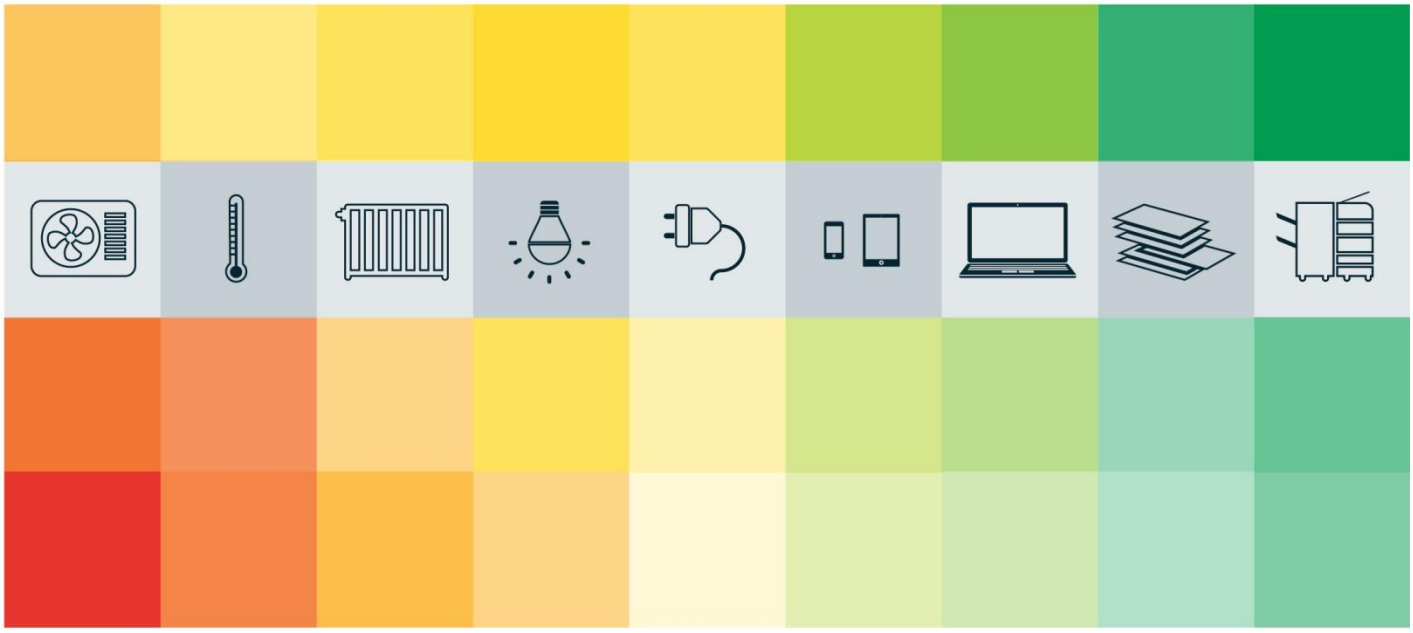
Ref. Ares(2018)921532 - 16/02/2018



D2.1: Baseline Assessment report

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

PROJECT NO.	696069
PROJECT ACRONYM	START2ACT
START DATE	01.03.2016
DURATION	36 months
DELIVERABLE ID	D2.1 Baseline assessment report
DUE DATE OF DELIVERABLE	30.11.2016
LEAD BENEFICIARY FOR THIS DELIVERABLE	CentERdata

	NAME	ORGANIZATION
AUTHOR(S)	Dr Roxanne van Giesen Dr Natalia Kieruj	CentERdata
CONTRIBUTOR(S)	Dr Maartje Elshout Dr Millie Elsen	CentERdata
	Lucy Hunt	Carbon Trust
	Daniel Frohnmaier	Geonardo

DISSEMINATION LEVEL

☒ Public

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

DOCUMENT HISTORY

VERSION	DATE	NOTE	ISSUED BY
01	02.05.2016	Version for feedback on the questionnaire	CentERdata
02	20.05.2016	Updated version of the questionnaire for feedback	CentERdata
03	28.11.2016	Feedback on the report	CentERdata
04	30.11.2016	Final version	CentERdata
05	23.06.2017	Deliverable updated according to EASME's request	CentERdata
06	13.02.2018	PR1 assessment requests: integration of comparison UK vs. CEE, outreach strategies in Ch. 4 and results in Ch. 5; added regional conclusions in Ch. 6	CentERdata

Disclaimer: *This report reflects only the author's view and EASME is not responsible for any use that may be made of the information it contains.*

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

Table of Contents

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

1. Introduction

1.1 Background and aims of the START2ACT project

Energy conservation is an increasingly important topic, especially with the 20-20-20 energy target in mind. The 2020 package is a set of binding legislation to ensure the EU meets its climate and energy targets for the year 2020.

The package sets three key targets[1]:

- 20% cut in greenhouse gas emissions (from 1990 levels);
- 20% of EU energy from renewables; and
- 20% improvement in energy efficiency.

In line with these targets and the importance thereof, START2ACT aims to encourage energy saving at work by engaging young SMEs and startups. It is of key importance to already engage small businesses now, as those that currently have relatively low energy consumption costs will have a considerable impact on the environment once they grow and expand.

START2ACT focuses on young SMEs (small and medium sized businesses) and startups. The young SMEs that are approached in the START2ACT project have a maximum of 50 employees and have been operating for no longer than 5 years. Startups are defined as independent, unlisted, innovative, tech enabled, scalable enterprises designed by intent from day one to become large companies — by either disrupting an existing market and taking customers from existing companies or by creating a new market — aiming to provide significant returns to their founders and investors using all available outside resources.[2]

An important part of the START2ACT approach is to facilitate behavioural change by understanding the motivations, attitudes and knowledge levels of managers and employees of young SMEs and startups. These will also be monitored longitudinally so that the impact of training and mentoring programmes over time can be evaluated.

The aim of this report within Workpackage 2 (WP2) is:

- To identify potential barriers to and facilitators of behavioural change towards more energy efficient behaviour.
- To provide a deeper understanding of the psychological aspects of energy conscious behaviour in the start-up process of an enterprise and the daily working routine of young SMEs.

1.2 Energy consumption at work

A substantial proportion of a nation's total energy use is consumed in office buildings and other utility buildings.[3] SMEs are an important part of the world economy, responsible for approximately 60% of all worldwide CO_2 emissions and 70% of all pollution.[4] There is thus a great potential for action at the workplace to achieve significant reductions in energy use. START2ACT aims to achieve an energy saving of 11.48 GWh.

[1] http://ec.europa.eu/clima/policies/strategies/2020/index_en.htm
[2] Startup definition provided by the partner startups.be specifically for the START2ACT project.
[3] Staats, H., Leeuwen, E., & Wit, A. (2000). A longitudinal study of informational interventions to save energy in an office building. Journal of Applied Behavior Analysis, 33(1), 101-104.
[4] Parker, C. M., Redmond, J., & Simpson, M. (2009). A review of interventions to encourage SMEs to make environmental improvements. Environment and planning C: Government and policy, 27(2), 279-301.

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

Energy savings can be the result of two approaches[5]:

- Energy efficiency through investments in buildings or materials that provide the same benefits but use less energy.
- Reduce energy use by changing behaviour of managers and employees at work, which they could apply to the home environment as well.

START2ACT focuses on the latter, reducing energy use by encouraging behavioural change at work. The largest impact in terms of energy saving in the workplace involves a behavioural change in employees' use of daily office equipment. Heating, light, cooling and IT are the biggest contributors to energy use in offices.[6] Figure 1.1 shows the energy use of business equipment in the typical office.[7] It shows that most energy is consumed by PCs and monitors. By changing the daily routines of employees at work, energy reductions can be realised. For instance, by stimulating employees to power down computers when they have finished work. The training and mentoring programs therefore focus on changing the daily routines of employees by simple interventions.

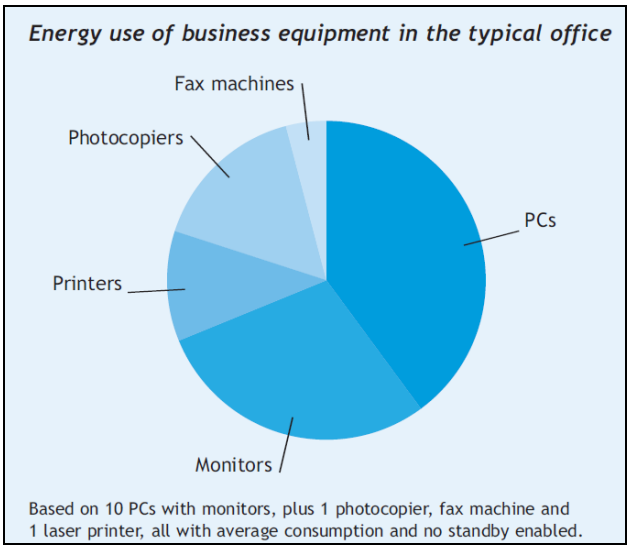


Figure 1.1: Energy use of business equipment

1.3 The importance of behavioural change

For the development of successful interventions aimed at behavioural change, insight is needed into what drives employees and managers. Depending on the target groups, different strategies may be effective. Energy reduction can be achieved by lifestyle changes as well as other energy efficiency measures. For instance, 20% of energy that is currently consumed at the workplace can be saved through energy efficiency measures targeting behavioural change.[8] Already many tools and solutions for energy efficiency are available. However, these do not necessarily lead to behavioural change.[9] There are two important reasons for this:

[5] Tiedemann, K. H., & Hydro, B. C. (2010). Behavioral change strategies that work: a review and analysis of field experiments targeting residential energy use behavior. People-Centered Initiatives for Increasing Energy Savings, 299.
[6] Pérez-Lombard, L., Ortiz, J., & Pout, C. (2008). A review on buildings energy consumption information. Energy and buildings, 40(3), 394-398.
[7] Figure from the Carbon Trust (2006).
[8] EEA, 2013: Achieving energy efficiency through behaviour change: what does it take? EEA Technical report No 5/2013
[9] Hertwich, E. G. (2005). Consumption and the rebound effect: An industrial ecology perspective. Journal of industrial ecology, 9(1-2), 85-98.

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

- There is a lack of understanding: people are not aware of the things they can do in order to conserve energy.[10]
- There is insufficient engagement: energy conservation is often a very distant goal. People may think that the actions of one person do not matter. However, the cumulative impact of all these actions together does matter.[11]

Most people work for a significant part of their lives and spend a significant part of their week at companies. In order to reach the 20-20-20 goals, active engagement of existing and emerging startups and young SMEs is therefore essential. To this end, an understanding of the barriers and facilitators is crucial: What are the barriers and challenges? What demands and needs are there? Moreover, an understanding of which barriers and needs apply to certain business types is important to match the intervention with the company. We have investigated these issues by means of a survey of employees of young SMEs and startups.

1.4 Structure of the report

This report describes the results of the baseline survey, which was administered to provide a national baseline and to investigate the needs of startups and SMEs to input into the training and mentoring programmes. The baseline survey zoomed in on the role of company characteristics in energy saving behaviour, such as the company drivers of and barriers to behavioural change, and attitudes and motivations of individual employees. In the next stage of the programme, monitoring surveys will be administered on a periodic basis among employees of startups and SMEs that will be engaged in the START2ACT mentoring and training.

In the next chapter, we provide a short literature review on barriers to and facilitators of behavioural change in energy usage, which provided a theoretical foundation for the survey methodology. Chapter 3 provides an overview of the research methodology discussing the themes and concepts that were assessed in the survey. Chapter 4 provides information about the sample of the baseline survey. Chapter 5 explains the results of the baseline survey. Also, we zoom in on regional differences comparing the survey results of the UK and Central and Eastern European countries. In Chapter 6 we draw conclusions from the baseline survey. Along with this report, report D2.2 on the optimization of mentoring and training provides advice on how to design effective training and mentoring programs based on literature, survey results and discussion with experts.

[10] Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms. Psychological science, 18(5), 429-434.

[11] Abrahamse, W., & Steg, L. (2011). Factors related to household energy use and intention to reduce it: The role of psychological and socio-demographic variables. Human Ecology Review, 18(1), 30-40.

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

2. Literature review: facilitators and barriers to behavioural change

This chapter focuses on relevant literature on the barriers to and facilitators of behavioural change and the importance of engaging employees and managers of young SMEs and startups. The aim of this chapter is to provide a deeper understanding of the influence of company characteristics and person-related factors, such as knowledge, attitudes and motivations of individual employees, on energy saving behaviour and behaviour change. The framework presented in this chapter forms the theoretical basis for the baseline survey and monitoring surveys. To gain insight into the impact of the training and mentoring programmes on energy saving behaviour (change), the mentoring surveys (not part of this report) will also cover measures of behavioural intentions and actual behaviour, in addition to more psychological factors such as attitudes and motivations.

This is important because previous research has documented a discrepancy between environmental attitudes and behaviour (the "attitude-behaviour gap"): people generally report being concerned about the environment, but this concern does not always translate into more sustainable choices and behaviour. Understanding this is important when starting to implement interventions to change behaviour to become more energy efficient. The literature review on effective behavioural interventions is discussed in more detail in report D2.2 on the optimisation of mentoring and training.

2.1 Energy efficient behaviour

Energy efficient behaviour depends on many aspects. Two widely applied theoretical frameworks for explaining behaviour and behaviour change are the Theory of Planned Behaviour (TPB) and the Value-Belief-Norm theory (VBN).[12] The theories have also been applied to energy efficiency.[13,14] The model we describe integrates aspects from both theories applied to energy efficiency. The model is displayed in figure 2.1.

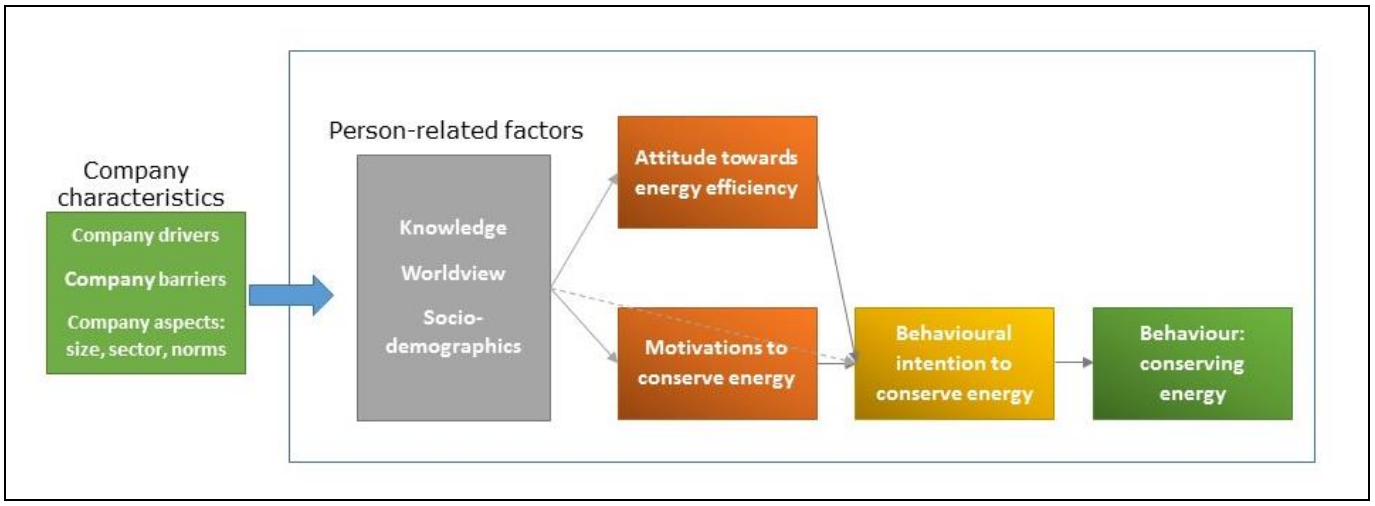


Figure 2.1: Model to explain energy efficiency behaviour – or the lack hereof (based on TPB)

[12] Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In Action control (pp. 11-39). Springer Berlin Heidelberg.
[13] Abrahamse, W., & Steg, L. (2011). Factors related to household energy use and intention to reduce it: The role of psychological and socio-demographic variables. Human Ecology Review, 18(1), 30-40.
[14] Dixon, G. N., Deline, M. B., McComas, K., Chambliss, L., & Hoffmann, M. (2015). Saving energy at the workplace: The salience of behavioral antecedents and sense of community. Energy Research & Social Science, 6, 121-127.

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

On the right side of the model the 'desired' **behaviour** – conserving energy – is displayed. Within START2ACT energy efficient behaviour applies to both behaving energy efficiently in the office, during work time, and the potential spill-over of energy efficient behaviour at home transferring certain behaviour patterns from the workplace to the home. Positive spill-over effects occur when taking-up a new environmentally friendly behaviour may lead to the adoption of other, more environmentally-beneficial behaviours. [15] Environmentally friendly behaviours are not independent, so when people start to act in an environmentally friendly way in one area, such as the workplace, this behaviour tends to spill over into other areas, such as at home.[16] For instance, when employees have internalised the behaviour to switch off their computer and lights when leaving the office, they can transfer this behaviour to the home situation as well. Performing pro-environmental behaviour may activate personal values and motivations which might influence future sustainable behaviour.[17] In this way, positive spill-over effects can produce general lifestyle changes, also further influencing other sustainable areas, such as buying organic and local produced foods. However, also negative spill-over effects might occur when taking up one behaviour deters other environmentally-friendly behaviour ("a rebound effect"). People then use the initial behaviour as a justification that doing other environmentally friendly things is not necessary (as they have done enough already).[18] START2ACT aims to change behaviour in the workplace and in this way inspire people to adopt simple energy-efficient behaviour at home as well.

Behavioural intentions can be seen as the closest predictor to perform the behaviour. Behavioural intentions are an indication of the extent to which people are willing to perform the behaviour (in the future). In the monitoring surveys (next data collection waves), when we start following startups and SMEs over time, we will take behaviour into account by gathering information on actual energy usage via energy bills, and by asking questions about self-reported behaviour and future behavioural intentions. In the monitoring surveys we also investigate spill-over effects to the home situation.

Behavioural intentions are in turn influenced by **attitudes** and **motivations** to conserve energy. Attitudes refer to the degree to which a person has a favourable or unfavourable evaluation towards energy efficiency. Motivations refer to the degree to which a person is motivated to perform energy efficient behaviour.

Furthermore, attitudes and motivations are influenced by **person-related factors**, such as:

- knowledge about (the importance of) energy efficiency;
- worldview: general values such as environmental concern, self-expectation on energy efficiency and the ease or difficulty to engage in this behaviour;
- socio-demographics.

In the current context of behaviour change among employees of startups and SMEs it is also of key importance to take into account **company characteristics**, such as:

- company drivers;
- company barriers;
- company-specific aspects, such as the size and sector of the company and company norms.

In the remainder of chapter 2 we discuss these concepts further.

