



EnergyDeck

A community-powered platform that helps organisations and individuals save energy and costs

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The challenge: resource inefficiency in buildings

40% of total energy is consumed by buildings

Up to 30% of consumption is typically wasted

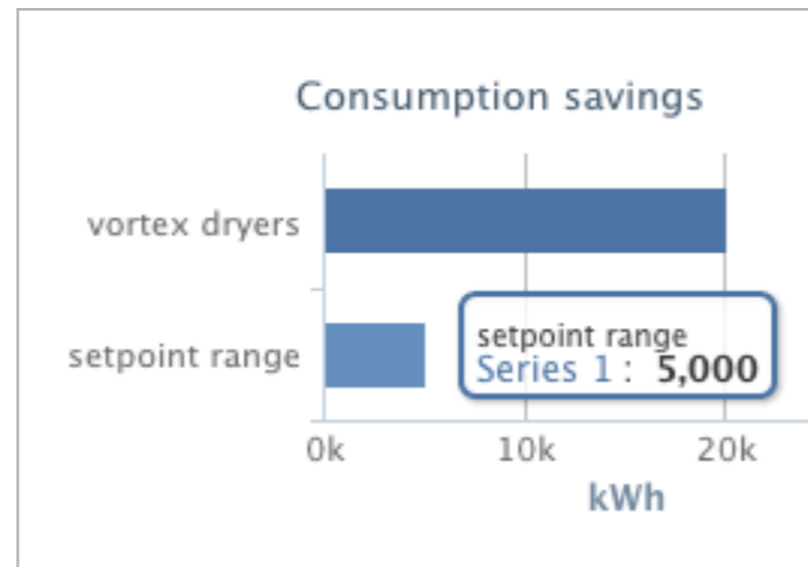
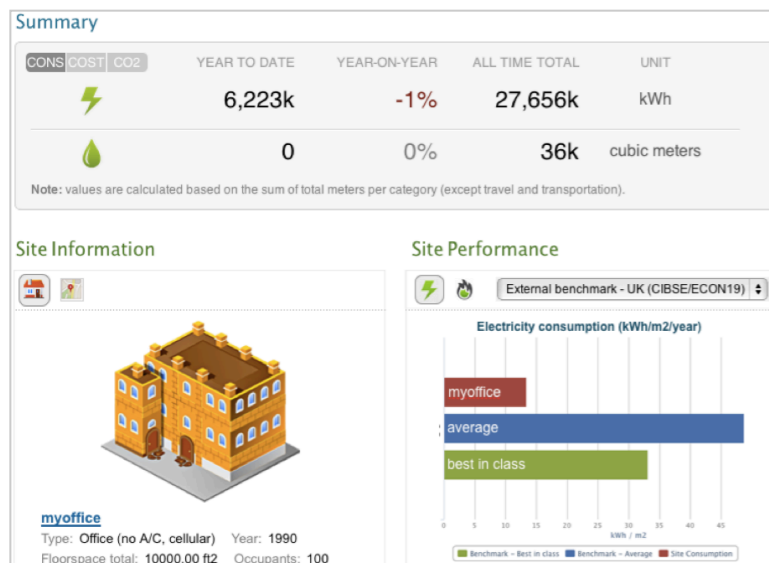
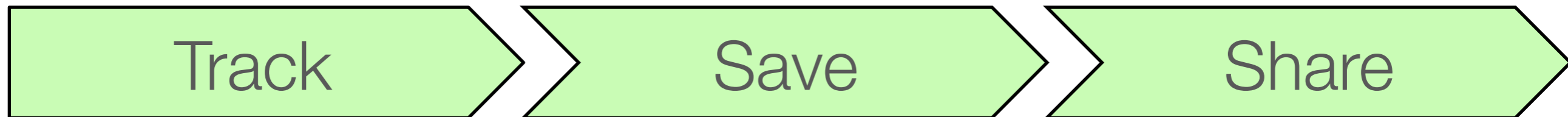
80% of today's buildings will exist in 2050

