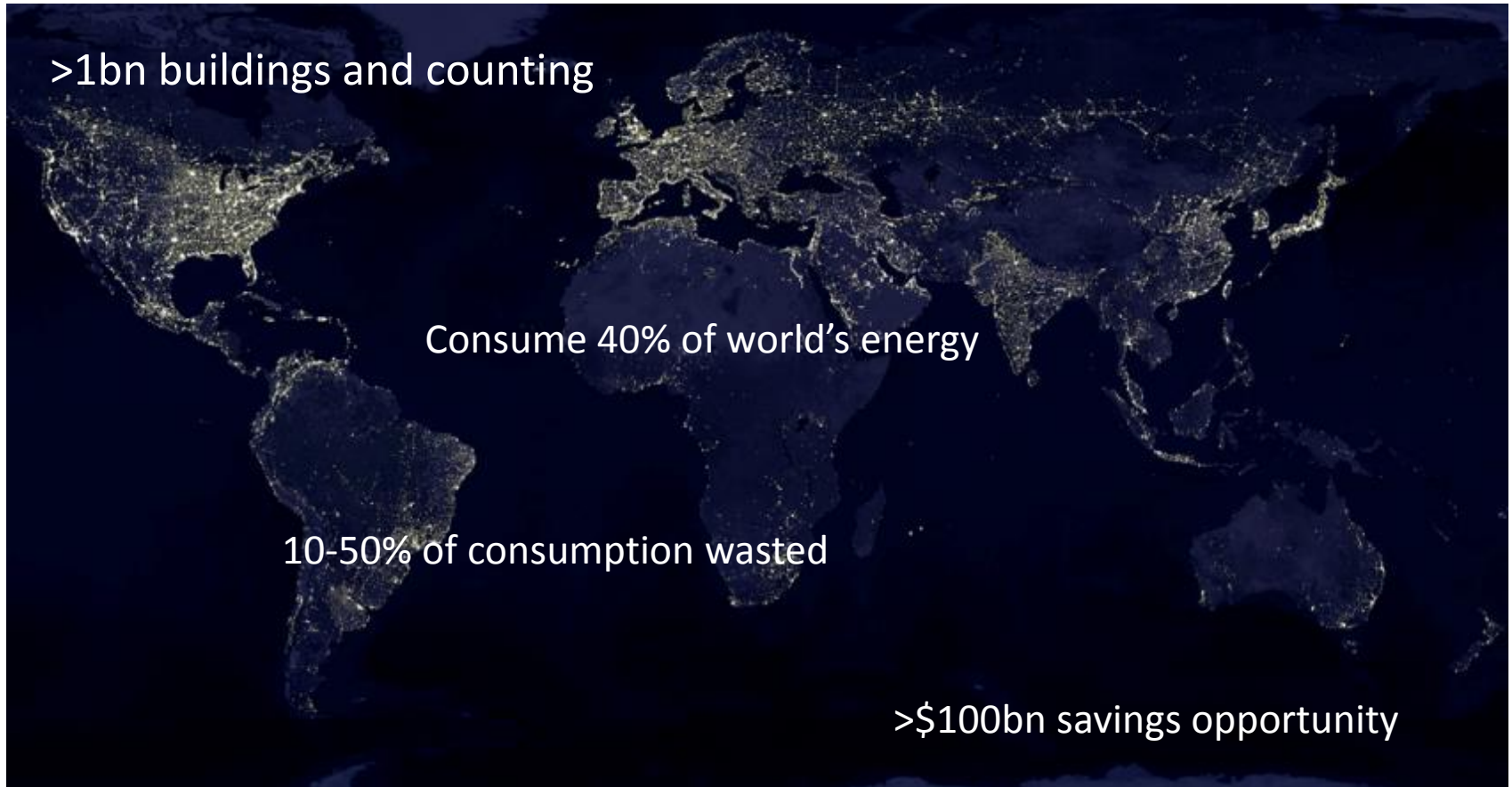
Industry

The available metering technology and the strategy followed to grow into the Oil & Gas Markets opened to ISA new and huge markets (smart homes, smart buildings, smart grids, smart cities).

HISTORY OF PIONEERING AND MARKET LEADERSHIP



Global opportunity: inefficiency in buildings



VPS PORTFOLIO COMPRISES HARDWARE, SOFTWARE, SERVICES AND CUSTOMER SUPPORT



VPS PROPRIETARY ENABLING TECHNOLOGY FOR PROFESSIONAL BUSINESSES



In traditional Chinese culture, *qi*, *chi* or *ki* is an active principle forming part of any living thing.
Qi, *Chi* or *Ki* is frequently translated as "natural energy", "life force", or "[energy flow](#)"