[15] Thøgersen, J., & Crompton, T. (2009). Simple and painless? The limitations of spillover in environmental campaigning. Journal of Consumer Policy, 32(2), 141-163.
[16] Thøgersen, J. (1999). Spillover processes in the development of a sustainable consumption pattern. Journal of economic psychology, 20(1), 53-81.
[17] Cornelissen, G., Dewitte, S., Warlop, L., & Yzerbyt, V. (2007). Whatever people say I am, that's what I am: Social labeling as a social marketing tool. International Journal of Research in Marketing, 24(4), 278-288.
[18] Thøgersen, J. (1999). Spillover processes in the development of a sustainable consumption pattern. Journal of economic psychology, 20(1), 53-81.

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

2.2 Company characteristics: drivers and barriers to energy efficiency

Some startups or young SMEs are aware of the importance of energy efficiency and also make this part of their policy, whereas other companies do not consider this important or are not aware of their carbon footprint. There are different company drivers and barriers regarding energy efficiency that affect the company's decision to behave in an energy efficient manner. Gaining an insight into drivers and barriers helps to define the needs of young SMEs and startups. Therefore it is also important to look into company aspects such as the size and sector in which the company operates, the firm's behaviour with respect to its competitors, and the company norms regarding energy efficiency.

2.2.1 Drivers

Drivers can be understood as factors facilitating the adoption of both energy efficient technologies and practices that contribute to an energy efficient culture within a company. The main drivers for companies to introduce energy efficiency measures can be summarised as [19,20]:

- Legislation: fines and legal costs underline the importance of compliance with legal norms.[21]
- Stakeholder pressures: customers, local communities, or environmental interest groups that encourage firms to consider ecological impacts in their decision making.[22]
- Economic opportunities: by intensifying production processes companies reduce energy costs and at the same time lower their environmental impact.[23] Other economic opportunities can be that companies prepare for future increases in energy prices or that they want to increase product quality and increase the green marketing potential of their products.[24]
- Ethical motives: companies respond because it is the right thing to contribute to mitigating climate change. This will also help to improve the company image.[25] It also helps when top management encourages employees to behave in an energy efficient way.

These drivers can be seen as the main reasons that would motivate the company to become more energy efficient. The more in line the company motivations are with the personal motivations of the employee, the higher the chances that these motivations in turn become internalised and lead to actual energy efficient behaviour of employees within a company.

[19] Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. Academy of management journal, 43(4), 717-736.
[20] Eurochambres - CHANGE (2010). Promoting intelligent energy to SMEs. See www.eurochambres.eu/change
[21] Cordano, M. (1993). Making the natural connection: Justifying investment in environmental innovation.
[22] Berry, M. A., & Rondinelli, D. A. (1998). Proactive corporate environmental management: A new industrial revolution. The Academy of Management Executive, 12(2), 38-50.
[23] Eurochambres - CHANGE (2010). Promoting intelligent energy to SMEs. See www.eurochambres.eu/change
[24] Parry, S. (2012). Going green: the evolution of micro-business environmental practices. Business Ethics: A European Review, 21(2), 220-237.
[25] Spence, L. J., & Rutherfoord, R. (2001). Social responsibility, profit maximisation and the small firm owner-manager. Journal of Small Business and Enterprise Development, 8(2), 126-139.

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

2.2.2 Barriers

Barriers can be understood as factors that impede energy efficiency within companies. The main barriers for companies can be summarised as [26,27,28,29]:

- Financial barriers: the available funds within the company are reserved for more important or promising investments, there is a lack of profitability of investing in energy efficiency, or there is a lack of funding for energy efficient investments.
- Lack of time or other priorities: the cost of obtaining information on energy consumption and/or future to-be purchased energy efficient equipment is too high.
- Lack of information / skills: management and employees are not aware of energy efficiency, the company internally lacks the skills to incorporate energy efficiency policies, and/or there is a lack of information on cost-efficient energy efficiency interventions.
- Uncertainty: for instance, pay-back period of investments is long or the incentives are split with others, e.g. energy service companies.
- Technology-related barriers: there is a lack of sub-metering that provides insights on the energy consumption of the company.

Some barriers, such as financial barriers, are difficult to remove. In the training and mentoring sessions, START2ACT focusses on those aspects that can be changed with behavioural interventions. For instance, the lack of information barrier can be addressed by providing companies with relevant advice and information on energy efficiency.

2.2.3 Company aspects

It is important to distinguish between different types of SMEs and startups as they have diverse business models and environmental improvement aspirations.[30] No single intervention would be effective for all SMEs or startups. For instance, companies that act in very competitive industries will only make environmental improvements when this is a regulatory requirement (when all competitors also have to improve on this). For profit-driven firms financial incentives are effective. However, such interventions usually only have a short-term effect in behavioural change as firms revert back to their previous practices when the incentives are removed.[31]

To summarise, energy efficiency can be seen as a strategic factor that will affect the firms' ability to compete. The most important drivers based on the literature review seem to be public financing, external pressures, and long-term benefits. The most important barriers based on the literature review seem to be financial or lack of time and other priorities. The current baseline survey aims to understand what the most important drivers and barriers are for startups and SMEs.

[26] Trianni, A., & Cagno, E. (2012). Dealing with barriers to energy efficiency and SMEs: some empirical evidences. Energy, 37(1), 494-504.
[27] Cagno, E., & Trianni, A. (2013). Exploring drivers for energy efficiency within small-and medium-sized enterprises: first evidences from Italian manufacturing enterprises. Applied Energy, 104, 276-285.
[28] Fleiter, T., Schleich, J., & Ravivanpong, P. (2012). Adoption of energy-efficiency measures in SMEs—an empirical analysis based on energy audit data from Germany. Energy Policy, 51, 863-875.
[29] Okereke, C. (2007). An exploration of motivations, drivers and barriers to carbon management:: The uk ftse 100. European Management Journal, 25(6), 475-486.
[30] Blumer, Y., Wemyss, D. (2015). Indicators of innovation: Empirical insights into activities, challenges, and strategies of Swiss energy sector start-ups. Workpackage 1: Energy, Innovation, Management SCCER CREST.
[31] Parker, C. M., Redmond, J., & Simpson, M. (2009). A review of interventions to encourage SMEs to make environmental improvements. Environment and planning C: Government and policy, 27(2), 279-301.

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

2.3 Person-related factors regarding energy efficiency

Person-related factors directly feed into attitudes, motivations, and behaviour. We take a closer look into three person-related factors that are also described in the model: the knowledge about energy efficiency, personal worldviews such as environmental concern, self-expectations on energy efficiency and the ease or difficulty to engage in this behaviour, and socio-demographic aspects such as gender.

2.3.1 Knowledge

One of the most important reasons why people are not taking action regarding energy efficiency is because they do not know what to do, or how to do it.[32] A lack of knowledge, understanding, or awareness regarding energy efficiency may be caused by that[33]:

- people might not understand the (sometimes complex) information;
- people may not be able to find the information they are looking for;
- people might lack awareness regarding the benefits of energy efficiency; and
- people might perceive calculations as too complex to compute payback of energy efficient investments (e.g. how many years it takes before the investment in energy efficient equipment pays back).

Clearly, people must have a basic knowledge about environmental issues and the behaviours that cause them to act pro-environmentally in a conscious way. Lacking knowledge does, however, not mean that people cannot act pro-environmentally.[34] Increasing knowledge and awareness levels might give employees concrete examples of what they can do in order to perform more energy efficient behaviour. Therefore, in the current survey we also investigate the tools which employees are aware of and which sources of information they use to gather information.

2.3.2 Worldview

People's worldview covers people's basic values, their beliefs about many things, including the environmental impact of specific actions they take; the social pressures on them to behave in one way or another; and their moral beliefs about how they should behave.[35] The personal worldview thus also influences how motivated people are to behave energy efficiently and whether they think they should behave in an environmentally friendly way.

Environmental personal norms are predictive of energy-conservation behaviours.[36] The more truly people are convinced of the benefits of energy savings the more these values become internalised. This also increases the intention to save energy, and it is thus more likely that the individual will actually perform the behaviour.

Social pressures to behave in a certain way and the perceptions thereof also steer attitudes, motivations and eventually behaviour.[37] Social norms refer to people's perception of what others are doing as well as perceptions of (dis)approval by others. If it is not the company norm to save energy, this also decreases the intention to be energy efficient. Open disapproval, for instance by colleagues or friends, would also indicate that it is not the norm to save

[32] Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms. Psychological science, 18(5), 429-434.
[33] Painuly, J. P. (2001). Barriers to renewable energy penetration: A framework for analysis. Renewable Energy, 24, 73-89.
[34] Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. Environmental education research, 8(3), 239-260.
[35] Stern, P. C. (1999). Information, incentives, and proenvironmental consumer behavior. Journal of Consumer Policy, 22(4), 461-478.
[36] Scherbaum, C. A., Popovich, P. M., & Finlinson, S. (2008). Exploring Individual-Level Factors Related to Employee Energy-Conservation Behaviors at Work1. Journal of Applied Social Psychology, 38(3), 818-835.
[37] Dixon, G. N., Deline, M. B., McComas, K., Chambliss, L., & Hoffmann, M. (2015). Saving energy at the workplace: The salience of behavioral antecedents and sense of community. Energy Research & Social Science, 6, 121-127.

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

energy. Lack of social acceptance is a potential barrier to behave energy efficiently.[38] It is therefore very important that the social (company) norms are to behave in an energy efficient way. Organisations can appeal to employees' sense of personal responsibility to use energy responsibly. Moreover, they can persuade employees that energy use is an issue to be concerned with to modify their personal norms.[39]

Perceived control also plays an important role. Perceived control is the perception of being able to perform energy efficient behaviour.[40] As long as employees think they have enough control and the tools to change the behaviour they will more likely act in line with this. Organisations can help with this by providing the necessary tools (e.g. in the form of advice or company policy) to start saving energy.

2.3.3 Socio-demographics

In many studies, effects of gender on environmental concern have been demonstrated.[41,42] Women have higher environmental concern and are more willing to change, even though they are often less informed about environmental problems.[43] It also seems that most environmentally relevant behaviour takes place at home, and is often performed by women.[44] Educational level also influences energy efficient behaviour, as people with higher education levels also have more knowledge about environmental issues.[45] Higher knowledge levels do not necessarily lead to more energy efficient behaviour, however.

To summarise, employees with higher knowledge levels and awareness regarding energy efficiency are more likely to engage in energy efficient behaviour. This is also the case if environmental concern is highly valued by the employee. Increasing knowledge and awareness levels might give employees concrete examples of what they can do in order to perform more energy efficient behaviour.

2.4 Attitudes and motivations on energy efficiency

Attitudes refer to the degree to which a person has a favourable or unfavourable evaluation of energy efficiency. Attitudes inform behaviour. Employees with strong pro-environmental attitudes are more likely to engage in pro-environmental behaviour.[46]

Motivations refer to the degree to which a person is motivated to perform energy efficient behaviour. Employees can be intrinsically motivated to conserve energy or not feeling responsible (importance and concerns employees have regarding energy efficiency). Usually internal barriers to pro-environmental behaviour are non-environmental motivations that are more intense (e.g. I will drive to work because I'd rather be comfortable than environmentally sound). In this example, the primary motives (environmental values) are overridden by the selective motives (personal comfort).

[38] Painuly, J. P. (2001). Barriers to renewable energy penetration: A framework for analysis. *Renewable Energy, 24,* 73-89.
[39] Scherbaum, C. A., Popovich, P. M., & Finlinson, S. (2008). Exploring Individual-Level Factors Related to Employee Energy-Conservation Behaviors at Work1. Journal of Applied Social Psychology, 38(3), 818-835.
[40] Dixon, G. N., Deline, M. B., McComas, K., Chambliss, L., & Hoffmann, M. (2015). Saving energy at the workplace: The salience of behavioral antecedents and sense of community. Energy Research & Social Science, 6, 121-127.
[41] Schahn, J., & Holzer, E. (1990). Studies of individual environmental concern the role of knowledge, gender, and background variables. Environment and behavior, 22(6), 767-786.
[42] Stern, P. C., Dietz, T., & Kalof, L. (1993). Value orientations, gender, and environmental concern. Environment and behavior, 25(5), 322-348.
[43] Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. Environmental education research, 8(3), 239-260.
[44] Cecelski, E. (2000). The role of women in sustainable energy development.
[45] Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. Environmental education research, 8(3), 239-260.
[46] Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. Environmental education research, 8(3), 239-260.

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

2.5 Necessity of behavioural interventions

It is important to keep in mind that positive attitudes and motivations towards energy efficiency do not necessarily translate into carrying out energy efficient behaviour.[47,48] People often say they consider it important to conserve energy, but do not always act like this. There are several reasons why people are prevented from carrying out energy efficient behaviour. For instance:

- people are typically motivated by self-interest (in terms of perceived costs, such as time, or social approval);
- people may have the intent to carry out energy efficient behaviour, but may be socially pressurised to not do so (for instance if the company norm requires differently);
- people may lack the opportunity to carry out energy efficient behaviour;
- people might be motivated and willing to become more energy efficient, but might not be urged by the company;
- it can also be the case that companies are willing to increase energy efficiency but experience all kinds of barriers (see 2.2.2), which also might demotivate the employees; and
- at home people might be economically constrained.

There are several behavioural intervention strategies that can be implemented in the training and mentoring programmes. Most effective seems to be a combination of information provision and education, (social) rewards, goal setting and the use of social norms, and providing feedback. The literature review of effective behavioural interventions is more elaborately discussed in report D2.2 on the optimisation of mentoring and training. Part of the training will focus on the “low hanging fruits” such as switching off lights and computers during non-office hours. It is relatively easy to implement such measures and these often lead to a reduction in energy consumption. The follow-up surveys are also intended to measure behaviour and behaviour change, so that the impact of the training and mentoring programmes can be evaluated.

[47] Kaiser, F. G., Ranney, M., Hartig, T., & Bowler, P. A. (1999). Ecological behavior, environmental attitude, and feelings of responsibility for the environment. European psychologist, 4(2), 59.

[48] Owens, S., & Driffill, L. (2008). How to change attitudes and behaviours in the context of energy. Energy policy, 36(12), 4412-4418.

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

3. Survey research methodology

3.1 Main concepts and themes

This questionnaire was meant to provide a baseline overview of the general state of the nation. In the next stage of the START2ACT programme, monitoring surveys will be administered on a periodic basis among employees of startups and SMEs that will be engaged in the START2ACT mentoring and training.

This questionnaire was sent to a wide selection of SMEs/ startups in each country. The questionnaire focusses on barriers, attitudes on the importance of energy efficiency, motivations, awareness of available tools and requirements regarding the "to be developed" tools. The results of the survey will provide a state of the nation baseline and will be used to inform / optimise content for WP3, 4, and 5.

The following themes were covered in the first questionnaire:

Introduction

The questionnaire started with a general introduction of the START2ACT project. The aim of the START2ACT project was explained. Respondents were asked for their informed consent by explicitly asking them to tick the box that they are willing to participate. In case respondents were not willing to participate in the survey they were asked if they were interested in receiving information about START2ACT and whether they wanted to receive free training and mentoring. Fourteen respondents were not willing to participate in the survey and also indicated that they were not interested in further information or activities.

Company background

We asked background questions regarding the company in terms of sector, size, founding year, and whether they have access to a permanent office.

Company drivers and barriers (money, knowledge, priorities) regarding energy efficiency

We asked questions about the reasons that would motivate the company, the drivers, to conserve energy (cost reductions, contributing to the fight against climate change, etc.). Respondents were also asked about the barriers that their companies experience (financial, lack of time, etc.).[49] This information helps to define needs of SMEs and startups in regards to energy efficiency.

Importance of energy efficiency

Companies were asked how important price, brand, energy use, product specifications, environmental impact, or other considerations were when purchasing new appliances. In this way, we measured whether environmental concerns play a role when buying new appliances. We also asked respondents whether their company already had undertaken any energy-saving measures.

Attitudes towards energy efficiency

[49] Based on: Ramus, C. A., & Steger, U. (2000). The Roles of Supervisory Support Behaviors and Environmental Policy in Employee "Ecoinitiatives" at Leading-Edge European Companies. Academy of Management journal, 43(4), 605-626.

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

This part of the questionnaire asked about the attitudes toward energy conservation and the importance thereof. The items differentiated between being "intrinsically motivated" to conserve energy and "not feeling responsible" for energy conservation.[50] This helps to get a deeper understanding of the importance and concerns respondents have.

Available tools

Respondents were asked which current initiatives they were aware of regarding energy conservation, whether they have implemented these initiatives and how helpful these initiatives were to them.

Input on the to-be-developed tools for START2ACT

Respondents working for startups were asked to indicate their preferred options for the mentoring programme. Furthermore, respondents working for SMEs were asked to indicate their preferred options for the training session. Finally, respondents were asked to provide their input on the interactive online platform. This provided an opportunity to test priority attitudes of the target group towards certain aspects of the interventions that will be developed in WP3, WP4, and WP5.

Willingness to participate

Respondents were asked whether they were willing to participate in the rest of the START2ACT project. They were also asked if they wanted to participate in the breakfast workshops, training and mentoring activities.

The survey can be found in appendix I.

3.2 Translation process

The questionnaire is programmed by CentERdata in the Blaise programming language. Blaise is developed and maintained by Statistics Netherlands. The main structure of the questionnaire is formalised in this programming step. This version of the questionnaire contains English questions and is called the "Source" version.

When the source questionnaire is programmed, it includes both the English questions and the routing rules to determine the order of questions in the survey. For the different survey languages the questions must be translated, but the routing remains the same. To enable the translation, the questions are cut into smaller building blocks and entered into a database. A presentation of these translatable items allows translation of only the questions without any knowledge of Blaise programming or routing. The Translation Management Tool (TMT) is the interface that is used to manipulate this database. The TMT is a web-based tool specially designed to allow translators to translate questionnaires without the burden of understanding complex routing and programming code for large multi lingual questionnaires. It eliminates the need for copy-pasting text from Word documents or struggling through lengthy pages of computer code (the START2ACT questionnaire is programmed in the Blaise programming code). When the text is translated, a second person evaluates the translations and explicitly approves these.

When the translation is complete, a localised version of the questionnaire can be generated. The source version of the questionnaire is walked through, and the translations are pasted over the elements that are defined in the source version. The local version is compiled and integrated with the sample management system in an installer. Once installed this translated version can then be tested.

The translating process is iterative, meaning that this process is repeated several times. If during testing a problem concerning a question is found, the generic version in the database is updated, requiring new translations. Each cycle improves the questionnaire and/or translation ultimately leading to a final version that can be used in the field.

[50] Based on: Kaiser, F. G., Ranney, M., Hartig, T., & Bowler, P. A. (1999). Ecological behavior, environmental attitude, and feelings of responsibility for the environment. European psychologist, 4(2), 59.

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

4. Sample

A sample of employees and managers of startups and young SMEs was drawn from the networks of the local partners (GEO, CT, ENVIROS, EHIP, SOFENA, SIEA, ENERO, KAPE). The recruitment of startups and SMEs was carried out from April 2016 until August 2016 by the local partners. Companies were contacted in a traditional way in their local language: An announcement email was sent via the local partner to the target company (e.g. manager of a young SME / startup) in combination with a brochure explaining the nature of the study. Data were collected between 9 August and 31 October 2016. In total, 382 respondents participated in the study, of which 62.5% fully completed the questionnaire. Table 4.1 provides an overview of the response rates per country. Paragraph 4.3 provides more information on the data collection and outreach activities of the START2ACT partners.

