

This presentation was live at:



Smart Buildings

SHOW

18-19 October 2023 • ExCel London

The EnCO programme - matching humans with the technology

Mervyn Pilley – Director of ESTA

Smart Buildings Show – 19th October 2023

- **Started 4 years ago following a decade long discussion within the ESTA membership that behaviour change initiatives were a huge untapped opportunity globally, and**
 - Would make significant impact on achieving Net Zero targets
 - Is the new ‘low hanging fruit in reducing energy usage’
- **Supporting partnership with Energy Institute (EI), powered by ESTA over the last 3 years**
- **Substantial evidence through proven case studies gathered (though more needed)**
- **Original Business Case developed in 2019 and still being updated**
- **Certified Energy Conscious Organisation status launched**
- **20 courses delivered since original launch in 2019**
- **Ongoing quarterly training courses to build delivery capacity**





What is EnCo?

Energy Conscious Organisation



People
provide solutions
to energy saving
& CO2 reduction



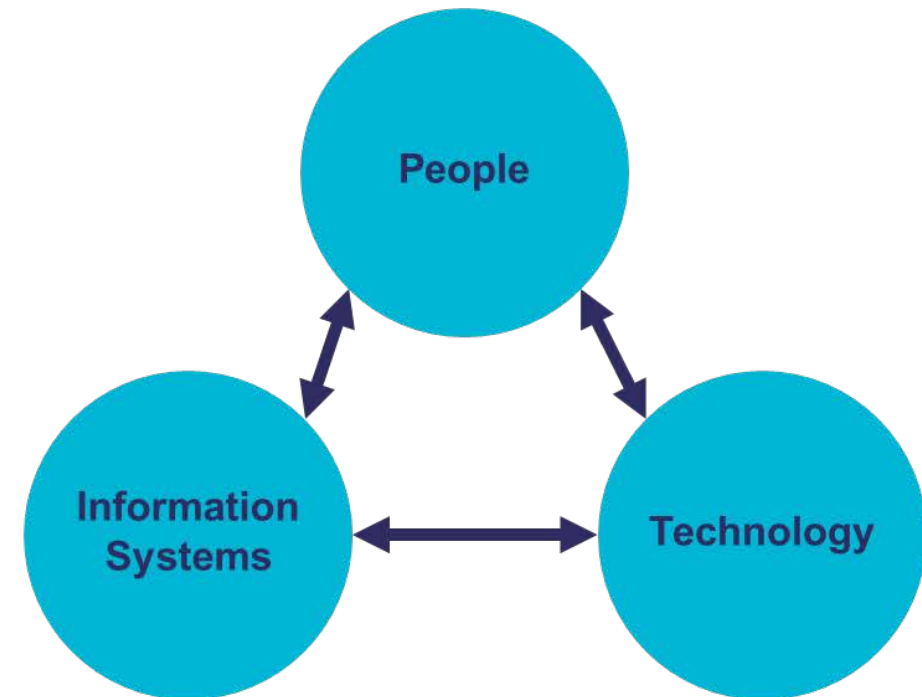
Behavioural
change & energy
awareness



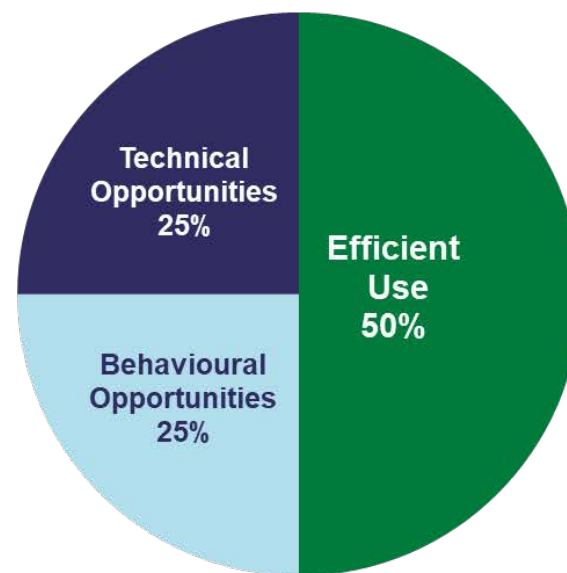
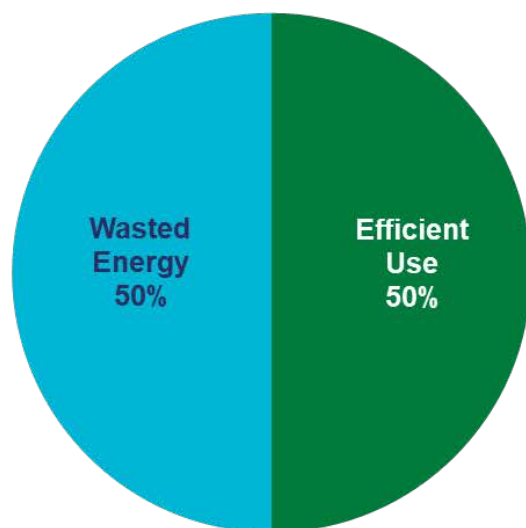
Net zero journey

Why are people vital in any energy management strategy?