Monitor Control Save

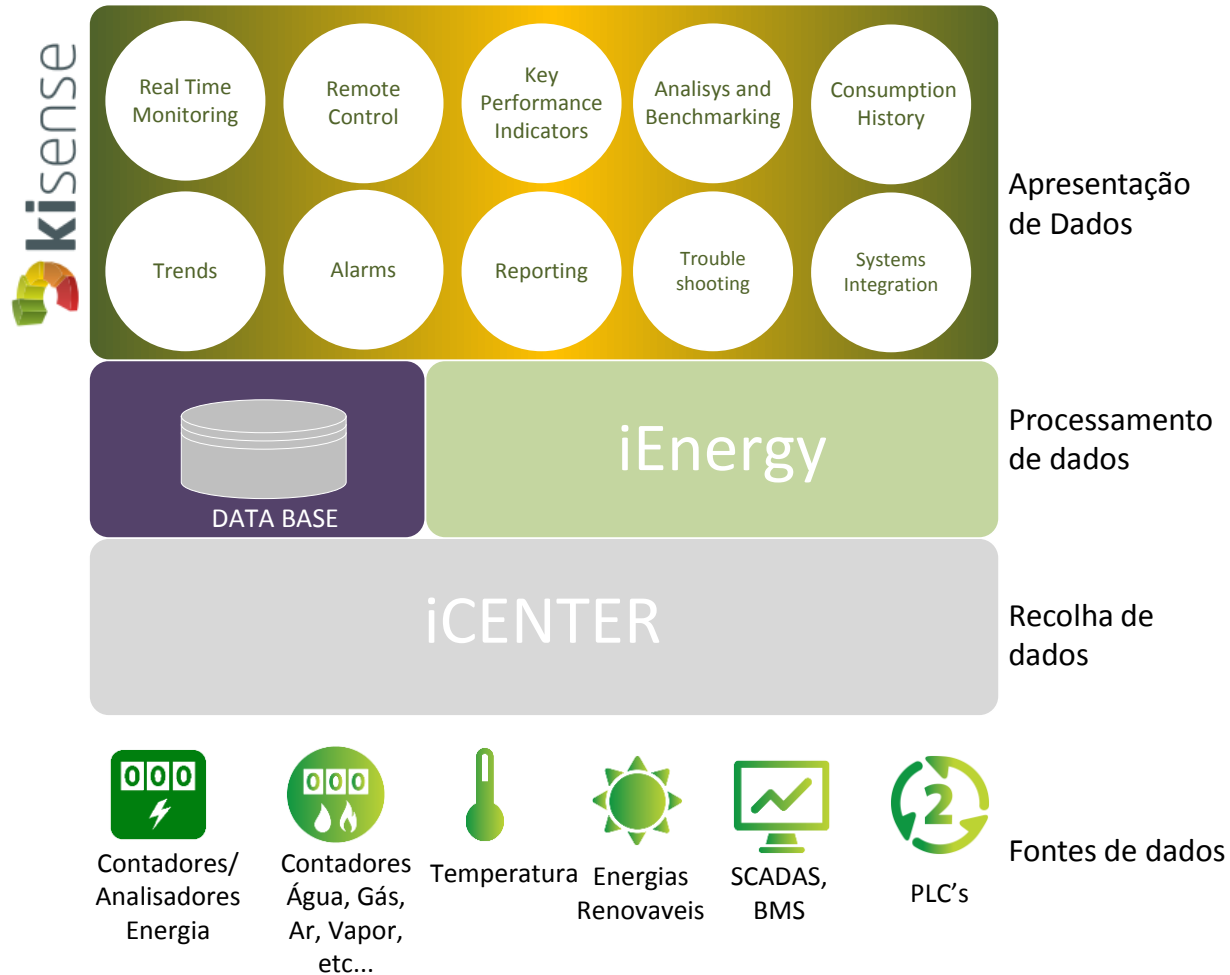


Sustainability

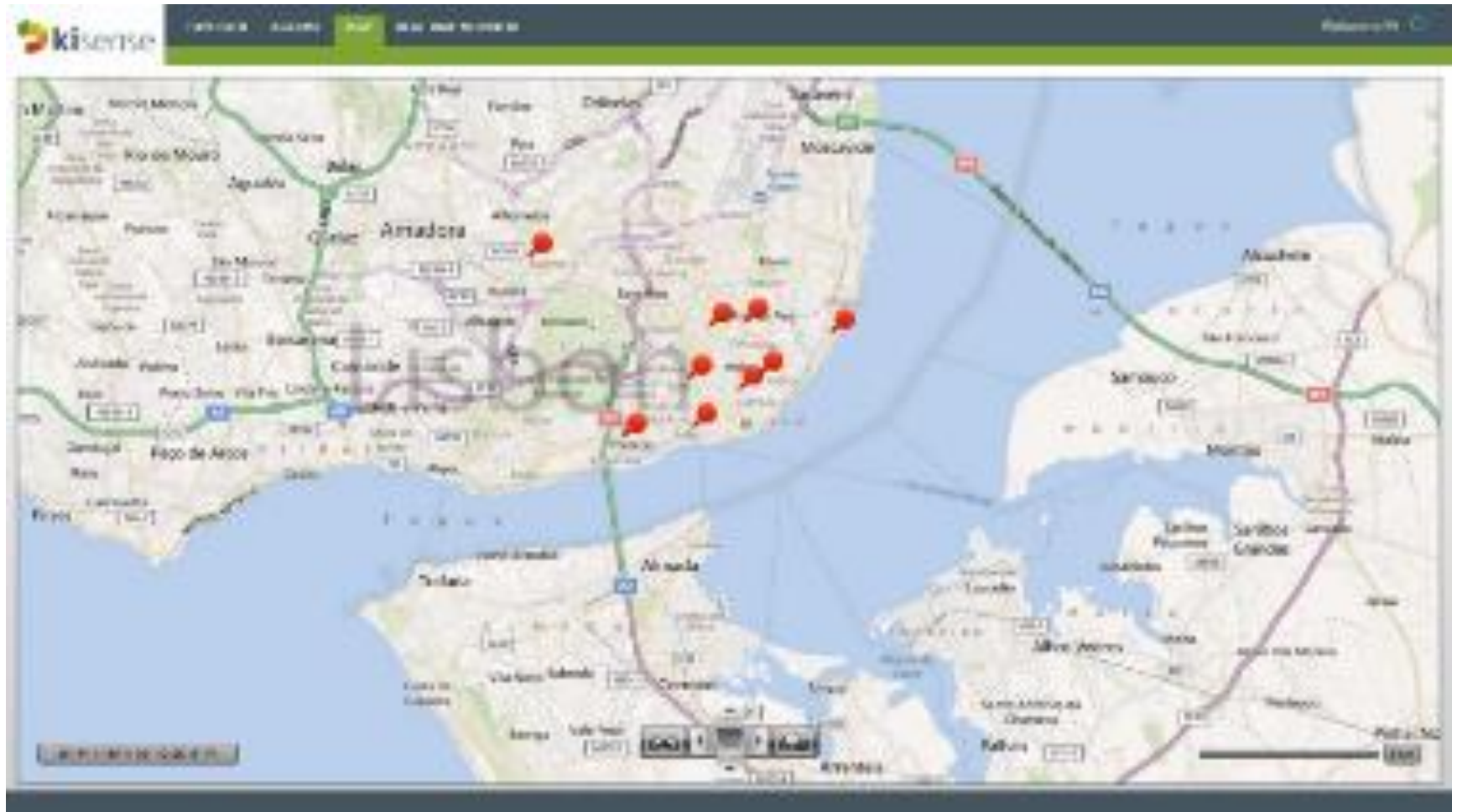


Enabler for smart-cities applications

Architecture of the Solution

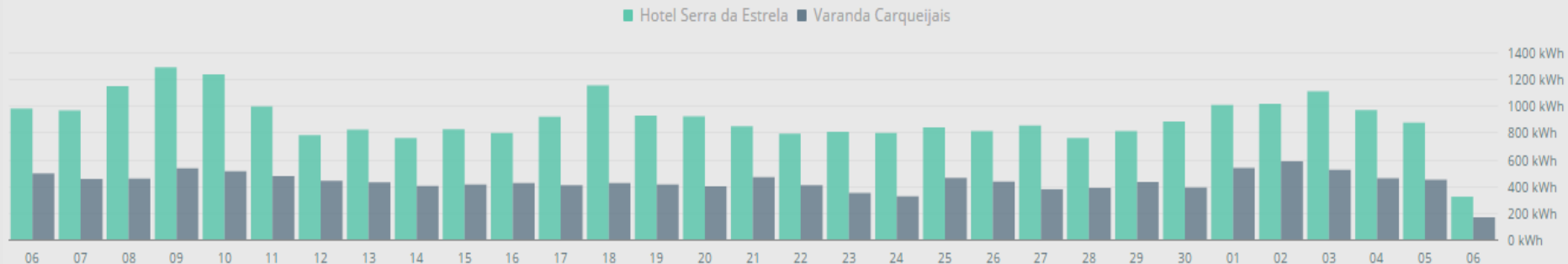


Map

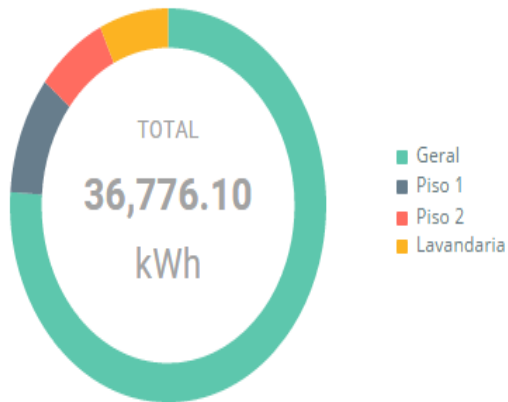


Consumo dos últimos 30 dias

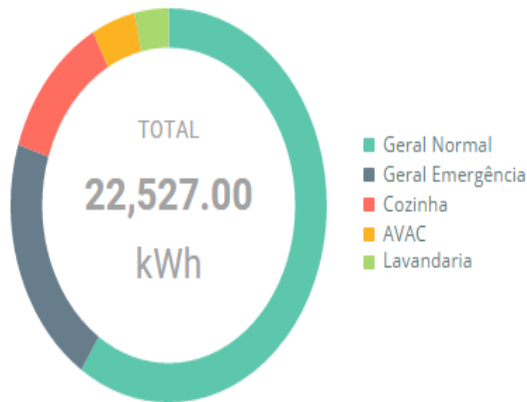
Segunda-feira, 06 Abril 2015, 00:00 - Quarta-feira, 06 Maio 2015, 00:00



HOTEL SERRA DA ESTRELA



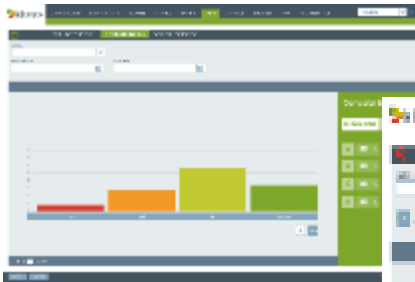
HOTEL DOS CARQUEIJAIIS



HOTEL DOS CARQUEIJAIIS

20.03°C

Reports, Alarms, Schedulings



A central dashboard interface featuring a calendar grid with blue and green cells. To the right, there are several input fields and buttons for configuration. The interface is clean and modern with a green and grey color scheme.

A dashboard interface showing a table with multiple columns of data, including numerical values and text. Below the table is a bar chart with a grid and a legend. The interface includes navigation tabs and search filters.

A dashboard interface featuring a large calendar grid with blue and green cells. To the right, there is a vertical sidebar with several icons and a search bar. The interface is clean and modern with a green and grey color scheme.

A dashboard interface showing a table with multiple columns of data, including numerical values and text. To the right, there is a vertical sidebar with several icons and a search bar. The interface is clean and modern with a green and grey color scheme.