To further optimise the training and mentoring materials, we analysed whether there are differences between the UK and CEE to see if there are any general different trends. Belgium is not included in the data-analysis.[51] Chapter 5 provides descriptive survey results for the total sample and where relevant differences between CEE and UK are discussed.

Table 4.1: Response rate per country

Company	Country	Response (completed)	Response (including non-completed)
KAPE	Poland	11	11
Startups Belgium	Belgium	10	11
SOFENA	Bulgaria	4	8
ENVIROS	Czech	6	12
EIHP	Croatia	34	59
Geonardo	Hungary	26	51
ENERO	Romania	14	27
SIEA	Slovakia	31	48
Carbon Trust	United Kingdom	100	142
	Other country	2	2 (+ 17 unknown)
	Total	**238**	**382**

Respondents who completed the questionnaire indicated that the questions were not difficult to answer (*M* = 1.77, 5-point scale), and that the questions were clear (*M* = 3.87, 5-point scale). Respondents thought it was an interesting subject (*M* = 3.65, 5-point scale) and found it somewhat enjoyable to answer the questions (*M* = 3.10, 5-point scale). They also got somewhat inspired to think about energy efficiency by answering the questions (*M* = 3.18, 5-point scale).

[51] As the response rate is low no country-specific analyses and segmentation are conducted, instead a comparison between UK and CEE is conducted.

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

4.1 Socio-demographic information

Table 4.2 describes the socio-demographic make-up of the total sample and for the CEE and the UK separately. In the total sample 66.7% of participants who completed the questionnaire were male and 30.6% were female (see also table 4.2). The education level was high, with 78.5% of respondents having a university degree. The average age was 41.8 years and the average length of employment for startups was 2 years and for SMEs 7 years. Furthermore, 72.5% of the respondents work for an SME and 27.5% of respondents work for a startup (*N* = 382). The percentage male is higher in the UK sample compared to the CEE sample (74.7% compared to 57.8%), as is the average age (46.1 compared to 38.4).

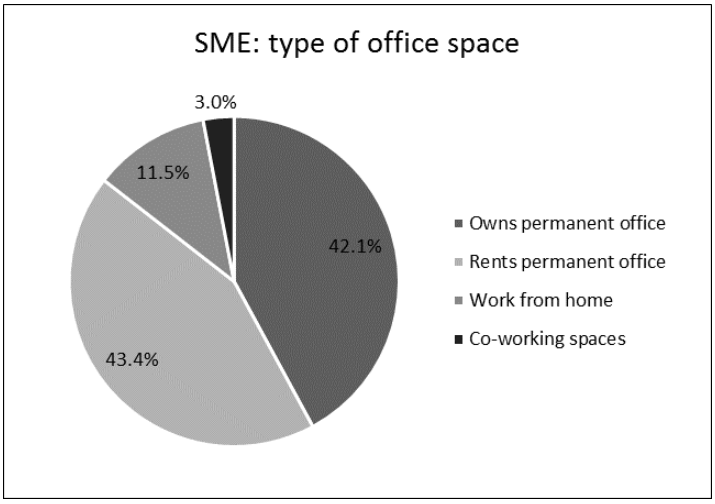
Table 4.2: Socio-demographic information

Variable	Categories	Central and Eastern European countries		The UK		Total	
		Percentage	N	Percentage	N	Percentage	N
Gender	male	57.8%	135	74.7%	99	66.7%	251
	female	38.5%		23.2%		30.6%	
	Prefer not to say	3.7%		2.0%		2.8%	
Education level	Primary school	2.2%	135	1.0%	99	1.6%	251
	Intermediate secondary education	0.7%		1.0%		0.8%	
	Higher secondary education	5.2%		3.0%		4.0%	
	Intermediate vocational education	1.5%		2.0%		1.6%	
	Higher vocational education	4.4%		20.2%		10.8%	
	University	83.0%		70.7%		78.5%	
	Prefer not to say	3.0%		2.0%		2.8%	
Age	-	38.4 (SD = 12.28)	111	46.1 (SD = 12.87)	96	41.8 (SD = 12.95)	223
Length of employment (average)	Start-up	1.9 years	23	1.2 years	14	2 years	43
	SME	6 years	72	5.7 years	69	7 years	147

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

4.2 Company-specific information

Looking at the totals, it can be concluded that for startups the largest group works from home (29.9%). This is more so the case for the UK were 51.6% of the people working for startups work from home, compared to CEE (22.2%) (see figure 4.1b and 4.1c). Looking at the totals SMEs typically rent (43.4%) or own (42.1%) a permanent office (see figure 4.1a), which is the case in both the UK and CEE, see figure 4.1b and 4.1c.



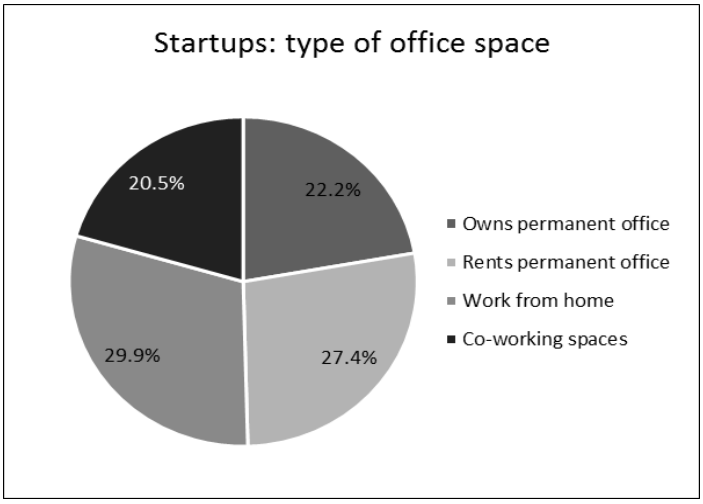
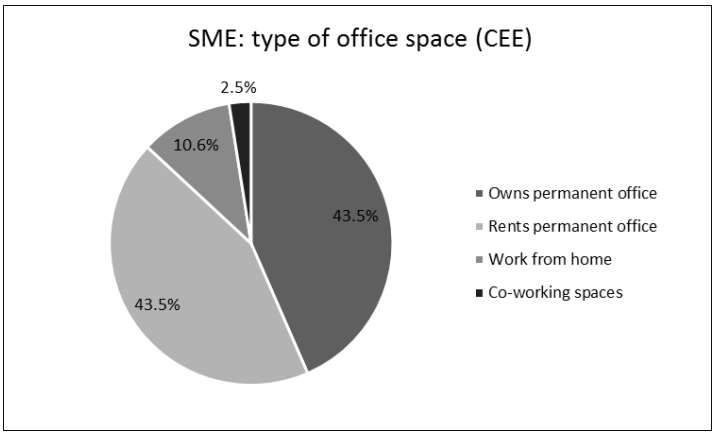


Figure 4.1a: Use of office space for SME and startups (total).



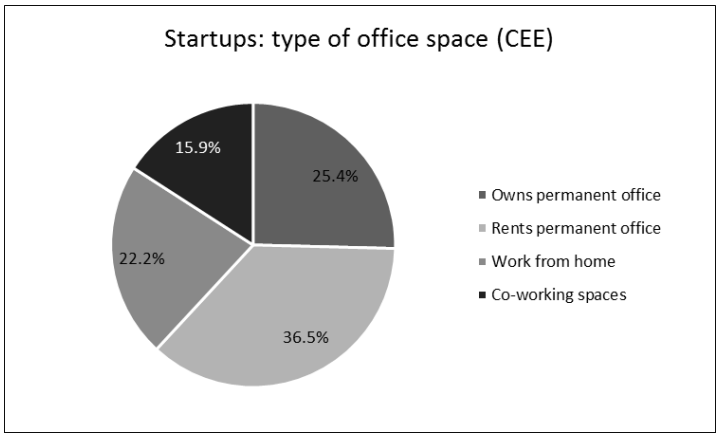
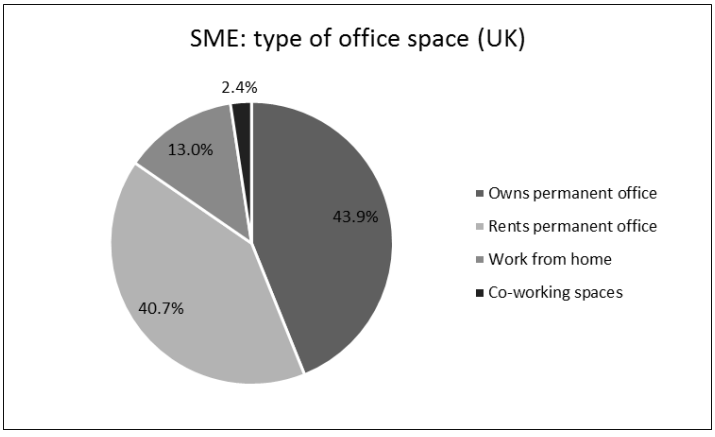


Figure 4.1b: Use of office space for SME and startups (CEE).



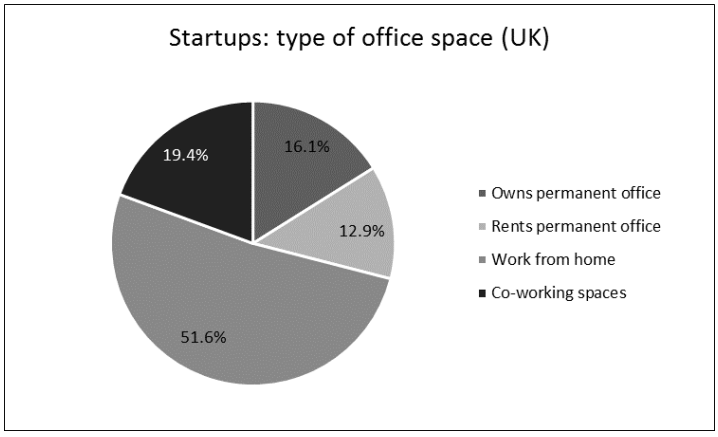


Figure 4.1c: Use of office space for SME and startups (UK).

Most companies are active in energy (15.4%), IT (14.9%), and sectors in the category “other” (23.1%) (see figure 4.2). Other sectors indicated by respondents were for instance: architecture (0.6%), construction (0.6%), environment

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

(0.8%). All categories smaller than 3% of the total are added together (15.9%) and represent: machinery, paper, textiles/fashion, health, administration, defence/(cyber)security, finance/banking/insurance, telecom, tourism, transport, music.

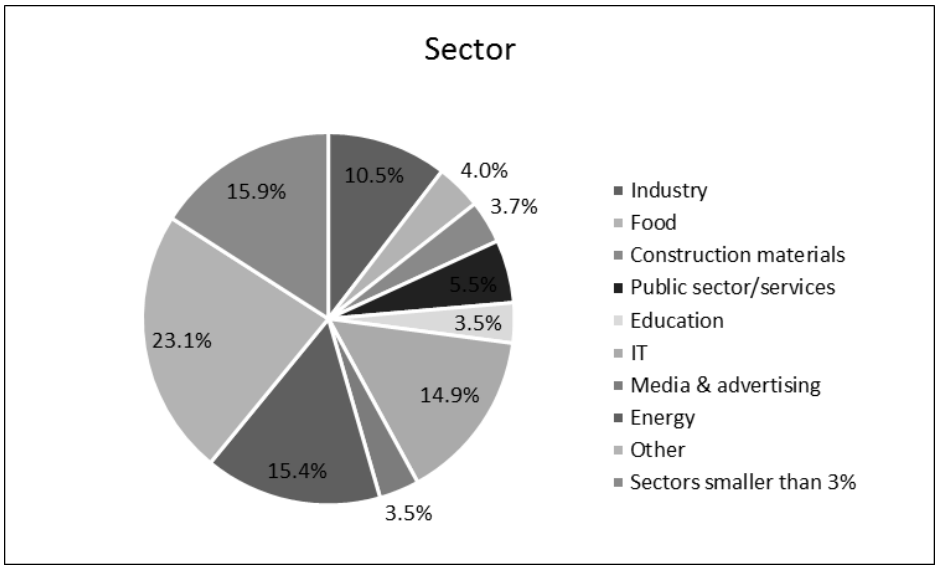


Figure 4.2: Sectors in which companies are active[52]

4.3 Data collection and outreach activities

This section describes the data collection approach and the outreach activities of the START2ACT partners as well as the partners' challenges.

Overall, it was a challenging process to get the respondents involved in the START2ACT project and to get them convinced to fill in the baseline survey. In total, 238 respondents completed the baseline questionnaire. The response rate was highest for the UK, followed by Croatia and Slovakia. Many partners reached out via direct contacts they have with SMEs and startups, or reached out via Chambers of Commerce. The survey links were distributed in newsletters, on websites, and via social media channels such as Facebook and Twitter. In addition partners used more direct approaches such as by e-mail or phone. CentERdata compared the response rates to outreach activities to help the partners in adjusting their communication and targeting strategies. For instance, if a company reached out on a certain day to approximately 1000 people via social media and the response rate increased with one in the same week, the strategy seemed not very effective. This was compared to other strategies such as personalized emails.

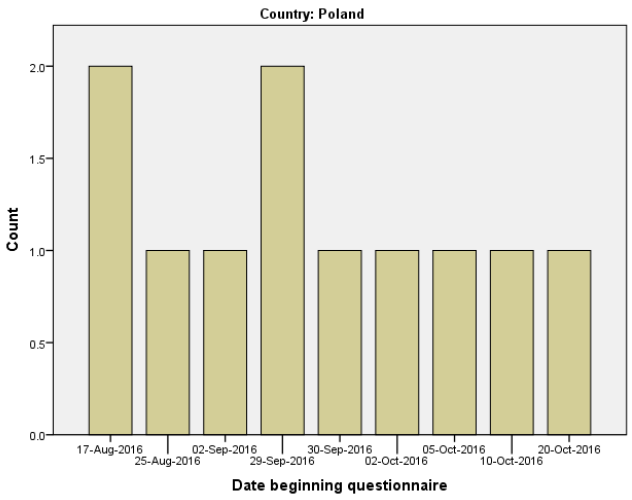
Figure 4.3 provides an overview of the responses per day per country. For each country, a graph is presented. The graph shows the number of questionnaires that started on a certain date. It should be noted that some respondents only might have opened the survey without participating in it, so adding these numbers does not reflect the total number of respondents that participated per country.

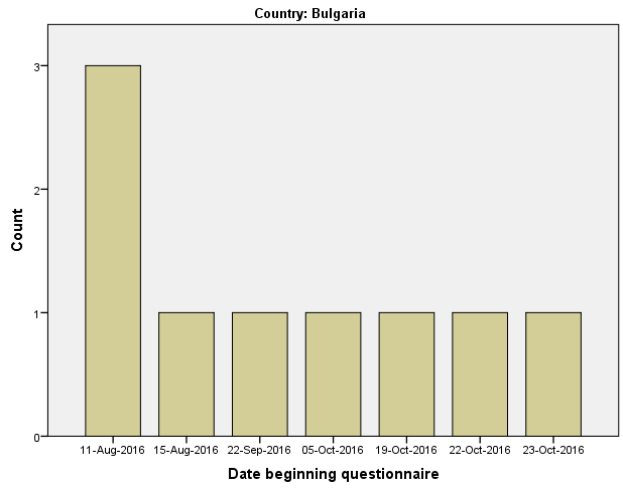
In general, response rates increased somewhat after an outreach activity (such as an email or a social media update with the survey link), though response rates never sky-rocketed after an outreach activity. In general, it worked better to send direct and personalized emails or to have direct calls with respondents, as this increased involvement and thus responses. On social media (such as Facebook and LinkedIn) people are less committed and have to scroll through many other messages and posts. It was also important to send reminders, as usually the effect of a request fades out after one or two days. However, not too many reminders should be sent. Throughout the process, partners

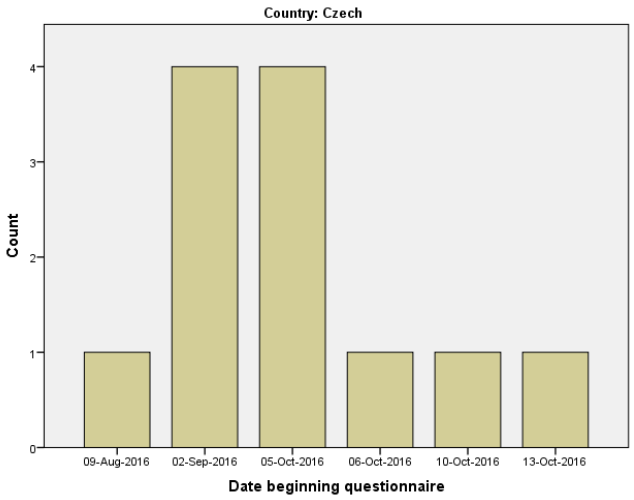
[52] Note. Sectors smaller than 3% of the total are: machinery, paper, textiles/fashion, health, administration, defence /(cyber) security, finance/banking/insurance, telecom, tourism, transport, music.

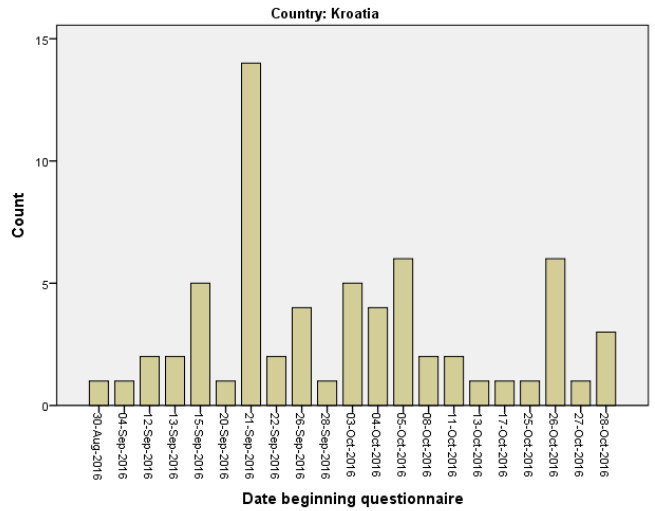
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696069

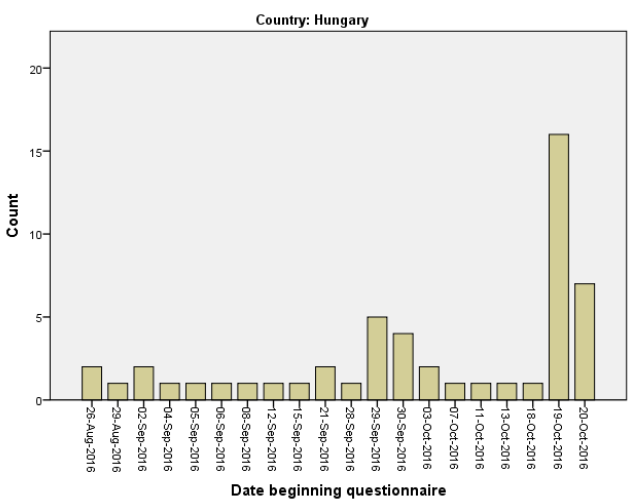
started to send more personalized emails which increased response rates. Furthermore, a Facebook campaign initiated by Geonardo for all countries slightly further increased the response rates.

