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save@work Evaluation Report:

Lessons learnt for future sustainable energy projects aiming to change
everyday behaviour

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save@work – The Energy Saving Competition

www.saveatwork.eu

save@work was a year-long energy saving competition for public authorities and their employees between March 2016 and February 2017 in nine European countries.

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EXECUTIVE SUMMARY

save@work was a European project conceived to help realize the energy saving potential in public buildings and support public employees to change their everyday energy consuming behaviour and practices. Across nine countries, save@work engaged with more than 17,000 public employees in 176 buildings in a 1-year behaviour change programme. With support from the expert partners in each country, local energy teams were formed from the employees in each public building. These teams were then responsible for the planning, implementation and, partly, the evaluation of the energy saving campaign in their building with continued support from the local expert save@work partners.

The save@work Evaluation Report was prepared for three main reasons. First, to present the methodology applied and the achievements reached in nine European countries. Secondly, to describe the evaluation process developed and used in the project, and to share its outcomes. Finally, to propose an improved project methodology including tips and recommendations for implementers of similar projects in the future. Thus, the contents of this report are intended for a rather wide audience: implementers of projects intending to initiate and/or maintain behaviour change initiatives in public offices (as well as other offices, or indeed, households), policy makers and project funders as well as researchers working in the field.

The save@work project was built on a **research-based methodology** that considered the **theory of interpersonal behaviour**, and **combined top-down with bottom-up approaches**. As for the latter, on the one hand, public authorities were invited to be active partners, and the top management or leadership of each public building was asked to commit to participation in the programme thereby ensuring that employees at all levels were supported to engage in save@work activities. On the other hand, Energy Teams, composed of the energy/building manager and interested employees were formed in each building, mostly on a voluntary basis. The project thus intentionally **built on small groups as facilitators and enablers of behaviour change**, and used a variety of means and motivators, in other words tools and materials, simultaneously to cater for the needs of different personality types.

The majority (73%) of the participating buildings did save energy during the project: on average 8% energy was saved. A total of 6.5 GWh of primary energy was saved in the 9 participating countries and 1,783 tons of CO₂ emissions were avoided. However, in addition to the results in energy saving and CO₂ emissions avoided, it is important to expose the role and significance of the project in raising the awareness of employees and establishing new energy efficient behaviour and practices that can serve as **the basis for future sustainable energy activities**. **save@work contributed to developing more knowledgeable and skilful, as well as more cohesive, employee communities** that are ready to focus on making even more energy savings - an outcome that is as important as the savings achieved.

save@work: the evaluation process and its main outcomes

The save@work evaluation process was conceived to (1) support internal learning and evaluation; (2) learn more about the impact of the project; and (3) help identify success factors and barriers in different local settings. It included the following elements:



- 🔌 pre- and post-campaign participant surveys filled in by 2965 (17%) and 2059 (12%) employees respectively;
- 🔌 partner self-evaluation surveys (mid-term and final);
- 🔌 partner interviews and discussions organized partly by a party external to the project consortium; and
- 🔌 best campaign surveys conducted with local implementation teams (i.e. Energy Teams).

The Evaluation Report provides a summary of information and outcomes gained through all these methods, and based on them puts forward recommendations for future projects. Below we outline the main findings.

save@work: successful in changing behaviour and supporting the change

Based on the pre-campaign survey results, **the main reasons for employees to join the project** were an interest in saving energy and other environmental issues and simply wanting to learn more about energy saving. In addition, a lot of respondents selected wanting to be involved in something positive as a reason. In line with this finding and according to the post-campaign survey, the thing employees liked most about save@work was that they became more aware (i.e. learnt new things). They also highlighted the bi-weekly saving tips and teamwork as sources of enjoyment.

Overall, **the project was very successful, it...**

- 🔌 **was appreciated by employees** (66% 'liked it a lot' or 'liked it' while only 6% said they 'did not like it');
- 🔌 **reached its objectives** in that it managed to involve considerably more employees (17,280 compared to 9,000) and only slightly fewer buildings (176 compared to 180) than planned;
- 🔌 **managed to initiate, support and create behaviour change** so that
 - 🔌 all the eight energy saving actions surveyed were performed by a higher regularity by the end of the campaign with the greatest increase observed for turning off computers and laptops when not in use.
 - 🔌 a greater than twofold increase was found for those who performed all the eight surveyed actions regularly (from 6.5% to 14.2% in the whole sample or to as high as 18.9% for those more engaged); and
- 🔌 **increased support for energy saving activities** from the management, IT services and in general from colleagues.
- 🔌 On average, 54% of survey respondents **took up new energy saving actions** in their individual routines, the most often cited actions being turning off equipment when not in use, taking up more efficient lighting practices and creating more rational heating/ventilation practices.
- 🔌 40% said that the management in their building introduced energy efficiency related changes that had not been planned or done beforehand.

It is important to note that save@work **had important spill-over effects** as well: 82% of the respondents were inspired by save@work to engage in activities that were not strictly part of the project, for example, start energy saving activities or invest in energy efficiency in their homes or talk about energy saving to their family or friends.



Finally, and very importantly, on average **86% of survey participants believe that they would be able to continue with energy saving activities in their office**, with the highest percentage for the UK and Hungary (91% and 89% respectively), and only 2% responding with a definite 'no' and 12% being uncertain. About half of the respondents also provided reasons for continuing with energy saving activities, the most often cited being the actions making sense, being beneficial and already become routines.

save@work: some challenges

A successful project does not mean that the consortium did not have to deal with some challenges.

The first important challenge was a general **low level of interest and motivation from public buildings** to engage in and stay active in the campaign. This was due to a number of reasons, but those often cited were employee workload and the fact that energy saving had not yet become an integral part of everyday routines and practices. Both were barriers to engagement in all nine save@work countries.

The **availability and access to energy consumption data** both historical and current also posed a considerable challenge. The save@work project helped participating authorities recognize the inadequacy of data availability as well as the need for setting up data management systems and assigning responsibilities for managing them. The save@work consortium can only hope that this process will continue in the future.

The save@work consortium would have wished to see more improvement in terms of energy saving during the lifetime of the project. However, through participant surveys we observed an increase in the performance of all the energy saving actions, accompanied by an increase in the ratio of participants performing all energy saving actions simultaneously and with high regularity. Whilst it is recognized that there is still room for improvement, the save@work consortium was glad to see that 86% of survey respondents believe they would be able to continue with energy efficiency actions in the office after the campaign.

save@work: reflections on the methodology applied

The **save@work methodology, with an impressive tools, materials and events repository**, was generally found satisfactory by participant groups, and the conclusion of the evaluation activities was that there were no essential or basic tools missing from it. The tools and materials used most as well as found the most useful by most project participant groups (i.e. partners, Energy Teams and employees) were the **energy saving tips**, promotional materials, the information pages on the project website and the measuring devices (e.g. energy meter, thermometer) provided as part of the Starter Kits. Importantly, **energy saving tips** were also identified as the second most important **source of enjoyment** by participants.

Nevertheless, drawing on the outcomes of the varied evaluation processes used in the project, we have identified ways in which the methodology could be enhanced and the repository improved. In the detailed report we propose an improved plan that could be used in future campaigns and would hopefully result in avoiding challenges or responding to them more swiftly.



One of the improvements suggested concerns **better integration of campaign activities and tasks into existing municipal structures and processes through greater engagement of the building management**. This would mean allowing for a longer preparation phase (e.g. at least 6 months). Another proposal concerned improving the effectiveness of the existing tools and materials, for example, the strategic handbook for Energy Teams delivered in modules, thematic tips prepared based on its contents (i.e. tips on team building, management and communication), and more training workshops for employees to assist developing an approach tailored to local needs even easier. Finally, tools that could be added to the save@work repository for an improved methodology include those that encourage the sharing of experience and ideas at all levels and between all project participant groups. Communication tools to facilitate the involvement of management would also be beneficial.

save@work: summary recommendations for future projects

Finally, based on the experience of the save@work project as well as the analysis presented in this report, the **5 most important lessons learnt and recommendations** for future behaviour change projects include:

🔥 **INTEGRATE AND MAKE IT THE NORM:** behaviour (or practice) change related activities work best if they are integrated as much as possible into everyday processes, tasks, job descriptions and strategies. Employees need to see them as part of their job and not have to worry about spending time and effort on it in their free time or taking away time from their 'regular tasks'. This way sustainable energy use behaviour can become the new norm that everyone strives to achieve as part of their work.

Integration, however, should not mean that no special and/or additional activities, training, events, etc. are needed to achieve sustainable energy use.

🔥 **BUILD COHESIVE GROUPS AND EMPLOYEE COMMUNITIES:** both research and practice, including our experience in save@work, point toward the importance of small groups and communities in changing, supporting and maintaining more sustainable (energy use) behaviour and practices as well as being a source of enjoyment, fun and learning. We know, groups do not become cohesive by themselves, therefore, as part of any campaign it is of vital importance to spend time and effort on building cohesive groups and employee communities through specifically focused activities and training as well as through creating opportunities where groups can develop naturally.

🔥 **KNOW WHAT YOU WANT TO CHANGE:** in order to be able to know whether efforts to change energy use behaviour and to reduce consumption are successful, we need access to historical and current energy consumption data. If no data management system exists yet, campaigns like save@work can help with setting up simple processes and establish responsibilities for managing them, which seems to be a general need identified by the project.

Furthermore, data and information are also needed on behaviour, practices, skills, knowledge and infrastructure specific to local contexts and supporting or hindering sustainable energy use. Uncovering them should constitute an important part of the baseline assessment.

🔥 **CHANGE AND LEARNING NEW THINGS CAN BE ENJOYABLE:** changing routine and habitual behaviour and practices poses challenges. Thus, connecting the necessity for change and



learning new things with enjoyment, increasing comfort and well-being is important. Participants in the save@work project acknowledged the existence of this connection: learning new things and becoming more aware were important motivations for joining the campaign as well as important sources for enjoyment.

- 🔥 **RECOGNIZE AND BUILD ON DIVERSITY:** in a European campaign it is important to follow a shared timeline, structure and content. However, it is just as important to allow for flexibility thus provide methods and tools tailored to local contexts and circumstances. This should be seen as an opportunity for learning and sharing, and campaigns should include opportunities to reflect and build on the resulting diversity that can help enrich the learning experience of all participants. Self-evaluation methods proved helpful in save@work for recognizing and appreciating diversity.



The save@work consortium with the winning teams from each country at the final meeting and Award Ceremony in Brussels

INTRODUCTION

save@work was a European project conceived to help realize the energy saving potential in public buildings and support public employees to change their everyday energy use behaviour and practices. The save@work Evaluation Report was prepared for three main reasons. First, to present the methodology applied and the achievements reached in nine European countries. Secondly, to describe the evaluation process developed and used in the project, and to share its outcomes. Finally, to propose an improved project methodology including tips and recommendations for implementers of similar projects in the future. Thus, the contents of this report are intended for a rather wide audience: implementers of projects intending to initiate and/or maintain behaviour change initiatives in public offices (as well as other offices, or indeed, households), policy makers and project funders as well as researchers working in the field.

The report first describes the save@work project and its methodology, including details of its main results in terms of participant numbers, energy saved and CO₂ emission avoided (Chapter 1). The first chapter also provides details about the evaluation process and methodology used in the project, and the different types of information collected from the different participant groups, including project partners, local implementation teams at participating buildings (i.e. Energy Teams) as well as participating employees. In Chapter 2 we discuss the main impacts of the project in terms of, for example, changed behaviour, attitude and support for energy saving, long-term change, and spill-over effects based mainly on the outcomes of the pre- and post-campaign participant surveys. We follow this with a discussion of similarities and differences of implementation in the nine participating countries in Chapter 3. After this we describe challenges and success stories in Chapter 4, where we also reflect on the methodology used in the project. In Chapter 5 we present an improved methodology for similar future projects as well as practical tips for project planners and implementers. Finally, we close with the 5 most important lessons learnt and recommendations for future behaviour change projects.

save@work was implemented in nine countries by nine local partners as shown on the map below. In addition, as in the project evaluation, including self-evaluation, played an important role, so the project consortium selected an external organization to assist with as well as take part as an observer in this process. DuneWorks was selected for this role, a research and consulting organization focusing on social issues concerning sustainability and sustainable innovations.

Finally, it needs to be noted that in the save@work project the consortium was very ambitious and, as it is shown in the report, used a variety of methods and tools to evaluate the impact and success of the project (see details in section 1.4.). The contents and conclusions of the present report are based on the analysis of these materials. However, as there is a wealth of information available, we were not able to present everything within the scope of this report. Should you have any questions or want to find out more, please feel free to contact the authors of this report or the members of the save@work team.





Figure 1: Map of the partners and participating countries in the save@work project
 (Austria: Graz Energy Agency, Belgium: Arbeit en Milieu, France: Prioriterre,
 Germany: BSU (consortium leader), Hungary: GreenDependent Institute, Italy: AESS, Latvia: Ekodoma,
 Sweden: Energikontor, the UK: Severn Wye Energy Agency)

CHAPTER 1: About the save@work project and its methodology

Buildings are responsible for 40% of energy consumption and 36% of CO₂ emissions in the European Union¹, and 10-12% of the buildings are public. Since public buildings are important not only in view of how much energy they use but also as role models for the population, it is very important that their energy saving potential is realized. Furthermore, since up to 15% of energy saving can be achieved through various behaviour change measures (EEA, 2013), thus without considerable funds and investment, it is important that public employees learn about their potential to reduce their contribution to climate change and resource use as well as are empowered to enact the change and become role models.

save@work was a European project conceived to help realize the energy saving potential in public buildings and support public employees to change their everyday energy consuming behaviour and practices. Across nine countries, save@work engaged with more than 17,000 public employees in 176 buildings in a 1-year behaviour change programme. With support from the expert partners in each country, local energy teams were formed from the employees in each public building. These teams were then responsible for the planning, implementation and, partly, the evaluation of the energy saving campaign in their building with continued support from the local expert save@work partners.

1.1. Aims and objectives of the save@work project

The s@w project identified several aims and objectives in its original Description of Work, which were as follows:

Improving energy literacy of public sector employees and motivating energy efficient behaviour for improving the energy performance in public office buildings

One of the primary objectives of save@work was to provide public authorities and employees with the necessary knowledge, tools and means to control and reduce energy consumption in their buildings. The measurement and web based display of the energy, CO₂ and cost savings is an important motivating factor for employees but it also helps promote the project outside the organisation, by being able to present verified results in an easy understandable way. **Individual energy audits and training** held in all participating public buildings were intended to provide the necessary knowledge for translating the results of energy monitoring systems into action and for reducing energy consumption in each building, covering low cost and behavioural measures, green procurement as well as supporting measures for investments in building renovation and modernisation. Each building had its own **Energy Team** the members of which were responsible for running a year-long motivation and information campaign to engage their colleagues, helping them to see where and how they use energy and, more importantly, how they can reduce this consumption, also in the longer term. **Evaluation** surveys conducted among all employees at the start and the end of the one-year competition (pre- and post-campaign surveys) provided information on the learning impacts generated by the campaign among the employees.

Empowering public authorities to fulfil their function as a role model regarding energy efficiency and inspire other organisations to follow the lead

¹ Source: <https://ec.europa.eu/energy/en/topics/energy-efficiency/buildings> (last accessed Sept 2017)



The public sector has been assigned an exemplary role in the field of energy efficiency by the European Commission (EC, 2011 and EP, 2010). Buildings occupied by public authorities and visited by the public should set an example and show that energy and environmental considerations are of importance. save@work enables each participating public authority to fulfil this role, through meeting expectations and leading by example. Furthermore, purchasing decisions made by the public sector in the field of energy efficient products and services have a large influence on the position of “green products” in the market. The importance of this role model function is seen in respect to the society and its encouragement of energy efficient behaviour among citizens, the private sector as well as other public authorities. The communication strategies of save@work ensured that the public recognised the positive role of the public authorities by addressing a broad audience including citizens and key decision makers. In addition, with the information and lessons learnt provided in the current report, the project can be replicated with an improved methodology in other public as well as private office buildings.

Providing measurable energy, CO₂ and cost savings

The consortium set out to involve 180 public office buildings (20 per country) in the competition all aiming to achieve the highest energy savings possible. An Energy Saving Online Tool was employed for the first time in the public office buildings ensuring that all energy, and CO₂ savings achieved during the project could be measured, traced and documented in a transparent way. The project goal - which was based on studies and experiences made with similar interventions in the public sector² - of reaching at least an average 15% energy reduction was calculated to lead to 13 GWh primary energy saved, 3,100 t CO₂ emissions avoided for the public sector within the project lifetime, contributing to reduction goals as set out in local/regional climate plans and consequently of each participating country and those of the European Union.