Intelligent tools for multiple markets



- Finance
- Buildings
- Education
- Retail
- Tourism
- Industry
- Airports
- Healthcare
- SME
- Utilities
- Sports & Leisure
- Others

BANKING SECTOR

BES, MILLENNIUM, BANCO POPULAR



Scope

- HVAC central control (on/off and temperature setup)
- Lighting control based on effective occupancy
- Outdoors lights centrally controlled, maximizing solar day light usage
- Office equipments monitoring
- Implementation of coherent energy policies
- Behaviour transformation techniques (post-its, dashboards, gamification, incentives...)

Benefits (BES bank / 358 branches + 19 central buildings)

- Reduce Energy related costs of ~800 k€/year (22% savings)
- Payback < 2 years
- Energy efficiency policy implemented globally, involving the 5000 employees
- Reinforce of the energy efficiency internal competencies
- Reinforcing of the bank sustainability leadership



PESTANA HOTELS AND RESORTS



Scope (1st Phase)

Monitoring:

- 19 Hotels
- 99 Electricity Meters;
- 33 Gas Meters;
- 39 Water meters;



CENTRO HOSPITALAR E UNIVERSITÁRIO DE COIMBRA, EPE



Scope

Monitoring:

- 20 Electricity Meters;
- 4 Gas Meters;
- 6 Water meters;





Scope

Airport Energy Monitoring:

Mainland:

- Sá Carneiro (Porto),
- Portela (Lisboa),
- Faro.