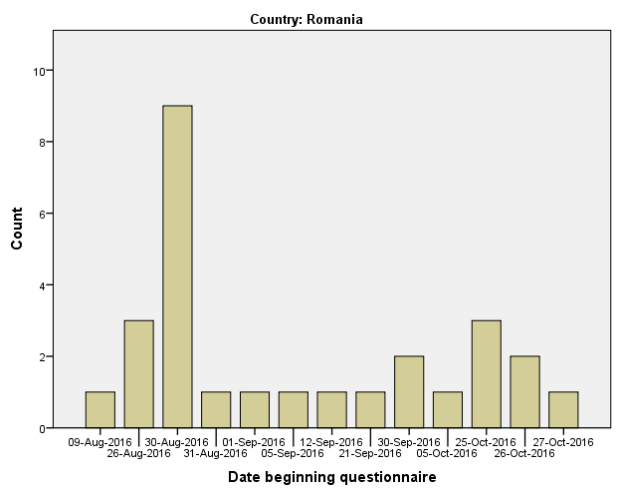




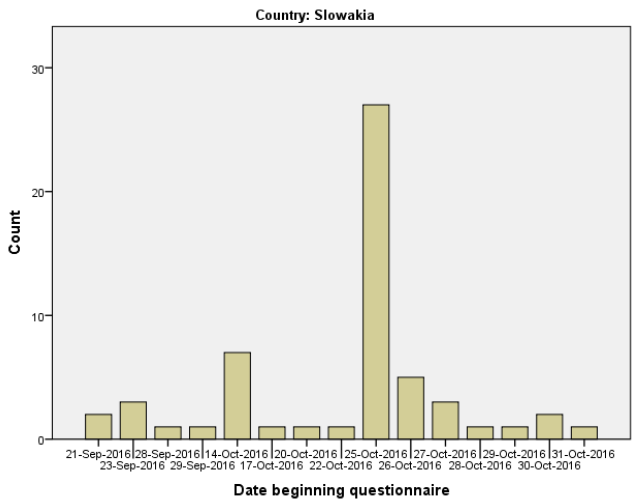


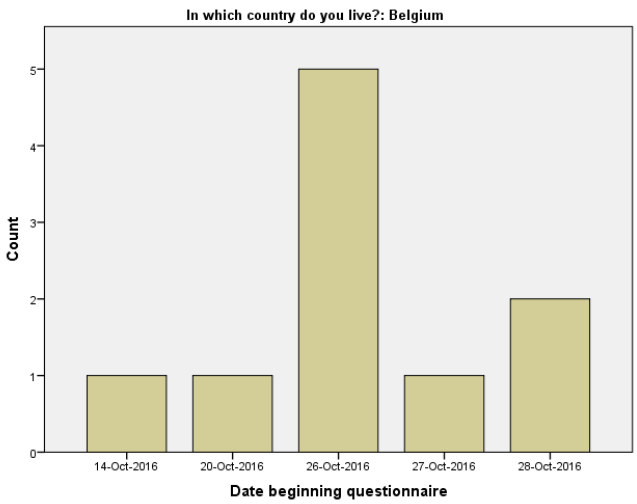






This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696069





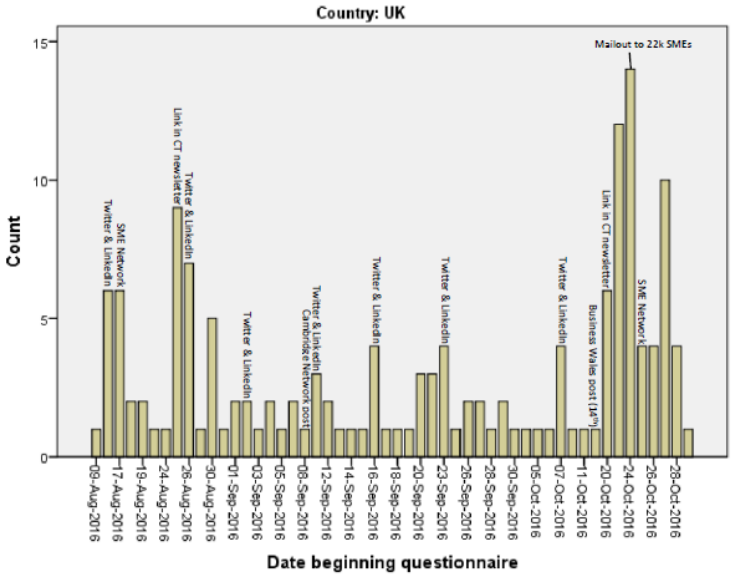


Figure 4.3: Response rate by day per country.

Appendix II: START2ACT outreach activities provides information on how many companies have been contacted and in which way by each partner. Each partner indicated the date when they reached out, to whom they reached out (e.g. startups, Chamber of commerce, etc.), via which channel (personal e-mail, newsletter, website, social media, etc.) and provided an estimate of the number of people reached. Box 1 provides more information per partner on the outreach activities, data collection process and survey response rates.

Box 1. START2ACT partners' feedback on the data collection process and the survey response rates

KAPE (Poland)
The SMEs considered that even 15 minutes was too much time to allocate to complete the survey given their limited time.. It took 15 minutes to complete it and SMEs did not want to sacrifice so much time. The problem was also that it was necessary that the SME had to fill the questionnaire itself via website (only one IP was allowed). KAPE received declarations via phone or during different meetings to fill in the survey from and later on it was not filled.

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

Startups Belgium (BE)
In Belgium startups are in general working from co-working spaces or share office space, or they are still mostly spending time at university incubators or at home. It results in a lower interest how they, individually, can reduce their consumption of energy hence they have relatively little influence on the consumption and bills. Surveys in general are not well received among startups provided their fast paced work culture. Not only START2ACT, other questionnaire are struggling to reach the critical mass of answers.
SOFENA (BG)
SOFENA does not keep a database of companies – SMEs and startups - and for that reason the agency relies on the stakeholder organizations that support the project. The channels SOFENA used included: • Direct Contacts with the Chambers of Commerce and Industry in Sofia and Vraca; ABEA in Plovdiv and other stakeholder organizations. • The organizations including SOFENA published Information about the project with the link to the survey on newsletters, on media and websites of the organizations. Publications appeared all over the country. • In addition personal contacts by e-mail and phone were also used by the stakeholder organizations and by SOFENA. We approached SMEs we worked with on other projects as well. Despite all efforts small number of SMEs and startups were willing to participate in the survey because of many different reasons, as follows: 1. The survival of SMEs in our business environment is difficult and they concentrate on it. 2. Energy efficiency is not among the most important priorities for SMEs. As for the startups, during the 1st year they usually function from their homes and if they are successful, after the 2nd or 3rd year, they look for an office. 3. The survey is too long and after starting to reply, the respondents leave it unfinished. 4. There is no broad practice in the country to fill in surveys, especially on-line, which is a barrier. In addition some managers consider it waste of time.
ENVIROS (CZ)
ENVIROS provides consultancy in energy and environment and their clients are mostly medium-sized and large-sized companies. ENVIROS does not have an own database of SME's and startups. Therefore, ENVIROS engaged other companies (stakeholder organisations) to reach out as many potential participants to the introductory survey as possible. The channels ENVIROS used were the following: • Direct contacts to the Association of Small and Medium Enterprises and Tradesmen of the Czech Republic with a request to send out the survey • Contacts to SME's and startups working with CzechInvest – Investment and Business Development Agency; • Request of distribution of the survey sent to other stakeholder organizations;

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

- Database of contacts of ENVIROS s.r.o. (private companies, stakeholders) and personal contacts of team members contacted by e-mail, phone, facebook pages and LinkedIn.

Despite all efforts, only a small number of SME's and startups were willing to participate in the survey because of many different reasons:

1. Startups and young SME's (at an early stage of their business) are renting a small office space or just a desk where they are mostly managing their businesses from and are convinced that they cannot affect their energy consumption in any way (they do not have the control over building as a tenant).
2. Young SME's and startups are facing barriers such as lack of money to implement the energy efficiency measures therefore they have little interest in any type of related survey, their priorities lie especially in business, they are short of time and they consider the survey a waste of time as it does not bring any benefit.
3. Survey is not mandatory, there was no important motivation affecting the return of the questionnaire = the length and time spent on the questionnaire was a barrier in some cases.
4. Online questionnaire (link sent by email) – if not filled in straight away there is a risk that the questionnaire will be forgotten or "lost" in the daily stream of emails.

EIHP (HR)

Two important points can be named that seem to be the main prevailing reasons why the response to the survey was low:

1. SME's and STARTUPs are still not so interested in EE/RES investments because because they consider that the impact of the energy bills is not relevant for their business
2. All of their resources are focused in whatever product they produce or services they provide so they just don't care much about energy/water consumption.

Geonardo (HU)

For Hungary, Geonardo performed a mixture of outreach measures to engage people in participating in the survey. This consisted on the one hand of personalised emails to contact persons or general company contacts from startups as collected in the START2ACT stakeholder database. A reminder to the same addressees was sent out to strengthen the engagement potential. Young SMEs where engaged for participation through the EEN Network Hungary, one of the stakeholder committee members of START2ACT Hungary, with recurring messages on their newsletter, website and social media. Only few chambers of commerce and industries were open to share the message whereas most of them were reluctant or negative with circulating survey about the project. This way we had to find other ways to reach out to the target group. On the other hand, Geonardo connected to a range of other stakeholders (supporting SMEs but also startups) and using them as multipliers to spread the survey invitation on their social media channels and webpages.

ENERO (RO)

ENERO approached stakeholders using a variety of channels:

- Direct contact to SMEs and startups (by phone or email) (cca 670 contacted by email, cca 100 by phone)
- Personal networks

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

- Contact with Chambers of Commerce (Constanta, Timisoara, Cluj-Napoca, Ilfov, Dambovita, Sibiu)
- Contact umbrella organisations and Hubs (e.g. the National Agency for SMEs – governmental organisation, professional associations)
- Contact commercial banks (6)

Despite of a large database of companies (ENERO even bought a list of companies from the Register of Commerce), many of them provided to be already closed (there was an instable environment for small business in the last period in Romania). Even Chambers of Commerce could not guarantee the participation of their members.

Some of SMEs declared they have difficulties with digital and on line instruments, as the baseline survey was. Even if ENERO tried to concentrate around cities, many of potential stakeholders declared they do not have or do not use on regular base the required logistic for filling in on-line questionnaire. Some of the respondents started to fill in, but they did not finish the survey questionnaire, which in a proof for the lack of ability (from 27 respondents who had started the process, only 14 finished). Also (potential) respondents often complained about lack of time, and saturation to take part in such a process, in the general context of different commercial requests they constantly receive.

SIEA (SK)

We believe that the reason for the relatively low response rate to our surveys is that most of the SMEs and startups in Slovakia are in general trying to survive on the market and do not have adequate resources to allocate to such auxiliary activities. Furthermore, many of the companies that were approached are situated in rented office space. If that is the case, then normally the rental includes energy and water costs. Therefore those companies are not interested in spending the time and money to save energy.

Carbon Trust (UK)

The Carbon Trust would allocate the low response rate to the large number of surveys that are run at any one time in the UK. The Carbon Trust reached out to a significant number of SMEs and used all approaches that were available to them, and yet still reached a low number of respondents in relation to the effort that was spent. Businesses are frequently asked to complete surveys and are therefore less motivated to participate. The Carbon Trust anticipates that the response rate will be significantly higher for the subsequent surveys, as their direct contact with each SME will encourage them to engage.

The Carbon Trust also mapped their outreach strategy against the response rates to let their team know what outreach strategies worked well and what hadn't (see figure 4.3)

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

5. Results first baseline survey

5.1 Company drivers and barriers regarding energy efficiency

Respondents were asked about the company motivations (drivers) regarding energy efficiency (see table 5.1). About half of the respondents indicated that the company has specific targets for environmental performance (50.4%), that the company applies environmental considerations to purchasing decisions (53.4%), and that the company makes employees responsible for the company's environmental performance (50.2%). Over 40% of respondents indicated that their company provides environmental training (43.7%) and has some form of environmental management system (41.2%). One third of respondents indicated that their company uses life cycle analysis (32.7%). There are no differences between startups and SMEs regarding the company motivations.

Table 5.1: Company motivations

Company motivations (1= strongly disagree; 5 = strongly agree)	Overall mean (*N* = 336)	(Strongly) disagree	(Strongly) agree
My company has specific targets for environmental performance	3.81	29.7%	50.3%
My company applies environmental considerations to purchasing decisions	3.79	24.8%	53.4%
My company provides employees with environmental training	3.46	39.7%	42.7%
My company makes employees responsible for the company's environmental performance	3.64	30.2%	50.2%
My company uses life cycle analysis, to assess the environmental impact associated with all the stages of a products life	3.46	50.7%	32.7%
My company has some form of environmental management system	3.57	48.3%	41.2%

There are significant differences between CEE and the UK. Namely, compared to the UK, respondents from CEE agree more often that their companies have specific environmental targets, make their employees responsible, and use life cycle analyses (see table 5.2).

Table 5.2: Company motivations, significantly different between CEE and UK.

Company motivations (1= strongly disagree; 5 = strongly agree)	Overall mean (*N* = 336)	Mean CEE (*N* = 190)	Mean UK (*N* =187)
My company has specific targets for environmental performance	3.81	4.14	3.63*
My company makes employees responsible for the	3.64	3.92	3.55*

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

company's environmental performance			
My company uses life cycle analysis, to assess the environmental impact associated with all the stages of a products life	3.46	3.84	3.23*

Note. * indicates that there are significant differences between CEE and the UK: p =.01; p =.04; p =.01.

Respondents were asked which company drivers regarding energy efficiency are the most important to them. Figure 5.1. (and all other figures similar to this figure) shows the percentage of respondents that chose the driver as number one – the most important driver – on the left y-axis. For instance, 16.4% of respondents indicated that reduction of energy bills is the company's number one driver. The other y-axis shows the average. In this case, reduction of energy bills also has the highest average. Each time a top three is presented, we take the averages as most important indicator, followed by the percentages. Sometimes the percentages and the averages do not exactly correspond. This for instance occurs when more people rank a certain driver as number 3 than number 1 (for instance, in this case based on the percentages improved company image is number three in the top three, but based on the averages improved product quality is number three in the top three).

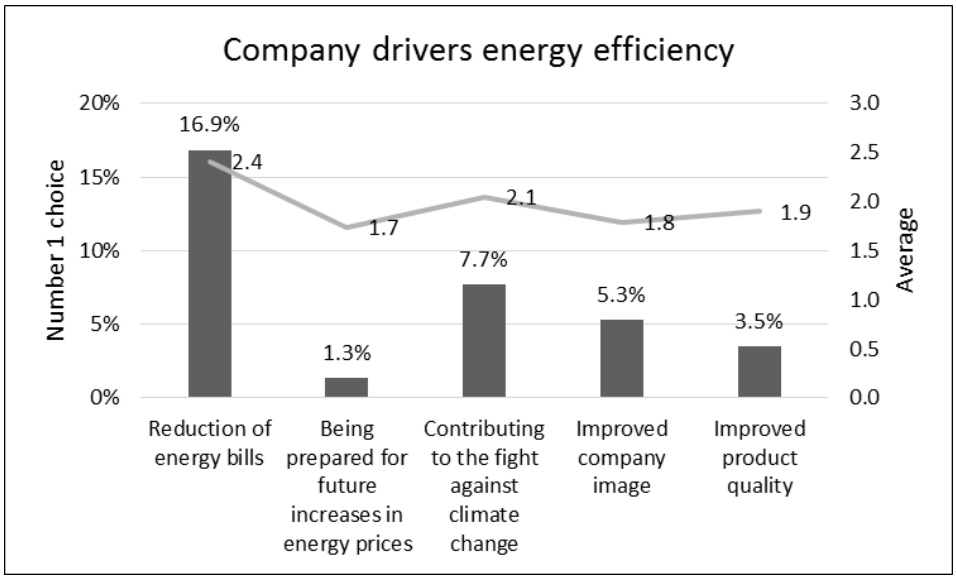


Figure 5.1: Company drivers to energy efficiency

The top three of most important company drivers for energy efficiency is (see figure 5.1):

1) reduction of energy bills;
2) contributing to the fight against climate change;
3) improved product quality.

There were no differences between CEE countries and the UK. Furthermore, there were 34 respondents who indicated other reasons that are of importance for their company regarding energy efficiency, such as: carbon reduction, being a good egg, doing it for society, having control over energy usage, knowledge and sharing of information to a wider audience, it gives a good feeling, working conditions, government regulations and environmental measures, reducing material consumption costs, decreased shipping costs.

Next to the drivers, barriers were investigated. The most important barrier is that there is a lack of funding for energy efficient equipment (M = 3.57, 5-point scale) (see table 5.3). Other important barriers are that there is a lack of time to gather information around energy efficiency (M = 3.34, 5-point scale), that it will not strengthen the company's

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

position in the market (*M* = 3.19, 5-point scale), and that there is a long pay-back period of energy efficient equipment (*M* = 3.25, 5-point scale).

When comparing SMEs and startups energy saving is less of a priority for startups. Startups also seem to more often lack the time to gather information around energy efficiency compared to SMEs. Compared to SMEs, startups are more convinced that energy efficiency will not strengthen their position in the market. Moreover, startups pay the energy bill less often than SMEs, so see less benefit from energy savings.

Table 5.3: Company barriers to energy efficiency

Company barriers to energy efficiency (1= strongly disagree; 5 = strongly agree)	Overall mean (*N* = 292)	(Strongly) disagree	(Strongly) agree	SME mean (*N* = 222)	Startup mean (*N* = 70)
Energy saving is not a priority in my company.	2.44	57.3%	23.9%	2.32	2.80*
The payback period of energy efficient equipment is too long.	3.25	23.5%	40.3%	3.24	3.27
There is a lack of funding for energy efficient equipment.	3.57	16.4%	54.1%	3.55	3.64
There is a lack of time to gather information around energy efficiency.	3.34	21.6%	47.3%	3.26	3.61*
It will not strengthen our position in the market, compared to our competitors.	3.19	32.5%	42.8%	3.17	3.27*
The cost savings are not sufficient to justify the effort.	3.00	32.9%	32.9%	2.91	3.27
We don't pay the energy bill so wouldn't see the benefit of savings.	2.01	71.6%	17.8%	1.86	2.47*

Note. * indicates that there are significant differences between SMEs and startups: p =.01; p =.03; p =.04; p <.001.