Providing valuable input to improve the effectiveness of initiatives focussing on changing the behaviour at the work place

An evaluation component was included in save@work to capture success and challenge factors relating to energy use behaviour change in different public buildings in different countries. As part of this pre- and post-campaign surveys were filled in by participants as well as self-evaluation surveys by project partners to gain insights into what helped and what obstructed behaviour change. To support and increase the success of other similar projects, the results of the evaluation activities are to be published (see, for example, this report) and widely communicated inside and outside the project.

Stimulation of energy efficient behaviour at the private level

The secondary objective of the save@work project was to capture the energy saving motivation experienced at work by the employees involved in the initiative and help apply it to their home life as well as how they travel to and from work – thus the aim of the consortium was to improve their overall energy literacy. Motivation, increased awareness and understanding of how energy saving practices can be applied at home (by providing special tips and tools) will lead to a changed behaviour at the private level as part of the spill-over impact of the project.

² Studies and previous projects in office buildings promoting energy efficient behaviour show that average energy savings between 5-20% can be realised, see: Results of „Energie Cup Hessen“, <http://www.hessen-nachhaltig.de/web/co2-neutrale-landesverwaltung/energie-cup-hessen>, as of 26th of May 2014 and EEA, 2013

1.2. The basic elements of the save@work methodology

The save@work programme had a research-based methodology, based partly on the analysis of behaviour change programmes in Europe and in Australia (Molonev et al, 2010; Mourik et al, 2009, 2010), and success factors identified in the relevant literature (Molonev et al, 2010; Mourik et al, 2009, 2010; Nolan et al, 2008). The most important elements of the methodology were as follows:

- (1) It considered the **theory of interpersonal behaviour** through recognizing the importance of social factors and emotions as well as of past behaviour in shaping currently existing practices (Jackson, 2005).
- (2) It was built on a **combination of top-down and bottom-up approaches**. On the one hand, public authorities were invited to be active partners, and the top management or leadership of each public building committed to participation in the programme thereby ensuring that employees at all levels were supported to engage in save@work activities.

On the other, Energy Teams, composed of the energy/building manager and interested employees were formed in each building, mostly on a voluntary basis. Each energy team was responsible for running the year-long competition in their building and had to motivate their colleagues to change their behaviour and daily practices.

- (3) As facilitators and enablers of behaviour change, **small groups, or energy teams, were of great importance** in the programme. Groups help question and change social norms, help tackle social dilemmas, empower individuals and were also found important in exerting pressure on individuals to follow sustainable norms. (Heiskanen et al, 2010)

Furthermore, as groups do not automatically work well by themselves, a special effort was made to encourage and support the group development process of energy teams. They were made aware of and provided training in group dynamics methodology.

- (4) **Using a variety of means, enablers and motivators**, in other words tools, simultaneously was also important in order to cater for the needs of different personality types.
- (5) Finally, as having good **management skills** were also found to be vital for the success of behaviour change programmes (Mourik et al, 2009), energy teams were given some training and guidance in the management of their local energy-saving campaigns.

In the current chapter we provide details of the common methodology, which was then adapted by the local expert partners (i.e. s@w consortium members) to fit the differing local needs and circumstances in the participating countries (see details in Chapters 3 and 4).

Shared and distributed responsibility

As a result of combining top-down and bottom-up approaches, responsibility for ensuring successful implementation and thus energy saving in participating buildings was shared between the project team, participating authorities and the Energy Teams formed from employees in the buildings (see Figure 1.1). By aiming to involve all actors and requiring active participation from them, the project aimed to lay down the foundations for longer-term action for sustainable energy use as well as build cooperation between employees coming from different departments and working at different levels of management.



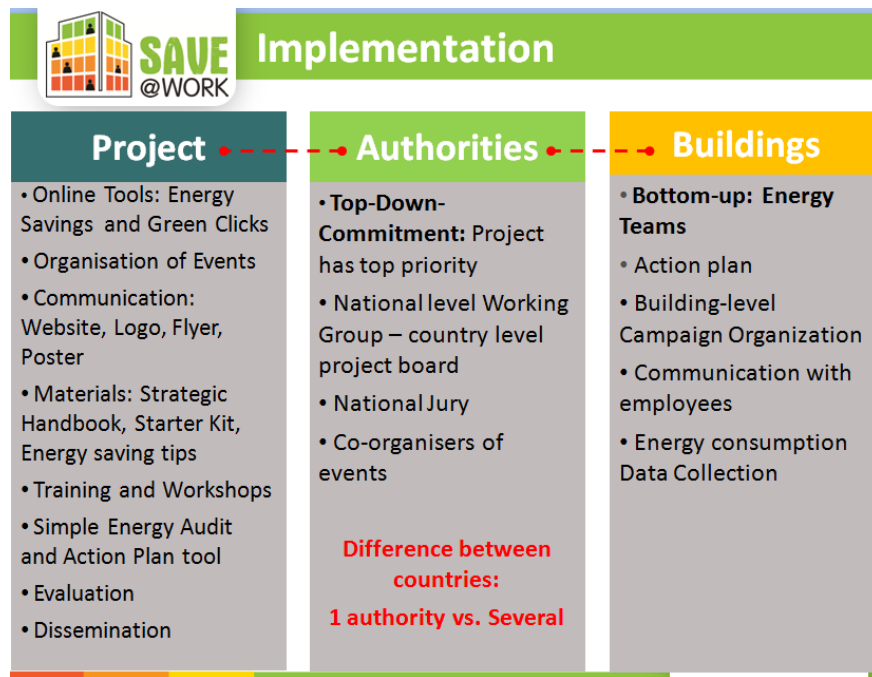


Figure 1.1: Shared and distributed responsibility in the save@work project

As it can be seen from Figures 1.1 and 1.2, all parties had many responsibilities and tasks during the project, and, in fact, most of the tasks could only be completed successfully if project partners, authorities and Energy Teams cooperated. This was sometimes challenging as can be seen in later chapters (see Chapters 2. and 4.), however, it was key for ensuring longer term change in the buildings as well as for establishing the structures for this change.


 save@work project timeline with main events and tasks <i>PP: project partners // A: authorities // ET: Energy Teams</i>										
PP	<ul style="list-style-type: none"> Recruitment of buildings Materials and tools development Active communication and dissemination 	<ul style="list-style-type: none"> Start data collection Conduct baseline assessment Organize working group meeting Translate and test national website 	<ul style="list-style-type: none"> Support forming Energy Teams Organize opening event and distribute Starter Kits Organize schedule of training events and conduct training in each building Pre-campaign survey 	<ul style="list-style-type: none"> Support and provide feedback on audits and action plans 	<ul style="list-style-type: none"> Support local campaigns Ensure data collection Publish and evaluate four "challenges" Communicate and disseminate 					<ul style="list-style-type: none"> Organize international final event Evaluate project results at project (European) level Communicate and disseminate
					<ul style="list-style-type: none"> Organize working group meeting (and midterm event) 	<ul style="list-style-type: none"> Support preparation of follow-up action plans 	<ul style="list-style-type: none"> Evaluate campaign and competition results 	<ul style="list-style-type: none"> Organize national jury meeting Post-campaign survey 	<ul style="list-style-type: none"> Organize national final event Communicate and disseminate results 	
Time	Months 1-9	Months 6-11	Months 9-14	Months 12-17	Months 20-21	Months 25-26	Months 26-28	Months 26-27	Months 27-28	Months 26-32
A	<ul style="list-style-type: none"> Commit to participation Identify buildings 	<ul style="list-style-type: none"> Participate in working group meeting Support data collections Participate in baseline assessment 	<ul style="list-style-type: none"> Participate in opening event Support forming Energy Teams and organization of training 	<ul style="list-style-type: none"> Provide support for Energy Team efforts and tasks 					<ul style="list-style-type: none"> Participate (and present) in national final event 	<ul style="list-style-type: none"> Ensure continuation of sustainable energy plans (Participate in international final event)
ET			<ul style="list-style-type: none"> Participate in opening event Participate in initial training Start organizing Organize participation in pre-campaign survey 	<ul style="list-style-type: none"> Conduct energy audit Develop action plan for building Register in online tools Start campaign 	<ul style="list-style-type: none"> Participate in midterm event 	<ul style="list-style-type: none"> Update action plan to ensure sustainability 	<ul style="list-style-type: none"> Fill in evaluation questionnaires, prepare campaign report 	<ul style="list-style-type: none"> Organize participation in post-campaign survey 	<ul style="list-style-type: none"> Participate (and present) in national final event Communicate local results 	<ul style="list-style-type: none"> Implement updated action plan Continue with sustainable energy efforts
				<ul style="list-style-type: none"> Implement action plan Organize and motivate employees, participate in the four "challenges" Provide building consumption data 						

Figure 1.2: The tasks of different save@work project stakeholders



Sequence and description of project activities

Above, in Figure 1.2, the timeline of the project as seen and experienced through tasks by different key participant groups was shown. In this section we present a simpler timeline: Figure 1.3 depicts the overall sequence of activities in the save@work project and campaign without details and sub-steps for the different main steps. This is the general figure for the project, and as we will show in Chapter 2, there were some differences in timing, implementation, etc. between the 9 countries involved in the project. Furthermore, as shown in Figure 1.2 earlier, the sequence of activities was not always as linear and clear as suggested by Figure 1.3 here as there were often overlaps between different stages of the work, mainly due to the fact that several authorities were involved in all countries and they each progressed with tasks at their own pace.



Figure 1.3: Sequence of activities in the save@work project

Preparation

As shown in the Figure, the project started with a preparatory stage during which the recruitment of participating authorities, i.e. public buildings, was concluded as well as the materials and tools for the campaign prepared. As for recruitment, it should be noted that a number of authorities had already signed up for participation in the project during the proposal writing stage in each country. Nonetheless, the consortium found that in most countries there was need for a more substantial recruitment process than originally planned (see more details in Chapter 2 and 4). As for developing the tools and materials, save@work proved to be a good example of sharing responsibility between partners based on expertise and previous experience:



- 🔌 the online tools and website were developed by the French and Austrian partners;
- 🔌 the contents of the starter kit, the strategic handbook and saving tips by the Hungarian partner;
- 🔌 the audit tool and action plan template by the Austrian partner;
- 🔌 the promotional materials by the partner from the UK; and
- 🔌 the materials and content for the competition by the Latvian partner.

Of course, all of the tools and materials prepared received helpful comments and contributions from the other partners not leading these tasks. Thus, the great amount of work needed could be shared between several members of the consortium.

Implementation in buildings

🔌 **Step 1: Forming Energy Teams:** establishing the Energy Teams was key to the success of the project (see section 1.2 above) as they were meant to be the ambassadors of the competition, and the heart and soul of energy saving efforts in each participating building. Even though in some buildings the top management selected one or several members of the Energy Team, they were formed mainly on a voluntary basis: they were a group of office employees feeling enthusiastic, responsible and ready to drive change towards more sustainable energy use in their building. At the same time, they did not need to do everything themselves - but they were the ones who had to make sure that things got done, information was spread, and people working in the office started using energy in a more sustainable way.

In parallel to forming Energy Teams, **national level working groups** were also formed and meetings assembled to consult with and involve high level representatives from participating authorities in the implementation of the campaign.

🔌 **Step 2: National Opening Events:** in each country there was an opening event held to mark and celebrate the start of the competition, to provide information to all participants and distribute the starter kits to Energy Teams as well as to allow for networking between participants. This event was also used as an opportunity to notify the press and other important stakeholders about the project.

🔌 **Step 3: Local campaign preparation:** during this step, Energy Teams were given a significant amount of expert support for preparing the campaign for their building. This meant that consortium partners held initial training workshops for the Energy Teams in each building to provide input on energy saving, on the use of s@w tools as well as on managing groups and motivating people, provided assistance in carrying out simple energy audits and in drawing up action plans. Action plans - that provide framework to the energy saving activities within the competing building for the duration of the campaign - were then evaluated and given feedback on by consortium partners. In addition, Energy Teams were also asked to mobilize employees in their buildings to fill in a pre-campaign survey as part of the evaluation activities.

🔌 **Step 4: Energy saving campaign in buildings:** this was when Energy Teams really started mobilizing and involving their colleagues in energy saving activities between March 2016 and February 2017; i.e. they implemented their action plans, regularly entered energy consumption data into the online Energy Saving Tool, etc. They continued to receive expert support from the consortium in the form of regular and themed saving tips, challenges as



part of an effort to further motivate and encourage group work (and gamification), feedback on the pre-campaign survey, prompts to use the Green Clicks tool, regular blog articles from all countries, etc.

During this step, the national working groups (see Step 1) were also convened and consulted to discuss the progress of the campaign and see whether any adjustments, etc. were necessary.

- 🔋 **Step 5: Action plan update:** towards the end of the campaign Energy Teams were asked to conduct a simple evaluation of their activities in the form of updating their action plans. This was also intended to ensure the sustainability of the campaign and the continuation of activities in the buildings.
- 🔋 **Step 6: National level evaluation:** with the involvement of the **national jury** - i.e. representatives from all participating authorities - the campaign was evaluated from different aspects, namely the three s@w competition categories:
 - (1) **highest energy saving achieved**, measured in kWh, based on data and calculations by the online calculation tool;
 - (2) **best campaign implementation** (most involving, most creative, etc.), based on questionnaires (called 'Best campaign questionnaire') filled in and reports prepared by the Energy Teams;
 - (3) **most sustainable campaign** (Best Action Plan), based on the original and updated action plans.

As part of the national level evaluation, **national strategy papers** were also prepared in each country on taking the campaigns further and disseminating the results as well as the general s@w methodology.

- 🔋 **Step 7: National Closing Events:** in each of the s@w countries a closing event was organized to celebrate the successful completion of the project as well as the saving and changes achieved together. At these events, the best performing buildings in the 3 evaluation categories were awarded by various prizes and, importantly, they were also given an opportunity to present their results and specific approach used to achieve the results. Similarly to opening events, closing events were used as an opportunity to notify the press and other important stakeholders about the outcomes of the project.
- 🔋 **European level evaluation:** once national level results were available, the European jury, comprised of the representatives of project partners, convened to discuss who the winners at the European level are. At this level, the **three best buildings in terms of saving** were found.
- 🔋 **European closing and prize event:** the event, to which the representatives of the best performing building from each country were invited, was organized in Brussels so that stakeholders at the European level could also be invited. At the event, the overall results of s@w were presented in addition to presentations by the winning Energy Teams and European level stakeholders. Furthermore, the teams from the participating countries were also invited to take part in some professional activities: visit to energy efficient buildings, workshop on municipal level action, networking, etc.



Project evaluation, conclusion and dissemination: the impact achieved by the project was evaluated from various points of views, e.g. as measured by the pre- and post-campaign focusing on change in office practices related to energy saving, attitudes, etc., see details of the evaluation methodology in section 1.3. and of the outcomes of the two surveys in Chapter 2.

Apart from the evaluation activities, the s@w consortium placed a great emphasis on dissemination both at the national and European levels, e.g. in the form of brochures, presentations, press releases and scientific reports.

Tools and materials

In s@w many different tools and materials were prepared to facilitate the various activities described above. A summary of these is presented in Figure 1.4. However, please note that just as well as in the case of the sequence of activities, there were difference between tools and materials used in the different countries, e.g. additional tools and materials were developed in most of the countries to better adapt the campaign to local needs. Examples for these are mentioned in Chapter 2.


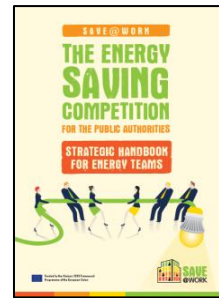
<p>Materials for Energy Teams:</p> <ul style="list-style-type: none"> 🕒 Starter Kit: <ul style="list-style-type: none"> • Measuring devices (e.g. energy meter, thermometer, etc.) • Promotional materials 1: flyers, posters, door-hangers, stickers • Promotional materials 2: chocolates, mugs, bags, etc. 🕒 Strategic Handbook 🕒 Biweekly thematic saving tips 🕒 Simple audit template 🕒 Action plan template 🕒 Templates for activities and communication (quizzes, letters, posters, etc.) 🕒 Challenges 	<p>Online tools:</p> <ul style="list-style-type: none"> 🕒 website 🕒 Energy Saving Tool 🕒 Green Clicks 🕒 Blog 	<p>Events:</p> <ul style="list-style-type: none"> 🕒 Initial training workshop for Energy Teams (and interested employees) 🕒 National Opening Event 🕒 Working Group Meetings ❖ National Midterm Event 🕒 National Closing event 🕒 European Prize Event
	<p>save@work tools, materials and methods</p> 	
	<p>Evaluation:</p> <ul style="list-style-type: none"> 🕒 Pre- and post-campaign surveys ❖ Template for pre-campaign survey report for participating buildings/authorities 🕒 Best campaign questionnaire 🕒 Self-evaluation questionnaires (mid-term and final) 🕒 Final report on campaign, results and lessons learnt 	

Figure 1.4: Tools, materials and methods developed and used in the s@w project
(Items marked with ❖ were not planned originally but were included later as need for them was identified.)