Azores Islands:

- Santa Maria,
- Horta,
- João Paulo II (Ponta Delgada).

The project includes:

- 2.308 electricity energy management.
- 347 water monitoring
- 19 gas monitoring
- 110 fuels.





Automated Demand Response on Industrial SMEs

ADR trial funded by ERSE under PPEC program. Aims to test the ADR capabilities and benefits for customers and Electric System

- 160 SMEs;
- 3 Electricity Meters (Main + 2 Partial);
- 3 ADR outputs

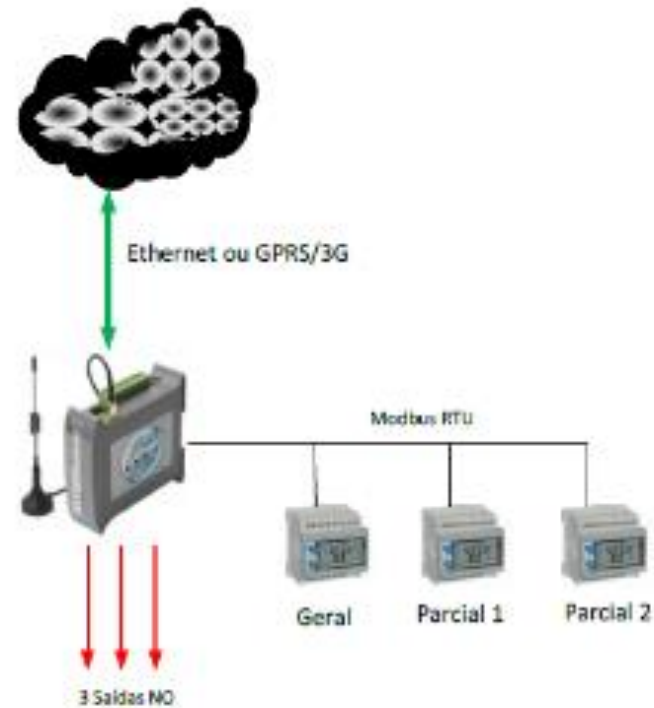
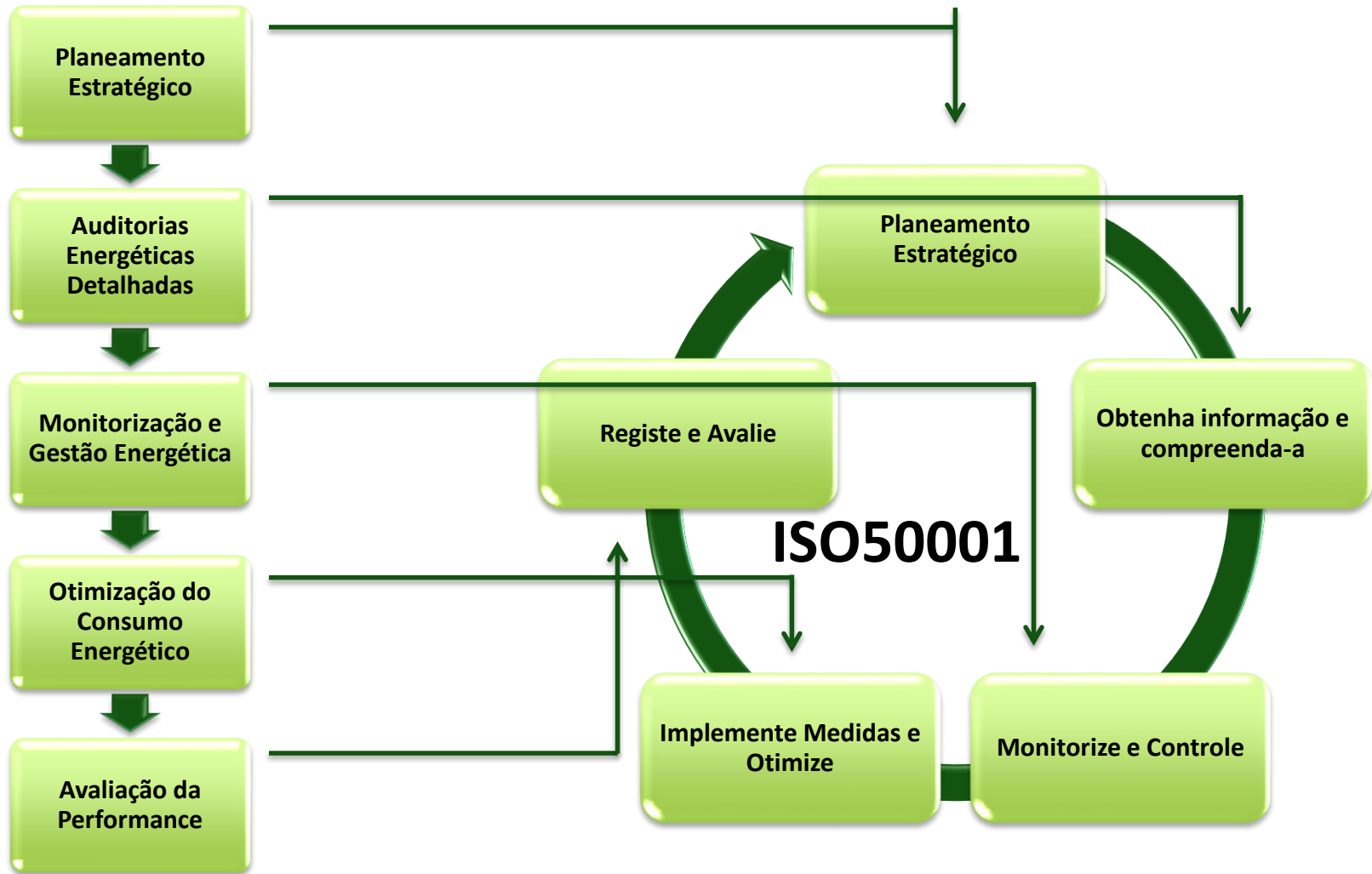