For some of the items regarding barriers to energy efficiency, there are significant differences between CEE and the UK. In the UK, energy saving is more of a priority, respondents are more convinced that energy savings will strengthen their position on the market, and more often see the benefits of energy savings, compared to CEE (see table 5.4).

Table 5.4: Company barriers to energy efficiency.

Company barriers to energy efficiency (1= strongly disagree; 5 = strongly agree)	Overall mean (*N* = 292)	CEE mean (*N* = 158)	UK mean (*N* = 112)
Energy saving is not a priority in my company.	2.44	2.55	2.20*
It will not strengthen our position in the market, compared to our competitors.	3.19	3.36	2.96*
We don't pay the energy bill so wouldn't see the benefit of savings.	2.01	2.17	1.75*

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

5.2 Importance of energy efficiency

Companies were asked how important price, brand, energy use, product specifications, environmental impact, or other considerations are when purchasing new appliances.

The top three most important considerations when purchasing new appliances are (see figure 5.2):

1) price;
2) product specifications; and
3) energy use.

Furthermore, there were nine respondents that indicated that other considerations play a role in their purchasing decision. These were delivery time, cost of use, impact on workflow, technical features, value to the company, and need for appliance.

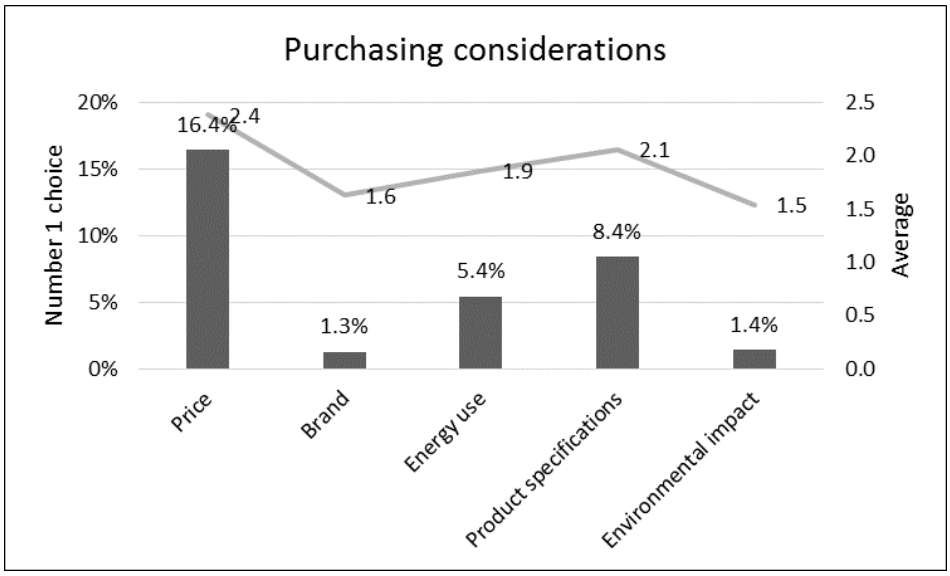


Figure 5.2 Importance of considerations when purchasing new appliances (*N* = 282)

When comparing the UK and CEE it appeared that for respondents from CEE, brand was significantly more important (*M* = 1.74) than it was for respondents from the UK (*M* = 1.31) (*p* =.01). In the UK (*M* = 3.54), there were on average significantly more energy saving measures in place than in CEE (*M* = 2.68) (*p* =.02).

Respondents were then asked whether their company had undertaken any energy-saving measures. 37% of respondents indicated that within their company at least one energy saving measure were in place (see figure 5.3). Only 2% of respondents indicated that 8 out of 9 mentioned measures (1%) or 9 out of 9 mentioned measures (1%) were in place in the company. On average, 2.7 measures were in place.

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

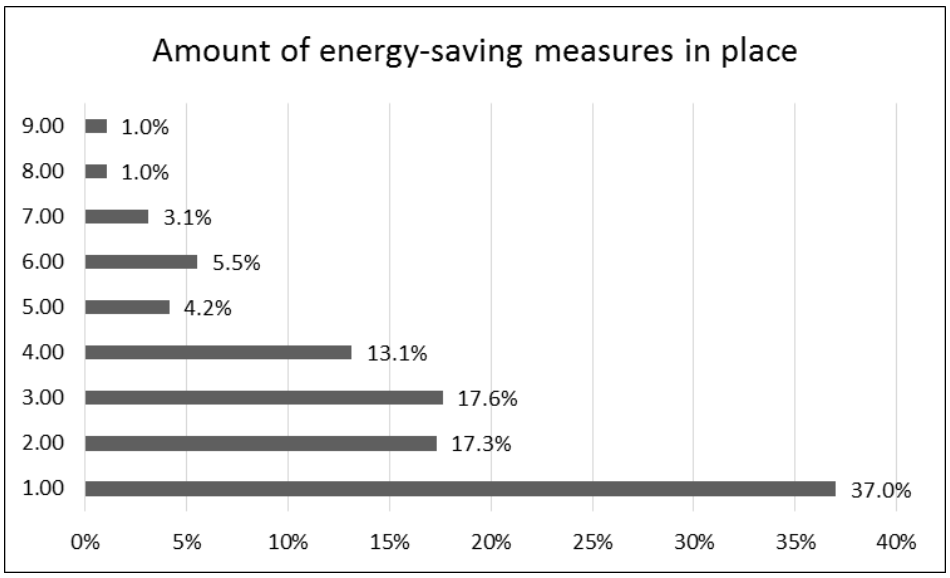
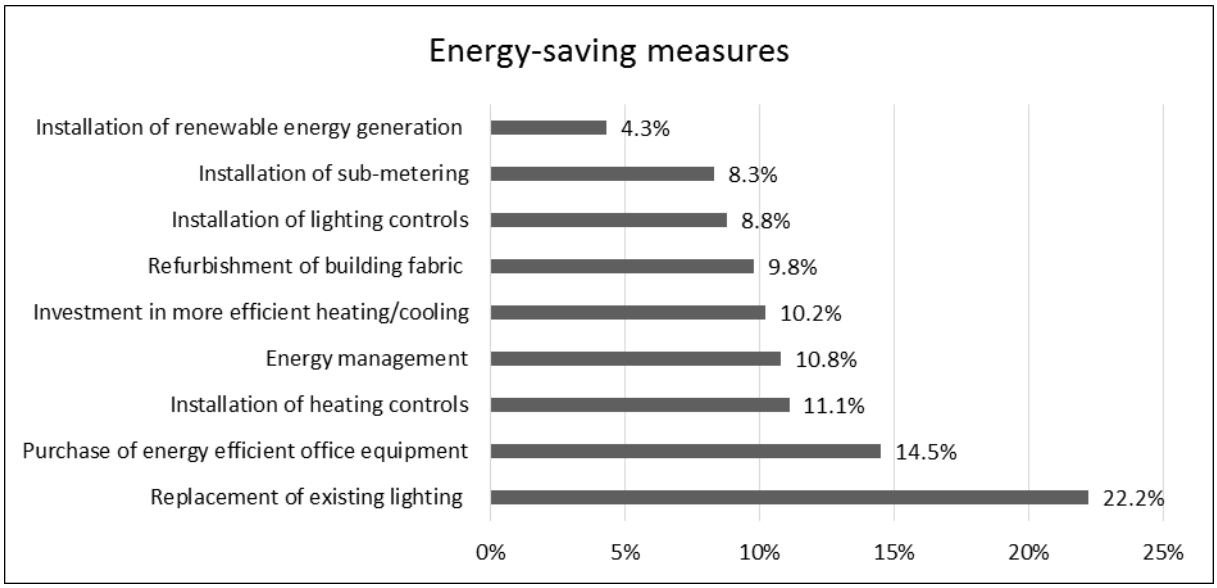


Figure 5.3 How many energy-saving measures in place? (*N* = 289)

We also investigated which type of energy-saving measure was implemented within the company the most. 22.2% of respondents indicated that within their company the lighting was replaced by more energy efficient lighting. 14.5% indicated that their company purchased energy efficient equipment. There are only a few companies who installed renewable energy generation (4.3%) (see figure 5.4). The type of energy-saving measures that are in place are comparable for the UK and in CEE (see figure 5.4-5.6), although in CEE there is more refurbishment of building fabric, and purchase of energy efficient office equipment, whereas in the UK there is more energy management and installation of submeters or lighting control.

There was also an option to indicate which other energy-saving measures the company had undertaken. Here respondents indicated additional insulation, appliances rated A++, changing process fuel, efficient boiler system, new office building that meets all the regulations, power down equipment that is not in use, use of electric vehicles, planting 6k trees, paper recycling, water saving, reconsider which raw materials to use, use of public transport, and green product design.



Note. People could mark multiple options, this figure is based on the total amount of options clicked (707).

Figure 5.4 Energy-saving measures in place in the company (*N* = 289)

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

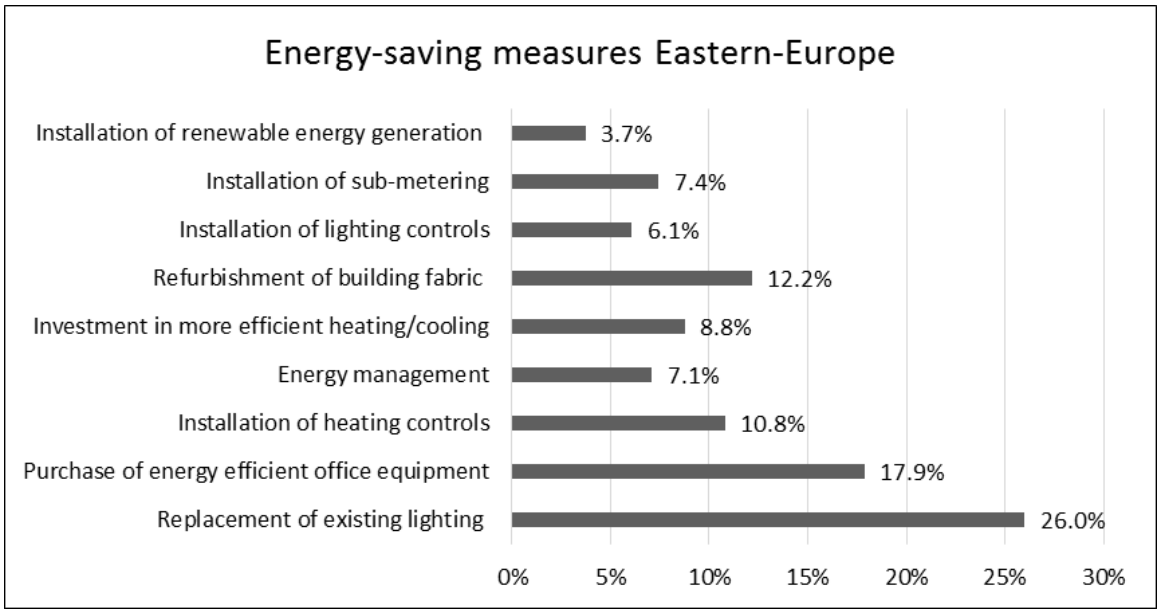


Figure 5.5: Energy-saving measures in place in the company, CEE (N = 154).

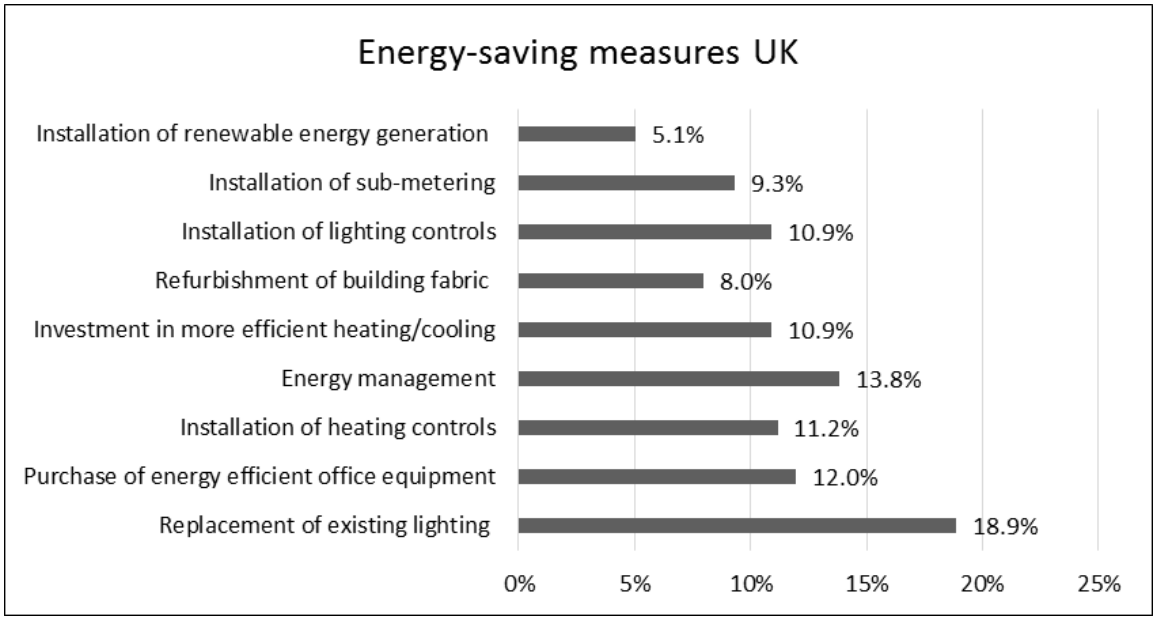


Figure 5.6: Energy-saving measures in place in the company, UK (*N* = 112).

5.3 Attitudes towards energy efficiency

In the baseline survey attitudes towards energy efficiency were measured. Overall, it seems that respondents are quite environmentally-aware. 82.1% of respondents are convinced that we need to change our lifestyles to reduce energy consumption, 79.9% of respondents see themselves as an environmentally-friendly person (see table 5.5). 77.7% of respondents think it is worth paying a little more for an energy efficient product. Note, however, that figure 5.2 showed that price is the most important purchasing consideration when purchasing new appliances. Furthermore, 65.9% of respondents believe that researchers will develop new technologies to solve climate problems. They thus also put some responsibility for climate issues on others (scientists). They do, however, consider conserving energy as their problem, as 74.7% of respondents consider it important to help their company to conserve energy.

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

Table 5.5: Attitudes towards energy efficiency

Attitudes towards energy efficiency (1= strongly disagree; 5 = strongly agree)	Overall mean (*N* = 273)	(Strongly) disagree	(Strongly) agree
I believe that firms and researchers will develop new technologies to solve climate problems	3.78	14.7%	65.9%
I believe that we will have to change our lifestyles to reduce energy consumption	4.29	5.5%	82.1%
I think of myself as an environmentally-friendly person	4.08	7.7%	79.9%
It is worth paying a little more for a more energy efficient product	4.04	5.9%	77.7%
Conserving energy is not my problem	1.59	85.0%	5.9%
I consider it important to help my company to conserve energy	4.04	7.0%	74.7%

In terms of attitudes towards energy efficiency, there only was one significant difference between CEE and the UK. Namely, respondents from CEE more strongly believed that researchers and firms will develop new technologies for climate problems (*M* = 3.92), compared to the UK (*M* = 3.6).[53]

5.4 Available tools on energy efficiency

Websites and news are the most frequently used sources of support and information on energy topics. Most respondents indicated that they gather information via websites (26.3%), energy efficiency news online (14.3%) or via energy efficiency conferences and events (11.3%) (see figure 5.7).[54] Table 5.6 provides an overview of the tools and specific providers that respondents use.

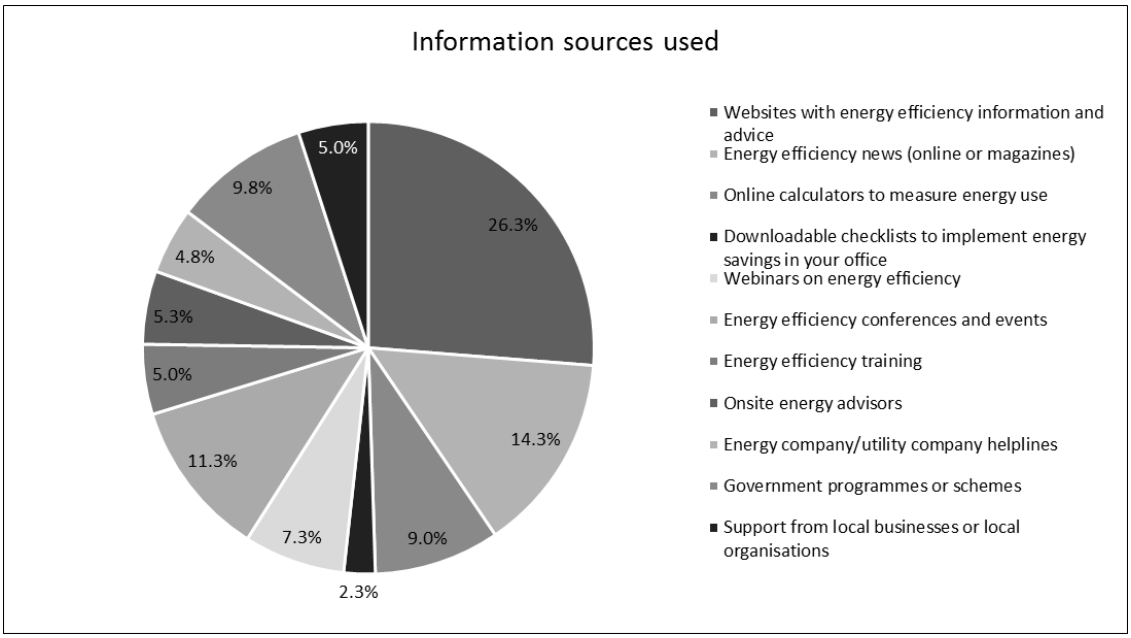


Figure 5.7: Information sources used to gather information on energy topics (*N* = 258)

[53] There is a significant difference between CEE and the UK: p =.03.
[54] Note. People could mark multiple options, this figure is based on the total amount of options clicked (403).

