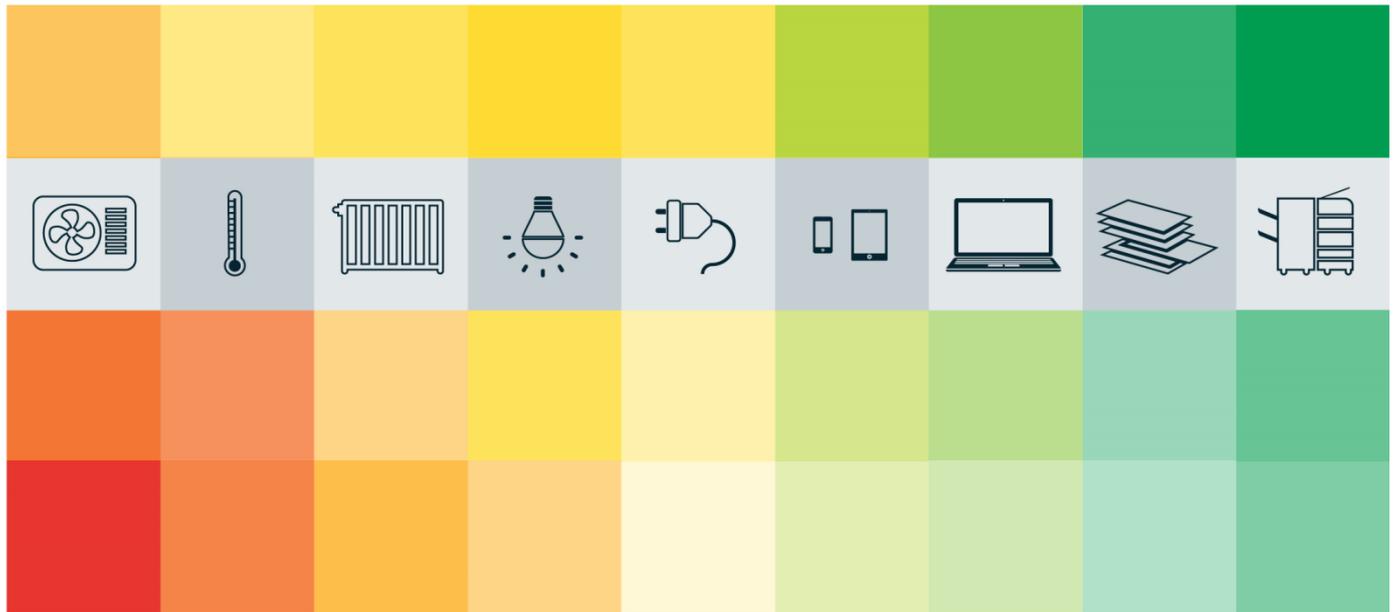




ENGAGING EUROPEAN STARTUPS AND YOUNG SMES FOR ACTION FOR SUSTAINABLE ENERGY



## D4.4 Training of Trainers manual (for young SMEs)

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	NAME	ORGANISATION
AUTHOR(S)	Rob Hatcher	
	Micol Salmeri	CT
	Lucy Hunt	
CONTRIBUTOR(S)	Paul McKinney	CT

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- Public
- Confidential, only for members of the consortium (including the Commission Services)

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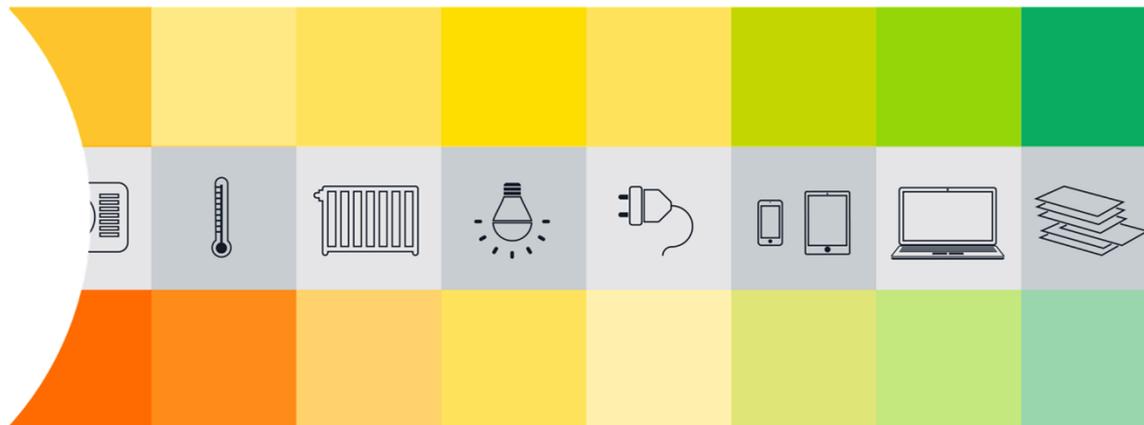


# WP4 Training of Trainers



Presented by the Carbon Trust, March 2017





# Manual

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696069



# Agenda

1. Key Documents
2. Preparation
3. Visit 1
4. Visit 2
5. Visit 3
6. Energy Saving Platform



# The Manual

What:

- » The Manual is used to 'train the trainers' (this doc)
- » PowerPoint presentation format
- » To be re-used to train more trainers!
- » See notes section for delivering the presentation

Please refer to the Handbook alongside this presentation



Manual

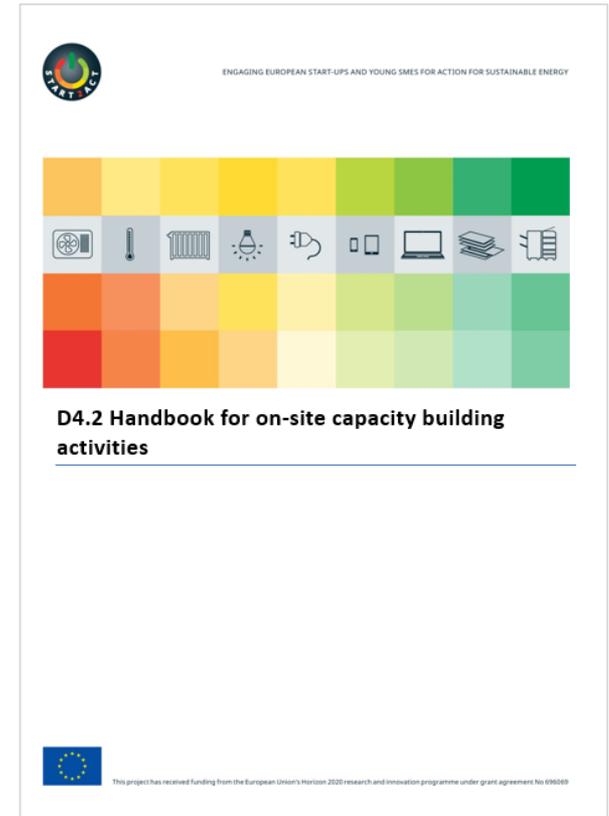


# The Handbook

What:

- » Provides detailed information to the trainer (you)
- » It will help you:
  - » Prepare for site visits
  - » Understand how to implement each step
  - » Tailor the Training Kit
  - » Identify START2ACT resources

Please refer to the Training Kit alongside the Handbook.