Figura 2 - Arquitetura local

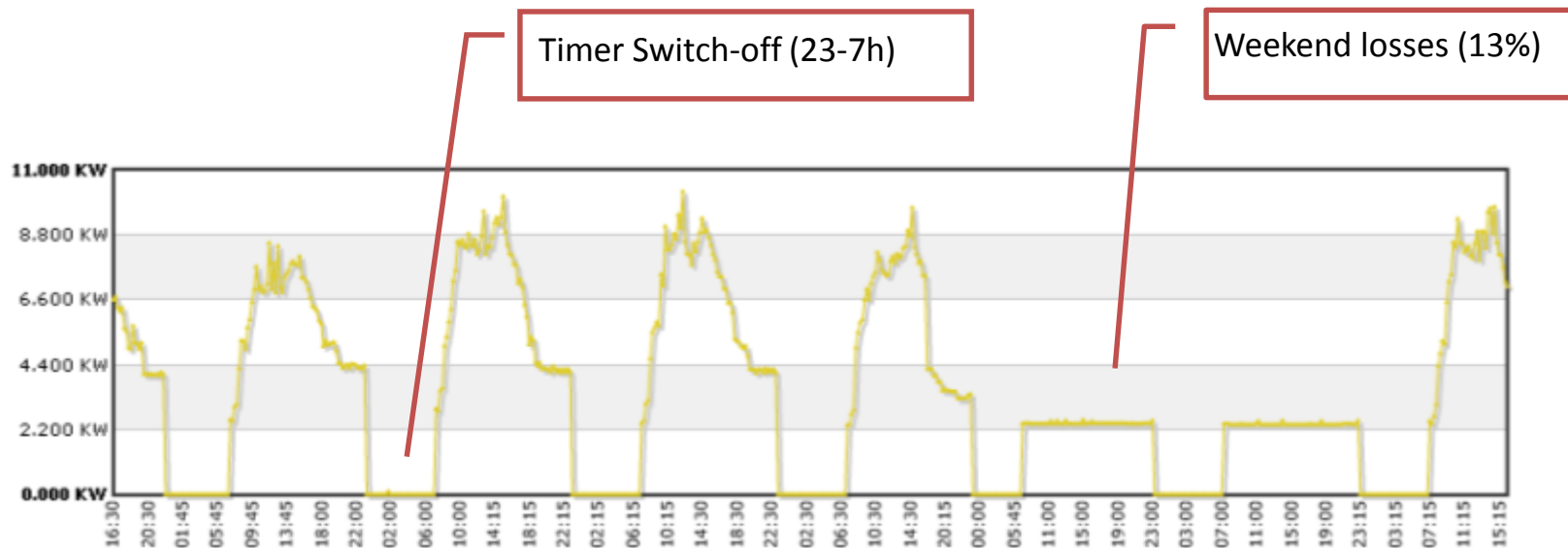
SCHOOLS



ISO 50001

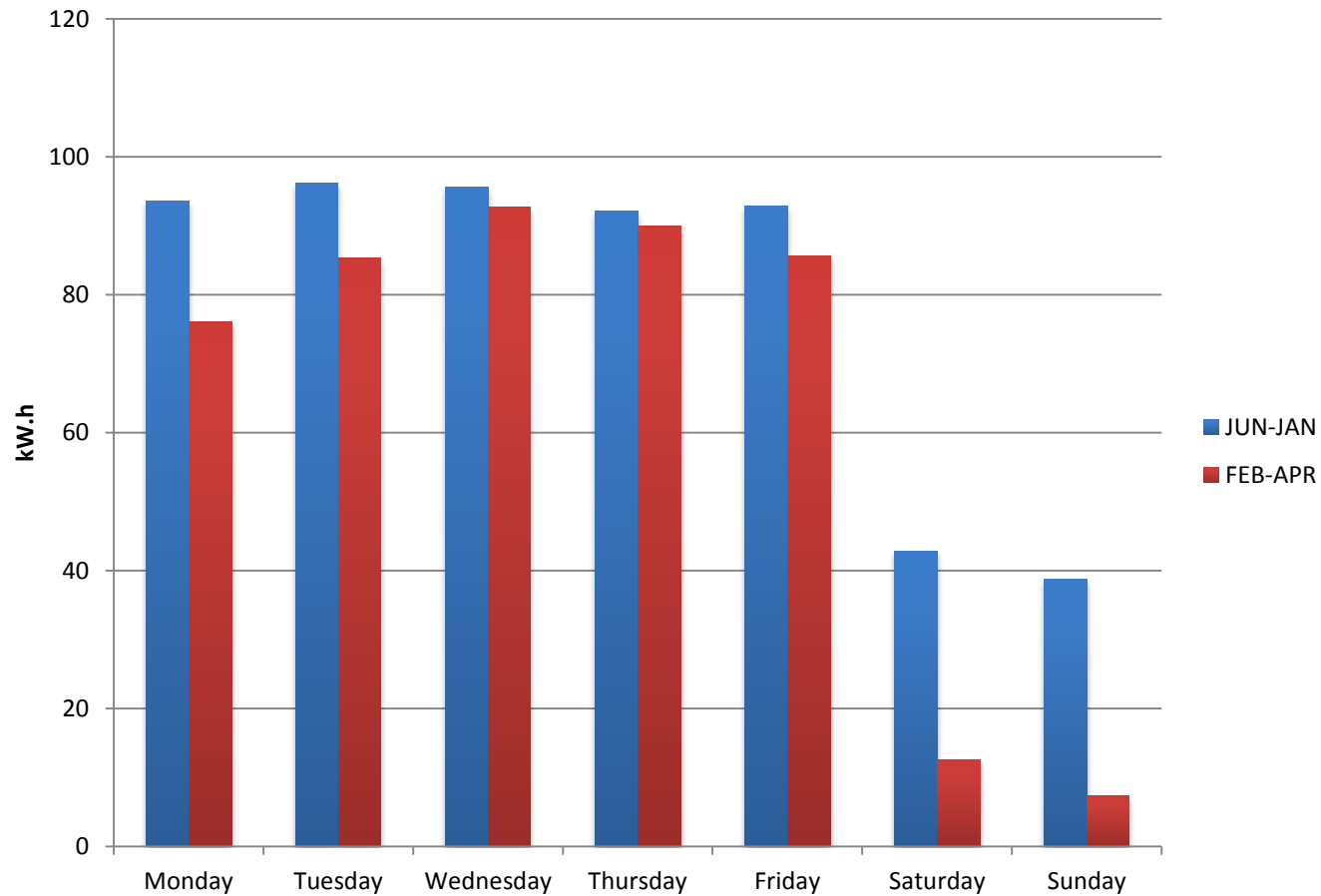


"If you can not *measure* it, you can not *improve* it."



27% Savings after 1 year!

Global Consumption



Segmento residencial, SoHo e PMEs



This is how easy
we've made it for
you to **save energy**





[Cloogy presentation video](#)



HOME



Display



Transmitter



Hub



Power Plug



Clamp