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

Table 5.6: Mentioned information sources to gather information on energy topics

Tool	Most mentioned
Websites – top 3	Carbon Trust
	Alternativenergia
	SIEA
Website - other:	Ekozona / carbonfeel / energy saving trust / EST / green tourism / iema / industry green / mvm / rzno / think zero / Which? / enerdata / bpre / resource efficient scotland
News	Carbon Trust, IEMA, Climate kik, croenergo, edie, energiaklub, ezermester, fathom, mvm, origo, start2act, alternativeenergia, which?
Online calculators	Carbon footprint / carbon neutral / carbon trust / carbonfeel / defra/decc / IG tools / Magec / passiv house / seechange / the rack people
Checklists	Carbon trust / Green tourism
Webinars	Climatekic / Globmeep / heat metering / IEMA Carbon trust / EST / Resource efficient Scotland / ifu / julie's bicycle
Conferences / events	3-4 / AECB / Arts council England / Bulmer foundation / Carbon Trust / Energy efficiency and retrofit awards / hugbc / investors in the environment / resource Scotland / SHAP, SHIFT, Edie / SIEA / Zit energiou
Training	IEMA / internal training NEA, SHIFT, thermal imagin
Energy advisors	Business Energy Efficiency Cambridge and Peterborough / one / Resource and business gateway / SIEA / SSE
Energy company / utility company helplines	CEZ / EON / Good Energy / Ecotricity / Npower / OCTEGO / Business growth hub / Scottish power / SSE / VSE / ZSE / SPP
Government programmes or schemes	Carbon trust / Eco funding / enworks / government, carbon footprinting guidance / kormanyzat / ministerstvo hospodárstva / NISEP / CarbonTrust / POTICAJI ZA ENERGETSKU UČINKOVITOST, MINPO-MINGO / Resource efficient Scotland / Rhi / mhsr / minzp
Support from local businesses	Business growth hub / energy gain / Camden climate change alliance / dura / green business network / h.energy / Peterborough / environmental trust
Other tools	Consultant / neviem / samimetrics / publikace Zodpovědná firma / upute od organizacija civilnog društva

5.5 Input on to-be-developed tools for START2ACT

In the survey respondents were asked to indicate their preferences towards certain interventions or aspects of interventions that will be further developed in WP3, WP4, and WP5. In this section we zoom in on the preferences for effective mentoring for startups and effective training for SMEs, and the content of the interactive online saving platform.

5.5.1 Effective mentoring for startups

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

Startups were asked which type of support they would like to receive in the mentoring sessions (e.g. web-based tools and advice, group education, one-to-one support over the phone or in person, group mentoring sessions). Startups were also asked in which sectors they would be interested to obtain skills to make better decisions towards energy efficiency (e.g. business planning, product design, human resources, procurement of equipment). They were also asked what their biggest energy consumption cost is (e.g. lighting, heating, office equipment, kitchen appliances, or other). Lastly, they were asked if they would be interested to introduce energy monitoring systems in their company.

The top three of most preferred support for startups is (see figure 5.8):

1) web-based tools and advice;
2) group mentoring; and
3) one-to-one support over phone.

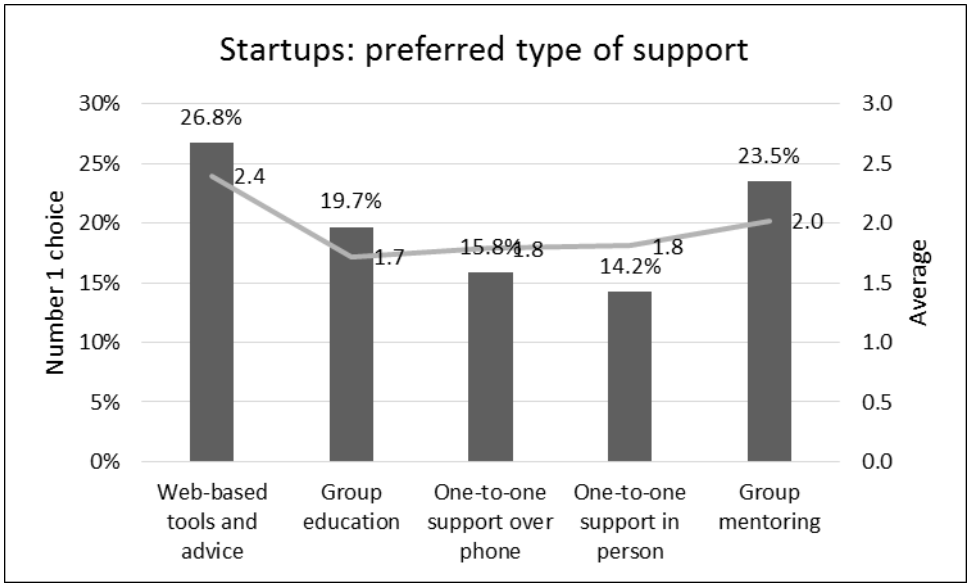


Figure 5.8: Type of support that startups prefer (*N* =61)

The top three of most preferred sector of support for startups are (see figure 5.9):

1) business planning;
2) procurement of equipment; and
3) product design.

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

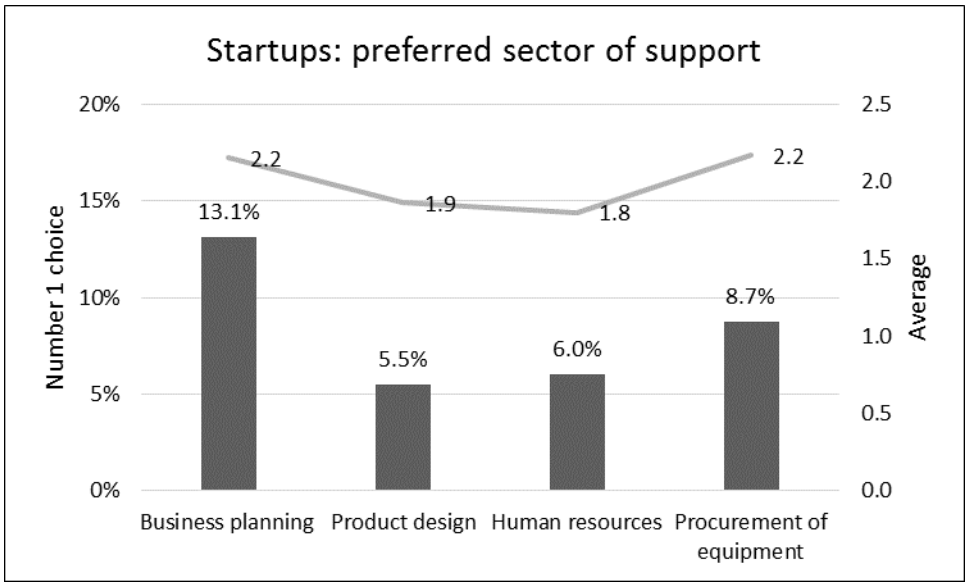


Figure 5.9: Sectors in which startups prefer support (*N* =60)

The top three biggest energy consumption costs for startups are (see figure 5.10):

1) heating / air-conditioning;
2) office equipment; and
3) lighting.

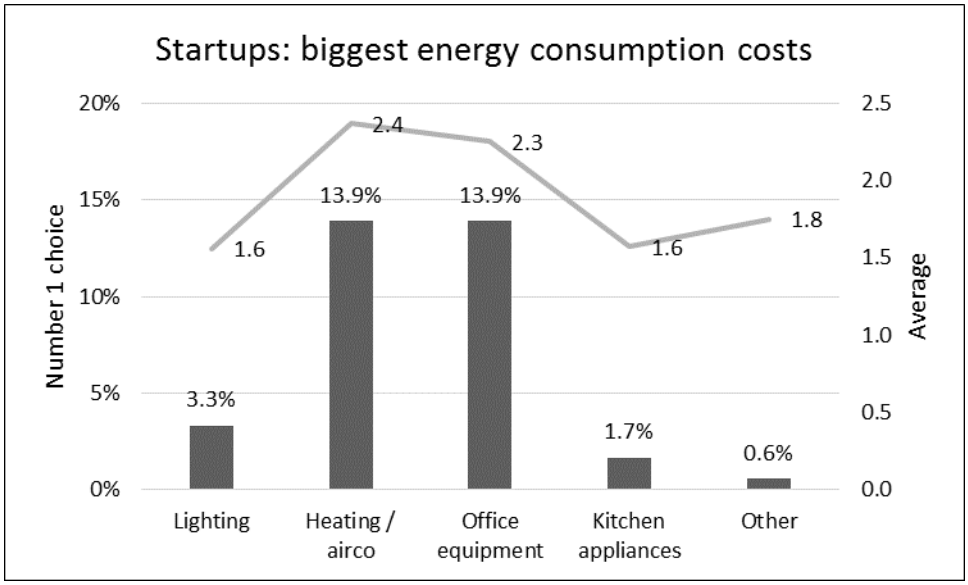


Figure 5.10: Biggest energy consumption cost (*N* =61)

Startups were also asked if they would be interested in introducing energy monitoring systems in their company. 63.3% of the respondents indicated that they would be willing to introduce energy monitoring systems in their company. More specific, 28.3% wanted to team-up with other startups in order to accomplish this, whereas 25% of respondents indicated that they wanted to figure out how to do this by themselves. The other 22% of respondents indicated that they did not see the benefit of installing energy monitoring systems in their company.

The only significant difference that emerged between the UK and CEE on effective mentoring for startups was on the preferred sector for which startups prefer support. In general, the top three most preferred sectors of support for

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

startups were: (1) business planning; (2) procurement of equipment, and (3) product design. However, there was a significant difference in the importance of procurement of equipment, with respondents from the UK considering this more important (M = 2.31) than respondents from CEE (M = 1.96) (p =.02).

5.5.2 Effective training for SMEs

SMEs were also asked which type of support they would like to receive in the training sessions. Furthermore, SMEs were asked which type of advice/training would be most beneficial to them (behaviour change, metering and monitoring, green procurement, energy efficient equipment, green marketing). Moreover, they were asked which type of breakfast workshop they would like to attend (e.g. 1 hour basic introduction, 2-3 hours in-depth, not interested).

The top three preferred types of support for SMEs are (see figure 5.11):

1) web-based tools and advice;
2) one-to-one support in person; and
3) group education.

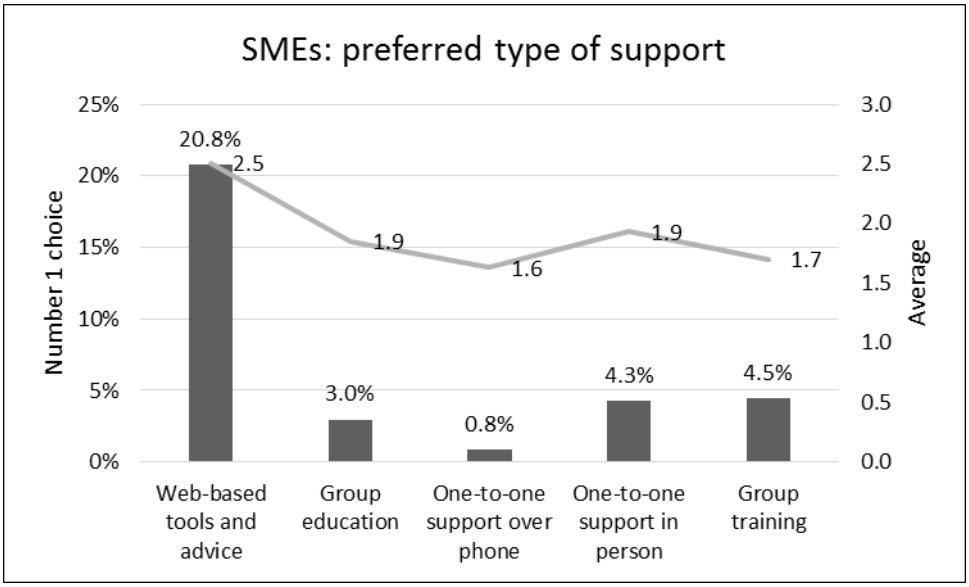


Figure 5.11: Type of support that SMEs prefer (N =202)

The top three preferred types of advice for SMEs are (see figure 5.12):

1) behaviour change;
2) energy efficient equipment; and
3) metering and monitoring.

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

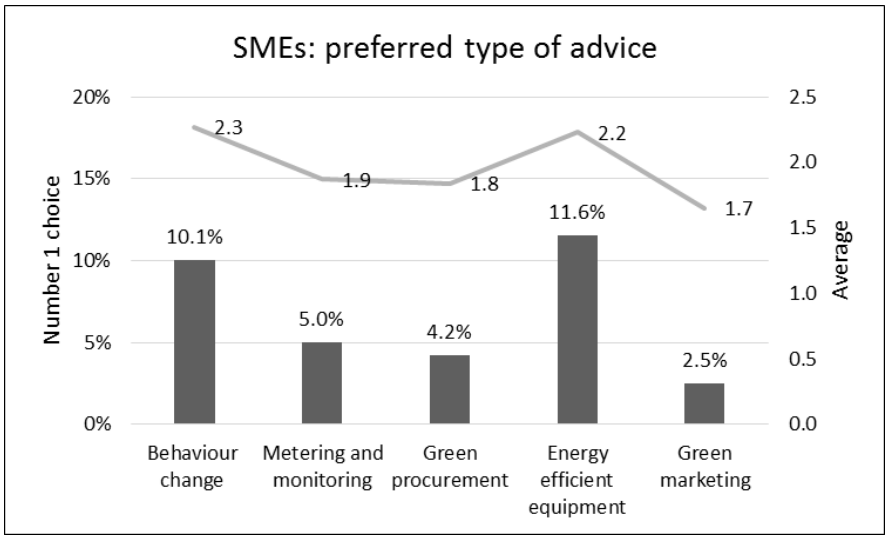


Figure 5.12: Type of advice that SMEs prefer (*N* = 199)

In addition, SMEs were asked which type of breakfast workshop they prefer to attend. A small majority of 39.7% respondents seems to prefer a breakfast workshop that last 2-3 hours with in-depth review of energy efficiency opportunities. 29.6% of the respondents prefer a workshop that lasts 1 hour with a basic introduction to energy saving. And, 30.7% of the respondents indicate that they would not be interested in attending a breakfast workshop.

In CEE there is no clear preference regarding the set-up of the breakfast workshop, for the UK there is a preference for the breakfast workshop of 2-3 hours (see table 5.7).

Table 5.7: Preference for breakfast workshop.

Type of breakfast workshop	CEE (*N* = 103)	UK (*N* = 87)
A breakfast workshop lasting 1 hour with a basic introduction to energy saving.	15.3%	9.5%
A breakfast workshop lasting 2-3 hours with an in-depth review of energy efficiency opportunities.	9.9%	28.0%
I would not be interested in attending a breakfast workshop.	12.4%	14.3%

5.5.3 Effective online energy saving platform

Respondents were asked which type of content would be most useful for the company for the interactive energy saving platform (e.g. simple energy efficiency tips, in-depth energy efficiency advice, links to information on funding, energy saving calculators and tools, e-learning courses).

The top three most useful content for the energy saving platform is (see figure 5.13):

1) simple tips;
2) links to funding information; and
3) in-depth advice.

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

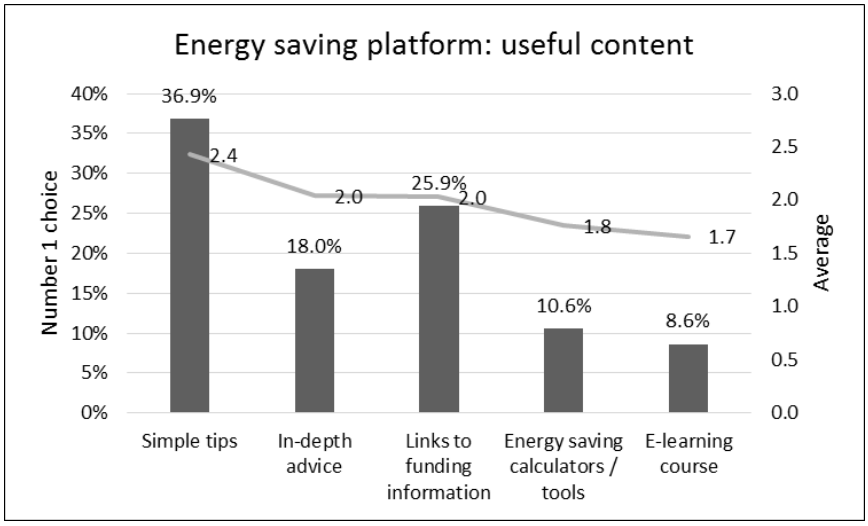


Figure 5.13 Useful content for the energy saving platform (*N* =255)

Respondents were also asked how likely they would be to participate for a potential prize. In general, respondents seem to favour smaller prizes for the top 10 winners. Employees of SMEs are more likely to participate for smaller prizes for the top 10 winners, for additional consultancy time, and for marketing/PR opportunities. For startups, marketing/PR opportunities increase the likelihood that they will participate, alongside smaller prizes for the top 10 winners (see table 5.8). There was no clear difference in preference for any type of prize between the UK and CEE.

Table 5.8: Likelihood to participate with potential prizes

Likelihood to participate with potential prizes (1 = very unlikely, 5 = very likely)	Overall mean (*N* = 252)	(Very) unlikely	(Very) likely	SME mean (*N* = 194)	Startup mean (*N* = 58)
One large prize for the winner	2.99	38.5%	39.3%	2.90	3.29
Smaller prize for top 10 winners	**3.48**	24.6%	**56.0%**	**3.42**	**3.67**
Additional consultancy time / support for the winners	3.14	30.2%	42.5%	3.16	3.09
Awards / badges demonstrating commitment	2.80	43.3%	32.5%	2.72	3.07
Marketing / PR opportunities	3.33	28.6%	50.4%	3.21	**3.72**
Not interested	2.29	59.1%	19.4%	2.29	2.31

Furthermore, respondents were asked what type of e-learning course they would be most likely to complete. There was no clear preference for a specific type of e-learning course: 29.1% of respondents indicated that they prefer an e-learning course with 6 modules of 5 minutes, 28% of respondents prefer an e-learning course with 2 modules of 15 minutes, and 27.2% prefer an e-learning course with 1 module of 30 minutes. 15.7% was not interested in an e-learning course (*N* = 254). There was no clear difference in preference for any type of e-learning course between SMEs and startups, and also not between the UK and CEE.

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

5.6 Willingness to participate in START2ACT

Respondents were asked if they would like to participate in START2ACT. 27.8% of the respondents are willing to participate, 37.9% may wish to participate but request further information, 17.8% are not interested at the current time but are open to be contacted next year, and 16.5% are not willing to participate in START2ACT (*N* = 248).

Finally, respondents were asked whether they would like to receive one or more of the free activities. 39.7% of respondents would like to receive a free breakfast workshop, 56.1% of respondents would like to receive free online training, 34.1% of respondents would like to receive free expert consulting, and 22.6% of respondents are not interested in any of the activities (*N* = 243).

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

6. Conclusions

This baseline survey examined potential barriers and facilitators of startups and SMEs regarding energy efficiency and provides a deeper understanding of the psychological processes around energy conscious behaviour. The survey was carried out from the beginning of August 2016 until the end of October 2016. All local partners contacted startups and SMEs within their networks and encouraged them to participate in the survey. In total 386 respondents participated in the survey, of which 62.5% fully completed the survey. The majority of the survey participants are male, are highly educated and work for SMEs.

Company drivers and barriers

Startups and SMEs differ regarding their operating phase. Startups that have recently started their business are mainly focussing on surviving whereas SMEs have already partly acquired their right to exist and are growing. Most startups work from home, whereas most SMEs rent or own a permanent office. This specific context brings forward differences in perceived barriers. Whereas startups consider energy efficiency to be less of a priority and also lack time to gather information around energy efficiency, SMEs think that energy efficiency will not strengthen their position in the market. Startups also pay the energy bills less frequently than SMEs and therefore consider it less important to save energy. In general, more can be done to bring funding for energy efficient equipment to the attention of SMEs and startups.