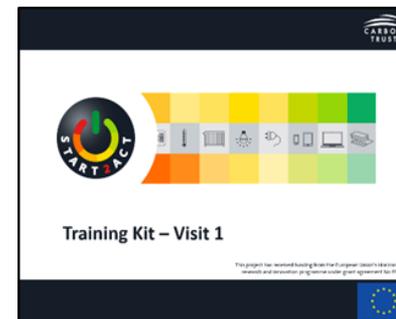


# The Training Kit

What:

- » Content provided to the SME
- » Two parts:
  - » Main guidance
  - » Supplementary materials
- » Each visit will have a separate training kit
- » First visit is focused on enabling actions
- » Each visit includes element of direct energy saving action i.e. top tips
- » Each visit includes SEE-CHECK-ACT

Refer to the Handbook for further guidance



The image shows a 'Visit 1 checklist' table with two main sections: 'Actions' and 'Optional Actions'. Each section has columns for 'Time estimate' and 'Due by'. The 'Actions' section includes tasks like 'Customize the energy audit template' and 'Set up an energy data collection system'. The 'Optional Actions' section includes 'Get user of roof HVAC data available from you supplier' and 'Agree an energy champion'.

Actions	Time estimate	Due by
Customize the energy audit template and ask client to review and sign off	30 min	Visit 1
Complete both procurement policy template and ask client to review and sign off	30 min	Visit 1
Prepare and deliver your meeting and arrange energy consumption and cost see work with client	30 min	Visit 1
Set up an energy data collection system using the template and guidance provided	30 min	Visit 1
Review the energy assessment materials and develop your own customized assessment using the template	2 hours	Visit 1
Use the START2ACT energy saving toolbox	30 min	Visit 1
Optional Actions	Time estimate	Due by
Get user of roof HVAC data available from you supplier	30 min	Optional
Agree an energy champion	15 min	Optional
Outline new energy saving ideas management in your organization via the included online	15 min	Optional



# Agenda

1. Key Documents
2. Preparation
3. Visit 1
4. Visit 2
5. Visit 3
6. Energy Saving Platform



# Preparation

## Logistics:

- » Contact SME to confirm date/time/location etc.
- » Questionnaire
- » Dedicated area/room for discussion
- » 2 hours per visit
- » Bundle visits geographically
- » Progress update (visit 2 & 3)
- » Review Handbook and Training Kit

## Materials:

- » Training Kit hard or soft copy
- » Instruments where available/useful



# Agenda

1. Key Documents
2. Preparation
3. Visit 1
4. Visit 2
5. Visit 3
6. Energy Saving Platform



# Visit 1

## Step 1

Site orientation

## Step 2

Create a company energy statement

Create a company 'buy smart' procurement policy

## Step 3

Understand metering and monitoring

Check your meters

## Step 4

Engage your staff in energy reduction

## Step 5

Review your energy saving action plan

Next steps





# Step 1: Site Orientation

 Step 1

Why:

- » Familiarise
- » Make notes on opportunities
- » Meet key members of staff

What to ask/look for:

- » Type of equipment, systems etc.
- » Locations/numbers of relevant energy using equipment
- » Obvious inefficiencies
- » Level of staff awareness
- » Hours of operation, numbers of employees, floor area etc.

Site Orientation

 Step 1



# Step 2: Documents



Energy statement / policy:

- » Emphasis on the reasons and benefits
- » Many companies skip this – especially SMEs and start-ups!
- » Use template to make process as easy as possible
- » If there is time help them fill this out
- » Senior sign off is crucial!

Buy Smart Strategy:

- » Highlight benefits and function
- » Link to general procurement procedure
- » Use template
- » Key personnel need and senior buy-in

COMMERCIAL-IN-CONFIDENCE

### Sample 'Energy Policy' statement

- » The following slides provide sample 'Energy Policy' statements that Human Applications could adapt and implement to address the current deficiency
- » However, they are presented for guidance only. Any policy developed by Human Applications must accurately reflect the objectives, targets and ambition that they are prepared to commit to delivering and provide the necessary resources to achieve
- » Further detail on how to develop an effective energy policy, strategy and action plan can be found in the Carbon Trust in-depth guide: 'CTG054 Energy Management' obtainable from the [Carbon Trust website](#)



# Step 2: Energy Statement



## Why

An energy statement provides the basis for reducing your energy consumption. Without a clear statement of intent, supported by senior management, energy efficiency will not be taken seriously. An effective policy should be relevant and appropriate to the size of your organisation and provide the focus needed to actively reduce your energy consumption.

## What

The document should be short and to the point i.e. no more than two pages. It should be developed with the chief executive/managing director (or equivalent) and, if possible, be a public document. Key elements include:

A clear expression of your organisation's energy/carbon aspirations.

- Commitment to raising the energy awareness of all staff.
- Commitment to regular and formal review by management.
- Commitment to determining ways of reducing your energy consumption
- Commitment to consider energy consumption in all relevant decision-making.
- Commitment to ensure resources are in place to meet the policy objectives.
- Commitment to review relevant legislation and requirements

Common weaknesses in energy policies that allow poor energy management are; not actively supported by senior management, too long, lacking targets and commitments, out of date and **not** supported by an action plan with the ability to deliver reductions.

## Next steps

Use the template provided to develop your own customised energy policy. You should aim to have the policy reviewed and signed-off by senior management.



# Step 3: Metering and Monitoring

 Step 3

Energy data collection strategy:

- » Current data collection system
- » Be prepared to talk about benefits
- » Use templates to make process as easy as possible
- » Make sure they think of it as a formal procedure rather than casual/limited data entry i.e. planning for absences, reminders etc.

Visit meters:

- » Explain how to take a meter read
- » Ask for access ahead of the visit
- » Alternative strategies



# Step 3: Metering & Monitoring



## Why

The collection of energy data is a fundamental action for all organisations, regardless of size or expertise. Understanding consumption will enable you to identify energy waste, predict and account for expenditure more accurately and, assist with better decision making through access to more detailed information.

## What

To manage energy successfully, you need to **measure how much you use**. This means collecting your own meter readings rather than relying on figures provided by utility companies. How frequently you collect meter reads depends on your circumstances. Monthly monitoring, which has historically been the norm, can be a blunt instrument, while fine-grained (30-minute intervals or less) can bring data overload and interpretation/analysis complexities.

You should decide for yourself (with help from your guide) what is appropriate for you. If possible, a minimum of weekly collection should be considered. Insights obtainable from a higher 'granularity' of data intervals are generally worth the effort of collecting and monitoring them.