Materials for Energy Teams

The s@w project consortium recognized that Energy Teams needed to be prepared and enabled for managing the campaign in their buildings. As they were often comprised of fully or partly of lay people in terms of sustainable energy use as well as managing groups and campaign activities, they needed materials with different content: some they could use to learn from as well as others that they could use first in the preparation and later in the implementation of their campaigns.

The **Strategic Handbook** was the guidebook intended to serve as the main written learning tool for Energy Teams. It contains information and tips on how to work in the Energy Team, how to organize various events, on group development processes, best practice examples of office buildings, case studies and tips on how to help, organize and motivate colleagues for a more energy efficient behaviour at the workplace, etc. The table of contents of the Strategic Handbook can be seen in Annex I., and the international version of the handbook - that was adapted and translated by each project partner for their specific local context.³



The **Starter Kit** was assembled to help Energy Teams kick off their campaigns. Thus it contained a lot of promotional materials like posters, flyers, stickers, door hangers as well as small objects to use for communication, prizes, motivation, etc. such as chocolates, mugs with the project logo, textile bags, magnets, etc. It also included measuring devices to facilitate the completion of the simple energy audit as well as

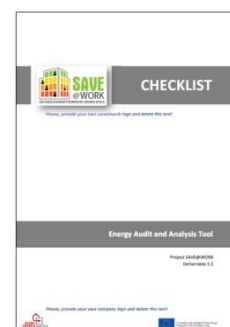
to actively involve employees in discovering their energy use practices and the energy consumption of their various electronic devices (e.g. energy meter, thermometer, etc.). The contents of the starter kit varied somewhat from country to country depending on the specific local circumstances and needs (see Annex II. for details on the national Starter Kits).



There were altogether 24 **thematic energy saving tips** sent out **biweekly** to the Energy Team members. These energy saving tips linked with energy saving measures, relevant for the respective season (seasonal tips). The Energy Teams forwarded the tips to their colleagues, who apart from putting them in practice in the offices; could also take the ideas home with them. The tips on the one hand motivated and informed the participants of the campaign to save energy and on the function as reminders for behaving more energy efficient throughout the campaign year. Generally there was also some space left for the Energy Teams to add their own specific tips adjusted to their

building. These tips complemented the advice provided by the Green Clicks tool and ensured a comprehensive communication approach in order to reach the employees. The list of topics covered can be found in Annex III.⁴

The **simple audit template** was developed to aid the public buildings and their employees in evaluating their energy use in general. The data (such as gross floor area, number of employees, etc.) was incorporated in the individual checklist and further complemented with building and energy data in the following areas: general building and employees data, procurement information, energy and water consumption, energy saving behaviour, building envelope, heating and hot water, ventilation and air conditioning systems, lighting, IT. This simple audit also formed the basis for the energy analysis in each of the public office buildings.⁵



³ The Strategic Handbook is available at https://www.sporolunk.org/images/partner/GDI-files/SW-A4Book-ENG_final.pdf

⁴ The energy saving tips are available at: <https://www.sporolunk.org/letoltheto-anyagok> (Please go to "Materials in English")

⁵ The audit template is available from: https://www.sporolunk.org/images/partner/GDI-files/Energy_Audit_and_Analysis_Tool.pdf





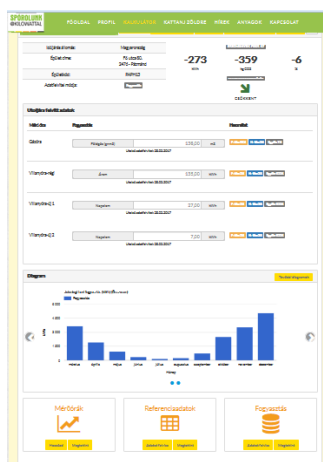
As all participating public buildings were requested to create their own action plans for both the competition period of one year, as well as for the period subsequent to it, an **Action plan template** was designed to aid the local Energy Teams in their efforts. The action plan comprised of tasks on no-cost and low-cost measures as well as communication strategies for different groups of employees including team managers, building technicians, cleaning staff, procurement manager and other employees in the building. The Action plan templates were provided in different formats by the national organisers taking into account the local needs and circumstances (see more details on this in Chapter 2, section 2.2).

Templates for activities and communication were provided for the energy teams that assisted them to create their own simple campaign materials. For example templates for notices (e.g. for hanging on boards and providing information on energy savings achieved or activities scheduled), for invitations and emails, for producing own stickers (“light off?”, “windows closed?”), for simple quizzes to raise interest (e.g. how much can you save by...?), and for producing own energy saving tips were offered to the Energy Teams. The templates were made available to the registered users of the online tool in easy-to-adjust formats (word, ppt) in order to allow the local energy teams to include their own texts and ideas easily.

Online tools

The s@w project consortium also provided the participating buildings – and especially their Energy Teams – with different types of online tools with different objectives and methods of intervention in order to gain the attention and maintain the motivation of employees.

Each participating country was provided a general project **website** – set up in all partner languages – hosting the online tools and the platform for the competition providing all relevant information and materials for the participants as well as a forum for exchanging experiences. It was furthermore an information point for other interested public

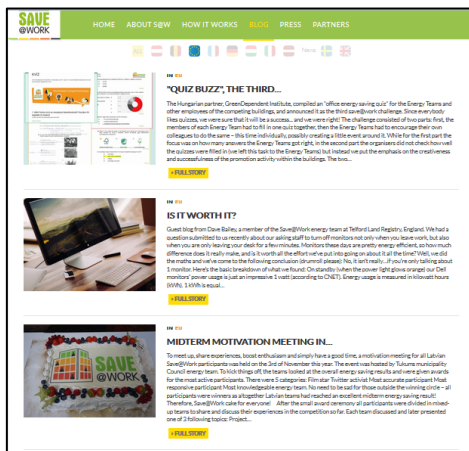


authorities not participating in the project, multipliers, companies and the general public.

The **Energy Saving Tool** was developed to visualise the energy use and calculate the energy savings of each public office building. It provided information on the energy consumption of the buildings which could be followed by all employees, thus creating a sense of positive competition between participating offices. An interface was generated so the data could be entered by each Energy Team on a regular basis. This online tool calculated the energy savings of each building based on historical consumption data collected.



The **Green Clicks Tool** was an online tool developed to help change individual energy behaviour of employees in offices. Based on a do-it-yourself check on individual energy behaviour every employee got a personal feedback on his/her current level of energy efficiency at different activity areas. 12 subjects were taken into consideration (e.g. computers and peripheral devices, lighting, heating, ventilation). Depending on the individual self-check Green Clicks provided concrete and individual tips to change the energy use behaviour of the respective employees. A gamification approach was applied to attract employees to set permanent actions to improve their energy behaviour. This web-based tool complemented the biweekly energy saving tips in order to activate different learning and perception strategies of individual employees.



Each national website included a **blog**, as an opportunity for those involved to feel part of a much wider national and European community, all of whom were striving towards the same goal. The blogs were the national and European communication channel for all participants as well as the general public. It delivered news, interesting articles and ideas from one country to the other. Members of the Energy Teams could blog about the team’s experience of changing energy consumption patterns. The most interesting blog articles were then translated by the partner consortium into English and then further translated

into national languages. The blogs demonstrated to the national participants as well as to the general public that Energy Teams all over Europe were working to achieve the same aim and in doing so strengthen the European spirit of the project.

Events

The third group of supporting ‘tools’ in the s@w project were the different types of events (trainings, ceremonies, etc) also with their different objectives (awareness-raising and provision of information, celebration and sharing of experience, etc.). Naturally, every event aimed also at helping the local Energy Teams in remaining motivated and/or in motivating their colleagues.



Initial training workshops were organised for Energy Teams in all the partner countries primarily to raise awareness on energy efficiency and to identify and visualise the personal values of the teams as well as to define the goals of the individual Energy Teams. The initial workshop concluded with the assignment of responsibilities and the development of a one-year action plan for the respective building focusing on no-cost and low-cost measures as well as communication strategies. Finally, the participants of the

initial workshop received training on how to use the online tools and to become familiar with their different functions.

The **National Opening Ceremony** was the official start of the competition. As explained above, in section 1.2, all partners organised a starting event for their national participants. At these events, representatives of each building's (still forming) Energy Team were present in order to receive important project information, learn more about the rules and to receive ideas on how to implement their in-house motivation campaign.

There were four **Working Group (WG) meetings** in the lifespan of the project organised by the national partners for the representatives of participating buildings. The main focus of the first two of these WG meetings was to establish a common understanding on the structure of the project and the competition, as well as assigning tasks. The organisers tried to have at least one representative of each participating public authority present. During the third meeting the participants exchanged experiences, discussed problems and started the preparation for the national award ceremony. The final WG meeting concentrated on the evaluation of the campaign activities, and the discussion of future activities to ensure the sustainability of the project. The last WG meeting also functioned as the national jury meeting, where following the methodology and prize criteria developed by the consortium the representatives of each participating public building acted as a formal body to confirm the national winners.



In some of the participating countries – based on the request and need of the Energy Teams – **National Midterm Events** were also organised to share the experience of the first half of the campaign and also to boost the motivation of the Energy Team members. It proved to be very beneficial as although in some buildings the competition and the accomplishment of the set tasks were progressing relatively well, most of the Energy Teams faced multiple challenges in their offices both from their superiors and also from their co-workers.

The **National Closing Event** was organised by the partner consortium members and the ceremony also served as the national prize event where the most dedicated public buildings were awarded. The national winners in all three categories received prizes (in kind – vouchers, energy efficient tools, etc) that were connected to the goals of the project. The best Energy Teams were able to share their results and positive experience and in many cases inspiring external guest were also invited to give a talk on specific issues related to the energy efficiency of public buildings. Additionally, in some of the participating countries local/regional fruit trees were handed out partly to offset the carbon footprint of the project events, but the planting of the trees were also meant to help strengthen the local Energy Teams.



The most successful teams from each country were invited to the **European Prize Event** in Brussels at the end of the campaign. The consortium organised the European Award Ceremony in a way that four representatives from each country (three members of winning energy teams, one representative from the winning public authority) participated at the Award Ceremony and a workshop prior to the event. At the ceremony the three



best European teams presented their campaign and received recognition, all country winning teams were handed over a certificate by Vincent Berrutto, Head of Energy Unit of the European Commission's Executive Agency for Small and Medium-sized Enterprises (EASME) to mark their achievements.

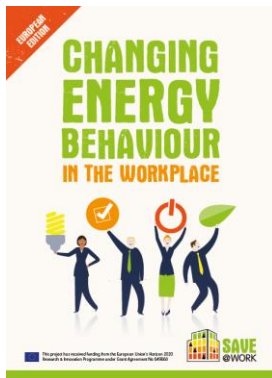
Communication and dissemination

Here we discuss materials and tools that were prepared and used for the communication and dissemination activities of the project - and that of specific buildings. Thus, it is necessary to point out that, naturally, some of the materials listed under Materials for Energy Teams could be placed into this category as well, e.g. the flyers and posters, or the website from the Online Tools category could be placed here, too.

Several **press releases** were issued by the project as a whole⁶, mostly aimed at European level stakeholders, and also by project partners, targeting people and organizations at the national level. Furthermore, press releases were also issued by participating authorities as they also wanted to disseminate project related news and achievements from their own point of view, mostly at the local and regional level.

With input from participating authorities collected at working group meetings, at national closing events and from updated action plans, **national strategy papers** were prepared on how to continue s@w and similar activities aimed at sustainable energy use and management within and outside participating buildings.

To facilitate continuing s@w and similar activities and ensure that the outcomes, tools, etc. of the s@w project are used, each consortium partner **communicated with authorities not involved in the campaign**. The methodology for this communication varied from country to country, but ideas and methods were discussed and shared at partner meetings.



On the campaign, its methodology and outcomes **national brochures in the national languages**⁷ were prepared using the same design and adapting the content to the national context, using mostly examples from local participants. At the same time, a **European brochure**⁸ was also prepared to facilitate dissemination at the European level. In this brochure the outcomes of the whole project are presented.

The s@w consortium also communicated the outcomes of the evaluation activities at various stages of the project. First, although it was not originally planned, a summary report on the **findings of the pre-campaign survey** were published in different ways: in a detailed report (Vadovics and Szomor, 2017)⁹ as well as in a shorter summary document, which could also be translated, if relevant, to the national languages of participating

⁶ As an example, the final press release for the project can be seen at the project website at https://saveatwork.eu/images/sw_pre-campaign_survey_report_GreenDependent_Jan2017.pdf (last accessed Sept 2017)

⁷ National brochures can be found at: <https://www.sporolunk.org/letoltheto-anyagok> (Please go to "Materials in English")

⁸ The European brochure is available from: https://www.sporolunk.org/images/partner/GDI-files/savework_European-brochure_FINAL.pdf

⁹ The report is available from the save@work website at https://saveatwork.eu/images/sw_pre-campaign_survey_report_GreenDependent_Jan2017.pdf (last accessed Sept 2017)

countries. In addition, partners received guidance and templates for preparing **building-specific reports** on pre-campaign survey results for authorities to help make their campaigns as relevant to the needs of the employees working in that building as possible.

Finally, a report on evaluation activities, the outcomes and lessons learnt of the s@w project was published in the form of the present report, a short version of this report for decision makers and project implementers as well as a presentation for project partners.

Evaluation

The tools and methods used for evaluation are discussed in section 1.4. below (The methodology used for preparing this report).

1.3. Summary of save@work results and outcomes

As stated above the save@work project aimed at including 180 public buildings with 9,000 employees in the 9 partner countries. Its objectives also comprised of saving an *estimated* 13 GWh of primary energy and 3,100 t of CO₂. Some of these primary goals have been reached as 176 buildings with 17,280 employees were recruited for the one-year-long competition. As for energy saving, total primary energy saving topped at 6.5 GWh and 1,783 tons of CO₂ emission were avoided.

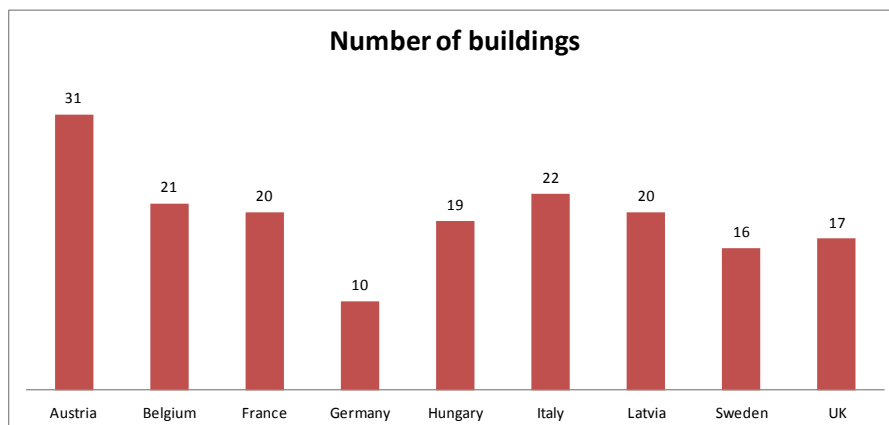


Figure 1.5: The number of participating buildings in the respective countries

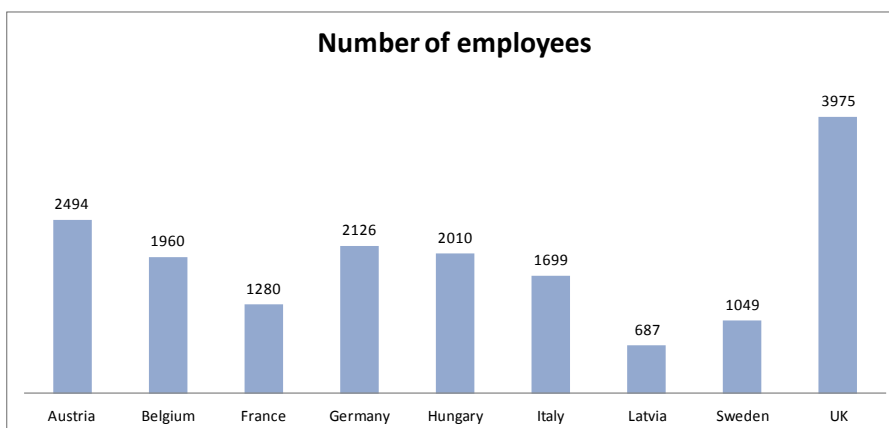


Figure 1.6: The number of participants in the respective countries



An important outcome of the project was that 73% of all participating buildings saved energy, also saving €474,615 in total (Table 1.1).