£8bn p.a. savings potential in UK alone from increasing commercial building efficiency by 20%

1.9M non-domestic buildings

26M households

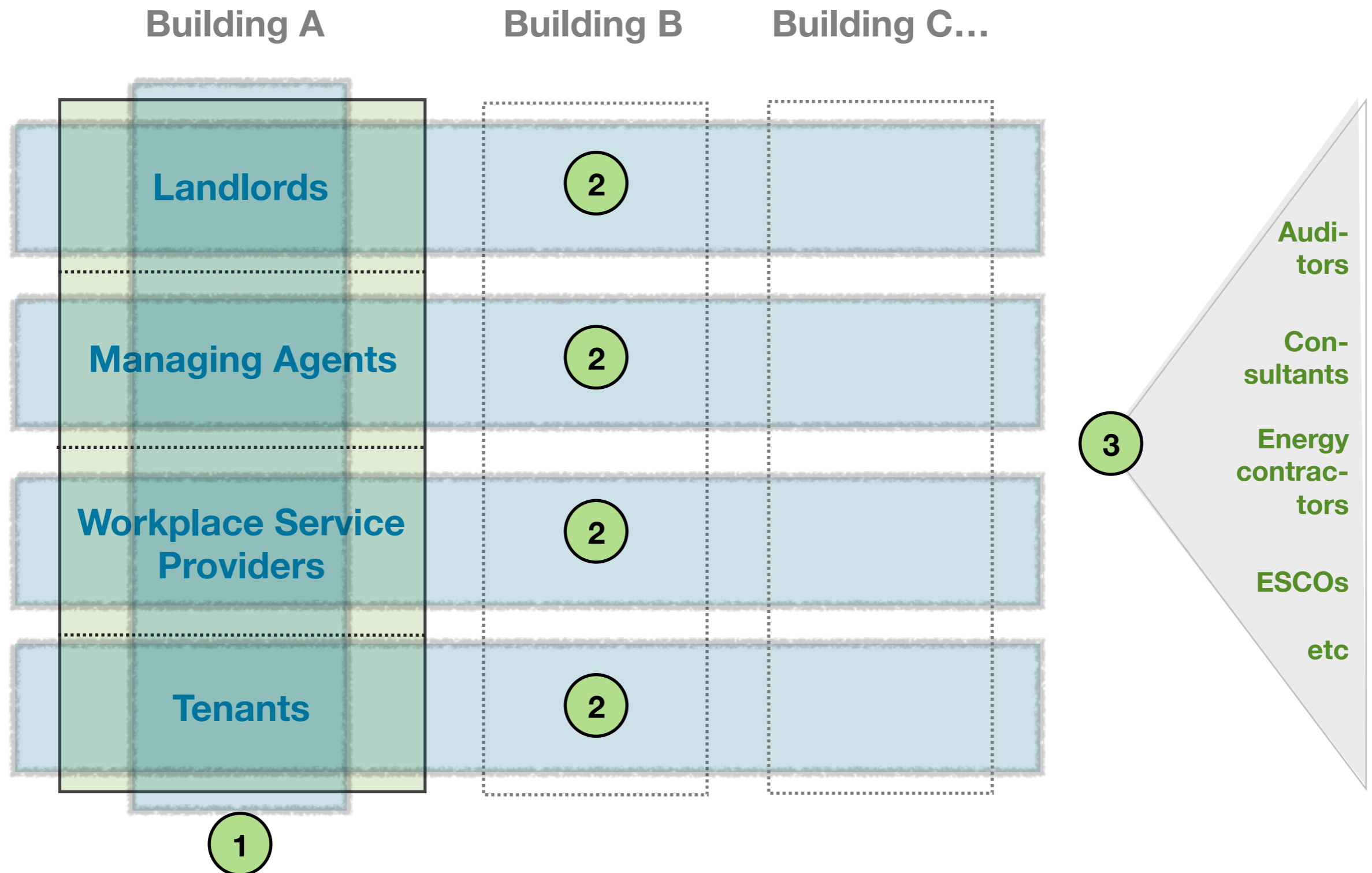
Our approach: a flexible platform to track, save and share consumption data and best practices