There are no differences between startups and SMEs regarding motivations and drivers of energy efficiency. Many companies have targets for environmental performance and apply environmental considerations to purchase decisions, and make respondents responsible for the company's environmental performance. The most important company drivers for SMEs and startups for energy efficiency are reduction of energy bills, contributing to the fight against climate change, and improved product quality.

Although both SMEs and startups seem to be willing to contribute to the fight against climate change price considerations are the most important considerations when purchasing new appliances, followed by product specifications and energy use.

Energy-saving measures

Many companies have implemented at least one energy-saving measure and on average two or three energy saving measures. Most companies replaced existing lighting with more energy efficient lighting or purchased more energy efficient equipment. Not so many companies installed renewable energy generation. It thus seems that there is still room to increase awareness and the importance of different energy-saving measures within startups and SMEs.

Attitudes and motivations towards energy efficiency

It seems that respondents are quite pro-environmental. Many respondents are convinced that it is worth paying a little extra for an energy efficient product. However, price seems also to be one of the most important aspects when buying new equipment for companies. Moreover, respondents also placed some responsibility for climate issues on others, such as researchers. An attitude behaviour-gap could be present. People say that they consider sustainability and energy efficiency important, but it is not guaranteed that they put these considerations into action. In the current survey no behaviour or behavioural intentions were measured. We did therefore not investigate to what extent pro-environmental attitudes translate into actual behaviour. In the follow-up monitoring surveys, when behaviour and behavioural intentions are also measured, this will be investigated further.

Available tools and wishes regarding the training and mentoring programs

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

Employees of startups and SMEs most often consult websites and news items to gather information on energy efficiency. For startups the biggest energy consumption costs are in heating / airconditioning, office equipment and lighting. Startups prefer support on business planning, procurement of equipment and product design. SMEs prefer support on behaviour change, energy efficient equipment and metering and monitoring. Both SMEs and startups prefer this support in the form of web-based tools and advice, and one-to-one support over the phone next to group education (SMEs) and group mentoring (startups). The online energy platform should consist of simple tips, links to funding information, and in-depth advice. There was no clear preference on how the e-learning course modules should be designed.

Report D2.2. provides specific conclusions on the design of the mentoring and training sessions.

Regional differences

Based on the comparison of the UK with CEE the following can be concluded:

- There are much more startups in the UK that work from home, compared to startups in CEE.
- In the UK companies encourage employees less to comply with environmental targets and to take their responsibilities than in CEE.
- In the UK energy saving is more a priority compared to CEE. Employees in the UK are more convinced that energy savings will strengthen their position in the market, and more often see the benefits of energy savings, compared to employees in CEE.
- In the UK there are on average more energy-saving measures in place than in CEE.
- In the UK respondents less strongly believe that researchers will develop new technologies for climate problems, compared to CEE.
- In the UK there is a clear preference for a Breakfast workshop of 2-3 hours, whereas there is no clear preference in CEE.
- For both the UK as CEE there is no clear preference for the e-learning course.
- For the other question on how to set-up the mentoring and training for startups and SMEs there are no clear differences between the UK and CEE.

Lessons learned in terms of outreach activities

From the baseline survey three important lessons were learned:

1) Direct contact via personalized emails or phone calls leads to more survey responses compared to sending requests via social media.

2) The response rate can be increased with short and engaging surveys, therefore the monitoring surveys are significantly reduced in size.

3) It is important to get in touch with umbrella organisations and stakeholders to increase outreach.

These lessons learned are taken into account while designing the monitoring surveys. The changes that are made to the monitoring surveys can be found in “D2.3 Monitoring methodologies”. Moreover, for organising the Breakfast activities, and the training for startups and SMEs the partners increase the outreach efforts to umbrella organisations and stakeholders for better outreach.

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

7. Appendix I: questionnaire

Introduction [screen 1]

Welcome.

Thank you for participating in this START2ACT [mouse rollover 1] questionnaire. START2ACT aims to help companies reduce energy consumption and save costs by introducing simple yet effective measures into their everyday routines. For more information about the project please visit: www.start2act.eu.

In the coming months we will develop training tools and educational material to reduce energy consumption at work, tailored to SMEs and startups*, who by taking small steps can collectively make a big impact. Your views will ensure the information and tools we develop have maximum relevance and use. Once you have completed this questionnaire and entered your e-mail address you will be entered into a prize draw to win a Samsung Galaxy S6 and other high-value prizes** [mouse roll-over 3]. You don't need to join the START2ACT programme to complete this questionnaire.

Confidentiality of research data

The data is analysed by the researchers from CentERdata and will not be provided to third parties. The data will only be analysed in anonymous form and the researchers will not be able to trace back responses to any specific organisation or individual. Questions asking personal details (e.g. e-mail address) will be stored separately and cannot be linked to your answers. For further questions about this research please contact [project partner].

Thanks in advance for your help!

On behalf of the START2ACT team,

CentERdata and [project partner]

* START2ACT is targeted at SMEs with up to 5 years of experience, but young SMEs of different age are also encouraged to participate.

** Terms and conditions apply. [mouse roll-over2]

Once you have read the text and agree to participate in START2ACT please click the box below and press the 'next' button to start the first questionnaire, if you do not agree to participate please indicate so.

- ☐ I agree to participate
- ☐ I do not agree to participate

[Mouse roll-over1: START2ACT is a three-year project supported by the European Union's Horizon 2020 programme for research and innovation.]

[Mouse roll-over 2:

Prize Draw Terms and Conditions

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

1. The winner will be drawn on [date]. A completed questionnaire must have been submitted and received by 18:00 GMT, [date-1 day], entries received after this time will not be considered.

2. The winner will be independently drawn at random from all entries received.

3. This prize draw is open to all [country] residents aged 18 years or over, except employees or contractors of the Partners or any of their group of companies, their families, agents or any third party directly associated with administration of the prize draw.

4. The prize is a [insert prize].

5. No alternative prize is available and the prize is not transferable. There is no cash equivalent.

6. The promoter (identified below) reserves the right to replace the prize with an alternative prize of equal or higher value if circumstances beyond the promoter's control makes it necessary to do so.

7. This prize draw has been organised by [insert company name] (the promotor), registered company number [insert company number], registered at [insert address]. By entering the prize draw you are giving your permission to be contacted by [company name] (or partner companies of START2ACT) about our products and services.

8. Information provided by participants in registering for this competition will be used in line with the [insert company name]'s privacy policy.

9. Your personal details will not be disclosed to third parties (other than partner companies of START2ACT).

10. The winner will be notified by email (using details provided at the end of the survey) before [insert date] and must provide a postal address to claim their prize. Subject to the provision of a valid postal address, the prize will be dispatched within 30 days of the closing date.

11. The winner agrees to the use of their name and image in any promotional activity following the competition.

12. The judge's decision is final and no correspondence will be entered into.

13. No purchase is necessary to take part in this competition.

14. The promoter accepts no responsibility for entries not successfully completed due to a technical fault, technical malfunction, computer hardware or software failure, satellite, network or server failure of any kind.

15. Prize must be claimed by the [insert date] or another winner will be drawn from the list of entries.

]

[Mouse roll-over 3: see www.start2act.eu)

[If they click do not agree go to the screen 2A, if they click agree go to part 1]

Screen 2A

Would you like to receive one or more of the following free energy efficiency activities? If yes, please indicate the activities where you are interested in. If you are not interested, please indicate so:

- ☐ Free breakfast workshop
- ☐ Free online training
- ☐ Free expert consulting
- ☐ I am not interested in any of these activities

[if they click option 1-3: go to screen 2A.1]

Screen 2A.1

Please provide your e-mail address here so that we can keep you updated on this activity / these activities you are interested in.

[open textbox]

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

Questions [Part 1: company and sector]

Q1. Would you define your company as an SME or a start-up?

- ☐ My company is an SME
- ☐ My company is a start-up

Q2. How long has your company been operational?

- ☐ Under three years
- ☐ Three to five years
- ☐ Five to eight years
- ☐ Longer than eight years

Q3. Which sector is your company primarily active in? Please tick the appropriate box.

- ☐ Industry
- ☐ Machinery
- ☐ Food
- ☐ Paper
- ☐ Horticulture / agriculture
- ☐ Construction materials
- ☐ Textiles / fashion
- ☐ Public sector /services
- ☐ Education
- ☐ Health
- ☐ Administration
- ☐ Defence / (cyber) security
- ☐ IT
- ☐ Finance / Banking / insurance
- ☐ Telecom
- ☐ Tourism
- ☐ Media & advertising
- ☐ Geographical technology
- ☐ Energy
- ☐ Transport

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

- ☐ Music
- ☐ Other, namely…

[only one answer option possible; option 'other'= open question format]

Q4. What is the size of the company in terms of personnel?

[open question format numbers]

Q5. Does your company have a permanent office/site?

- ☐ Our company owns a permanent office/site
- ☐ Our company rents a permanent office/site.
- ☐ Our company works from home.
- ☐ Our company makes use of co-working spaces.

[Part 2: company drivers and Barriers (in terms of money, knowledge, priorities)]

Q6. To what extent does your company do any of the following?[55]

My company:

- Has specific targets for environmental performance
- Applies environmental considerations to purchasing decisions
- Provides employees with environmental training
- Makes employees responsible for the company's environmental performance
- Uses life cycle analysis, to assess the environmental impact associated with all the stages of a product's life.
- Has some form of environmental management system

[Strongly disagree 1 2 3 4 5 Strongly agree]

Q7. To what extent do you think the following things would motivate your company to implement energy efficiency measures? Please indicate your top 3 (1st, 2nd, 3rd):

A. Reduction of energy bills
B. Being prepared for future increases in energy prices
C. Contributing to the fight against climate change
D. Improved company image
E. Improved product quality

[55] Based on: Ramus, C. A., & Steger, U. (2000). The Roles of Supervisory Support Behaviors and Environmental Policy in Employee "Ecoinitiatives" at Leading-Edge European Companies. Academy of Management journal, 43(4), 605-626.

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

F. Other, namely…

[option 'other'= open question format]

Q8. To what extent do you agree with the following statements? [56]

- Energy saving is not a priority in my company.
- The pay-back period of energy efficient equipment is too long.
- There is a lack of funding for energy efficient equipment.
- There is a lack of time to gather information around energy efficiency.
- It will not strengthen our position in the market, compared to our competitors.
- The cost savings are not sufficient to justify the effort.
- We don't pay the energy bill so wouldn't see the benefit of savings

[Strongly disagree 1 2 3 4 5 Strongly agree]

Q9. Has the company undertaken any of the following energy-saving measures? Please tick the appropriate box(es).

- ☐ Installation of sub-metering and/or smart meters
- ☐ Energy management and awareness training
- ☐ Replacement of existing lighting with high efficiency lighting e.g. LEDs
- ☐ Installation of lighting controls
- ☐ Purchase of energy efficient office equipment
- ☐ Investment in more efficient heating and cooling
- ☐ Installation of heating controls
- ☐ Refurbishment of building fabric e.g. insulation, window glazing
- ☐ Installation of renewable energy generation (e.g. wind, solar, biomass)
- ☐ Other, namely _____
- ☐ None / not applicable

[multiple answers possible; except if "none" is marked]

Q10. How important are the following considerations when purchasing new appliances for the company?

Please indicate your top 3 (1st, 2nd, 3rd):

[56] Based on: De Groot, H. L., Verhoef, E. T., & Nijkamp, P. (2001). Energy saving by firms: decision-making, barriers and policies. Energy Economics, 23(6), 717-740.

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

A. Price
B. Brand
C. Energy use
D. Product specifications
E. Environmental impact
F. Other, namely ____

[option 'other'= open question format]

[Part 3: Attitudes]

Q11. To what extent do you agree with the following statements? [57]

- I believe that firms and researchers will develop new technologies to solve climate problems
- I believe that we will have to change our lifestyles to reduce energy consumption
- I think of myself as an environmentally-friendly person
- It is worth paying a little more for a more energy efficient product
- Conserving energy is not my problem.
- I consider it important to help my company to conserve energy.

[Strongly disagree 1 2 3 4 5 Strongly agree]

[Part 4: Availability of tools]

Q12. There are many tools and initiatives available to help startups and SMEs with resource efficiency. Do you use any of the following tools? Please specify the name of the tool or provider for each one you use.

- ☐ Websites with energy efficiency information and advice
- ☐ Energy efficiency news (online or magazines)
- ☐ Online calculators to measure energy use
- ☐ Downloadable checklists to implement energy savings in your office
- ☐ Webinars on energy efficiency
- ☐ Energy efficiency conferences and events
- ☐ Energy efficiency training
- ☐ Onsite energy advisors
- ☐ Energy company/utility company helplines

[57] Based on: Scherbaum, C. A., Popovich, P. M., & Finlinson, S. (2008). Exploring Individual‐Level Factors Related to Employee Energy‐Conservation Behaviors at Work1. Journal of Applied Social Psychology, 38(3), 818-835.

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

- ☐ Government programmes or schemes
- ☐ Support from local businesses or local organisations
- ☐ Other
- ☐ None of the above

[With free text field for each box so that they can enter names of websites etc.]

[Part 5: To be developed tools]

STARTUPS question 13 partA [based on question 1]

SMEs question 13 partB [based on question 1]

PART A (Startups)

START2ACT will develop mentoring programmes on energy efficiency. Your answers to the following questions will help to optimise these mentoring programs.

Q13.A1 Which type of support would you prefer to receive? Please indicate your top 3 preferences (1st,2nd,3rd):

A. Web-based tools and advice

B. Group education/training sessions

C. One-to-one mentoring support over the phone

D. One-to-one mentoring support in person

E. Group mentoring sessions in person with other startups to share ideas and compare experiences

Q13.A2 In which of the following sectors would you be interested to obtain skills to make better decisions towards energy efficiency for your emerging enterprise. Please indicate your top 3 preferences (1st,2nd,3rd):

A. Business planning and scaling-up

B. Product design

C. Human resources and management

D. Procurement of equipment

Q13.A3 In the mentoring programme, START2ACT will design a toolkit tailor-made to the needs of your company. To determine the factors influencing your company's energy efficiency, please, indicate that according to your estimation, what is (or is expected to be) your three biggest energy consumption cost? (1st,2nd,3rd)

A. Lighting

B. Heating / air conditioning

C. Office equipment (computers, monitors, printers, copiers etc.)

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

D. Kitchen appliances (coffee machine, fridge, etc.)

E. Other:

F. I don't know / not applicable

Q13.A4 One way to get more insight into your company's energy usage is the use of energy monitoring systems. If you know how much energy your company is using you can better respond to that usage and take control of your costs. Would you be interested in introducing energy monitoring systems in your company as part of a mentoring programme?

- ☐ Yes, I would be willing to introduce energy monitoring systems in my company and I am willing to figure out the best energy monitoring systems by myself.
- ☐ Yes, I would be willing to introduce energy monitoring systems in my company and I prefer to team up with other startups working on reducing energy consumption.
- ☐ No, I do not see the benefit of installing energy monitoring systems in my company.

PART B (SMEs)

Q13.B1 START2ACT will develop training and advice on energy efficiency. Your answers to the following questions will help to optimise these advice offerings. Which type of support would you prefer to receive? Please indicate your top 3 preferences (1st,2nd,3rd):

A. Web-based tools and advice

B. Group education/training sessions

C. One-to-one training and advice over the phone

D. One-to-one training and advice in person

E. Group training and advice in person with other SMEs to share ideas and compare experiences

Q13.B2 Which type of advice/training would be most beneficial to you? Please indicate your top 3 (1st, 2nd, 3rd):

A. Behaviour change training

B. Metering and monitoring training

C. Green procurement training (e.g. purchasing greener and more efficient products))

D. Energy efficient equipment (e.g. LED lighting, heating controls, office equipment)

E. Training on greening your products and green marketing

Q13.B3 START2ACT will develop breakfast workshops. Which type of workshop would you prefer to attend? Please indicate A, B, or C:

A. A breakfast workshop lasting 1 hour with a basic introduction to energy saving.

B. A breakfast workshop lasting 2-3 hours with an in-depth review of energy efficiency opportunities.

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

C. I would not be interested in attending a breakfast workshop.

[PART C: online platform both SMEs and startups]

Q14. START2ACT will develop an interactive energy saving platform. Which type of content would be most useful for your company? Please indicate your top 3 (1st, 2nd, 3rd):

A. Simple introductory energy efficiency tips
B. More in-depth energy efficiency advice on specific topics [If so – which topics? Free text]
C. Links to information on finance and funding
D. Energy saving calculators and tools
E. E-learning courses

Q15. Which form of an e-learning course would you be most likely to complete?

- ☐ An e-learning course with 6 modules of 5 minutes
- ☐ An e-learning course with 2 modules of 15 minutes
- ☐ An e-learning course with 1 module of 30 minutes
- ☐ I would not be interested in an e-learning course

Q16. START2ACT will develop an energy saving competition for SMEs and startups. Please indicate how likely you would be to participate for each potential prize option given below.

- One large prize for the winner (monetary or office equipment)
- Smaller prize for top 10 winners (monetary or office equipment)
- Additional consultancy time/energy efficiency support provided to the winners
- Awards/badges demonstrating commitment to all participants
- Marketing/PR opportunities by promoting participants' involvement on websites and in news articles
- I would not be interested in participating in the energy saving competition.

[Very unlikely 1 2 3 4 5 Very likely]

[Part 6: Socio-demographics]

Finally, we have some general questions for you.

Q17. Age

Q18. Gender

Q19. Education [education categories]

Q20. Length of employment at the current company

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

[Outro: screen 1]

Thank you for participating in this START2ACT questionnaire. Your responses will help to design relevant training kits and educational material for startups and SMEs to conserve energy. Moreover, it will help to identify the barriers that they experience and how we can assist them.

We also encourage you to register for the next phase. START2ACT will provide you with tools, education and solutions to facilitate energy savings and financial savings. These activities will be free to use and will benefit you and your business. If you would like to participate, we will contact you again later in the year.

Q21. If you would like to participate please provide your email address here:

- ☐ I would like to participate.
- ☐ I may wish to participate – please send me further information.
- ☐ I am not interested at the current time, please contact me next year.
- ☐ I wish to neither participate nor receive any further information about START2ACT.

Q22. Would you like to receive one or more of the following free activities? If yes, please indicate the activities that you are interested in. If you are not interested, please indicate so:

- ☐ Free breakfast workshop
- ☐ Free online training
- ☐ Free expert consulting
- ☐ I am not interested in any of these activities

[Outro: screen 2]

These are the last questions of the questionnaire.

Note: Please continue until you are returned to the starting screen. Only then will the system register that the questionnaire has been fully completed.

Q23. Finally: what did you think of this questionnaire?

- Was it difficult to answer the questions?
- Were the questions sufficiently clear?
- Did the questionnaire get you thinking about things?
- Was it an interesting subject?
- Did you enjoy answering the questions?

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

Q24. Do you have any questions about the questionnaire?

- ☐ Yes
- ☐ No

[if yes -> text box appears in which respondents can place their comments]

[Outro: screen 3]

This is the end of the questionnaire.