Country	Energy Savings (kWh)	CO ₂ Savings (t)	Average saving rate buildings (%)
Austria	-264.753	-286	-8,3%
Belgium	-800.414	-492	-8,4%
France	-608.171	-139	-16,9%
Germany	-1.027.622	-576	-5,2%
Hungary	-247.499	-61	-5,4%
Italy	-807.780	-198	-14,8%
Latvia	-202.726	-28	-9,0%
Sweden	-255.151	-5	-8,6%
UK	-627.659	-154	-10,3%

Table 1.1: Energy and CO₂ savings achieved in the save@work project

There were three competition categories in which the public authorities could prove their commitment in reducing their energy consumption. The first and most important category was the **percentage of energy saved** compared to the consumption of a previous year, the second category was dedicated to the **best campaign conducted** in the public buildings, while in the third the participants competed with their **original and updated Action Plans** for the subsequent year(s).

In the first category winners were selected based on the calculations conducted with the help of the online calculator'. **The overall winner in the 9 countries was the Town Hall of Zemst, Belgium, saving 25% energy.**¹⁰ Markaryd Municipality Building from Sweden finished in the second place saving 20%, and the third one was Smiltene Municipality Council from Latvia reaching 19.5% savings. Representatives of the winning building from each country were invited to the final Award Ceremony in Brussels.¹¹

In the other two categories only national awards were distributed. The preliminary evaluation of the submitted best campaign questionnaires and the Action Plans were conducted by the national partner organisations and the final results were ratified by the National Juries, which consisted of the representatives of each participating public authority and the national partners. The quality of the submitted materials varied, some of the reports and Action Plans were of very high standard and also contained material evidence requested by the organisers, but there were also some which had been put together in haste, lacking diligence.

1.4. The methodology used for preparing this report

The present report was prepared using information from various evaluation materials and tools, both qualitative and quantitative, applied at different stages of the project. Figure 1.7 shows at which stages the tools were applied and the information collected from different participant groups.

¹⁰ You can read the success story of the Town Hall of Zemst in section 4.1 of this report.

¹¹ For a success story from each participating country, please read the save@work European brochure at https://www.sporolunk.org/images/partner/GDI-files/savework_European-brochure_FINAL.pdf



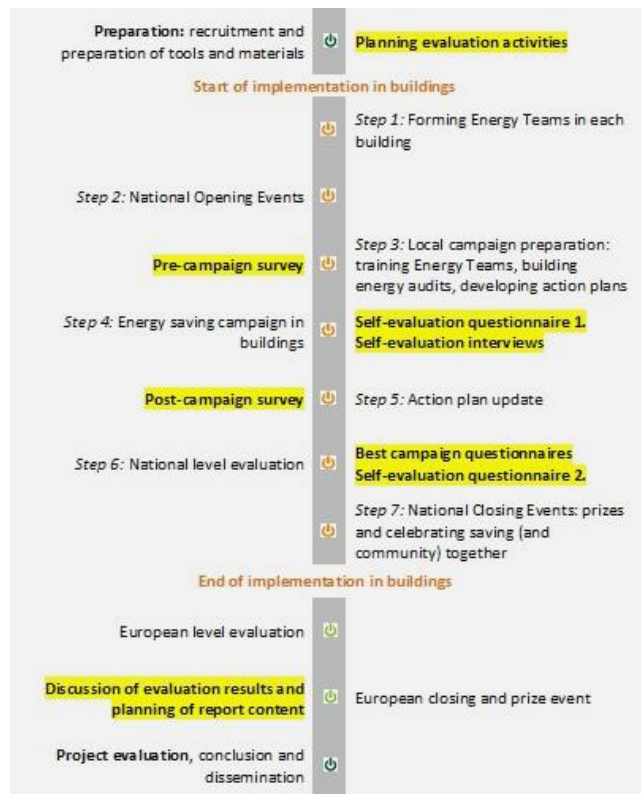


Figure 1.7: The timing of various evaluation activities - indicated by yellow highlighting - in the s@w project

The evaluation activities and methods used fall into different categories as follows:

- 🔌 Information and feedback from **project partners** (i.e. self-evaluation):
 - surveys – midterm + final
 - self-evaluation interviews (conducted and analyzed by DuneWorks)
 - self-evaluation mid-term internal report (by DuneWorks: Uitdenbogerd, Breukers, 2017)
 - self-reflection and discussion at project meetings
- 🔌 Information and feedback from **participants**:
 - pre- and post-campaign surveys
- 🔌 Information and feedback from **Energy Teams**:
 - pre- and post-campaign surveys (largely the same as for participants)
 - best campaign questionnaires, and summaries prepared based on them by project partners

Information and feedback from project partners

As based on previous research (see e.g. the Changing Behaviour FP7 project summarized in Mourik et al, 2009 and 2010) an important success factor of behaviour change programmes and campaigns is how well the campaigns themselves are implemented, a self-evaluation component was planned for the s@w project. Thus, the project partners' point of view is analyzed in addition and

comparison to participant surveys in order to gain a fuller picture of success - and how different implementation and contextual factors had an effect on it.

Project partners filled in two self-evaluation questionnaires: a mid-term and a post-campaign questionnaire¹². These investigated the partners' view of the project, the usefulness and actual use of materials, challenges as well as success factors and stories. They also asked for information on what partners would do differently in a similar future project to ensure an even greater level of success. **Both questionnaires were filled in by representatives of all consortium partners.**

In addition to the self-evaluation questionnaires, and partly based on the outcomes of the first questionnaire as well as the pre-campaign survey, experts from DuneWorks also conducted interviews with the representatives of all partners. The results of these interviews were first discussed at the 5th partner meeting at a session lead by DuneWorks, and then summarized in an internal working report by DuneWorks for the consortium (Uitdenbogerd, Breukers, 2017).

Finally, lead by relevant WP-lead GreenDependent, consortium members also organized discussions among themselves on the outcomes of the first self-evaluation questionnaire along with the pre-campaign survey at the 4th partner meeting. This was followed by a similar discussion at the final partner meeting on all the evaluation activities conducted.

Information and feedback from participants

Employees working in the 176 buildings participating in the s@w campaign were asked on two occasions - at the beginning and end of the campaign - to fill in surveys in order for the consortium to be able to assess the change in behaviour, attitudes, practices, etc. achieved during the project. As described in the pre-campaign survey report (Vadovics and Szomor, 2017), the consortium grappled with **competing objectives** when deciding on the survey content. On the one hand, the consortium wanted to be able to collect useful information, but on the other, wanted to ensure that a sufficient number of people would fill the survey in. Thus, limiting its contents became necessary based on finding a balance between what was needed for the evaluation and what was possible to achieve in reality, with the involvement of the employees.

The consortium thus decided to have the following main parts in the surveys:¹³

¹² In case you would like to find out more about the detailed contents of the self-evaluation surveys, contact the authors at the email address provided on the internal cover page of this report.

¹³ The pre-campaign survey can be found in Vadovics and Szomor, 2017. Information about the detailed contents of both surveys is available from the authors at the email address provided on the internal cover page of this report.

Pre-campaign survey ¹⁴	Post-campaign survey
<p>Review of energy saving practices in relation to 8 specific actions, and enquiring about both the respondents' and in the respondents' view, their colleagues' usual practice. The 8 practices range from easy (e.g. turning off lights) through medium difficulty (e.g. minimizing printing) to difficult (e.g. adjusting the heating temperature). The consortium made a joint decision about which practices should be included.</p> <p>2 additional energy saving actions were included in the post-campaign survey to see how often participants carry out actions that were considered more challenging by the members of the consortium.</p>	
<p>Respondents were offered the opportunity to list any other energy saving practice that they engage in.</p>	<p>Respondents were asked which new energy saving practices</p> <ul style="list-style-type: none"> • they themselves took up during the campaign, and • were introduced by the office management.
<p>Enquiring about respondents' past intentions and experience to initiate change in their office in order to find out about how easily change happens in the participating offices, whether employees engaged in the past in such activities, and what their experience has been.</p>	<p>Respondents were also asked whether in their view they would be able to carry on with the energy saving practices and activities after the conclusion of the campaign.</p>
<p>Identifying some of the barriers to routinely practising energy saving activities, such as knowledge about performing the activities (e.g. using energy saving setting on equipment), belief in the importance and effectiveness of energy saving practices, and the support experienced for performing such practices in the office from colleagues, the management and the IT department.</p>	
<p>Learning about the motivation of employees to join the save@work campaign.</p>	<p>Learning about the use, usefulness, and enjoyment caused by the save@work tools and materials.</p> <p>Respondents were also asked whether they thought anything was missing from the campaign.</p>
	<p>Learning about any spill-over effects the campaign resulted in, and</p> <p>intention to participate in a similar campaign in the future.</p>
<p>Collecting socio-economic data on respondents.</p>	

However, in order to limit the time for completing the survey, which was a very important factor identified by the consortium, the members of which have extensive prior experience in conducting similar pre- and post-campaign surveys - even the number of questions in each of the survey sections had to be restricted. As a result, the number of items in each survey section was considered very carefully.

Finally, some questions that are routinely asked as part of the socio-economic data collection, for example, income, were considered too sensitive for inclusion in order to ensure that employees feel confident and relaxed to fill in the survey. Even though the survey was anonymous, and the consortium has transparent data management and data privacy principles, the public authorities

¹⁴ The outcomes of the pre-campaign survey are summarized in Vadovics and Szomor, 2017.



participating in save@work required that the type and amount of information collected should be limited.

Summary of the responses collected

In order to collect as many responses as possible in all the 9 countries participating in s@w, several actions were taken. First of all, the save@work consortium decided to allow employees in participating buildings to fill in the survey in different ways:

- 🔌 in a **paper-based format** that the local consortium partner then entered into the online survey system;
- 🔌 **electronically through the online survey system** (Survey Monkey).

Then, the consortium decided to keep the survey 'open' for several months both at the beginning of the campaign for the pre-campaign survey and at the end for the post-campaign survey. As indicated above, it was the responsibility of the Energy Teams working in each building to disseminate the survey and facilitate the collection of responses from as many employees working in the building as possible, but project partners provided support to them in various ways, for example through providing a list of tips, a sample letter that Energy Teams could send to the management to ask for support in mobilizing employees, and finally by offering prizes, both national and international, for buildings collecting the highest number of surveys compared to the number of employees working in the building. Differences related to motivating Energy Teams and challenges experienced in terms of collecting survey responses are discussed in Chapter 4.

Table 1.2 summarizes the number of responses collected in each participating country for both of the surveys. It can be seen that, generally, the consortium had a better response rate in most of the countries for the pre-campaign survey. It can also be seen that the same countries managed to achieve a higher response rate, in both cases above 15%, for both of the surveys: Latvia, Hungary, Belgium, Italy and Sweden.

Country	No. of employees	Pre-campaign survey		Post-campaign survey	
		No. of filled in surveys	Response rate	No. of filled in surveys	Response rate
Austria	2 494	149	6,0%	173	6,9%
Belgium	1 960	694	35,4%	353	18,0%
France	1 280	125	9,8%	93	7,3%
Germany	2 126	119	5,6%	129	6,1%
Italy	1 699	483	28,4%	418	24,6%
Hungary	2 010	714	35,5%	375	18,7%
Latvia	687	270	39,3%	177	25,8%
Sweden	1 049	319	30,4%	174	16,6%
UK	3 975	92	2,3%	167	4,2%
total	17 280	2 965	17,2%	2 059	11,9%
<i>average for countries</i>			21,4%		14,2%

Table 1.2: Response to the pre- and post-campaign surveys in s@w countries



Considering the whole sample and concerning the ratio of female and male respondents as well as those who provided other replies, there was no difference between the pre- and the post-campaign survey (Figure 1.8).

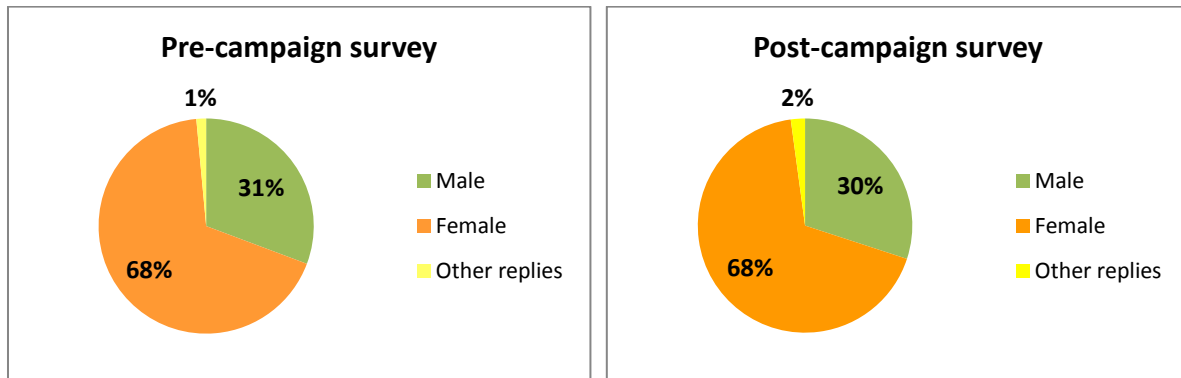


Figure 1.8: The distribution of genders in the whole sample

Figure 1.9 and 1.10 show that similarly to the distribution of gender groups the distribution of age groups and employee levels are almost the same for the pre- and post-campaign surveys. If we look at data for specific country, some differences can naturally be observed. The most notable difference can be seen in the case of the level of employees filling in the survey. Just like in the case of the pre-campaign survey (Vadovics and Szomor, 2017), in France and Germany a higher proportion of respondents are in the group of middle and top management. This is most likely due to the difference between country level implementation structures explained in more detail in Chapter 2.

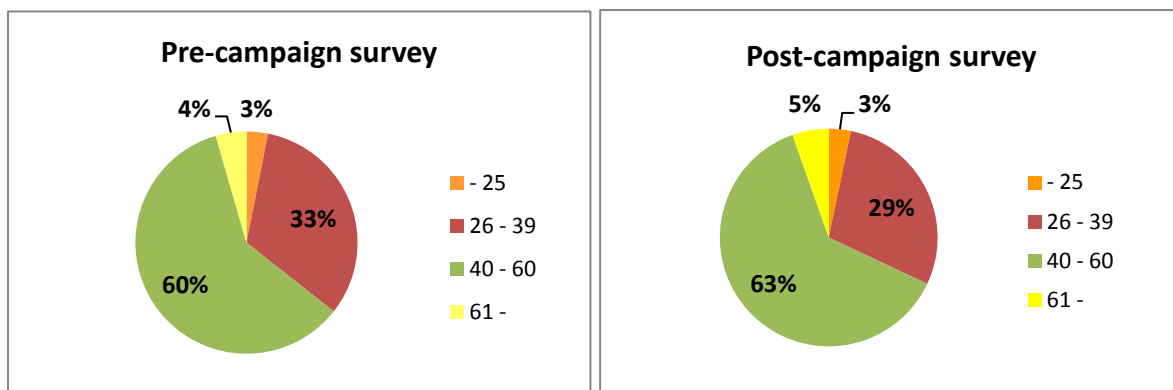


Figure 1.9: The distribution of the different age groups in the whole sample

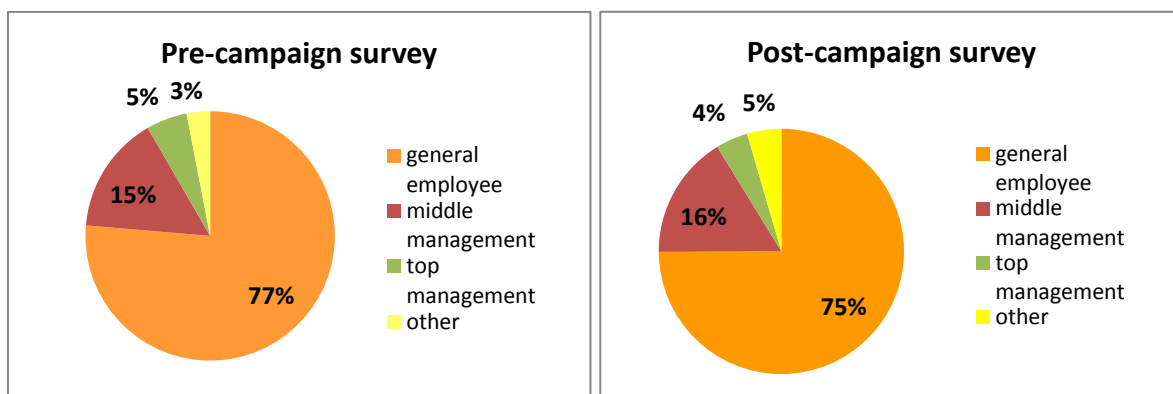


Figure 1.10: The distribution of the different level of employees in the whole sample

We also wanted to see what percentage of the respondents filled in both surveys, so the post-campaign survey included a question about this. Based on the results shown in Figure 1.11, it can be seen that 46% of the respondents definitely filled in both surveys, but a rather high number of them (26%) were not sure whether they did or did not fill it in.