You should also consider collecting 'driving factor' data – this can be something as simple as weather data or daily office occupancy which usually has an effect on the amount of energy your business uses.

## Next steps

Review the actions on the template provided to help you set-up an energy data collection system.



# Step 4: Staff Awareness

 Step 4

## Research and planning:

- » Develop their own energy awareness campaign
- » Collect quantitative and qualitative data
- » Identify behaviour change action(s)
- » Set goals and gain senior support
- » Resource

## Delivery:

- » Timing and audience
- » Message and communication

## Monitoring:

- » Evaluation and two-way feedback
- » Maintaining momentum



# Step 4: Staff Awareness



## Why

Most businesses could save 5% off their energy bills through behavioural measures. Energy awareness and behaviour changes should complement other elements of good practice as part of an integrated approach to energy management in your organisation. Energy awareness can also help you shape your organisational culture.

## What

The best way to raise energy awareness in your organisation depends on your own circumstances. Some companies are more advanced than others, and some individuals will be less 'energy aware' than their colleagues. There are however three essential steps to creating a higher level of energy awareness:

- 1. Research and planning**  
Understand your current situation and energy use taking a quantitative and qualitative approach. Set appropriate goals. Establish existing and required resources. Think about timing and the roles and responsibilities for all involved. Prioritise activities. Identify your target audience. Get top-level support.
- 2. Delivery**  
Use the right communications channels and target your messages. See the 'Involve your staff' and 'Staff awareness resources' as a guide. Treat all activities as pilots that you should and can refine. However avoid sudden or often changes in direction which can undermine the credibility of your awareness raising campaign.
- 3. Monitoring**  
Always allow room for two-way feedback on your activities. Remember to monitor and review awareness following any set of activities. Don't forget to close the feedback loop for staff and let them know the impact of any changes they've made.

## Next step

Follow the steps above in the employee awareness guidance document provided and start communicating energy awareness messages to your staff. See the Employee Engagement section on the [Knowledge Base](#) to learn more.



# Step 5: Review



Step 5

Action plan / Checklist:

- » Run through requirements for next 6 months
- » Highlight estimated timescales
- » Talk through optional actions if you deem appropriate

Top tips:

- » Provision of actions that directly reduce energy

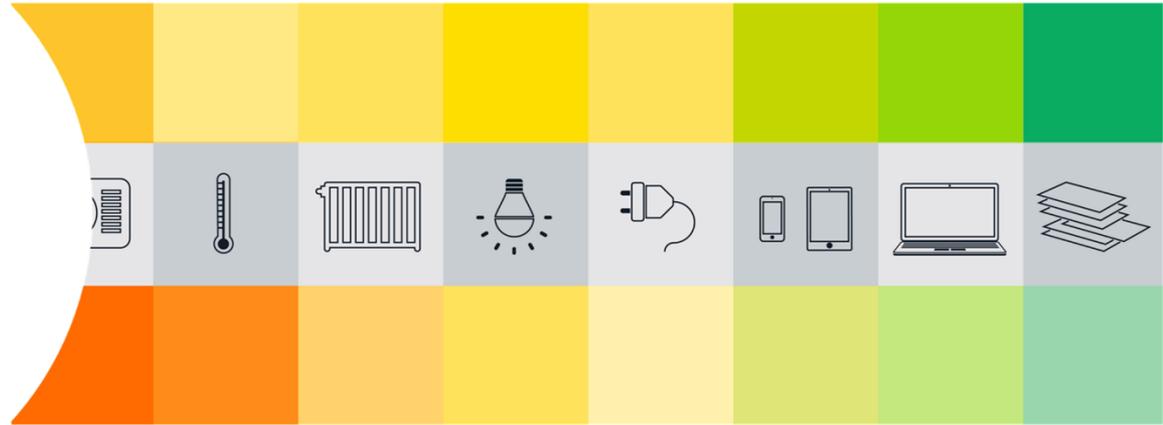
Resources and next visit:

- » Highlight START2ACT website and additional resources
- » Plan next visit

## Top 3 Tips

1. SWITCH OFF ALL NON-ESSENTIAL LIGHTING OUT OF BUSINESS HOURS - 10% OF LIGHTING COSTS
2. SWITCH OFF ALL PC/LAPTOPS AND MONITORS WHEN NOT IN USE - 5% OF ENERGY COSTS
3. EXPERIMENT WITH SWITCH-ON AND SWITCH-OFF TIMES FOR HEATING AND AIR CONDITIONING AND SWITCH OFF BEFORE THE END OF THE WORKING DAY - 20% OF HEATING AND COOLING COSTS





# Questions and Discussion

# Agenda

1. Key Documents
2. Preparation
3. Visit 1
4. Visit 2
5. Visit 3
6. Energy Saving Platform



# Visit 2

## Step 1

Review progress:  
energy statement and  
Buy Smart Strategy

## Step 2

Review progress:  
metering and  
monitoring

## Step 3

Review progress:  
staff awareness

## Step 4

See how  
much you can  
save with  
plug-in timers

## Step 5

Review your  
energy saving  
action plan  
  
Next steps



# Document list

Visit 2 supplement:

- » Policy document review
- » Energy data analysis advice
- » Out of hours energy use
- » Energy awareness monitoring & feedback
- » Plug-in timers

## Visit 2 supplementary material

**Policies**

Review your energy statement with your guide and make sure it meets the minimum criteria as set out in the template and training kit. Review your buy smart strategy and make sure it also meets the minimum criteria set out.

For both policies, confirm whether they have been reviewed with or by senior management. If not, discuss whether this will/will not be possible.

Additional items to discuss and review include:

- Where are the policies to be kept/displayed?
- Is your energy policy to be made publicly available?
- How have you made colleagues aware of the new policies?
- Have either policy been applied to any real situations yet?

**Metering & Monitoring**

Review the suggested analysis techniques below. If you have been unable to collect/determine your energy use please move onto the supplementary section.

The below figure shows an example of kWh of consumption plotted against weekly intervals. You can see that consumption increases by approximately 30% during week 9 and stays at the new higher level. In this instance it would be important to determine if the increase in consumption is legitimate or needs to be addressed. Try plotting your energy consumption graph similar to the below to identify any trends or variations.

Week	Consumption (kWh)
Week 1	200
Week 2	200
Week 3	200
Week 4	200
Week 5	200
Week 6	200
Week 7	200
Week 8	200
Week 9	300
Week 10	300
Week 11	300
Week 12	300

In vast majority of business, it is possible to save energy by shutting down equipment that is left running needlessly when the building is closed. It is fairly straightforward to calculate this out of hour's consumption for your business. If you are billed on a day and night tariff your invoices should show what your consumption is overnight. Another way to do this is to take a meter reading when you leave at the end of the day and again when you arrive in the morning the next day. How does this compare to your overall energy consumption? If your nightly use is greater than 20% of the total use there is likely to be potential to save energy by switching more things off.