All functionalities are available through your personal area on the Cloogy[®] web portal

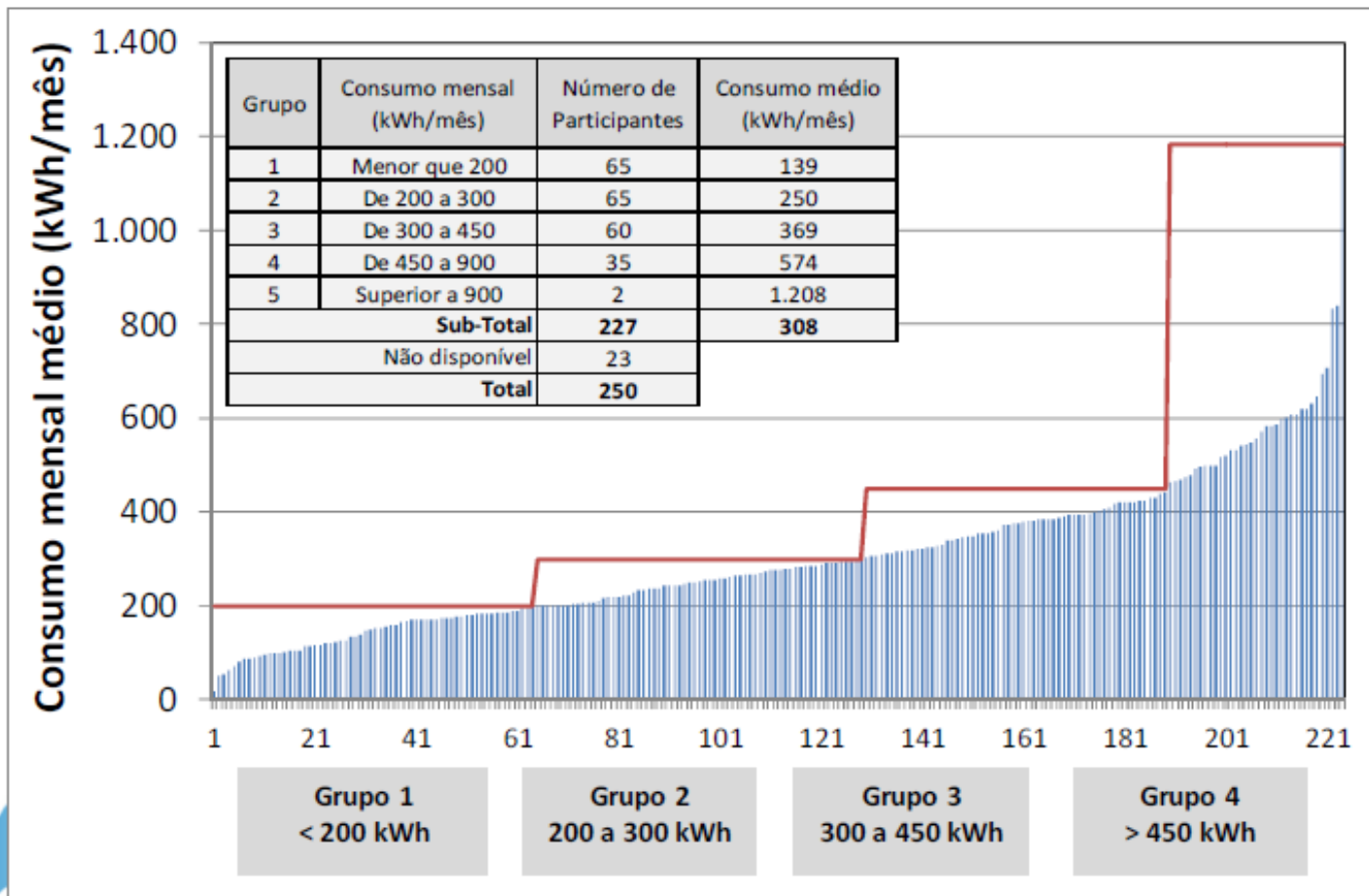


Download Cloogy[®] free apps for your tablet and your smartphone at www.cloogy.com



A Lisboa E-Nova e a ISA, no âmbito do projeto
“Contadores Inteligentes para Decisões Eficientes”,
apoiaram 250 famílias da cidade de Lisboa,
dando-lhes a conhecer detalhadamente o seu perfil elétrico,
com o objetivo de melhorar a sua própria eficiência energética.