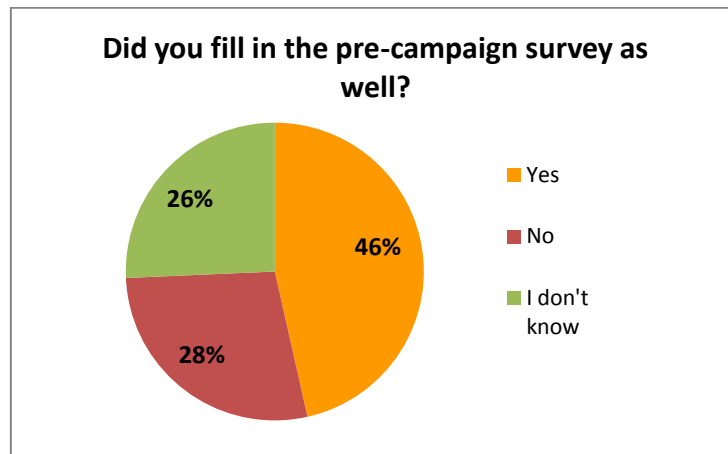


Figure 1.11: The ratio of respondents filling in both surveys

Information and feedback from Energy Teams

First of all, members of all Energy Teams were also invited to fill in the pre- and post-campaign surveys. In the case of the post-campaign survey respondents were asked if they were part of their building's Energy Team, and if yes, their questions differed slightly from those of the other employees, e.g. in relation to questions about tools and materials used in the project. This way it is also possible to say what proportion of respondents filled in the post-campaign survey as members of an Energy Team (see Figure 1.12), and responses provided by Energy Team members could also be analyzed separately. For the pre-campaign survey this information was not yet available as Energy Teams were still being formed.

In addition to the post-campaign survey, Energy Teams were asked to fill in a so-called 'Best campaign questionnaire'. This questionnaire was designed to collect information for the 'Best campaign category' in the save@work competition, thus served as a kind of reporting tool for Energy Teams and included questions on what kind of activities were implemented during the campaign, with which regularity, who were involved, etc. However, as part of this questionnaire Energy Teams were also asked to conduct a light evaluation of their campaigns and reflect on what was successful and challenging in their campaigns and related work, and what they would do differently if they were to plan a similar campaign.

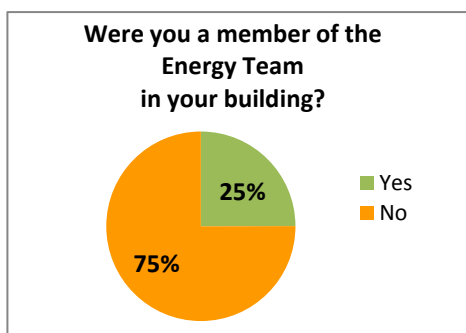


Figure 1.12: Percentage of respondents from Energy Teams in the post-campaign survey sample

CHAPTER 2: The impact of the project: learning from the outcomes of the pre- and post-campaign surveys

To assess the impact of the save@work project we first looked at how much participants liked the campaign overall and how satisfied project partners were with the national campaign conducted (section 2.1). Then, we analyzed whether there were any changes in the frequency of employees carrying out energy saving practices, in their related level of knowledge and skills, and in their attitude and support for energy saving, by comparing the results of the post-campaign surveys to the pre-campaign surveys¹⁵ (section 2.2). In this section we also discuss whether respondents or the management initiated any new activities related to energy saving during the course of the one-year campaign, and whether participation in the project stimulated them to save more energy outside of the office. Finally, in section 2.3 and 2.4 we consider the long-lasting impact of the behaviour changes initiated as part of the save@work campaign and whether participants intend to and are able to carry on with the energy saving activities as well as whether they would join a similar campaign in the future.

Methodological considerations

There are some important considerations to take into account when reading the descriptions and discussions presented in the Report:

- 🕒 **The French pre- or post-campaign survey answers are not taken into account in Chapters 2 and 4¹⁶.**
- 🕒 Since there were some respondents who did not fill in the whole survey questionnaire, the number of respondents varies from question to question. Besides, some questions were not compulsory to be filled in. Where it was deemed necessary, we indicated the number of respondents / answers received.
- 🕒 Many of the figures presented in Chapter 2 show 'rating average' values, calculated between 1 and 5. It was calculated by converting all possible answers to one of these numbers: 'never' and 'strongly disagree' correspond to 1, 'rarely' and 'disagree' correspond to 2, 'sometimes, sometimes not (50-50%)' and 'undecided/ not sure' to 3, 'often' and 'agree' to 4, and finally 'all the time' and 'strongly agree' correspond to 5. Therefore, an average could be calculated and thus countries, for example, could be directly compared. 'Not relevant / not possible in the office' answers were not included in this value.

In the last section of the post-campaign survey we enquired whether respondents filled in the pre-campaign survey at the beginning of the save@work campaign. Out of all respondents who answered this question, 47% selected 'yes', 25% chose 'I do not know' and 25% answered 'no' – not taking into consideration responses from France¹⁷. Therefore we can say that at least **about half of**

¹⁵ For further information on the pre- and post-campaign surveys, please see Chapter 1, section 1.4.

¹⁶ The French project partner (Prioriterre) had to leave the project before it was finalized, so the French results are excluded from the discussion in Chapters 2 and 4.

¹⁷ The same result is presented in Figure 1.11 in Chapter 1. The difference between the numbers presented there and here occur due to the fact that unlike here, in Chapter 1 we included the results for all 9 countries, including France.



the post-campaign survey respondents filled in the pre-campaign survey as well. For selected post-campaign survey questions we also investigated whether the answers of those who filled in both surveys differ from the answers of the whole sample.

When analyzing the text answers we relied on the translations provided by project partners. Some of the respondents provided answers that were built up of several topics, thus they could be assigned to more than one category. Therefore in some cases the total number of respondents and the total number of answers differ. For the respective figures we took the total number of answers as the basis for our calculations.

2.1. The reception of the save@work campaign

Overall, more than 65% of respondents expressed that they liked the save@work campaign. In the post-campaign survey respondents were asked to rate on a scale from 1 to 5 how much they liked the campaign overall, 5 corresponding to *'liked the campaign a lot'*, while 1 to *'did not like it at all'* (Figure 2.1). The highest proportion of respondents answered *'I liked it'*, with 41%, and the ratio of those who selected the most positive category, *'I liked it a lot'*, is also considerable, 25%. An approximately equal number of respondents felt neutral, while altogether only 6% of respondents selected that they *'did not like the campaign (at all)'*.

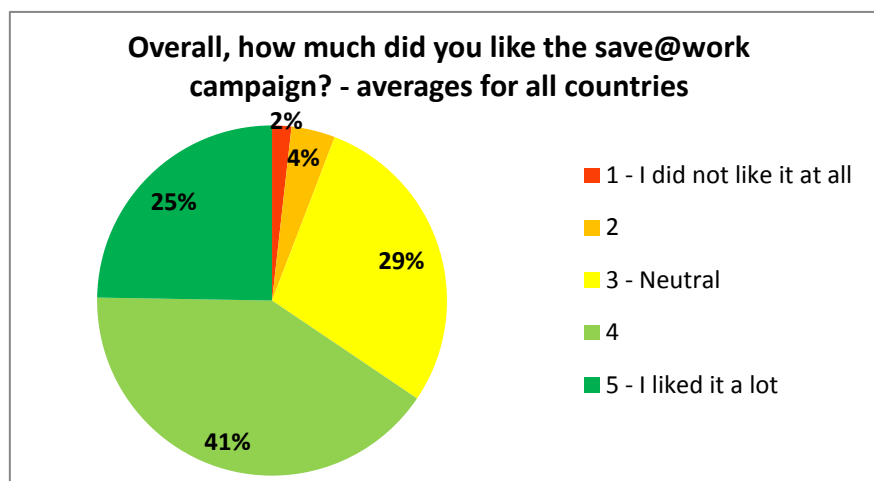


Figure 2.1: The evaluation of the save@work campaign by participants

Figure 2.2 relates some of the differences between countries concerning the appreciation of the campaign. Although on average **66% of all the respondents chose 5 - 'I liked it a lot' or 4 - 'I liked it'**, this number is highest for Hungary (90%), and, besides, Hungary is the only country where more respondents selected *'I liked it a lot'* compared to *'I liked it'*. At the other end of the graph we find Belgium with 51% and Italy with 57%. As the Belgian and Italian buildings performed well in the energy saving competition (see section 1.3), we were interested to find reasons for the relatively low values in relation to overall satisfaction with the campaign elsewhere. For this, we looked at the number of respondents in each participating building in these countries, and the implementation of the campaign in those particular buildings. According to the local project partners, in both countries a comparatively high number of respondents were from building(s) where the Energy Teams were

quite passive, and thus the campaign was less successful.¹⁸ This finding points to the importance of analyzing data for individual buildings and carefully considering the local context.

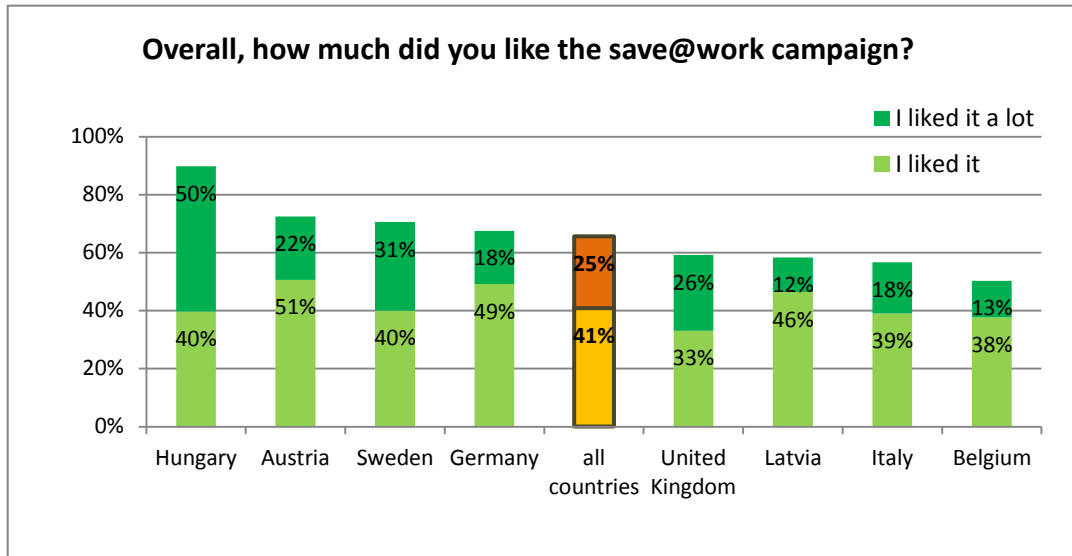


Figure 2.2: Country differences between the evaluation of the s@w campaign

In comparison to participant views, we were also interested in finding out how project partners viewed the success of the save@work campaign. Thus, in the final self-evaluation survey¹⁹ two questions were included on this issue. We can see that in the case of partners nobody felt (very) dissatisfied with the campaign, and **the overall ratio of partners who were (very) satisfied with the s@w project is very high, 92%** (Figure 2.3).

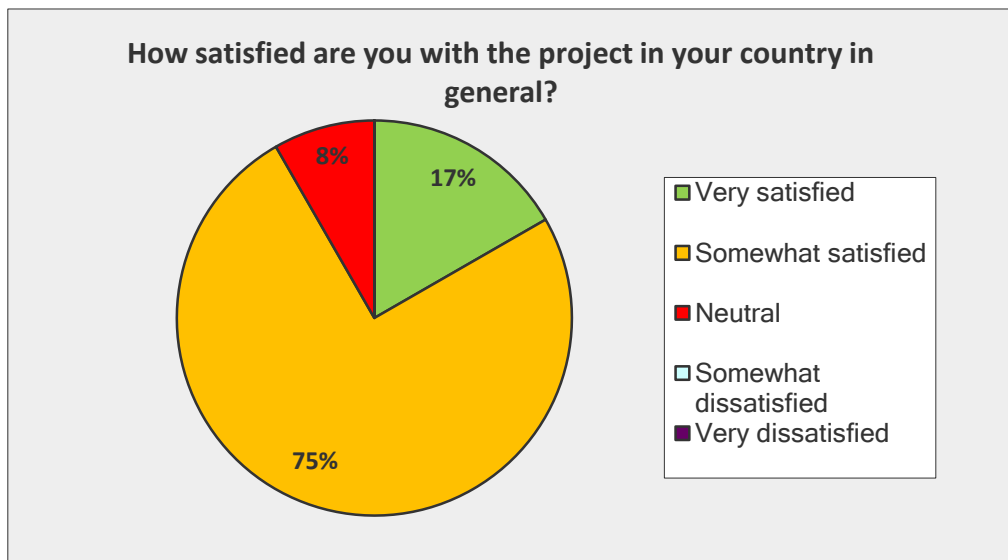


Figure 2.3: Satisfaction with the s@w project by project partners

We also asked project partners the underlying reasons for their answers. Some of the main factors were good energy saving results, and a sufficiently high number of active Energy Teams and

¹⁸ For example, if in Belgium we do not consider respondents from the largest (relatively passive) building, the result is 62%.

¹⁹ For further information on the self-evaluation surveys, see Chapter 1, section 1.4.

building managers throughout the competition. Successfully overcoming initial difficulties and potential positive impact were also mentioned as reasons for high levels of satisfaction.

2.2. The impact of the save@work campaign

In this section, we review the impact of the save@work campaign from different aspects. First, we consider the performance of energy saving actions in participating buildings as well as the knowledge and skills of employees to perform them, and whether any improvement can be detected in relation to these based on responses given in the pre- and post-campaign surveys. Then, we look at whether any new energy saving actions or practices were introduced by different parties in participating buildings, and whether any change in the support available from management, colleagues and the IT department was achieved. Finally, we study the spill-over effects of the project.

Performance of energy saving actions

We were interested to find out about the impact of the save@work campaign on changing everyday energy use behaviour; therefore, in the first part of both the pre- and post-campaign surveys we asked participating employees how often they carry out certain basic energy saving practices in their workplace. In both the surveys **we enquired about the following everyday energy saving practices:**²⁰

- 🕒 Turning off the lights when nobody is in the room;
- 🕒 Turning off the computer/laptop when not in the office (i.e. it is not left on stand-by for night or weekends);
- 🕒 Taking the stairs instead of the elevator;
- 🕒 Using desk lamps instead of the central lights if areas of the office are unoccupied;
- 🕒 Minimizing printing;
- 🕒 Using the energy saving settings of office equipment (e.g. printer, copier);
- 🕒 Only boiling the exact amount of water needed for hot drinks; and
- 🕒 Turning down the heating when it is getting too warm in the office.

In addition, in the post-campaign survey there were two additional questions about everyday energy saving practices that the consortium found more challenging and thus wanted to see whether participants do them, namely:

- 🕒 Washing the dishes in an energy efficient manner; and
- 🕒 Using and turning off smart power strips to shut down all peripheral devices for the night and weekends.

We wanted to find out how regularly respondents themselves and – in their opinion – their colleagues (for further information on the latter see Figure 2.13 under section 'Attitudes to and support for energy saving') follow these practices. Naturally, respondents were able to select 'not

²⁰ The pre-campaign survey can be found in the Vadovics and Szomor, 2017. Information about the detailed contents of both surveys is available from the authors at the email address provided on the internal cover page of this report.

relevant / not possible in the office' if in their building it was not possible to perform a specific activity (e.g. they cannot turn the lights off because they are automated).

As can be seen in Figure 2.4, according to the pre-campaign survey the energy saving practice that respondents do the most frequently was boiling the correct amount of water and switching off the lights when nobody is the room. Using the stairs instead of the elevators and turning down the heating when it gets too warm in the office were second in line with roughly the same likelihood of doing them, which meant slightly more frequently than 'often'. On a scale of 1 ('never') to 5 ('all the time') **the ratings for all answers were somewhere between 2.92 and 4.23 on average for the pre-campaign survey** – so from a slightly below 'sometimes, sometimes not' to somewhat above 'often'.