Invest. (GBP)	Consumpt. saved p.a. (kWh)	Cost saved p.a. (GBP)	Payback (yrs)
8002	20000	1600	5
0	10000	800	0
19924	33972	2259	8.8
16000	43000	3441	4.7
120000	200000	19204	6.2

- All consumption metrics
- Manual or auto feeds
- Automatic benchmarks
- Identify savings potential
- Track savings measures
- Validate impact
- Share project data
- Learn from others
- (Rate projects/suppliers)

Link stakeholders through a common platform



Target segments & customers/partners

Commercial/Public Real Estate




Social Housing Operators



Energy Brokers / Service Providers (partners)




Case study: West of England Carbon Challenge






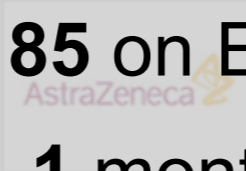
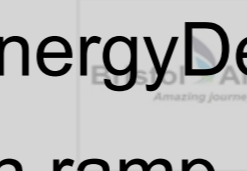






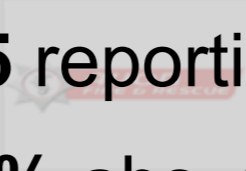
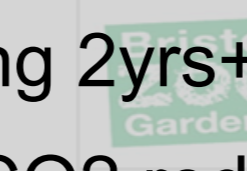
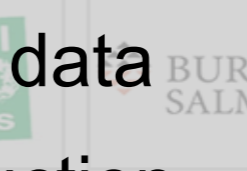





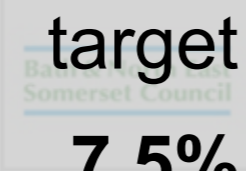
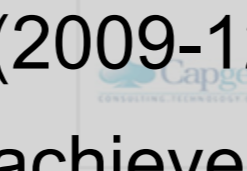

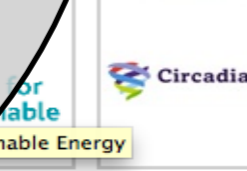

















west of england carbon challenge

HOME ABOUT CASE STUDIES EVENTS



forum for
the **future**

Members

130 organisations
85 on EnergyDeck
1 month ramp-up
75 reporting 2yrs+ data
10% abs. CO2 reduction
 target (2009-12)
7.5% achieved

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WECC examples: 2009-2012 leaders

Avon Fire & Rescue 20% reduction



Big wins:

1. Building refurbishment / retrofit
2. Automated Monitoring & Targeting
3. Staff engagement and internal campaigns

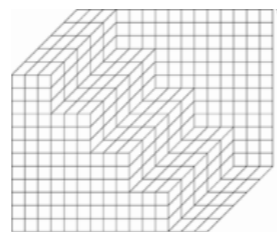
Bath Spa University 19% reduction



Big wins:

1. Insulating piping and loft spaces
2. Installing more efficient boilers
3. Upgrading BMS and voltage regulation

Buro Happold 13% reduction



Buro Happold

Big wins:

1. Server virtualisation
2. Installing motion sensors on stairs lighting
3. Power shut down on PCs

ARUP 28% reduction



Big wins:

1. Building Management System upgrade
2. LED lighting installations
3. Computer software that shuts down computers at night

Long-term opportunities

- Scale to **other user groups** (residential, industrial, ...)
- Target specifically domestic users in **fuel poverty**
- Integrate with **energy utilities** for direct access to consumption data (one day, maybe)
- Provide **platform** for **Internet of Things** in resource space
- Engage and support **energy efficiency suppliers** – installation, manufacture, operation of energy efficiency products/services

Thank you!



“We ’re really keen on using Energy Deck to socialise the energy data and demonstrate the projects that really work.”