**Plug-in timers**

Walk round your office with your guide and identify what equipment has the potential to be brought under automatic control using plug-in timers



# Step 1: Document Review



Energy statement and Buy Smart Strategy :

- » Review progress and troubleshoot any issues
- » See handbook for additional questions



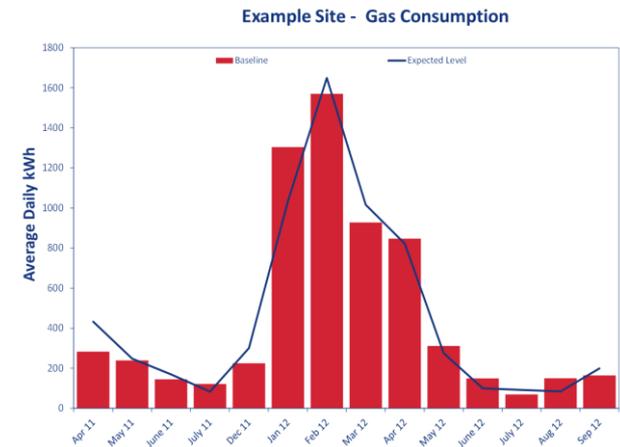
# Step 2: Metering and Monitoring

Review data collection system:

- » Spreadsheet or paper based record of monthly/weekly energy data
- » kWh and cost information!
- » Review issues where client has been unable to collect data
- » Supplementary slide “Energy, power and carbon”

Energy data analysis:

- » Basic energy use profile
- » Identify trends, unexpected energy use
- » Variable analysis if appropriate e.g. degree days



# Step 2: Supplement

Step 2

Additional sheet:

- » Where client is not able to collect energy data
- » Explains the basics of energy, power and carbon
- » Additional task to check a piece of office equipment
- » Useful information if client is 'advanced'

## Step 2: Energy, power and carbon

Step 2

Why	<p>Whilst some aspects of energy efficiency require a technical understanding, the fundamentals are based around a few simple concepts. This section reviews information important to understanding energy efficiency.</p>
What	<p>Many would define energy as 'electricity, fuel, and/or heat'. A physics teacher would certainly define it more rigorously as 'capacity to do work' but the real world definition works here. When we buy energy it may be billed or reported in a variety of units of measurement, but all have their equivalents in kilowatt hours (kWh) which is how electricity and gas consumption is commonly expressed.</p> <p>'Power' has quite a specific meaning. It is the rate at which energy is delivered, commonly expressed in watts (W) or kilowatts (kW). The energy used by a piece of equipment running at fixed power is the time multiplied by the power. A 3 kW electric heater running for two hours will use <math>3 \times 2 = 6</math> kWh. To determine what the energy cost is of running equipment you need to apply the unit rate to the kWh. In the case of our 3kW heater running for 2 hours at €0.15/kWh: <math>6 \times 0.15 = \text{€}0.90</math>. To work out the related carbon you need to apply an emissions factor. Different fuels have different emissions factors which are published by national governments. In the UK, the 3kW heater running for two hours would produce roughly 2.47kg of carbon (<math>6 \times 0.41205</math>) using 2016 figures.</p>
Next steps	<p>Review the kW rating of a piece of electrical equipment in your office (ask your guide for help if required) and try to work out what the annual cost of operation is. Most equipment will only state its maximum watt or kW figure therefore its average use may be less if its power intensity varies (e.g. computers/fridges/motors etc.)</p>



# Step 3: Staff Awareness review

Step 3

## Monitoring:

- » Review progress
- » Assess success
- » Generate improvements
- » Maintain momentum

## Feedback:

- » Two-way feedback
- » Feedback tips

## Step 3: Energy awareness review

Step 3

Why

Most businesses could save 5% off their energy bills through behavioural measures. Monitoring and feedback should be an integral part of planning any energy awareness and staff engagement activity. Energy awareness and behaviour change should complement other elements of good practice as part of an integrated approach to energy management in your organisation.

What

During the first visit we took you through the process for developing an energy awareness and staff engagement programme. By now you should have done some research and planning, and started delivering one or more activities with staff. Once you start engaging with staff you need to start monitoring and providing feedback:

- 1. Monitoring:** You should have planned in some monitoring when you were preparing your engagement activities. This could have been based around data and metering or around human observation, depending on your physical environment and the type of behaviour you're targeting. Tip: remember to take into account other changes that may affect metered data. E.g. people may be switching off equipment more but if you've bought more equipment since starting the engagement then the savings may not show up in your energy use data.
- 2. Feedback:** The greater challenge in changing staff behaviour is persistence, as it can take 6-8 weeks for a behaviour to become a habit. Feedback can help achieve that, by making people feel that what they are doing is recognised and worthwhile. If people feel good about a new behaviour, they're more likely to keep doing it. Tip: people can be more inclined to do something if they think everyone else is doing it – think about using this fact in your feedback. E.g. if people think most staff now turn out lights after leaving a room then that becomes the 'normal' behaviour, and they'll be more likely to do it themselves.

Next steps

Continue monitoring and giving and collecting feedback – actively engage and listen to your staff, and use their feedback to refine your upcoming engagement activities. Keep momentum going. See the 'Visit 2 supplementary materials' document and the 'Involve your staff' page on the [Knowledge Base](#) for more information.



# Step 3: Staff Awareness review

 Step 3

## Monitoring tips:

- » Baseline accuracy
- » Human observation
- » Types of system involved
- » Positive bias



## Feedback Tips:

- » Timeliness
- » Linking feedback back in
- » Green messaging
- » Normative social influence



# Step 4: Plug-in timers

 Step 4

## Review:

- » Introduce technology and benefits
- » Demo if you have access to a device
- » Identify vendors/models
- » 7 day time switch and digital display

## Survey:

- » Conduct site walk round to identify appropriate equipment
- » Always check with relevant persons if ok to shut down
- » Discuss optimal time settings
- » Vending machines can be tricky depending on service agreement



# Step 5: Review



Action plan / Checklist:

- » Run through requirements for next 6 months
- » Highlight estimated timescales
- » Talk through optional actions where deemed appropriate

Top tips:

- » Actions that directly reduce energy

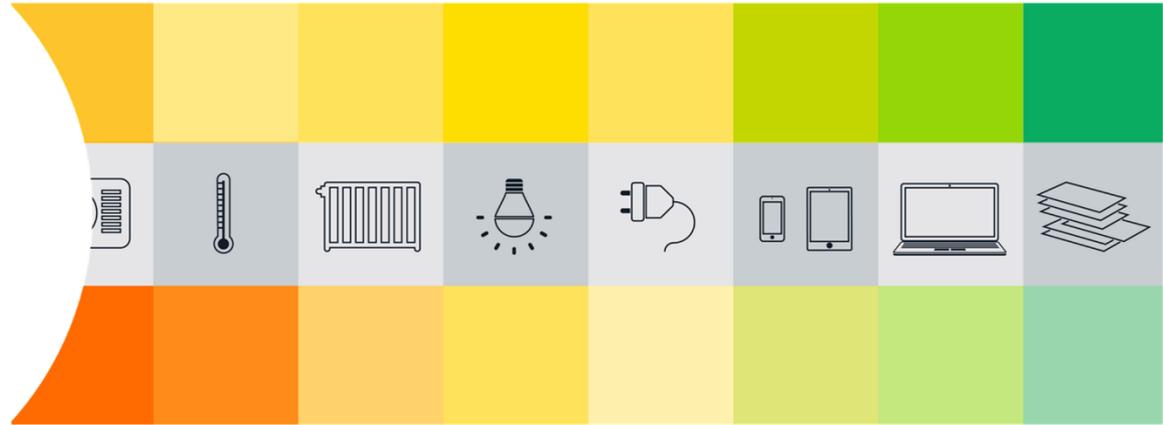
Resources and next visit:

- » Highlight START2ACT website and additional resources
- » Plan next visit

Visit 2 checklist

Action	Time estimate	Due by	✓
Finalise your energy statement and buy smart strategy and communicate these internally and externally if possible i.e. publish on your website	0.5 days	Visit 3	
Perform analysis on your energy data as detailed above	0.5 days	Visit 3	
Purchase plug-in timers if you have identified equipment that can be brought under automatic control using these	0.5 days	Visit 3	





# Questions and Discussion

# Agenda

1. Key Documents
2. Preparation
3. Visit 1
4. Visit 2
5. Visit 3
6. Energy Saving Platform



# Visit 3

## Step 1

Review progress of action plan

## Step 2

Make sure your heating and cooling system are not creating unnecessary energy waste

## Step 3

Understand the options available to you for saving energy through lighting

## Step 4

Consider how you can save energy through equipment upgrades

## Step 5

Review your energy saving action plan  
Discuss how to progress in the future





# Document list

## Visit 3 supplement:

- » Heating and HVAC Controls
- » Lighting
- » Equipment upgrades



### Visit 3 supplementary material

**Heating and AC controls**

If possible, review your office's time and temperature settings for heating or cooling with your guide. If you are not able to review this, request the information from your landlord or 3rd party managing agent.

Always check or seek to confirm that time and temperature control is flexible enough to match heating and cooling supply to patterns of occupation and requirements. In most offices that means the ability to set-up different occupational occupied periods depending on the day of the week, to provide for occasional out-of-hours use, and to schedule for public holidays. Today, wireless digital programmable thermostats are cheap enough for domestic use meaning there is no excuse for the existence of fixed 24 hour time switches. Where a computerised building management system exists, it's really just a question of starting to use its features correctly.

**Lighting**

Walk round your office with your guide to identify what sort of lighting types you have and whether they can be replaced with LED versions or there are options to switch off and make use of natural light.

There are a number of easy and inexpensive steps you can take. There are some workplaces, for example, where staff may not even know where the light switches are or, if they do, it may not be clear which bank of switches controls which area. Clearer labelling is simple: it need not be flashy and, combined with increased energy awareness, it will help cut costs and carbon.

A common issue is not understanding who is last out of the office. This will often be the cleaners rather than office staff so they are the people to engage with.

Where replacing traditional lights with LEDs remember to be aware of the 'colour temperature' and the 'lux' levels. In simple terms, this is how 'warm' the light feels and how bright it is. A good rule of thumb is to try and match-up existing colour temperature and lux levels but be aware – these may not have been appropriate in the first place. Your guide will be able provide further advice if required.

**Equipment upgrades**

Walk around your office with your guide to identify small power items that could be upgraded. Find out what the replacement process is – does your procurement policy cover their specification?





# Step 1: Progress Review

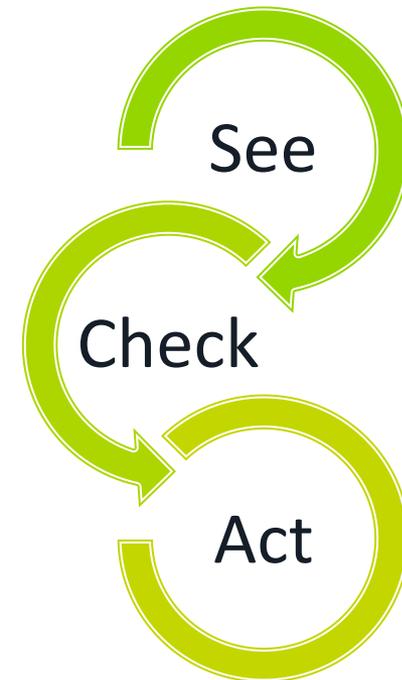
 Step 1

Review:

- » Last chance to make sure they have:
  - » Energy statement
  - » Buy Smart Strategy
  - » Energy data collection system
  - » Understanding of staff awareness activities

Plug-in timer controls:

- » Has the client purchased and installed any units?
- » Troubleshoot any issues
- » Help them quantify savings?



# Step 2: HVAC controls

 Step 2

## Review:

- » Visit control interface
- » Air conditioning and/or heating
- » Engage appropriate person
- » Localised vs centralised (zonal)

## Settings:

- » Are time schedules appropriate?
- » Are temperature set point approximate?
- » Are seasonal set points used?
- » Early switch off late/shut down
- » Optimum start/stop (advanced)



NB: If you and/or the client are not comfortable with the controls don't make adjustments!

However, time and temperature settings should be known!



# Step 3: Lighting (management)

 Step 3

Lighting management measures:

- » No cost lighting energy saving interventions
  - » Optimising daylight
  - » Switch off regime/procedures
  - » De-lamping based on Lux levels



Note:

- » Measures to reduce solar gain are there for a reason
- » Don't always assume current lighting is fit for purpose
- » Locate switches/controls and find out who/how they are controlled
- » Dirty windows and luminaires are an easy fix!



# Step 3: Lighting (investment)

 Step 3

LED and control measures:

- » Emphasise the business case
- » Focus on benefits - lower wattage, longer lamp life etc.
- » Upfront cost compared to lifecycle costs
- » Daylight and occupancy controls optimum placement
- » Not a feasibility assessment

Note:

- » “Control” of lighting maintenance
- » Encourage “piloting” of a few lamps
- » Full fitting versus retrofit
- » End of life or early replacement



# Step 4: Equipment upgrades

 Step 4

IT/small power equipment :

- » Focus on procurement
- » Purchasing the right equipment for the job
- » Are high powered PCs and laptops necessary?
- » What about “thin-client” systems
- » Conduct site survey (could combine with lighting)



Note:

- » Do not encourage replacement of equipment with serviceable life
- » Other small power equipment might come under this bracket
- » IT departments/professionals not always the most welcoming to energy efficiency!