On the other hand, the responses of the post-campaign survey showed an increase for all energy saving actions, **the ratings spread between 3.09 and 4.47 on average, reaching closer to 'all the time'** (Figure 2.4). The order of the actions have changed slightly: boiling just the correct amount of water kept its leading position, however, turning off the computer/laptop moved to first place as well. These two actions are closely followed by turning off the lights and turning down the heating, both of them already emphasized in the pre-campaign survey. **The rating average value for turning off the computer/laptop experienced the greatest increase, 0.51 for all countries on average, with Germany and Latvia standing out. The increase seen in case of using the energy saving settings is also marked: 0.42, with Latvia and the United Kingdom taking the lead. The smallest increase could be observed in relation to minimizing printing and using the desk lamps.** In the case of the latter, there was a surprisingly great decrease in Sweden (-1.81), which counterbalanced the progress seen in e.g. Italy and Austria.

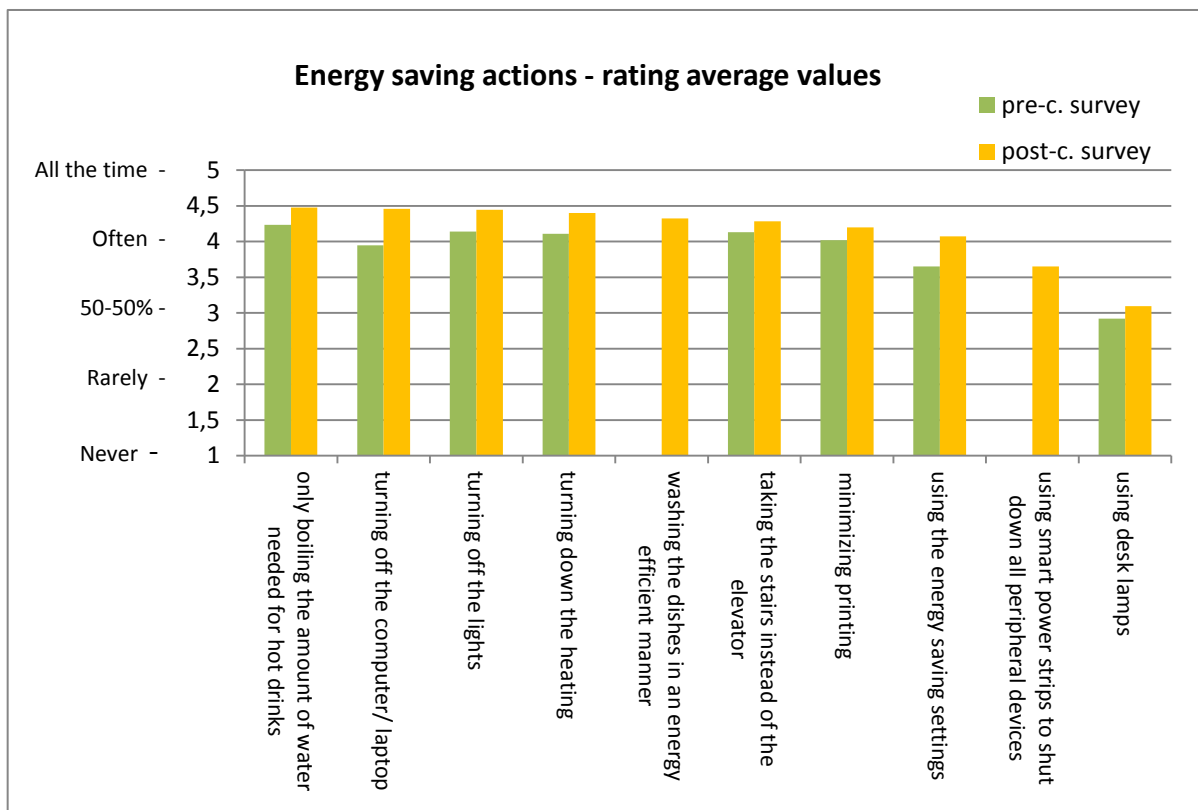


Figure 2.4: Comparison of the regularity of performing energy saving actions at the beginning and end of the s@w campaign

The ratio of respondents selecting *'not relevant / not possible in the office'* varied depending on the type of action and the local setting, **accentuating the differing technical circumstances in the participating buildings, and thus the different approaches required to save energy.** The ratio of this type of answer was highest in relation to using desk lamps, in both the pre- and the post-campaign surveys. It is very likely that some of the respondents that do not have a desk lamp simply answered *'never'* instead of *'not relevant/ not possible'*, hence the relatively low rating average value for this question. Besides, there were some national differences in terms of what was not relevant or not possible to do in a building. For example:

- 🔌 in the United Kingdom more than 65% of post-campaign survey respondents selected this option for turning off the lights when nobody is in the room, turning off the smart power strips to shut down all peripheral devices for the night and the weekends and using the desk lamp;
- 🔌 in Austria 51% respondents said they were not able to use desk lamps;
- 🔌 in Sweden 36% of respondents were not able to turn down the heating; and
- 🔌 in Latvia 32% of respondents cannot use the stairs instead of the elevator.

All of these due to lack of suitable infrastructure, or in the case of the elevator, also because the building does not have several floors. These factors should all be taken into account when planning the content of specific local campaigns.

Since a relatively high number of participants perform the actions often, it was interesting to see how many of them perform all the actions with high regularity. **At the beginning of the campaign 6.5% of respondents performed all the eight actions 'all the time' or 'often'. This ratio increased more than twofold, to 14.2% by the end of the campaign.** Taking into account all 10 actions cited by the post-campaign survey, 10.7% of respondents performed them all *'all the time' or 'often'* (Figure 2.5). If we only take the average of the answers of those post-campaign survey respondents who filled in the pre-campaign survey as well, the values are somewhat higher. This could be (partly) due to their higher level of involvement throughout the campaign.

As we have shown, overall, **the ratio of respondents who performed the investigated energy saving actions 'all the time' or 'often' at the end of the save@work campaign increased. However, these employees are still the minority.** Ideally their ratio should be as close as possible to 100%, providing ample potential for the continuation of awareness-raising efforts in the participating buildings even after the save@work campaign.

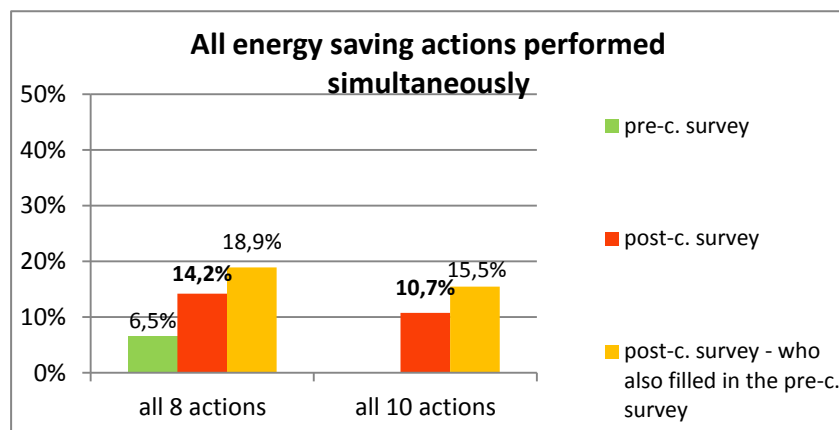


Figure 2.5: The ratio of respondents performing all investigated energy saving actions simultaneously at the beginning and at the end of the campaign

Knowledge and skills related to energy saving

As it is not sufficient for employees to want to perform energy saving actions, but they also need to know how to perform them (e.g. how to use energy efficient settings), the surveys also included a set of questions about respondents' knowledge and skills relating to how to carry out the investigated energy saving actions.

We found that compared to the results of the pre-campaign survey, in the post-campaign survey a higher ratio of respondents answered that they knew how to carry out the energy saving actions studied (Figure 2.6). For all actions and all countries the increase in the rating average value was 0.34, from 3.32 to 3.66. This means that **even though there is an overall increase in knowledge and skills related to basic energy saving practices, there is still room for improvement.**

Respondents showed the greatest confidence in carrying out undoubtedly the easiest practice of all, opening and closing the windows as relevant. The greatest change can be observed in case of changing the settings of the printer and copier, which probably requires the most complex knowledge, and indeed, a number of participating buildings held relevant training events.

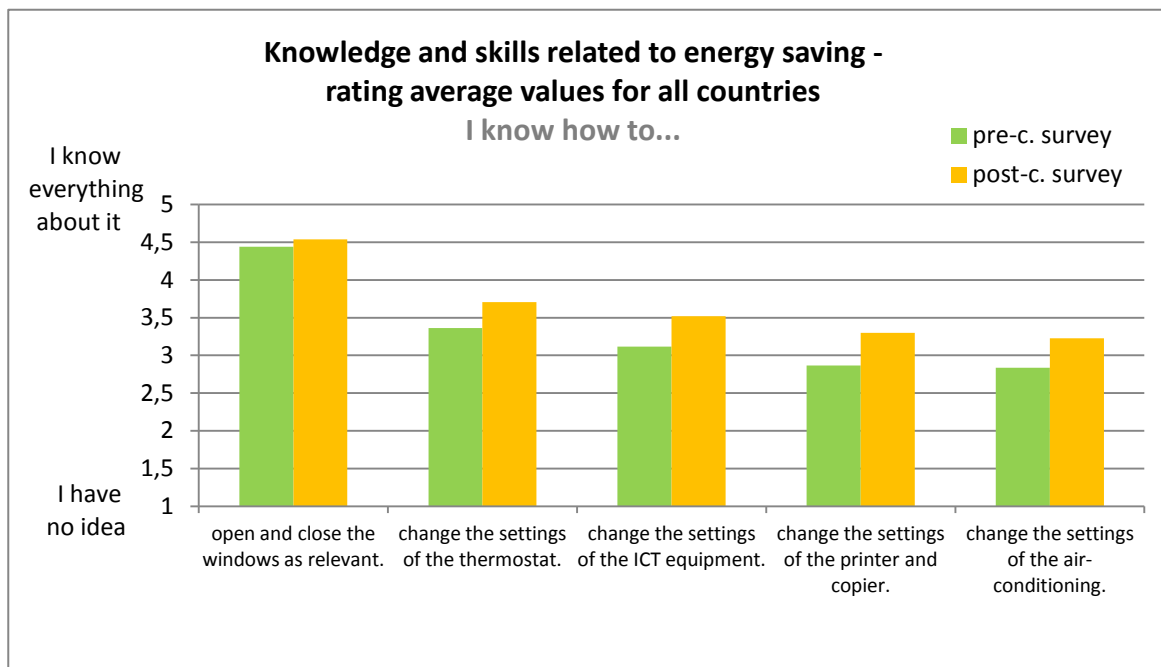


Figure 2.6: Knowledge and skills available for performing energy saving practices at the beginning and end of the s@w campaign

The greatest change occurred in the United Kingdom, where the rating average value for this set of questions has increased by 0.9 (Figure 2.7). The figure also shows the practice for which improvement in knowledge was the greatest, namely changing the settings of the printer and copier.

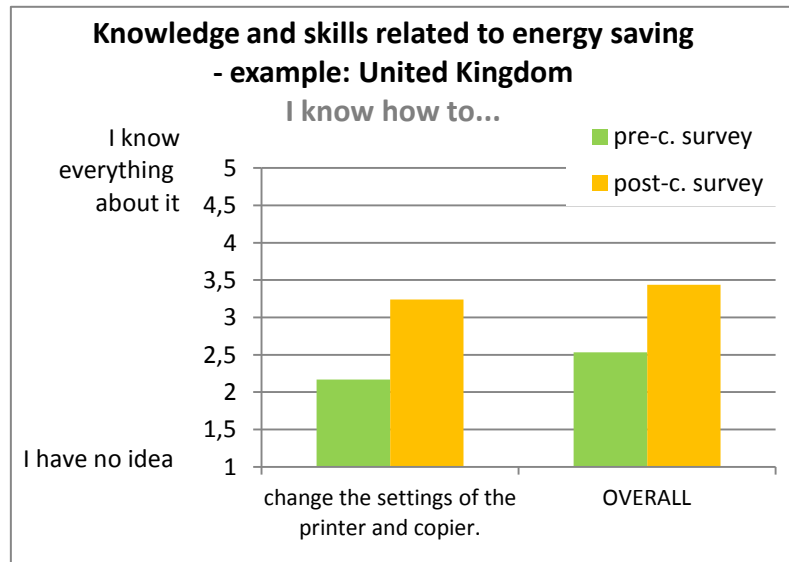


Figure 2.7: Change in the level of knowledge and skills available for changing the setting on printers and photocopiers in the UK between the beginning and end of the s@w campaign

Furthermore, it is notable to mention the increase in knowledge on how to change the settings of the air-conditioner in Austria, and a similarly high level of increase could be observed in Latvia related to knowledge and skills on changing the settings of information and communications technology (ICT) equipment.

New actions introduced during the save@work campaign

As part of the impact of the save@work campaign, in the post-campaign survey participants were asked whether they themselves took up any new energy saving practices, which they had not been doing before. In addition, we also wanted to discover whether the management in the offices introduced any new practices. We first analyze new individual actions.

Actions taken up by respondents

On average 54% of post-campaign survey respondents stated that they had taken up a new energy saving activity or routine during the save@work campaign, responses ranging between 41% (Belgium) and 68% (Sweden).

Respondents were also asked what activity or routine they took up during the campaign, and 94% of them provided 1451 different answers. After categorizing the responses, we found that the most often cited actions were (1) switching off electric equipment when not in use and (2) taking up more energy efficient lighting practices (e.g. switching off unnecessary light, installing LED lights or desk lamps). These two categories of responses accounted for around two-third of the answers (Figure 2.8).

The third most often mentioned action was contributing to creating more rational heating and ventilation practices, followed by changing the settings of electronic equipment to more energy efficient options. All of these actions, and even some of the less often mentioned ones can be closely

related to the basic energy saving activities both the pre- and post-campaign surveys enquired about - and were, of course, also emphasized through the various activities that were part of the s@w campaign (e.g. energy saving tips, Green Clicks tool). Within the 'other' category, though, there were a few answers that lead to energy saving less directly, such as waste reduction and cycling/walking to work more frequently.

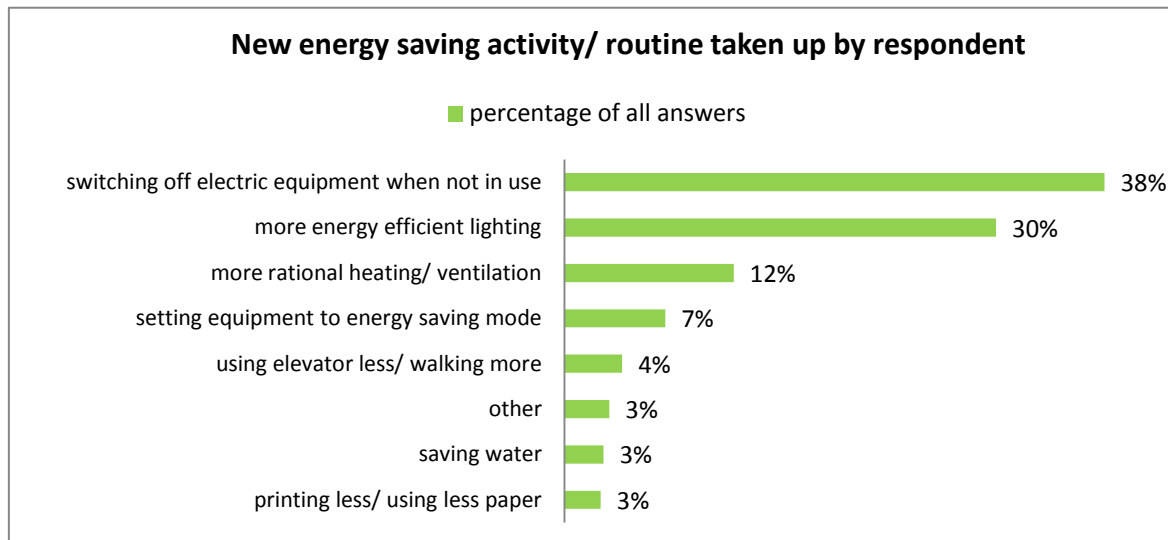


Figure 2.8: New energy saving activities or routines taken up by respondents in the s@w campaign

Some of these new activities/routines were self-initiated, probably induced by the motivation and information provided by the Energy Teams and other campaign tools and methods, but some were a result of systemic changes introduced by the office/ building management e.g. in the form of issuing new internal regulations. In the next section, we provide an overview of the latter.

Actions introduced by the office/building management

On average 40% of respondents stated that the management in their building had introduced energy efficiency related changes, and although the post-campaign survey did not require them to provide details, 95% of them provided explanations as to what these changes were. These resulted in 1082 answers altogether (Figure 2.9).