Simon Billing, Sustainability Advisor, Forum for the Future

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energyDECK BETA **Dashboard** Welcome, Jon Jonson | Settings | Messages 5 | Feedback | Upgrade plan | Sign Out

HOME DATA ANALYTICS PROJECTS GROUPS NEWS

DASHBOARD MESSAGES SETTINGS

Home > Dashboard

Welcome

Username: **basic1**
 New messages: 6
 Last login: 18/08/12 21:37
 Account plan: [Community](#)

Messages

- [User eco_whizz requests to join your group supersavers](#)
 - [Admin hi_save invites you to join group only the best](#)
 - [New features in EnergyDeck: messaging box, benchmarks on dash...](#)
- Only most recent messages shown

User Guide ▾

If you're new to EnergyDeck, follow these simple steps to get started:

- 1 - Set up sites (buildings), meters and enter consumption data for electricity, gas, water and waste in the [Data](#) section.
- 2 - Analyse your site performance, compare sites against each other and benchmark them to identify cost savings potential in the

Summary

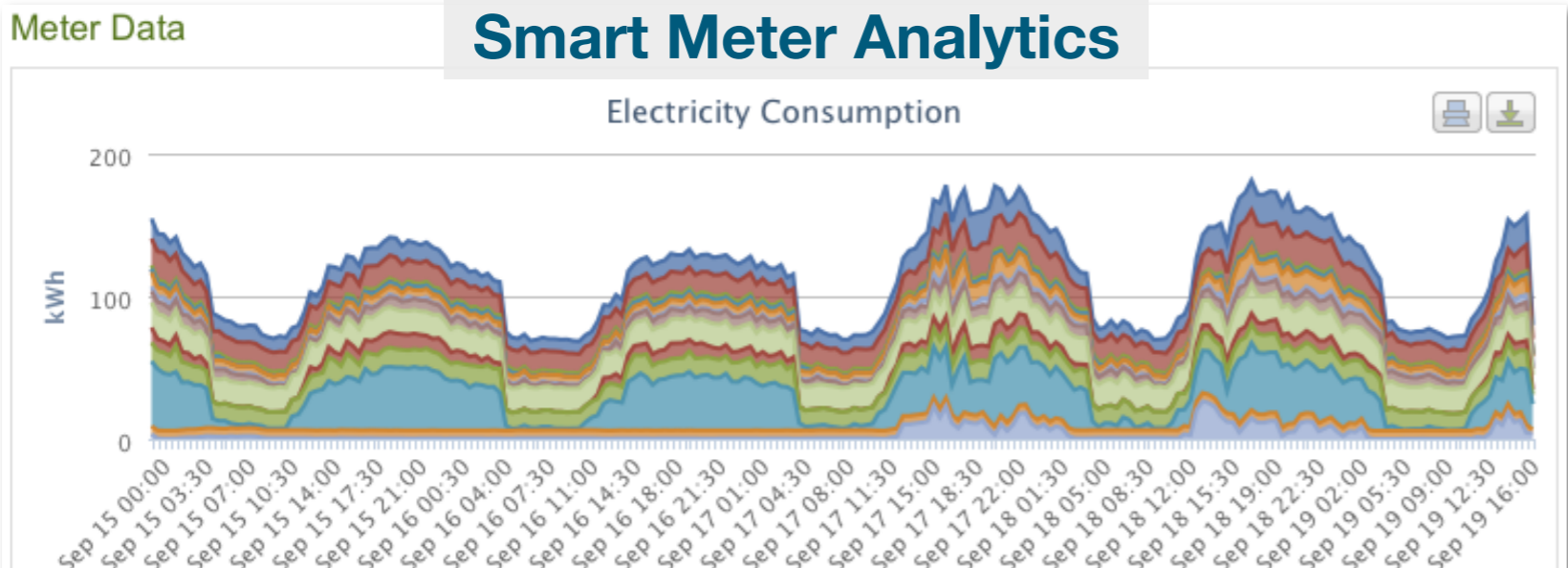
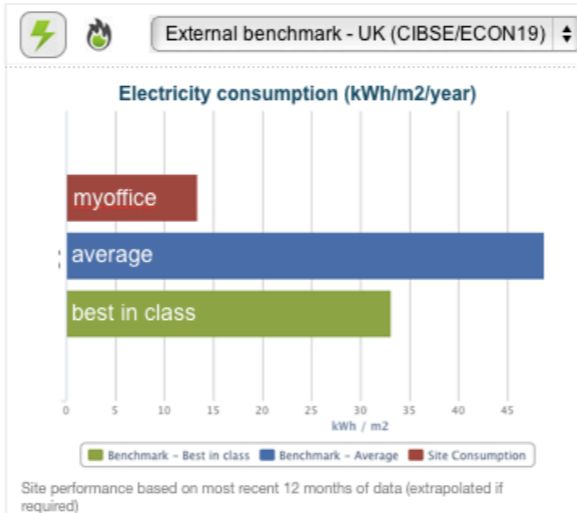
CONSUMPTION	COST	CO2	YEAR TO DATE	YEAR-ON-YEAR	ALL TIME TOTAL	UNIT
			6,223k	-1%	27,656k	kWh
			0	0%	36k	cubic meters