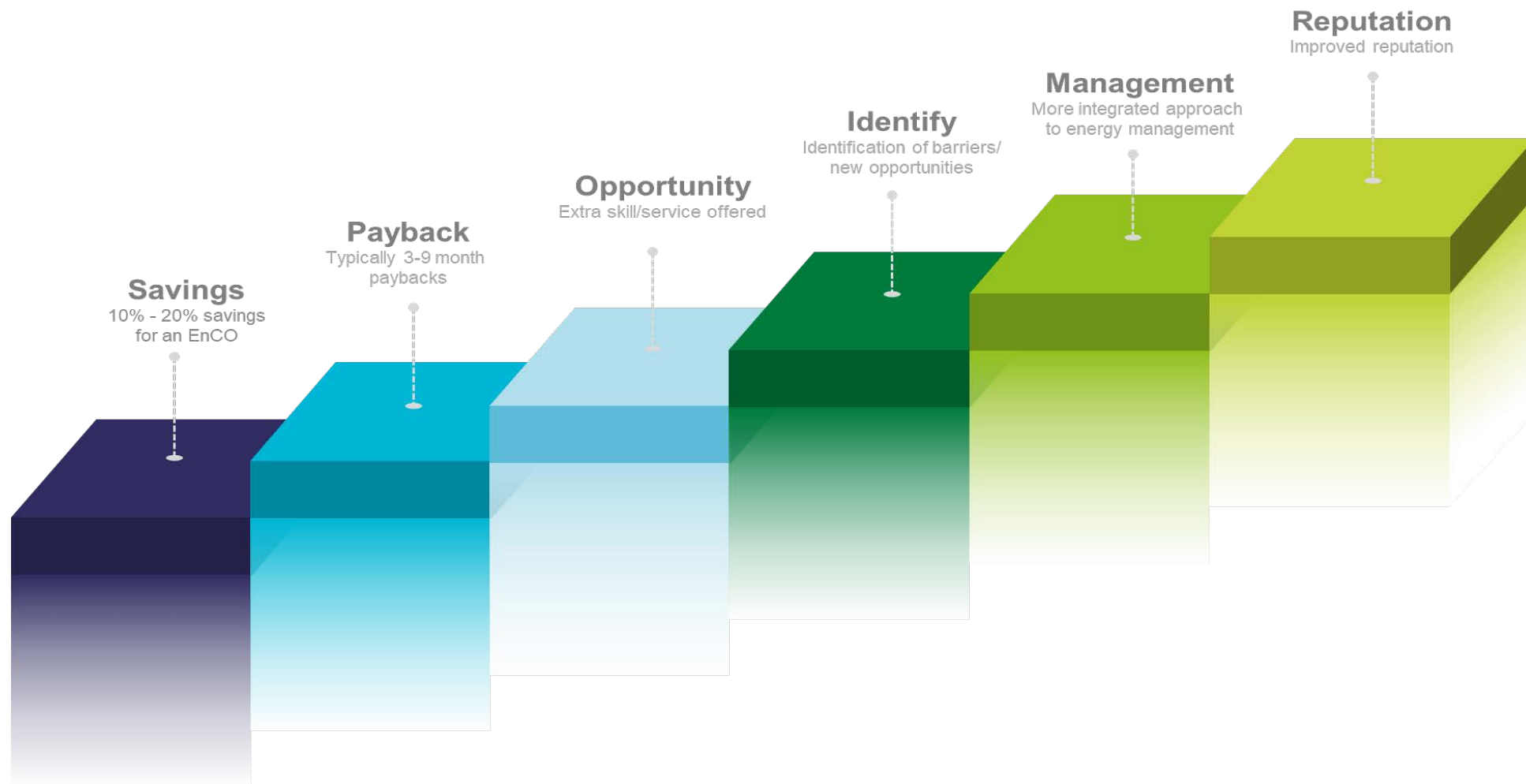
- People
 - Drive strategy, policy, resources
 - Analyse data for trends and improvements
 - Can turn things off, or down
- Technology
 - Also relies on people in setting controls
- *“Behaviour Change is the new low hanging fruit”*