# Step 5: Review



Step 5

Action plan / Checklist:

- » Review step from final visit
- » Talk through optional actions if you deem appropriate
- » Look to future and next steps

Top tips:

- » Provision of actions that directly reduce energy

Resources:

- » Highlight START2ACT website and additional resources





# Tailoring

What:

- » Partners will need to tailor the Training Kit in order to:
  - » Translate
  - » Customise
  - » Adjust according to clients' 'maturity'
  - » Adjust according to clients' on site systems and operations
  - » Check metering/monitoring advice is appropriate
  - » Revise the way you approach the metering/monitoring steps
  - » Check focus of local climatic conditions is appropriate
  - » Other

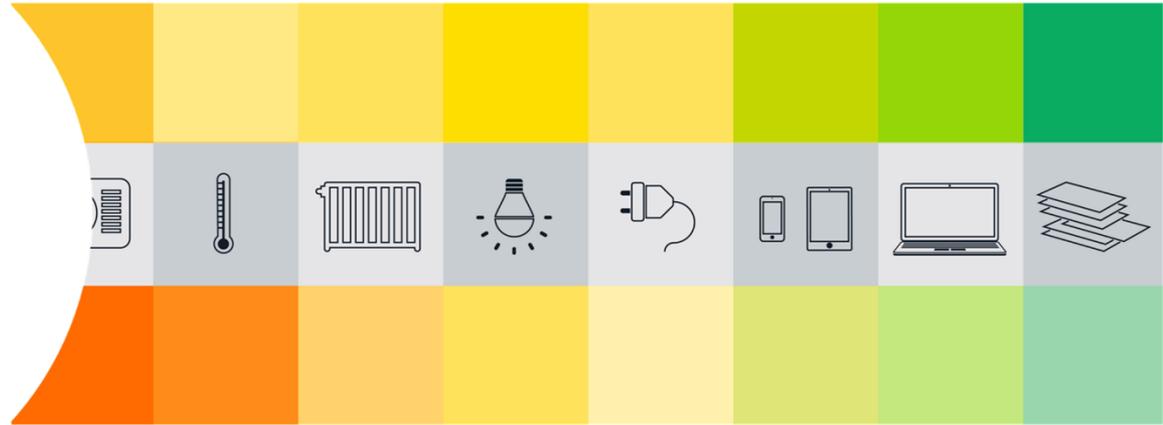




# What if...

- the client has largely done most of the activities scheduled for this visit?
- the client has been unable to complete any of the tasks and no progress is made?
- after the first visit the client is not interested in completing the programme?
- they are located in a tenanted building with very little control over the maintenance and upkeep of the property?
- they are physically unable to collect their energy data?
- they are interested in focussing on other areas not covered in the programme?
- they are interested in further support?
- they have seen no measureable reduction in their energy use?





# Questions and Discussion

# Agenda

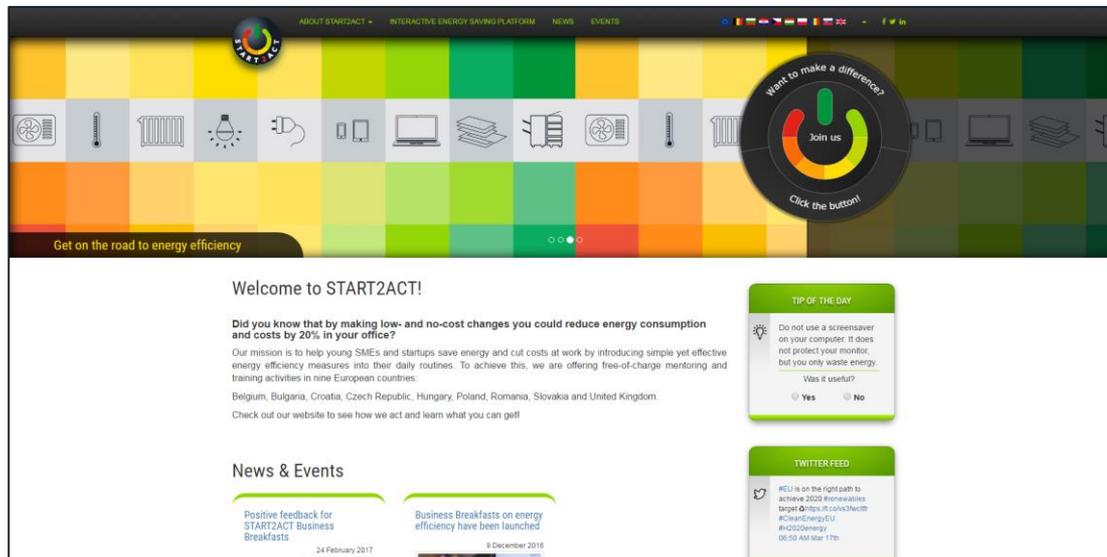
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# Energy Saving Platform

- » An interactive website (translated into all partner languages)
- » Open-source, so can be accessed by anyone (sign up required for some features)
- » Created alongside the Training Kit materials, so can be used as an additional resource by START2ACT participants



## Includes four elements:

- » Knowledge Base
- » E-Learning
- » Energy Saving Competition
- » Interactive Social Platform



# Knowledge Base

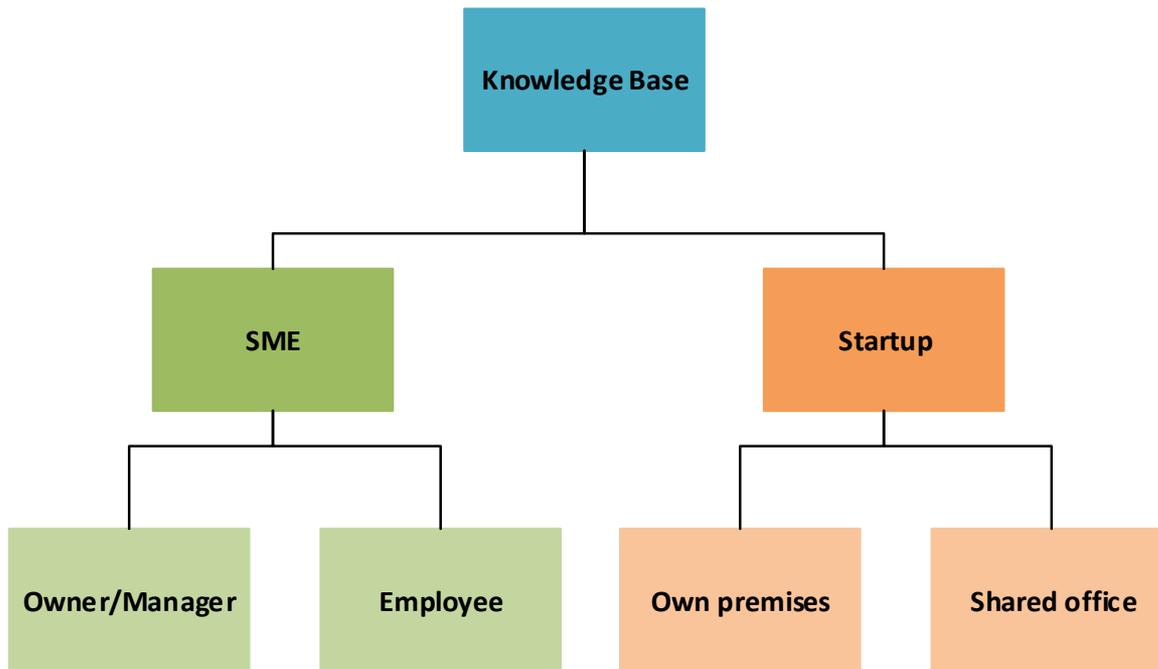
- » Energy efficiency advice pages for SMEs and startups
- » Open access
- » Split into energy saving opportunity areas (see topic list)
- » Focuses on low and no cost energy saving measures and on improving energy management