The responses to this question show great similarity with the answers about new energy saving activities or routines taken up by respondents individually, indicating that formally introduced changes indeed had a clear and positive influence on individual actions.

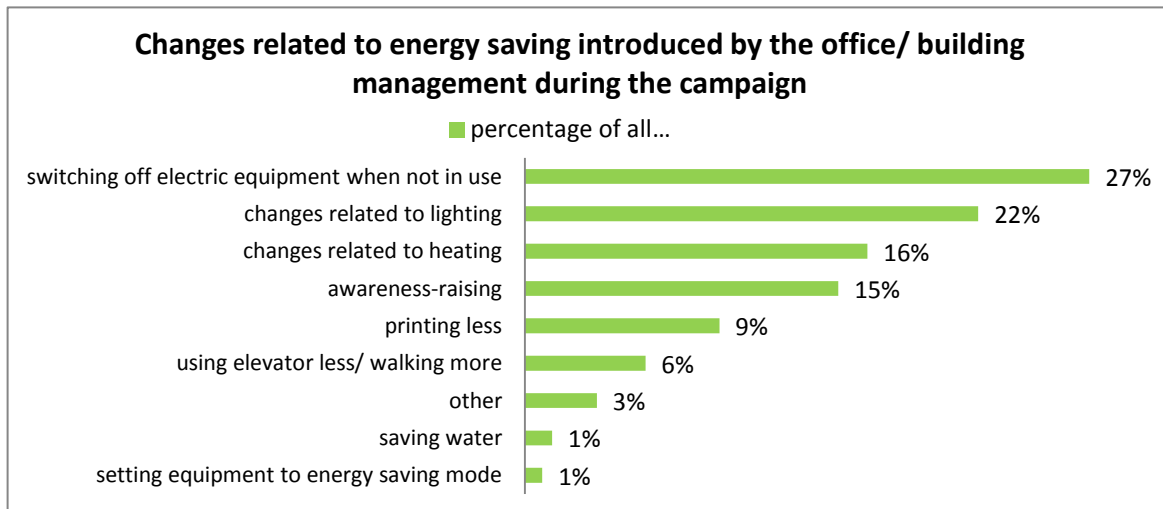


Figure 2.9: The categories and ration of energy efficiency related changes introduced by the office or building management in the s@w campaign

Unlike in the case of new activities/routines taken up by respondents, **in terms of the management introducing new routines or practices in the office, there is a considerable difference between participating countries** as shown in Figure 2.10. Moreover, the ratio of those who were unsure about their response, i.e. were not sure whether their management introduced any new energy saving actions, was relatively high. We can see that their ratio is the highest in those countries where respondents reported relatively less changes introduced by the management. Therefore there is a possibility that instead of fewer new energy saving practices introduced, employees simply were not aware of the changes or did not recognize them as energy saving measures. This, of course, also negatively influences the effectiveness of such measures. Nonetheless, the ratio of answers indicating uncertainty is relatively high in all countries. In Italy, for example, it accounts for three times more answers than the 'yes' response. Thus, **along with introducing changes, buildings have to put more emphasis on communicating those changes to the employees.**

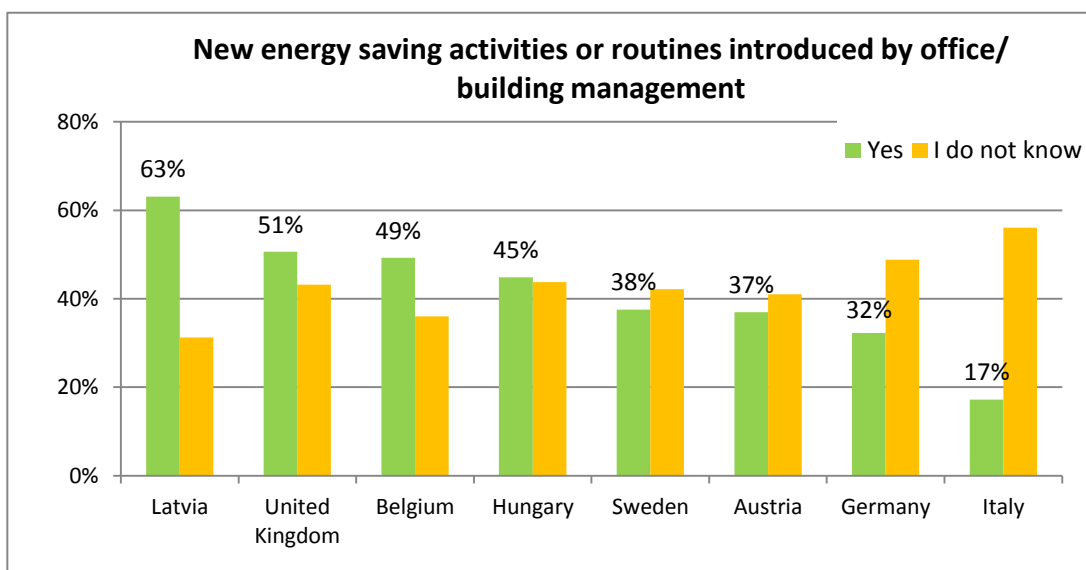


Figure 2.10: New energy saving activities introduced by the office or building management in countries participating in the s@w campaign

Attitudes to and support for saving energy

Both the pre- and post-campaign surveys included six statements that measured the perceived importance of energy saving in the office from different aspects. Respondents had to express agreement or disagreement on a scale of 1 to 5 with statements such as 'Saving energy is important for...' and '... actively supports energy saving'. An **improvement in attitudes towards and support for energy saving** can be seen by comparing the answers of the pre- and post-campaign surveys, since for all six related questions respondents gave a more positive answer in the latter as shown in Figure 2.11.

The smallest increase in rating average values can be observed for those questions which already had relatively high values in the pre-campaign survey. The greatest improvement (a change of 0.44) can be seen for 'general support and encouragement', which shows how much respondents agreed with the statement 'we are all encouraged to save energy where we can in the office'. The change is almost equal in case of 'support from the IT department', namely agreeing with the statement 'our IT management actively supports energy saving'. These indicate that **besides the already present attitude that energy saving is important both on a personal and organizational level, a more tangible kind of support became increasingly apparent in participating offices.**

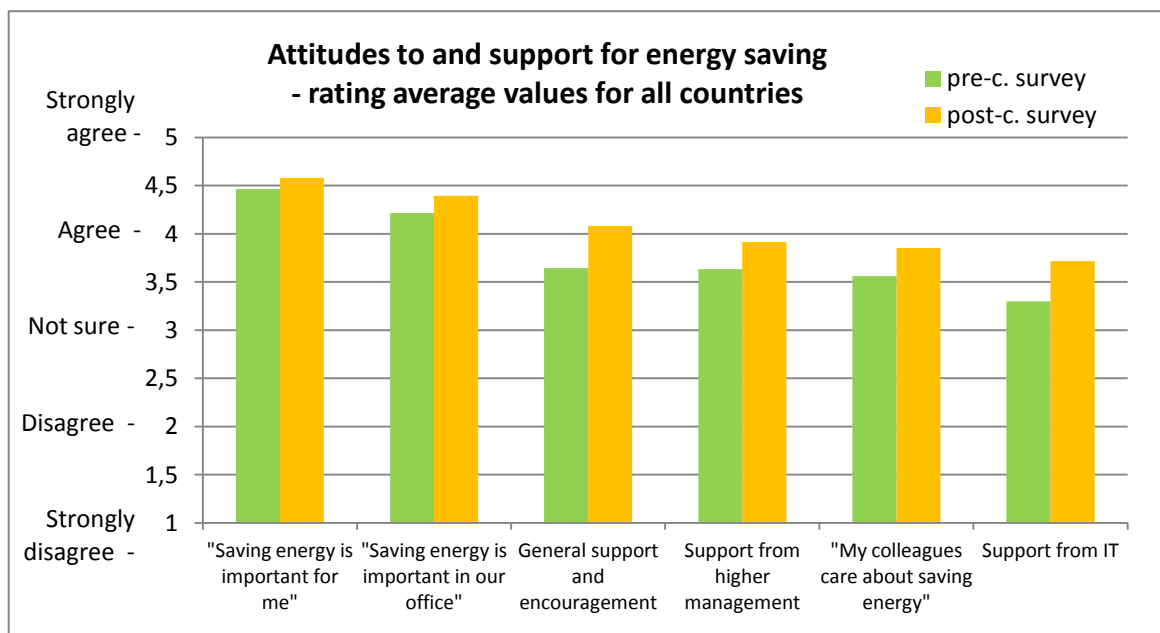


Figure 2.11: Attitudes to and support for energy saving at the beginning and at the end of the s@w campaign

For all six statements considered together, the greatest difference can be found in the case of Germany, with a change of 0.59 in the rating average value, while the change in this value is smallest for Italy, with 0.08. The average change for all countries and all statements is 0.29.

The increase in rating average values for statements 'my colleagues care about energy saving' and 'we are all encouraged to save energy where we can in the office' was the greatest in Germany (Figure 2.12). At the same time, for example in the United Kingdom, the positive change in the case of the statement 'our IT management actively supports energy saving' stands out with an increase in the rating average value by 0.8.

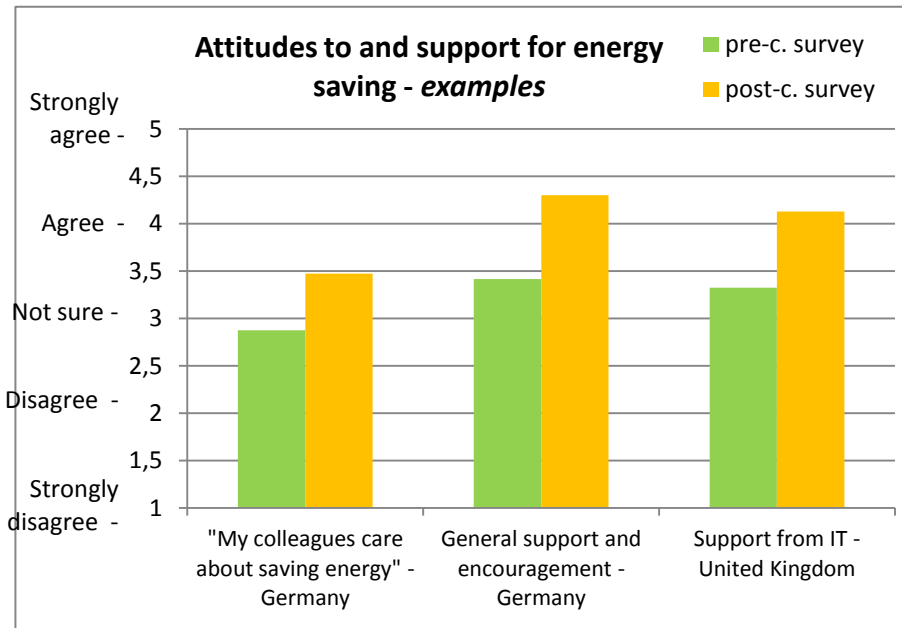


Figure 2.12: Attitudes to and support for energy saving in selected s@w participating countries for selected aspects

Other results also support the fact that respondents in the post-campaign survey had a more favourable view of their colleagues' energy saving behaviour than they had in the pre-campaign survey. This is shown by the **positive change in how frequently respondents believe that their colleagues do the 8 basic energy saving practices**. For all of these the average rating values calculated for the whole sample (i.e. including all countries) are higher, thus closer to '*often*' (Figure 2.13).

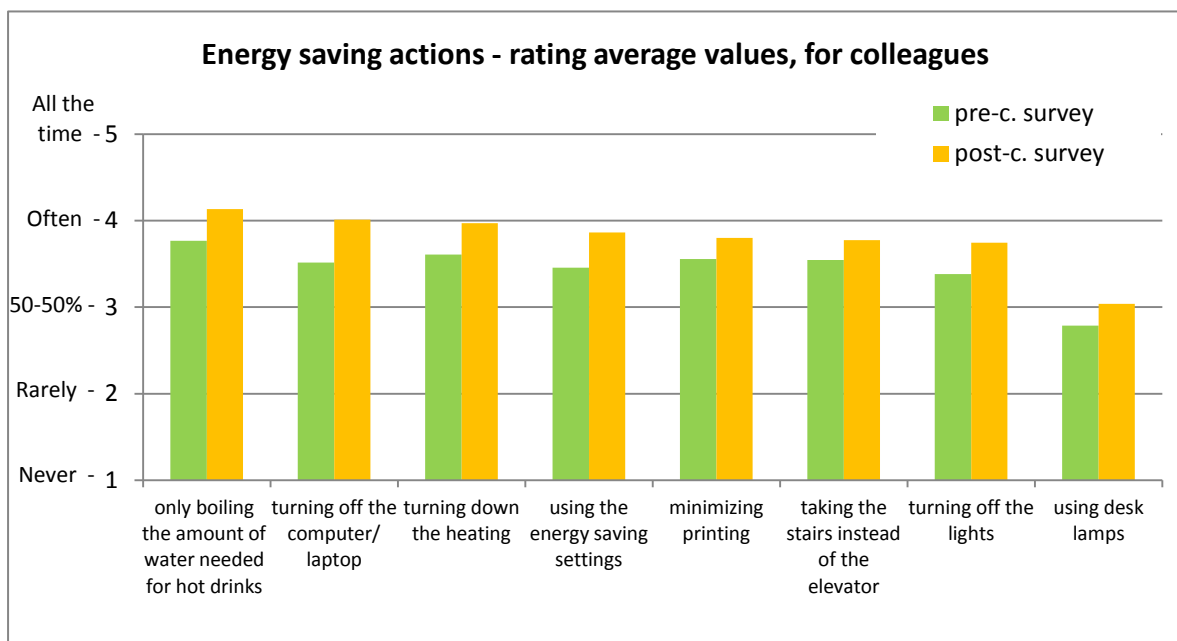


Figure 2.13: Change in the perception of how often respondents' colleagues perform energy saving actions between the beginning and the end of the s@w campaign

Thus, **while there is still a gap between how respondents see themselves and their colleagues with respect to how often they carry out the basic energy saving practices in the office, the gap became somewhat smaller by the end of the campaign.** This may also be the outcome of more coherent communication in the participating buildings about energy saving activities as well as a more cohesive atmosphere created as a result of cooperation and team building activities carried out during the save@work campaign.

As for the still existing difference between how often respondents and in their view their colleagues perform the investigated energy saving actions, project partners provided a number of insights and possible explanations as part of the self-evaluation process. In their view factors that might have influenced the size of this gap include:

- 🔌 socio-demographic factors (e.g. different age groups are perceived as different in how ready they are to engage in new activities; and the length of time colleagues have been working together also plays a role);
- 🔌 factors related to building size and layout (e.g. number of employees working in a building, as well as sitting together in the same office room – having separate rooms versus open offices); and
- 🔌 cultural factors such as hierarchy and bureaucracy versus team experience, which could play a role at the level of the organization but also at country level.

Spill-over effect: save@work reaching beyond public offices

To be able to better evaluate the impact of the save@work campaign, in the post-campaign survey respondents were asked whether the campaign inspired them to conduct or engage in energy saving activities in addition to the ones performed as part of the campaign. Thus, they were asked whether the campaign inspired them to talk with their colleagues/ family members/ friends about energy saving, invest in energy saving or to perform energy saving activities at home or as part of another (not work related) community.

Based on the replies, it can be concluded that respondents were most likely to start some energy saving activities in their homes – with more than half of them selecting this response –, followed by talking to colleagues about energy saving (Figure 2.14). **82% of the respondents had been inspired by save@work to do one or more of the listed extra activities**, with only 18% reporting that they had not engaged in any of them. This is a very encouraging outcome and is in line with the aims and the objectives of the project. It also supports the idea that **the spill-over effect of behaviour change campaigns should not be underestimated**, and various tools and measures could be designed to strengthen them even further. For example, in the save@work campaign several partners provided household energy saving tips to participants, or pointed out how the energy saving tips used in the campaign could be used in their homes. However, it seems that further support, e.g. communication tools, good practice examples, toolkits, etc., could be potentially provided to increase the impact.