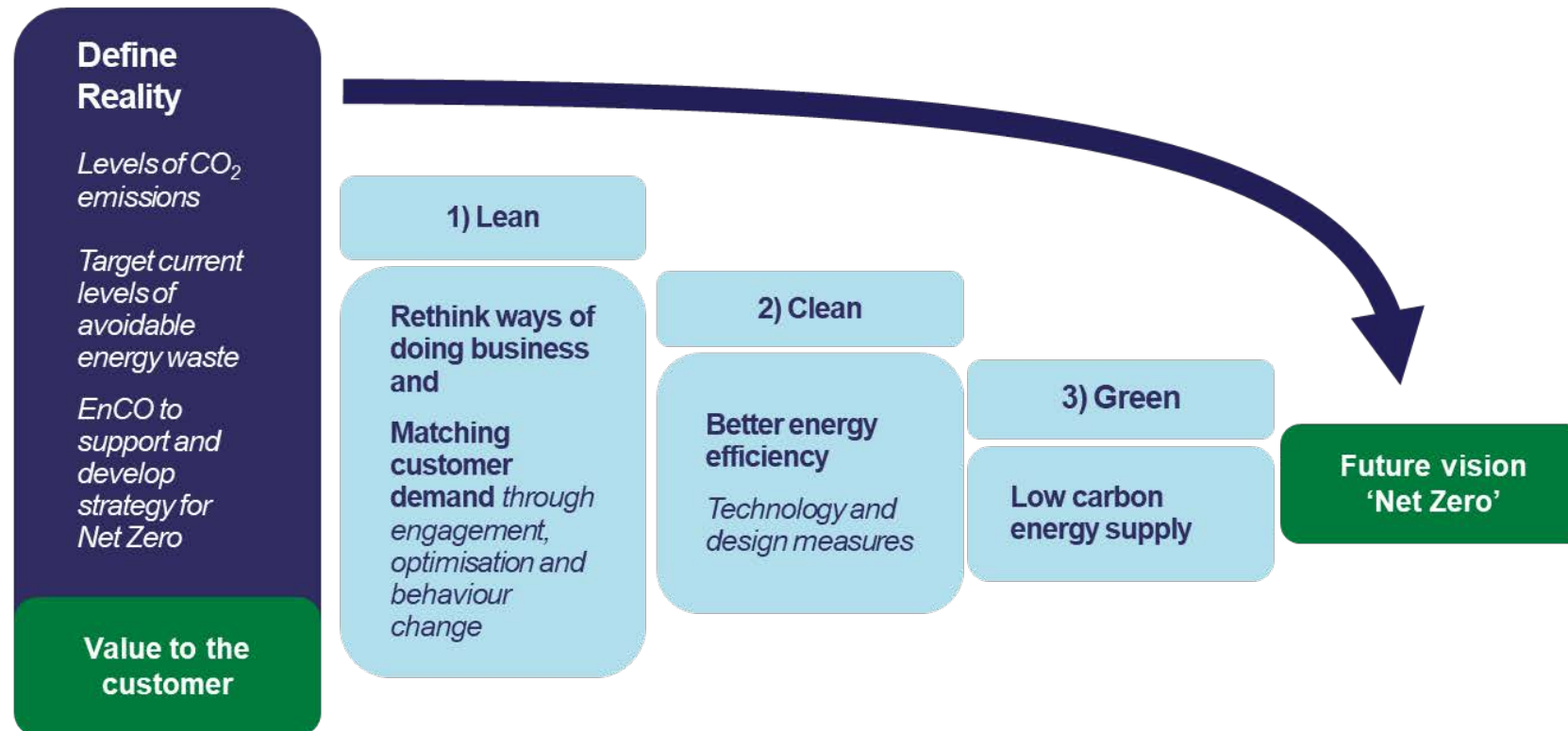
Energy Saving Potential



Benefits of People Solutions



Strategy, Behaviours & Technology



How much of
an Energy
Conscious
Organisation
are you?

Engagement

– Is everyone
engaged in the
right way?

Alertness

– Are all your
teams alert to the
energy
opportunities?

Skills

– Do they have
the right skills to
exploit them?

Recognition

– Are you
recognising,
measuring and
reporting the
results?

Adaption

– Do you need to
adapt your policies/
processes to drive
continual
improvement?