## Topic list:

- » Lighting
- » Heating & cooling
- » Office equipment
- » Metering & monitoring
- » Procurement
- » Green marketing
- » Choosing green offices
- » Greening product and services
- » Save energy at home
- » Green finance



# Knowledge Base: structure



## Knowledge base



I'm working at an SME



I'm working at a Startup

## Energy efficiency at an SME



I'm a manager at an SME



I'm an employee at an SME



# Knowledge Base: content

## Each topic sets out:

- » Top low and no cost recommendations
- » Detailed implementation advice
- » Facts
- » Graphs/images
- » Downloadable materials
- » Links to external tools and resources

The screenshot shows a web interface for an 'Interactive Energy Saving Platform'. The main content area is titled 'Lighting and Controls' and contains placeholder text (Lorem ipsum) and a large image placeholder. To the right of the main text are three green callout boxes: 'CARBON CALCULATOR', 'TIP OF THE DAY', and 'ADVICE ON ENERGY SAVINGS'. Below the main text, there are two charts: a pie chart labeled 'Lorem ipsum' and a line graph labeled 'Dolor sit amet'. A sidebar on the left lists 'Other topics for Managers' with categories like 'Heating, cooling and controls', 'Office equipment', 'Procurement', 'Monitoring and reporting', and 'Employee engagement'. At the bottom, there is a section 'You might also be interested in these topics' with several small image placeholders and labels like 'Save energy at home', 'Metering', 'Carbon Footprinting', and 'Label'.





# Site demo

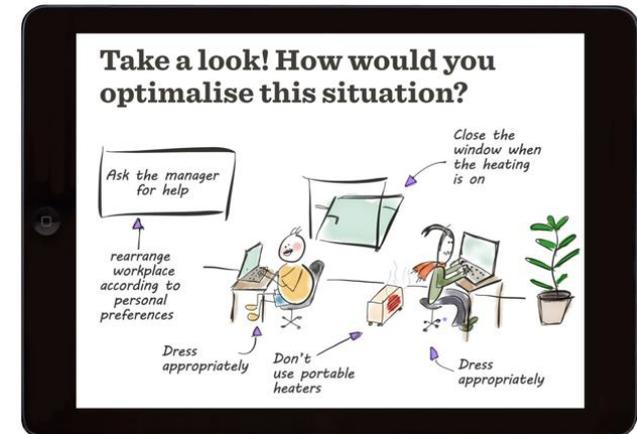


<http://start2act.eu/interactive-energy-saving-platform>



# E-Learning

- » Provides registered users with an opportunity to engage with the energy efficiency content
- » All users can complete the first two modules:
  - » Energy Efficiency in the workplace
  - » Save Energy at Home
- » Managers have an extra module:
  - » Smart Energy Management Systems
- » The modules are based on chapters from seven of the Knowledge Base topics
- » Mixture of presentation slides and interactive exercises





# E-Learning: Structure

MODULES	CHAPTERS	DURATION IN MINUTES
1 Energy efficiency in the workplace	Light	5-10 mins
	HVAC	5-10 mins
	Office equipment	5-10 mins
	Test	
2 Save energy at home	Save energy at home	5-10 mins
	Test	
3 Manager module, Smart Energy Management Systems	Procurement	5-10 mins
	Metering and monitoring	5-10 mins
	How to engage and involve all staff members?	Max. 5 mins
	Test	





# Energy Saving Competition

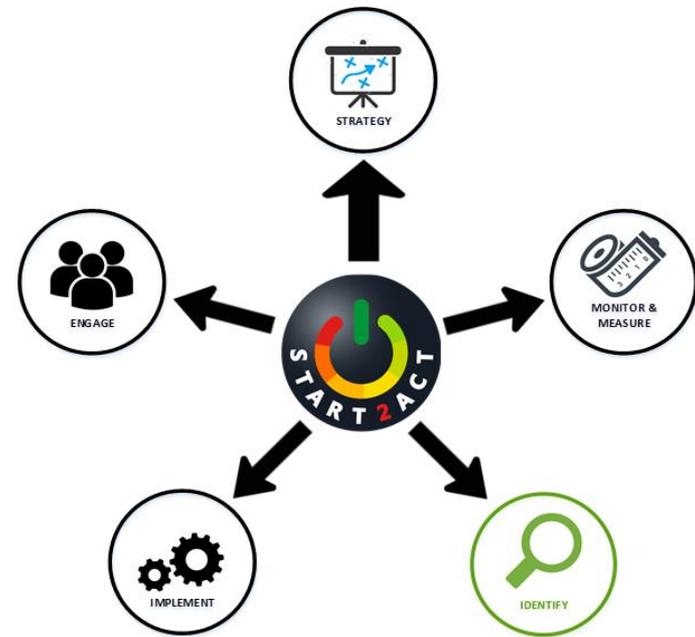
- » A competition to motivate SMEs to improve their energy management processes and reduce energy use
- » Each SME can register with one account
- » The SME can self-assess the energy efficiency status of their office and will receive a numerical score
- » The SME will receive a bronze/silver/gold/platinum START2ACT award depending on their score
- » The SME can return to the competition multiple times and review their self-assessment to achieve the next award level





# Energy Saving Competition: Structure

- » The competition focusses on five elements of energy management and reduction:
  - » Strategy
  - » Monitor & Manage
  - » Identify
  - » Implement
  - » Engage
- » Behind each icon is a checklist with actions relating to each category
- » The SME can tick off all of the actions that they have completed





