# **The Discovery Mill Energy Management through people Case-study** Lessons from 10 years' working with Heathrow, 2007-2016



# Key components to help make the process *Friction Free*:

**Strategy** & Energy Reviews are about taking the time to understand where you are and help establish your local strategy and catalyst to work towards the vision, in a way that optimises across all your objectives & requirements.

**Training** provides the skills, capability and mind-set for everyday champions and significant energy users to drive continual improvement from just 20 minutes a day. Our approach to training is now industry recognised through ESTA.

Apps & Toolkits provide passive support and quick management systems to make the process as easy as possible for everyday champions to deliver at scale. Our 'Energy Credit' tracks savings delivered by people and teams. People solutions are often the quickest and most cost effective way to deliver energy savings and sustainability at scale

The Discovery Mill and our team have been successful pioneers of energy & sustainability management through people for many years across different industry sectors.

Working with Heathrow has involved a combination of strategic joined-up thinking, for technical, design and behaviour change solutions, with hands-on or more passive support as required.

Success has been down to the everyday champions involved, based on the understanding that:

- > People are key to delivering the better buildings and sustainability needed to deliver core business objectives.
- > Collaborative approaches enable people to better connect technical and behaviour solutions and deliver best results.
- Making the process as friction-free as possible involves making it desirable, focused, integrated and continual, but most importantly it needs to be owned by the people involved.





Proud to help mill the hard work out of energy management

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"The Discovery Mill is an excellent company which is really good at turning a requirement into a practical and deliverable solution – that is one of their key strengths. They work with all our retailers on how to meet our energy and sustainability requirements. They do a great job." Martin Rayner, as Head of Commercial Delivery, Heathrow Airport, 2015



#### HEATHROW CASE-STUDY Part 1: Airport Operations 2007 to 2010

**Requirement:** To save energy, reduce CO<sub>2</sub> emissions and cut costs. The airport had achieved some great successes but it needed to do more.

#### Key challenges:

- Utility budgets (were) held centrally.
- No dedicated energy projects capital budget in place.
- Some past energy projects weren't achieving the savings forecast.
- Limited involvement of people across the airport in energy improvements.

#### The Big Idea:

- Engage, empower, connect and support a network of everyday champions across the airport.
- An energy savings tracker to credit results to people and teams.

#### Motivators & Results:

- 'Win Win' requirement co-benefits also required for better customer service or easier maintenance.
- 2. Network for 30 100 champions, with investment in training, events and treasure hunt sweeps.
- 3. 1000+ actions on the tracker, each one credited to champions.
- 15% average savings delivered across the airport in 3 years; 30+% in the best buildings; worth multi £m of savings for the airport.

#### Key lessons:

- Plans need to be developed & owned by the local teams involved.
- Training for energy leadership skills to facilitate continual improvement.
- Management systems are needed to ensure savings are sustained.
- The process should be as frictionfree as possible for biggest results.

## "This approach set us up to achieve more than 30% reduction in energy costs in our terminal building over a four year period"

Alun Ottley, as T1 Maintenance Facilities Manager, Heathrow Airport, 2011

#### HEATHROW TERMINAL 2 Retail Fit-out & Operations 2012 to 2016

**Requirement:** Bring together 186 separate new retail spaces and 46 retailers, within Terminal 2, to be an examplar in sustainability practice.

#### Key challenges:

- Planning covenants required fit-outs to demonstrate excellent levels of energy performance.
- Past areas have struggled to translate design intent into operational practice.
- T2 retail units to be at least 10% more efficient than equivalent T5 units.

#### The Big Idea:

- Join up design, operational and behavioural practices.
- Post-occupancy monitoring to assess performance and identify the opportunities.

#### Motivators & Results:

- Heathrow project managers are keyconnectors, working with retailer teams.
- 2. Lead & learn workshops connecting up designers and users (e.g. chefs).
- 24% average design energy savings compared to T5 unit baselines, saving over £500k a year.
- Restaurants' energy performance now correlates with numbers of customers.

#### Key lessons:

- Design energy targets provide the platform for joined-up thinking.
- On-demand philosophy facilitates better operational behaviours.
- Use of daily diaries highlights further opportunities to save energy.
- Equipment fire-up schedules provide a managed approach to stretching

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### Energy management through people