	0	1	2	3	4
Engagement	Very little or no engagement at any level on energy management in the organisation. Top management not engaged other than authorising payment of energy invoices. X	Some level of engagement by top management with a policy and overall energy reduction goals set and specific roles/responsibilities delegated to key practitioners and significant users. Minor levels of engagement elsewhere.	Medium level of engagement at some levels and growing levels of engagement among colleagues on the issue and the need to take action, coming about from a shared vision communicated across the organisation. X	Specific reduction targets set by top management, delegated for action by practitioners/significant users/others who reflect good team working in a co-ordinated way towards a common goal based. Most colleagues understand the importance of and actively looking for ways to save energy.	Very high levels of engagement at every level of organisation on energy management including top management practices, significant users and all colleagues. All levels enthused and taking positive action.
Alertness	Little alertness/awareness at any level in the organisation to save energy and no mechanisms in place to alert people of energy waste when it occurs. X	Top management have allocated resources and processes in place to alert practitioners and significant users of opportunities (use of energy data, observation).	Practitioners and significant users prioritise and action identified opportunities reactively, and proactively seek new opportunities and apply preventative measures (e.g. maintenance). X	Increased alertness evidenced by top managers, practitioners and significant users on how energy management integrates and positively impacts other key areas (co-benefits, lifecycle, business objectives, improved working practices/environments, health/safety, environmental objectives).	High levels of alertness/awareness across organisation to eliminate energy waste, mechanisms to register waste with clear responsibilities delegated and practical responses regularly actioned.
Skills	Few or no skills in energy management at any level of the organisation. July 2018 X	Top management have sufficient skills and competency and enabled to set policy and prioritise energy management activities. Skills gap analysis conducted for practitioners and significant users and plan in place to close identified gaps. X	Skills in place for practitioners in energy management to address all core energy management functions. July 2019	Significant users skilled to address energy issues competently in their areas of responsibility and working constructively with top management and practitioners.	Top management, practitioners and significant users fully skilled in their energy management roles. Commitment to continual learning and up-skilling by ongoing investment in education, competency and training.
Recognition	No recognition of the benefits of energy management, savings achieved or those making savings. X	Data systems in place with capacity to recognise savings achieved against targets but not widely known, as seen as a technical function. Some informed recognition of those making savings.	Practitioners and significant users recognise where savings can be made, how to make them and are implementing an action plan. Increasing levels of recognition of those making savings. X	Growing evidence of increased recognition of energy management at most levels of the organisation supported by data to identify where savings are being achieved. A system in place to formally recognise those making savings.	The benefits and co-benefits of energy management are widely recognised and data systems track savings against robust energy targets. Those making savings are routinely recognised and celebrated.
Adaption	No energy policies or procedures in place and no mechanisms in place to adapt to change. X	Change can be viewed as a threat rather than a positive challenge and opportunity. X	Mechanisms are in place to understand how changing business needs can impact energy use but data systems lack sufficient granularity to adapt fast enough to make effective decisions. X	Energy policies and procedures continually under review and development to allow greater flexibility and allow an optimum response and momentum.	The organisation positively expects and embraces change, adapting and responding to minimise risk and maximise opportunities in a timely way to maintain continual improvement in energy management.

Case Study 1

- Midlands School
- Programme included
 - High level management support – Head Teacher & Deputy Head
 - Delegate empowerment to dedicated Facility Manager
 - Knowledge sharing and energy training to key personnel
 - Energy awareness campaign
 - Installation of sub metering
 - Continuous monitoring and targeting
- 16% saving achieved



ESTA

Case Study 2

- Global Power Systems Manufacturer
- Programme included
 - High level management support
 - Energy training to key site personnel
 - Energy awareness campaign
 - Local site staff empowerment
 - Development of continuous energy improvement projects
- 15% savings achieved



Benefits of EnCO





50 -100 IPMVP Projects
in next 3 years

Currently 18 case studies, 2 IPMVP



Build Capacity

Making behaviour
change projects
mainstream

Training plus Gap
Analysis and M&V
process tools
developed



Collaboration

Work with government to enhance the value of 'non-
consumption' through incentive mechanisms

Target is 10%+ UK energy reduction savings
through behaviour change by 2030



5 and more in the
pipeline



7




194

The next stage of the journey - spreading the word about the importance of behaviour change to organisations with ambition to save energy through behaviour change worldwide



- EnCO matrix, online tool developed - free to use
- Website update, story, campaign ongoing
- Efforts for investor/sponsor/grant funding
- Continued dialogue with DESNZ
- Thought leadership articles/ white papers – M&V, metering, smart buildings etc
- Research and academic links being developed
- Conference presentations, workshops and event participation for Trade Associations
- On demand version of training being built
- Global collaboration



What can
you do to
get more
involved?

Moving forward

To get more involved, please contact info@estaenergy.org.uk

Thank you for
listening

www.energyconsciousorganisation.org.uk



Smart Buildings

SHOW

9-10 October 2024 • ExCeL London

We look forward to seeing you in 2024