# Energy Saving Competition: Checklist

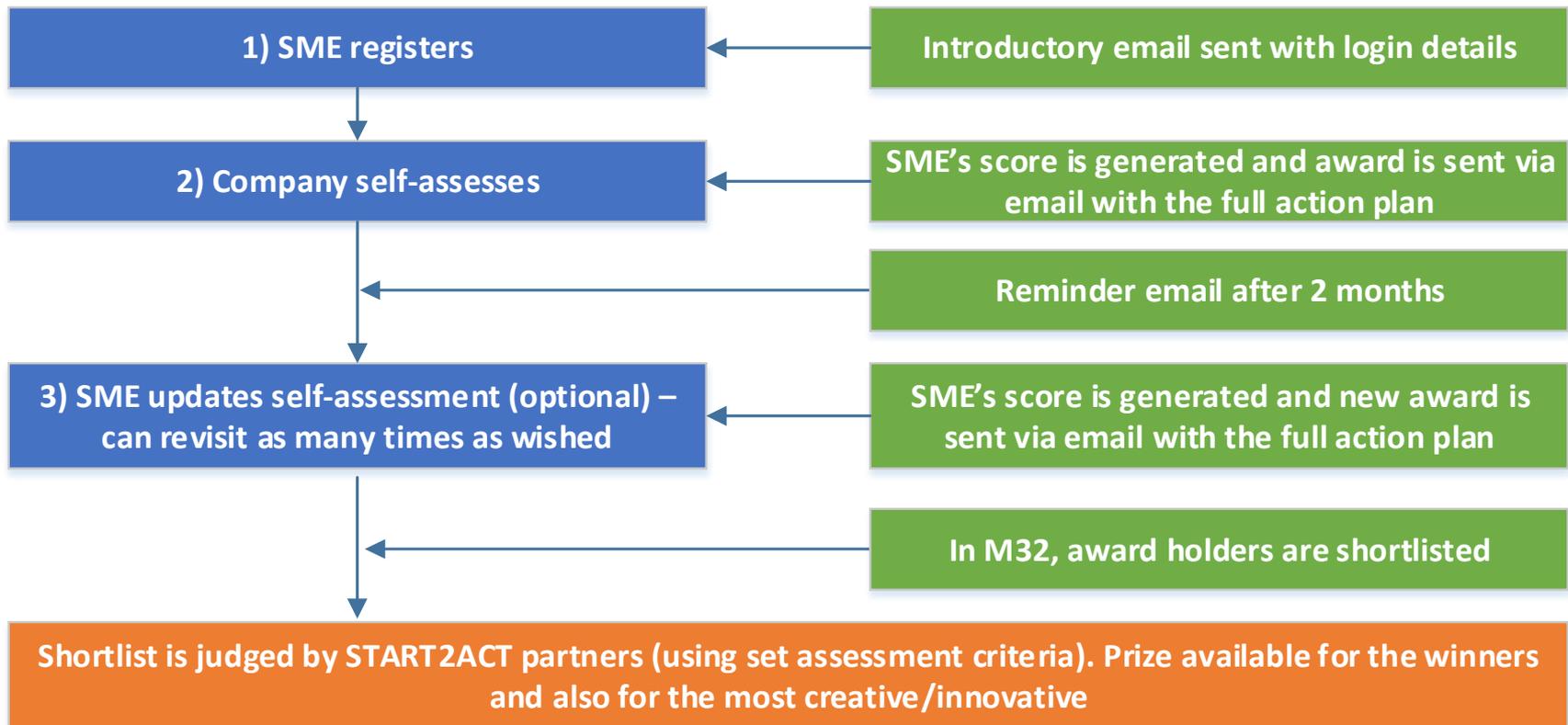
## Checklist example for the 'Identify' category

Action	We've done this/we do this regularly	N/A	Evidence uploaded?	Add comment
We have conducted a walk around of the office and have identified low and no cost energy saving opportunities. [Read more]	[Ability to <input checked="" type="checkbox"/>	[Ability to <input checked="" type="checkbox"/>	[Ability to <input checked="" type="checkbox"/>	[Insert text]
We conduct regular walk arounds and regularly identify energy saving opportunities to be included within an action plan. [Read more]				
As well as identifying low and no cost energy saving opportunities, we identify longer term investment opportunities. [Read more]				
We identify opportunities for procuring more energy efficient equipment, so that when the time comes to upgrade equipment energy efficiency of new equipment is considered. [Read more]				



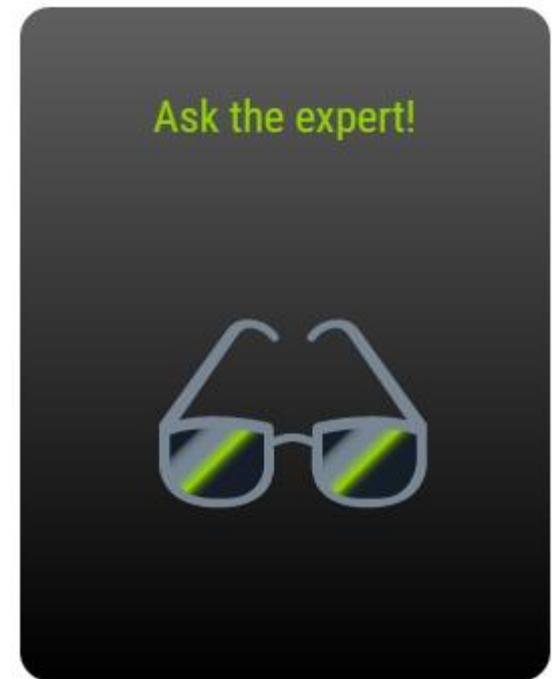


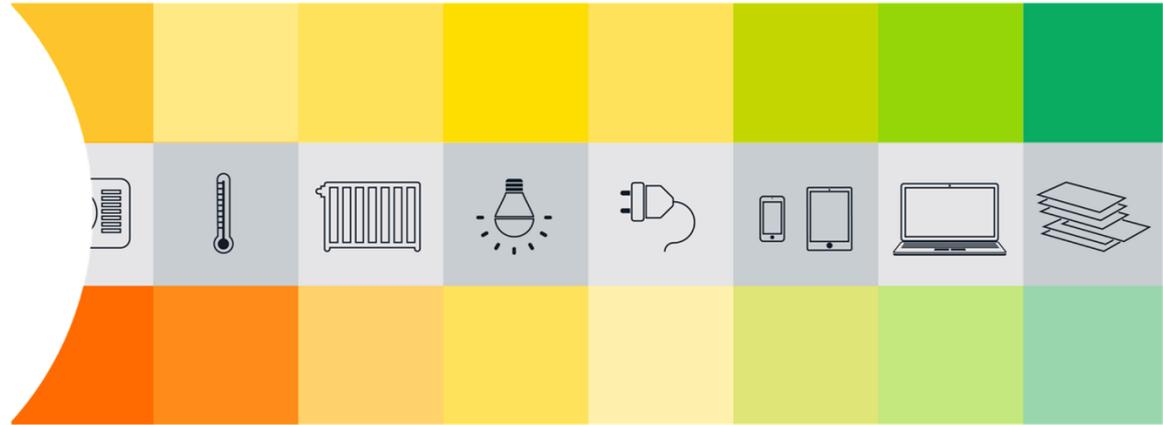
# Energy Saving Competition: Process Flow



# Interactive Social Platform

- » Available to registered users
- » Forum-like online environment facilitating information sharing between SMEs and startups
- » Users will be encouraged to share experiences, achievements, interests and needs relating to energy efficiency
- » Includes an 'Ask the expert' function to allow users to directly ask questions to the national partners





# Questions and Discussion