Note: values are calculated based on the sum of total meters per category (except travel and transportation).

Site Information

myoffice
 Type: Office (no A/C, cellular) Year: 1990
 Floorspace total: 10000.00 ft² Occupants: 100
 City: London Country: United Kingdom

Site Performance



HOME DATA ANALYTICS PROJECTS GROUPS NEWS

Asset Management

NAVIGATOR SITE OVERVIEW [Export to CSV \(experimental\)](#) [Create new Site](#)

Group: My sites only

Showing groups that you have created.

School
 Type: School Year: 1900
 Floorspace total: 4345334.00 ft² Occupants: 1000
 City: London Country: Belarus

TWCMHS
 Type: Shop/Store (general retail) Year: 1890
 Floorspace total: 2000.00 ft² Occupants: 6
 City: London Country: United Kingdom

Charity
 Type: Office (A/C, open plan) Year: 2008
 Floorspace total: 2000.00 m² Occupants: 200
 City: London Country: United Kingdom

Bedzed
 Type: Office (no A/C, op. plan) Year: 2002
 Floorspace total: 400.00 m² Occupants: 35
 City: Hackbridge Country: United Kingdom

USER GUIDE
 In this section you can set up and manage your sites, meters and any consumption data.
 Click "Add Site" to get started. You will be able to set up your building, after which you can add meters to it and enter consumption data for those meters.
 Once you're done with setting up your site it will show up in the list on the right. There is a limit of one site per user in the free version of EnergyDeck (we're working on premium versions for those who want to manage more than one site).

HOME DATA ANALYTICS PROJECTS GROUPS NEWS

Portfolio Benchmarking

NAVIGATOR

User Group: My sites only

Hide my sites in groups

Category: Electricity

Showing meters in category: Select all, none

My own sites

- Council total ele Total
- Retailer total electr Total
- Charity ele total Total
- Office total ele Total
- Tech company total electricity Total
- Sunset Hotel electricity Total

External benchmark - UK (CIBSE/ECON19)

Start Date: 12/07/2011 End Date: 12/07/2012 Show for period: past 12 months, past year, current year

VISUALISATION OUTPUT

Projects Database

Site type	Count	Equipment	Efficiency	saved (kWh)	saved (BP)	Payback (yrs)
Office (no A/C, cellular)	United Kingdom	Electricity	Recommissioning	BMS	0	0
House	United Kingdom	Electricity	Retrofit	Other	100	1000
Office (A/C, op. pl., cafe)	Israel	Electricity	Retrofit	BMS	0	2400
Office (no A/C, op. plan)	United Kingdom	Electricity	Retrofit	Other	844	2000
Entertainment facility	Germany	Electricity	Recommissioning	Other equipment	0	10000
Entertainment facility	Germany	Electricity	Retrofit	Lighting	8439	20000
Office (A/C, open plan)	United Kingdom	Electricity	Recommissioning	BMS	3	23
Office (A/C, open plan)	United Kingdom	Electricity	Retrofit	Other	8000	20000
Office (A/C, open plan)	United Kingdom	Electricity	Behavioural change	BMS	0	5000
Fitness centre	United Kingdom	Electricity	Behavioural change	BMS	300	200