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

8. Appendix II: START2ACT outreach activities

The following table shows the outreach activities of all START2ACT partners for the Baseline Survey (Table continued until page 55)

Place	Date	Outreach channel (social media, email, own website, phone, newsletter)	Recipient (e.g. Chamber of commerce, association of startups, young SMEs etc.)	Number of people sent to (best estimate)	Comments (describe the scope/impact of the outreach)
BE	Sept. 2016	Email	individual startups	800	Belgian startup ecosystem
BE	26.09.2016	Newsletter	Startups.be newsletter	approx. 10000	Belgian startup ecosystem
BE	20.09.2016	Website	Startups.be website	4	Displayed on own website
BE	til 02.09.2016	Social media - START2ACT twitter	Different tweets with the survey link to the communities	10 tweets, Impressions: 7655, total engagements: 57	Startups.be has 8000+ followers
BE	15.09.2016	Social media - START2ACT LinkedIn	different posts with the survey link to the communities	Average of likes per post:	Startups.be has 3000+ followers
BE	15.09.2016	Social media - START2ACT Facebook	posts with the survey link to the communities	People reached: , Shares: , post clicks:	Startups.be's group has 1987 members, the page has 1248 followers
BE	2016.11.01	Twitter	Various tweets referring to S2A from personal account	between 500-700 impressions	Personal account retweeted by S2A official account
BE	2016.10.19	email	Reaching out to GreenBizz accelerator	personal meeting, incubating 15-20 companies	resulted in agreement on collaboration once the content is ready
BG	11.08.2016	Email	Bulgarian Chamber of Commerce and Industry	approx.100	Bulgaria wide to SMEs and startups
BG	11.08.2016	Email	The Applied Research and Communications Fund	approx. 30	Bulgaria wide to innovative SMEs and startups
BG	11.08.2016	Email	National Association of Small and Medium Business	approx. 20	Bulgaria wide to small and medium business
BG	11.08.2016	Email	Municipal Energy Efficiency Network	approx. 25	EE network of active municipalities and municipal companies
BG	11.08.2016	Email	CLEANTECH BULGARIA	approx. 25	Support entrepreneurship and innovative businesses
BG	11.08.2016	Email	Confederation of Employers and Industrialists in BG	approx. 50	Support business in all industry branches by regional / branch organizations
CZ	til 16.9.2016	Email	individual startups	105	project intro and info
CZ	til 16.9.2016	Newsletter	individual startups	105	Czech startups and SMEs
CZ	til 30.9.2016	Email	individual startups	30	project intro and info
CZ	til 30.9.2016	Newsletter	individual startups	30	Czech startups and SMEs
CZ	til 14.10.2016	Email	individual startups	30	project intro and info
CZ	til 14.10.2016	Newsletter	individual startups	30	Czech startups and SMEs
CZ	til 14.10.2016	Email	HUBs for Start-ups	3	project intro and info, cooperation request

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

Place	Date	Outreach channel (social media, email, own website, phone, newsletter)	Recipient (e.g. Chamber of commerce, association of startups, young SMEs etc.)	Number of people sent to (best estimate)	Comments (describe the scope/impact of the outreach)
CZ	til 14.10.2016	Email	SME assosiation, british and French chamber of comm.	4	project intro and info, cooperation request
CZ	til 31.10.2016	Email	Czechtrade, CzechInvest	3	project intro and info, cooperation request
CZ	til 31.10.2016	Blogs	different blogs	5	article publishing request
CZ	til 31.10.2016	Email	individual startups	60	project intro and info
CZ	til 31.10.2016	Newsletter	individual startups	60	Czech startups and SMEs
CZ	til 31.10.2016	Social media - START2ACT LindedIn	different posts with the survey link to the communities	Average of likes per post:	
CZ	til 31.10.2016	Social media - START2ACT Facebook	posts with the survey link to the communities	People reached: 772, Shares: 10, post clicks: 25	
HR	9.2016	Email/Phone	Ministry of Business and Trade	500	National Ministry with large database base of SMEs and startups.
HR	9.2016	Email/Phone	HUB385-business incubator	35	Busisness incubator
HR	9.2016	Email/Phone	Razvojne agencije Grada Dubrovnika DURA	30	City Agency for SME and startups
HR	9.2016	Email/Phone	BIOS-business incubator	45	Busisness incubator
HR	8.2016	Social media - START2ACT LindedIn	Survey link to the communities	Average of likes per post: 3	46 viewers
HR	9.2016	Email/Phone	TERA TEHNOPOLIS	50	Busisness incubator
HR	9.2016	Email/Phone	INFORMO-Udruga za poticanje zapošljavanja, stručnog usavršavanja i obrazovanja	36	Busisness incubator
HR	9.2016	Email/Phone	Razvojne agencije Grada Zagreba-RAZA	120	City Agency for SME and startups
HU	25.08.2016	Email	individual startups	178	Budapest startup ecosystem
HU	26.08.2016	Newsletter	EEN network Hungary	approx. 3000	Hungary wide to SMEs and startups
HU	19.08.2016	Website	Chamber of Commerce	4	Requested the chambers to put the link on their website
HU	til 25.08.2016	Social media - START2ACT twitter	Different tweets with the survey link to the communities	Link on twitter - Impressions: 394, total engagements: 15	
HU	til 25.08.2016	Social media - START2ACT LindedIn	different posts with the survey link to the communities	Average of likes per post: 4	
HU	til 25.08.2016	Social media - START2ACT Facebook	posts with the survey link to the communities	People reached: 772, Shares: 10, post clicks: 25	
HU	5.9.2016	website	EEN Hungary	1000-1500 visiotrs per month	
HU	5.9.2016	facebook, newsletter	EEN Hungary	230 followers	
HU	5.9.2016	Website	PBKIK - news	avg. visitor number/week: 12000	Baranya county (S-Hungary)
HU	5.9.2016	facebook	PBKIK - facebook post	915 followers	
HU	8.9.2016	newsletter	PBKIK	13889 companies every Thursday	in Baranya county

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

Place	Date	Outreach channel (social media, email, own website, phone, newsletter)	Recipient (e.g. Chamber of commerce, association of startups, young SMEs etc.)	Number of people sent to (best estimate)	Comments (describe the scope/impact of the outreach)
HU	5.9.2016	newsletter	GyMSKIK	1400 companies incl. ySMEs	Győr-Moson-Sopron county
HU	2.9.2016	website	GyMSKIK		Győr-Moson-Sopron county
HU	8.9.2016	facebook	startupvállalkozók	14000 followers	
HU	8.9.2016	facebook	startupkultúra	3500 followers	
HU	13.9.2016	facebook	S2A facebook page followers (HU)	890 reached	
HU	20.9.2016	website	BKIK		
HU	26.9.2016	facebook	BKIK	2600 followers	
HU	30.9.2016	email, reminder	individual startups	159	Bp startup ecosystem
PL	til 25.08.2016	Email	individual SMEs and startups	386	table
PL	2016.09.01	Website	posts with the survey link to the communities	1000	www.kape.gov.pl
PL	2016.09.01	Facebook	posts with the survey link to the communities	819	Krajowa Agencja Poszanowania Energii S.A.
PL	til 2.09.2016	Phone	individual startups	18	
PL	til 2.09.2016	Meetings	Association, Foundations	5	
PL	2016.09.05	Email	Stakeholders Committee	2	KIG, CECED
PL	til 16.09.2016	email	Stakeholders	28	
PL	til 09.09.2016	Phone	Stakeholders	5	
PL	til 28.09.2016	E.mail	Stakeholders	24	Incubators
PL	til 28.09.2016	Phone	Stakeholders	24	Incubators
PL	2016.09.28	Website	posts with the survey link to the communities	150	http://energia0.pl/
PL	2016.09.28	E.mail	Stakeholders	2	European congress, MŚP
PL	til 29.09.2016	E.mail	individual SMEs and startups	6	Covork
PL	2016.09.29	newsletter	individual SMEs and startups	550	Incubators Katowice
PL	2016.09.30	e.mail	Start'up	100	Incubators Lublin
PL	2016.09.30	Facebook	posts with the survey link to the communities	100	Incubators Lublin
PL	2016.09.30	Twitter	posts with the survey link to the communities	100	Incubators Lublin
PL	2016.09.30	Instagram	posts with the survey link to the communities	100	Incubators Lublin
PL	2016.09.30	Website	posts with the survey link to the communities	300	Incubators Lublin
PL	5.10.2016	Website	posts with the survey link to the communities http://www.fund.org.pl/redir,index?wiecej=4913&wiecej_news=1	500	Fundacja Małych i Średnich Przedsiębiorstw

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

Place	Date	Outreach channel (social media, email, own website, phone, newsletter)	Recipient (e.g. Chamber of commerce, association of startups, young SMEs etc.)	Number of people sent to (best estimate)	Comments (describe the scope/impact of the outreach)
PL	5.10.2017	Facebook	posts with the survey link to the communities https://www.facebook.com/Fundacja.Ma%C5%82ych.i.%C5%9Arednich.Przedsi%C4%99biorstw.157053117668116/?ref=aymt_homepage_panel	500	Fundacja Małych i Średnich Przedsiębiorstw
PL	2016.10.05	E.mail	Stakeholders	350	NCBR
PL	2016.10.06	newsletter	individual SMEs and startups	1000	PARP
PL	Aug-Okt 2016	direct meetings with SMEs an sturtups in the Enregy Bus	SMEs and Startups that came to the Energy Bus (KAPE's mobile information Centre)	50	Energy Bus is KAPE' energy efficiency mobile informations Cetre touring through Poland www.autobusenergetyczny.pl
	25.08.2016	email	startups &SMEs	147	
RO	25.08.2016	email	stakeholders - Associations	4	
RO	25.08.2016	social media - Romania Hub Facebook	startups &SMEs	2500 followers	
RO	30.08.2016	email	startups &SMEs	31	
RO	30.08.2016	email	hubs+accelarators	18	
RO	30.08.2016	social media - ENERO facebook	Hubs	8	
RO	02.09.2016	email	SMEs	16	
RO	19.09.2016	email	webapge dedicated to startups	1	www.startupcafe.ro
RO	13.09.2016	email	contact persons for "Erasmus for Young Entrepreneurs"	6	
RO	22.09.2016	email	webapge dedicated to startups	1	www.romanianstartups.ro
RO	14-15.09.2016	direct contact+email	Impact Hub	1	
RO	16.09.2016	email	Ministry of Economy - Department for SMEs	3	Requested to present START2ACT project within the forthcoming "Fair for SMEs (Oct-Nov)
RO	22.09.2016	email	webapge dedicated to startups	1	http://start-up.ro/
RO	27.09.2016	Email	startups &SMEs	101	
RO	30.09.2016	Email	SMEs	1	
RO	okt.16	webpage	SMEs	1000	AREL (Association of Electriciansin Romania) and AGIR (Generla Association of Engineers in Romania) promoted the Start2Act project and the survey activity on their webpages.
RO	07.10.2016	email	coomercial banks	6	request to promovate Start2Act project, when selling their products for SMEs. No answer

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

Place	Date	Outreach channel (social media, email, own website, phone, newsletter)	Recipient (e.g. Chamber of commerce, association of startups, young SMEs etc.)	Number of people sent to (best estimate)	Comments (describe the scope/impact of the outreach)
RO	25.10.2016	Email	startups &SMEs	327	
SK	til 31.08.2016	Phone + email	Investeers, a. s.	9 covered STARTUPS and approx. 200 SME subjects	Will share survey link with their local SME + startup contacts. Number of these is currently unknown.
SK	til 31.08.2016	Phone + email	ZSPS	covers approx. 150 SME recepients	Will share survey link with their local SME + startup contacts. Number of these is currently unknown.
SK	til 31.08.2016	Phone + email	NEULOGY	25 covered STARTUPS and approx. 230 SME subjects	Will share survey link with their local SME + startup contacts. Number of these is currently unknown.
SK	til 31.08.2016	Phone + email	NEK	covers approx. 60 recepients	Will share survey link with their local SME + startup contacts. Number of these is currently unknown.
SK	til 31.08.2016	Phone + email	Stakeholders, Clusters	approx. 250 recepients, incl. ySMEs	Slovakia wide to SMEs and startups
SK	til 31.08.2016	Phone + email	individual SIEA partners	approx. 80 recepients	SIEA partner organizations on Natonal level
SK	til 28.09.2016	Phone + email	VICVELMAX	approx. 75 recepients	Will share survey link with their local SME + startup contacts. Number of these is currently unknown.
SK	til 28.09.2016	Phone + email	SŽK	150	Will share survey link with their local SME + startup contacts. Number of these is currently unknown.
UK	16.08.2016	Social media - Carbon Trust Twitter	Tweet from Carbon Trust Twitter account	53,000 followers of CT Twitter, tweet received 4 retweets and 3 likes	
UK	16.08.2016	Social media - Carbon Trust LinkedIn	Post from Carbon Trust LinkedIn account	11,000 followers of CT LinkedIn, post received 11 likes	
UK	17.08.2016	Network - CT SME Carbon Network	Members of the SME Carbon Network	~2,000 members (not all active)	
UK	22.08.2016	Network - Carbon Trust Public Sector Carbon Network	Members of the Public Sector Carbon Network	1,300 public sector organisations (umbrella orgs with local SME/startup contacts)	As we want to engage members who want to participate to help with recruitment, we requested that they show interest so that we can contact them directly, rather than simply sharing the survey link
UK	24.08.2016	News article - on Carbon Trust website	Carbon Trust website	100	
UK	25.08.2016	Newsletter - Carbon Trust Newsletter	Carbon Trust newsletter recipients	Sent to 180,000 recipients	Sent to a wide range of Carbon Trust contacts, though these are not all SMEs/startups
UK	26.08.2016	Social media - Carbon Trust Twitter	Tweet from Carbon Trust Twitter account	53,000 followers of CT Twitter, tweet received 1 retweet and 4 likes	
UK	26.08.2016	Social media - Carbon Trust LinkedIn	Post from Carbon Trust LinkedIn account	11,000 followers of CT LinkedIn, post received 4 likes	
UK	24.08.2016	Phone + email	Bath and North East Somerset Council		Will share survey link with their local SME + startup contacts.
UK	25.08.2016	Phone + email	Thurrock Council		Will share survey link with their local SME + startup contacts.

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

Place	Date	Outreach channel (social media, email, own website, phone, newsletter)	Recipient (e.g. Chamber of commerce, association of startups, young SMEs etc.)	Number of people sent to (best estimate)	Comments (describe the scope/impact of the outreach)
UK	25.08.2016	Phone + email	Bedford Borough Council		Will share survey link with their local SME + startup contacts.
UK	31.08.2016	Phone + email	Cambridge City Council		Will share survey link with their local SME + startup contacts. Will also post link on the SME area of their website.
UK	01.09.2016	Phone + email	Haringey Council		Will share survey link with their local SME + startup contacts.
UK	01.09.2016	Phone + email	Bournemouth Borough Council		Will share survey link with their local SME + startup contacts.
UK	25.08.2016	Phone + email	Southampton City Council		Will share survey link with their local SME + startup contacts.
UK	25.08.2016	Phone + email	TEDCO Business Support		Will share survey link with their local SME + startup contacts.
UK	02.09.2016	Social media - Carbon Trust LinkedIn	Post from Carbon Trust LinkedIn account	11,000 followers of CT LinkedIn, post received 5 likes	
UK	02.09.2016	Social media - Carbon Trust Twitter	Tweet from Carbon Trust Twitter account	53,000 followers of CT Twitter, tweet received 2 retweets and 2 likes	
UK	07.09.2016	Phone + email	Cambridge City Council	~200 (open promotion, not targeted)	Cambridge have shared the materials with: • Visit Cambridge – named contact • Cambridge Network – named contact • Cambridge Bid – generic email address • GPGC (LEP) – named contact • FSB – local branch – named contact • Chamber of Commerce (Cambridge) – generic email address
UK	13.09.2016	Phone + email	Sefton Council	~200 (open promotion, not targeted)	Will share with their Green Business Hub colleagues to disseminate
UK	14.09.2016	Phone + email	East Midlands Chamber	~500 (open promotion, not targeted)	Have shared the survey with their local business contacts and organisatons
UK	09.09.2016	Social media - Carbon Trust LinkedIn	Post from Carbon Trust LinkedIn account	11,000 followers of CT LinkedIn, post received 2 likes	
UK	09.09.2016	Social media - Carbon Trust Twitter	Tweet from Carbon Trust Twitter account	53,000 followers of CT Twitter, tweet received 2 retweets and 4 likes	
UK	15.09.2016	Phone + email	Worcestershire Council	~200 (open promotion, not targeted)	Will share with the local Business Growth Hub and relevant colleagues to disseminate
UK	16.09.2016	Social media - Carbon Trust Twitter	Tweet from Carbon Trust Twitter account	53,000 followers of CT Twitter	
UK	16.09.2016	Social media - Carbon Trust LinkedIn	Post from Carbon Trust LinkedIn account	11,000 followers of CT LinkedIn	

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

Place	Date	Outreach channel (social media, email, own website, phone, newsletter)	Recipient (e.g. Chamber of commerce, association of startups, young SMEs etc.)	Number of people sent to (best estimate)	Comments (describe the scope/impact of the outreach)
UK	23.09.2016	Social media - Carbon Trust Twitter	Tweet from Carbon Trust Twitter account	53,000 followers of CT Twitter	
UK	23.09.2016	Social media - Carbon Trust LinkedIn	Post from Carbon Trust LinkedIn account	11,000 followers of CT LinkedIn	
UK	07.10.2016	Social media - Carbon Trust Twitter	Tweet from Carbon Trust Twitter account	53,000 followers of CT Twitter	
UK	07.10.2016	Social media - Carbon Trust LinkedIn	Post from Carbon Trust LinkedIn account	11,000 followers of CT LinkedIn	
UK	14.10.2016	Article - Business Wales	Article posted on Business Wales website		Number of views unknown.
UK	20.10.2016	Newsletter - Carbon Trust Newsletter	Carbon Trust newsletter recipients	Sent to 180,000 recipients	Sent to a wide range of Carbon Trust contacts, though these are not all SMEs/startups
UK	22.10.2016	Mailout to SME mailing list	Direct email mailout to 22,000 SMEs registered in the UK	Sent to 22,000 SMEs	
UK	25.10.2016	Network - CT SME Carbon Network	Members of the SME Carbon Network	~2,000 members (not all active)	
EU	06.08.2016	facebook	S2A facebook page followers (EN)	773 reached	Consortium-wide outreach
EU	12.08.2016	S2A website	S2A website followers (EN)		Dedicated news item: The Survey for Young SMEs and Startups is out!
EU	02.09.2016	facebook	S2A facebook page followers (EN)	507 reached	Consortium-wide outreach
EU	til 31.10.2016	S2A website	S2A website followers (all languages)	420 page views (google analytics)	START2ACT landing page to access all language versions of the baseline survey
EU	19.10.2016 - 28.10.2016	facebook campain purchased	all target countries, specified target group recipients	48672 reached; 1706 Links clicked.	a paid facebook campaign to promote the survey to the target groups in all participating countries.

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