CONSUMOS DOS PARTICIPANTES



Contadores Inteligentes para Decisões Eficientes

PROGRAMA "COOPETIR"

Evolução da sua classificação de Abril 2013 para Maio 2013:

↑ Em Maio-13 subiu da 11ª para a 3ª posição.

A sua classificação de eficiência energética no Grupo 3

A expressão do smile indica a sua evolução em relação ao mês anterior.

Legenda:

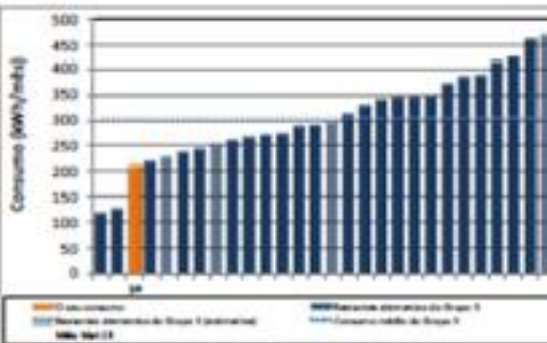
- 😊 Subiu de posição
- 😄 Melhorou a posição
- 😞 Desceu de posição



Consumos em Maio de 2013 Grupo 3

Note em destaque a representação do seu consumo.

Ao longo de um trimestre correspondem a participações que representam dados incompletos, cujo consumo é bem reconstruído por estatística.

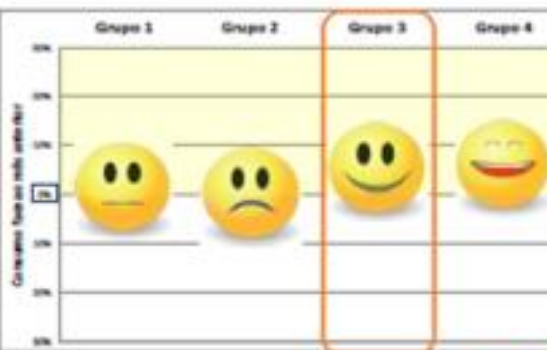


Dinâmica de poupança elétrica entre Grupos

Legenda:

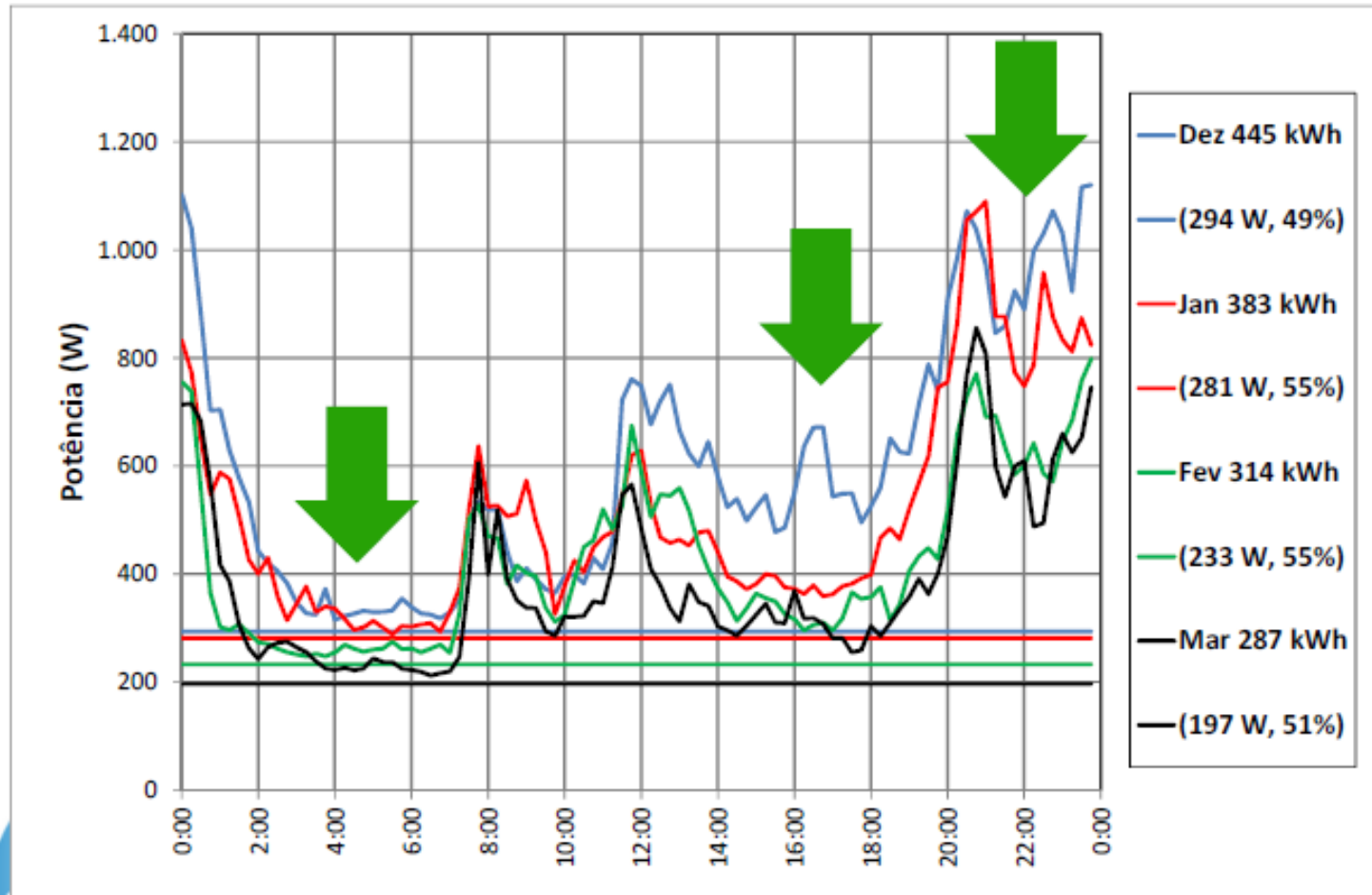
- 😊 Menor poupança
- 😞 2ª maior poupança
- 😊 2ª maior poupança
- 😊 Menor poupança

Grupos - coléctivos
 Grupo 1: até 200 kWh/mês
 Grupo 2: 200-300 kWh/mês
 Grupo 3: 300-450 kWh/mês
 Grupo 4: >450 kWh/mês ou mais



Efeitos da comunidade! ... Gamification...