The tracking platform and project database are fully launched and already provide advanced functionality

1 Site management

Site Details



Site: **Council**
 Type: Office (A/C,
 Floorspace total: 7000.00 m2
 Occupants: 700
 Year: 1960

2 Data input / upload

Meter Consumption Data

Show: [Data](#) | [Chart](#)

End: Now
 Start: 10/03/2012
 Add new readings here

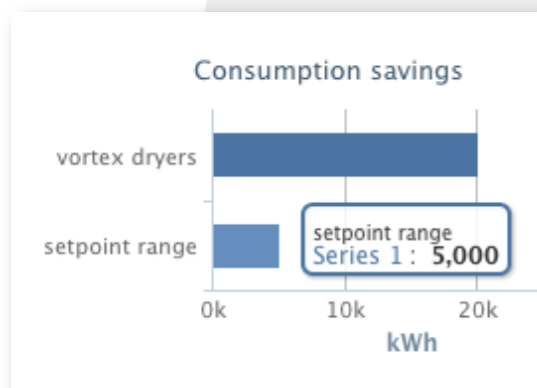
End: 09/03/2012
 Start: 09/12/2011
 1528.00 kWh 171.80 GBP

End: 08/12/2011
 Start: 07/09/2011
 1221.00 kWh 135.77 GBP

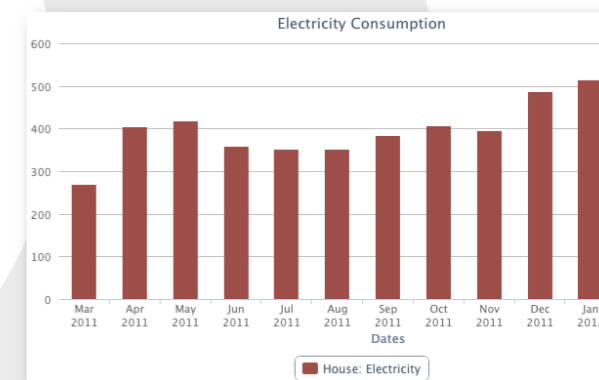
7 Project Database

Invest. (GBP)	Consumpt. saved p.a. (kWh)	Cost saved p.a. (GBP)	Payback (yrs)
8002	20000	1600	5
0	10000	800	0
19924	33972	2259	8.8
16000	43000	3441	4.7
120000	200000	19204	6.2

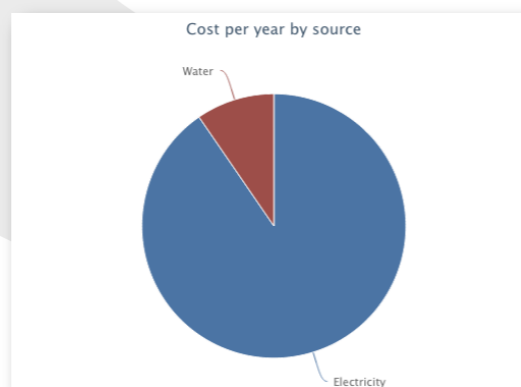
6 Project tracking



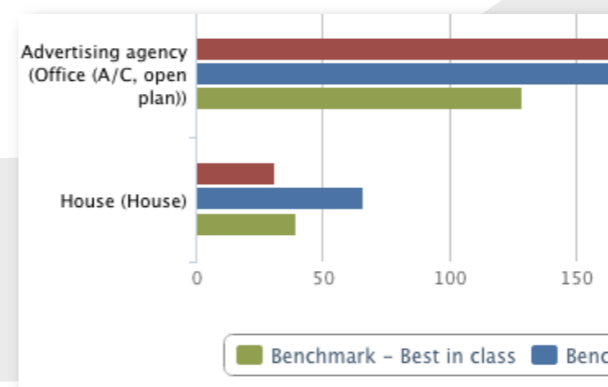
3 Analysis



5 Reporting



4 Benchmarking



[Projects](#) > [Projects Database](#)

User Guide

Use the filters on the right to search the global EnergyDeck database for savings projects applicable to your site(s).