PERFIS DE CONSUMO (participante com melhor performance)



ENERESCOLAS

Monitorizar, Experimentar, Aprender!



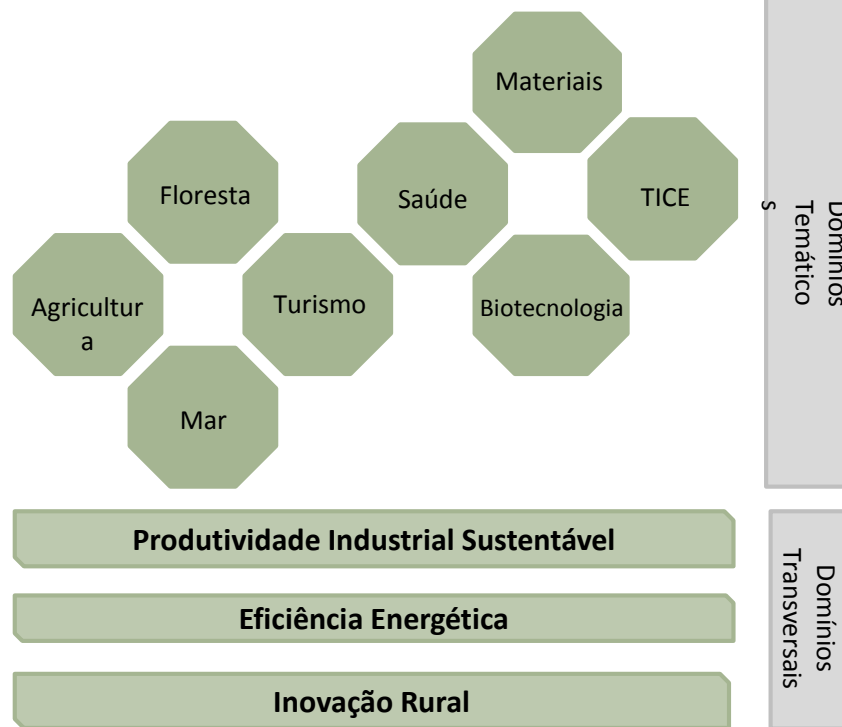


Associação de Empresas para
Territórios e Cidades Inteligentes

B2CITizens

Áreas de intervenção

Alinhado com as políticas europeias de inovação para uma Estratégia de Especialização Inteligente (RIS3).

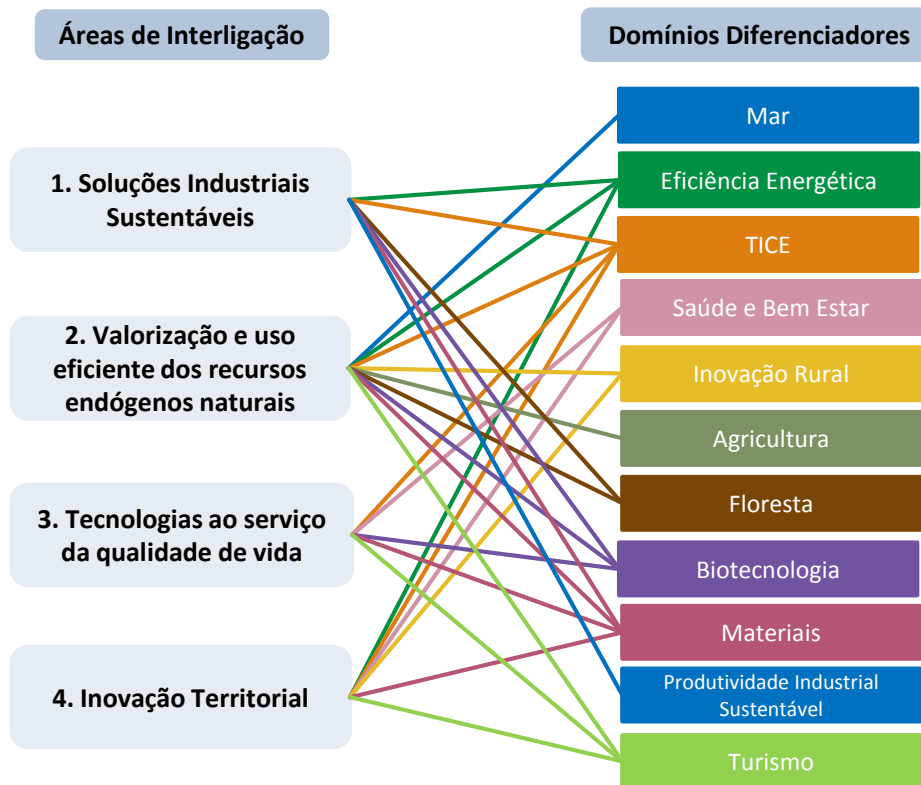




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B2CITizens

Alinhado com as políticas europeias de inovação para uma Estratégia de Especialização Inteligente (RIS3).



Matriz de atividades



B2CITizens

Associação de Empresas para
Territórios e Cidades Inteligentes

Comunidades de Baixo Carbono

26 de Maio de 2015



B2CITizens

Associação de Empresas para
Territórios e Cidades Inteligentes

- ▶ O principal objetivo deste projeto é a promoção de uma renovada dinâmica na economia regional baseada na promoção de atividades focadas na eficiência de recursos conciliando o estímulo à competitividade das empresas da região com o envolvimento da sociedade na promoção da economia de baixo carbono e perspetivando ainda de uma forma coordenada a redução do desemprego na região.

penela+
VERDE



SMART RURAL
living lab

recursos naturais

MUITO OBRIGADO!

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