The database contains information on anonymised projects, set up by EnergyDeck users.

Note that the information is provided as-is and we are currently not performing any validation of entered data to ensure a project is "realistic" (this feature is planned for a future version)

Filtering Options

Category **Country** **Project impact validation** **Items per page**

Electricity Show only IPMVP projects

Site type **Type of project** **Equipment affected** **Page: 1/6**

All

Available filter options are dynamically adapted to settings in preceding filter.

Results

Site type	Country	Category	Project type	Equipment affected	Invest. (GBP)	Consumpt. saved p.a. (kWh)	Cost saved p.a. (GBP)	Payback (yrs)
House	United Kingdom	Electricity	Recommissioning	BMS	1000	<input type="text" value="200"/>	<input type="text" value="339"/>	<input type="text" value="2.9"/>
House	United Kingdom	Electricity	Retrofit	Other	100	<input type="text" value="1000"/>	<input type="text" value="1697"/>	<input type="text" value="0.1"/>
Office (A/C, op. pl., cafe)	Israel	Electricity	Retrofit	BMS	0	<input type="text" value="2400"/>	<input type="text" value="208"/>	<input type="text" value="0"/>
Entertainment facility	Germany	Electricity	Recommissioning	Other equipment	0	<input type="text" value="10000"/>	<input type="text" value="848"/>	<input type="text" value="0"/>
Entertainment facility	Germany	Electricity	Retrofit	Lighting	8484	<input type="text" value="20000"/>	<input type="text" value="1697"/>	<input type="text" value="5"/>
Fitness centre	United Kingdom	Electricity	Behavioural change	BMS	300	<input type="text" value="200"/>	<input type="text" value="1697"/>	<input type="text" value="0.2"/>
Office (A/C, op. pl., cafe)	Switzerland	Electricity	Recommissioning	BMS	0	<input type="text" value="30397"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Office (A/C, op. pl., cafe)	Switzerland	Electricity	Recommissioning	BMS	0	<input type="text" value="85110"/>	<input type="text" value="8630"/>	<input type="text" value="0"/>
Shop/Store (general retail)	United Kingdom	Electricity	Retrofit	Lighting	1600	<input type="text" value="4300"/>	<input type="text" value="365"/>	<input type="text" value="4.4"/>
University	United Kingdom	Electricity	Retrofit	Lighting	120000	<input type="text" value="200000"/>	<input type="text" value="20362"/>	<input type="text" value="5.9"/>

User Guide

Project details.

Project Details

Category: Electricity
 Type of project: Retrofit
 Equipment affected: Lighting
 Project is : hypothetical
 Implementation date: 02/05/2012
 Notes: Replace CDM-T (70W) with LED (16W)
 Project cost (capex): 1600.0 GBP
 Consumption savings expected: 4300.0 kWh per year

Project impact

Consumption savings p.a.
23.0 %
 4300.0 kWh of total annual consumption 18569.89 kWh

Annual consumptions calculated based on consumption data in the 12 month timeframe leading up to the implementation date. For selected meter there are 243 days of consumption data, 123 days had to be interpolated (readings coverage ratio of 66.39%) in the 12 month timeframe.

Cost savings p.a.
365.0 GBP Payback: 4.4 years

Calculated using Tariff : 0.08 GBP / kWh

Emission savings p.a.
2237.59 kg CO2

Calculated using Emission factor: 0.52037 kg CO2 / kWh

Site Characteristics (if specified)

Type: Shop/Store (general retail)
 Year: 1890