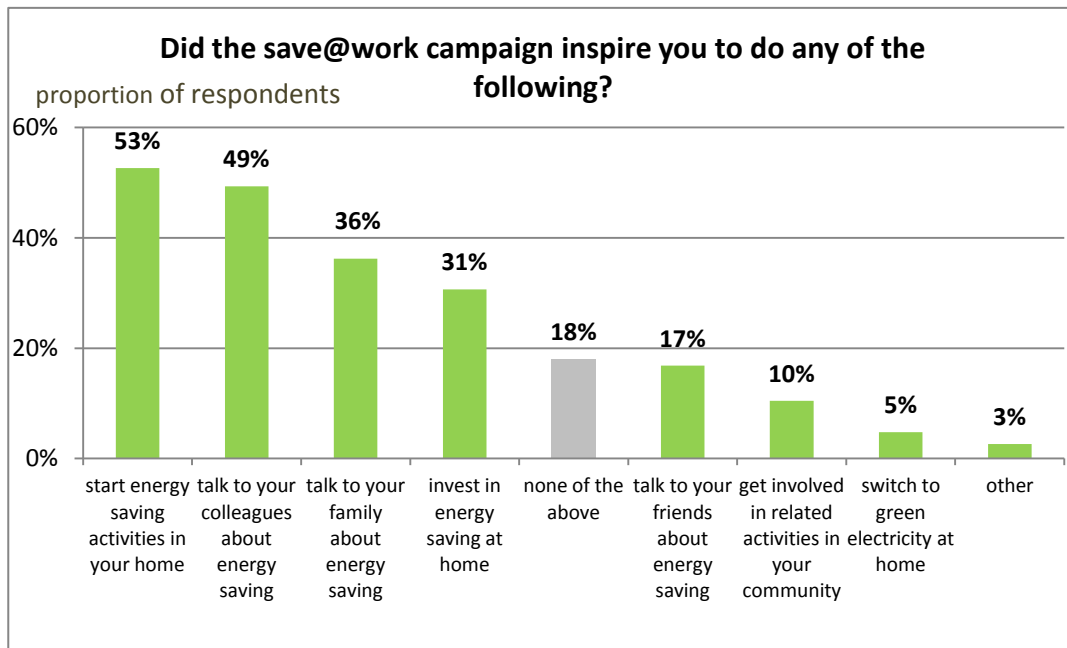


Figure 2.14: The spill-over effects of the s@w campaign: what the campaign inspired participants to do

Conclusions

Overall, **the save@work project was indeed very successful** as it

- 🔋 was **appreciated by employees** (66% 'liked it a lot' or 'liked it' while only 6% said they 'did not like it');
- 🔋 **managed to initiate, support and create behaviour change** in that
 - 🔋 all the eight energy saving actions surveyed were performed by a higher regularity by the end of the campaign with the greatest increase observed for turning off computers and laptops when not in use. In addition,
 - 🔋 a more than twofold increase was found for those who perform all the eight surveyed actions regularly (*from 6.5% to 14.2% in the whole sample or to as high as 18.9% for those more engaged*); and
- 🔋 **increased support for energy saving activities** from the management, IT services and in general from colleagues.
- 🔋 On average, 54% of survey respondents **took up new energy saving actions** in their individual routines; and
- 🔋 40% said that the management in their building introduced energy efficiency related changes that had not been planned or done beforehand.

It is important to note that save@work **had important spill-over effects** as well: 82% of the respondents were inspired by save@work to engage in activities that were not strictly part of the project, for example, start energy saving activities or invest in energy efficiency in their homes or talk about energy saving to their family or friends.



2.3. Plans for the future: the longer-term impact of the save@work campaign

With the save@work campaign the project consortium intended to initiate longer-term change in participating buildings. Several tools and methods were meant to facilitate this during the campaign (e.g. action plan that needed to be updated, involvement of management as well as employees, etc.). Thus, the consortium was interested in finding out what respondents thought about continuing with energy efficiency and saving activities after the end of the campaign.

The post-campaign survey included questions to investigate respondents' views on whether they would be able to carry on with the energy saving activities once the campaign finishes. On average 86% of them answered 'yes' to this question, 12% of them uncertainty, and only 2% of them replied with a definite 'no', which is indeed very promising (Figure 2.15).

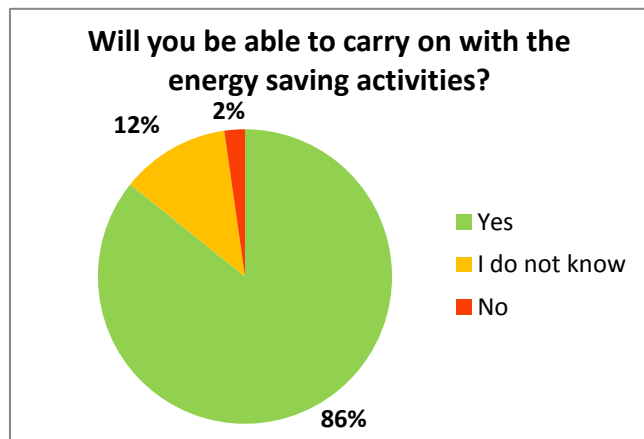


Figure 2.15: The opinion of respondents on whether they would be able to continue with energy saving activities after the end of the s@w campaign

This means that the proportion of 'yes' answers range between 91% for the United Kingdom and 75% for Latvia, thus no considerable differences could be observed among the participating countries (Figure 2.16).

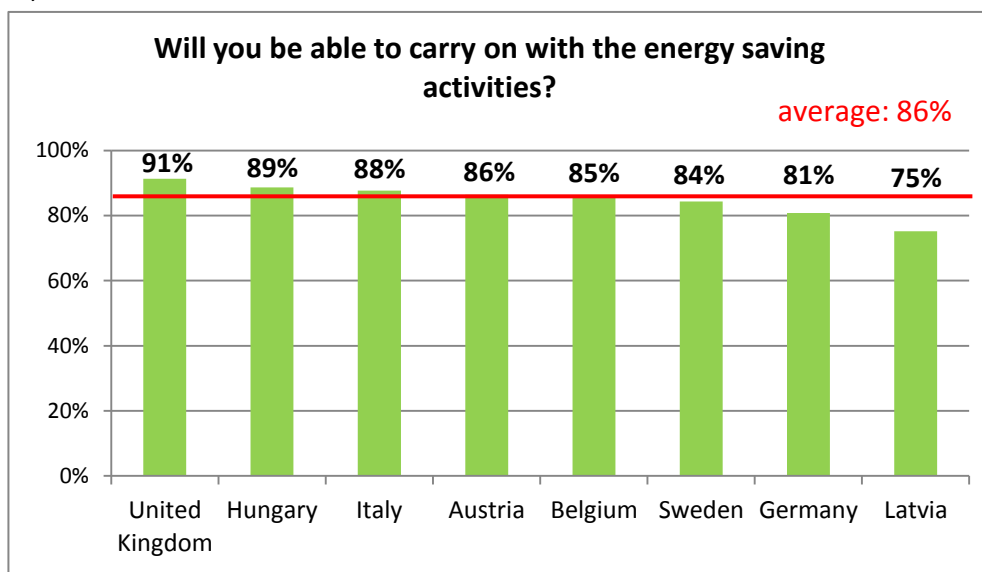


Figure 2.16: Country differences as to respondents' views on whether they would be able to continue with energy saving activities after the end of the s@w campaign

To find out about details on the future likelihood of carrying on with energy saving activities, we also enquired for reasons why respondents thought they could or could not continue with such practices and efforts in the future. As this was not a question requiring an answer (i.e. it was not compulsory to answer), only 46% of respondents responded, and provided 889 answers altogether. 84% of these relate to explaining why they would be able to carry on. The major reason mentioned is that **respondents understood the important implications of energy saving** and it made sense for them to do these actions, with 27% of the answers belonging to this category as shown in Figure 2.17. In addition, 11% of the responses pointed out the benefits of energy saving for the environment and/or our common future in particular. Further important reasons for carrying on with the energy saving activities were the fact that **they had already become a routine** and respondents found it easy to continue doing them. Several respondents mentioned these two reasons in an interrelated fashion, namely, it was easy to carry on, because energy saving deeds were already routine activities, they required no special attention.

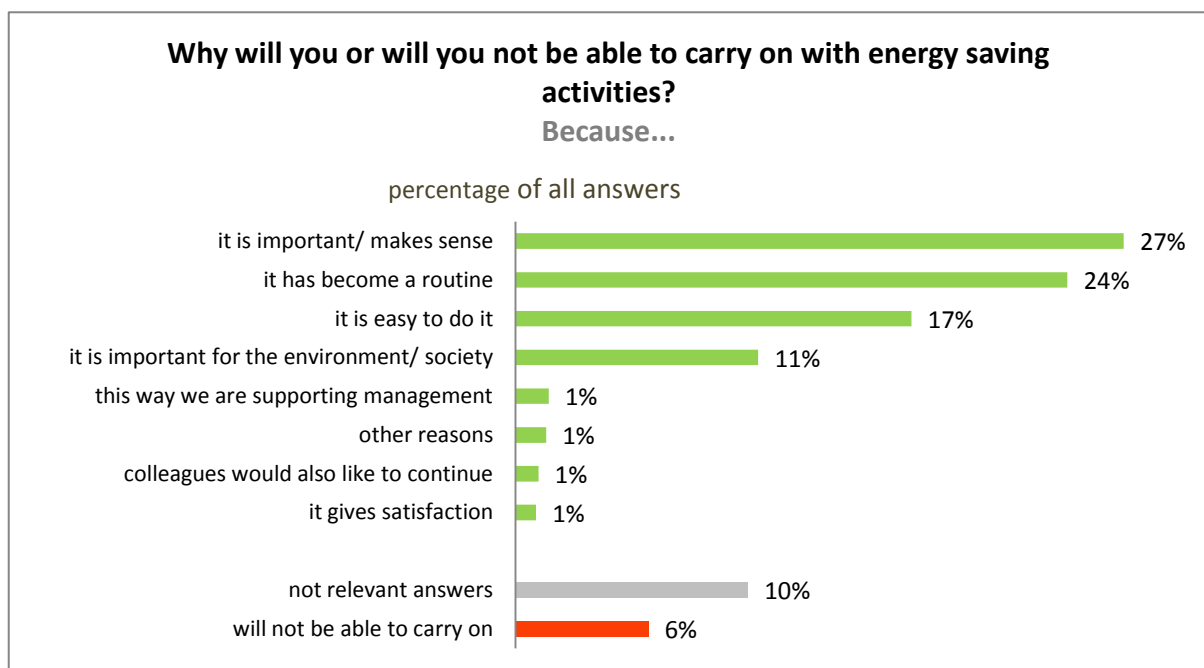


Figure 2.17: Reasons provided by respondents for being able to or not able to carry on with energy saving activities after the s@w campaign

The relatively high proportion of not relevant answers is mostly due to the Latvian answers, because in Latvia instead of asking the reason why, partners asked '*which of the energy saving activities can you (or can you not) continue*'. Therefore the data do not reflect the Latvian perspective for this question.

Only 6% of the respondents answered that they would not be able to carry on with the activities, around half of them mentioning the lack of support from the management or the unwillingness of colleagues as reasons, reinforcing the crucial role of a supportive management and community at the workplace.

2.4. Intention to participate in a similar campaign in the future

It seems that **even though the great majority of the post-campaign survey respondents thought they could carry on with the energy saving activities started before or during the save@work campaign, they did not necessarily imagine it within the framework of a similar campaign.** 55% of the respondents answered 'yes' when they were asked if they would participate in a similar campaign (Figure 2.18). Only 10% selected 'no', but the ratio of hesitant respondents is relatively high, 35%.

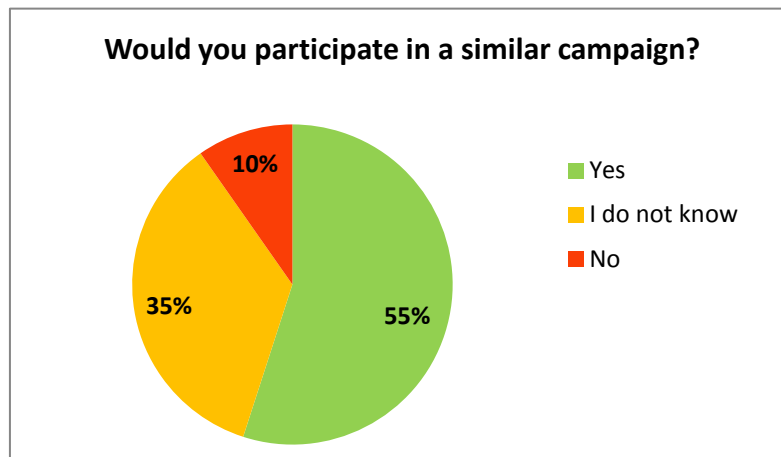


Figure 2.18: Respondents intention to participate in a campaign similar to s@w in the future

Out of all the employees answering the above question only 28% elaborated further on why he/she would or would not like to participate in a similar campaign, providing 509 answers altogether, 80% of them in favour of participation (Figure 2.19). **In the majority of answers (41%) respondents expressed that they would like to participate in a similar campaign, because it is important/good,** many of them underlying benefits for the environment and/or society. The next most frequent answer (14%) was that respondents would like to raise further awareness on energy saving, while for some others participating in a similar campaign was an attractive prospect because they had found the save@work campaign inspiring/ motivating/ interesting or financially rewarding, or still saw some room for improvement. Respondents pointed out in 5% of the answers that it was not energy saving itself but rather its positive effect on community building that motivated them to participate in a similar campaign.

On the other hand, **17% of respondents provided answers as to why they would not like to participate, the main reason being the lack of time to dedicate to such campaigns.** Some respondents also recounted their somewhat negative impression of the save@work campaign as a reason, while some simply felt that they gained enough insight and skills already, so there is no need for another campaign.

In addition, in 2% of the answers respondents expressed that it depended on the new conditions whether they would participate in a similar campaign or not.

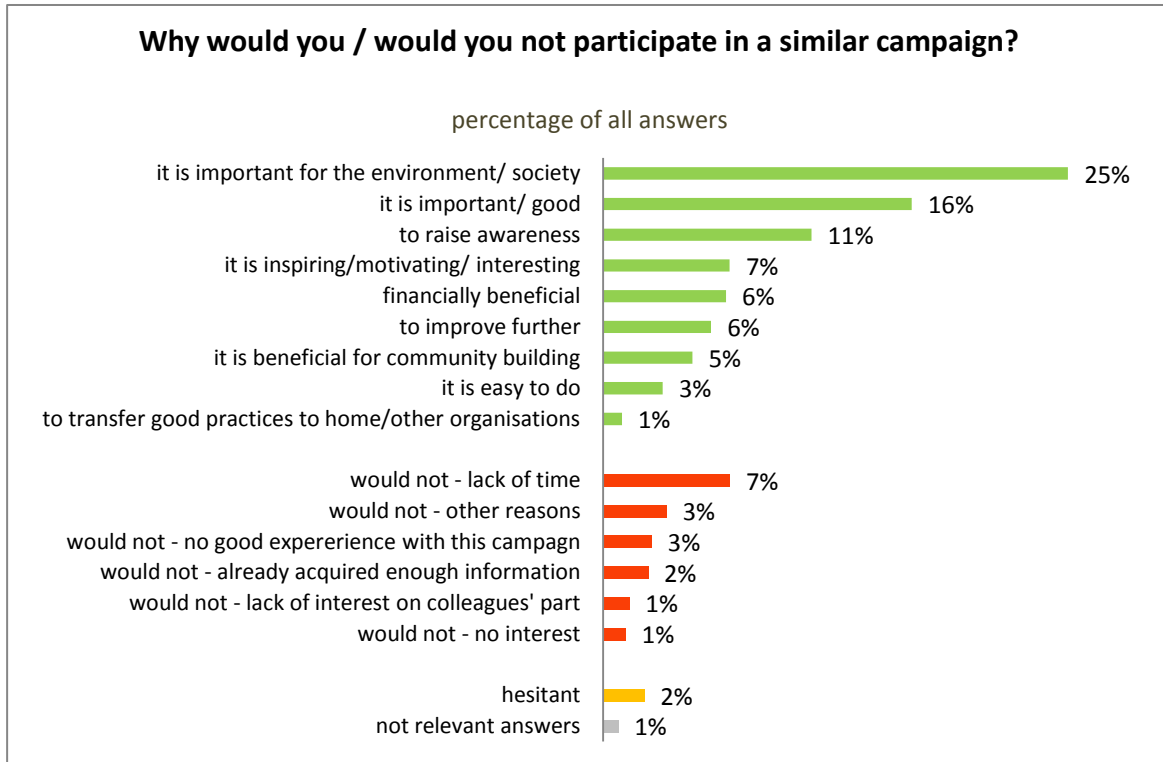


Figure 2.19: Reasons provided by respondents for intending or not intending to participate in a similar campaign after the s@w campaign

2.5. Summary and Conclusions

Based on the analysis presented in Chapter 2 above we can state that **the save@work campaign had an overall positive effect on the behaviour change, attitude of and knowledge and skills related to energy saving of participating employees.** Compared to the results of the pre-campaign survey, values increased for each question regarding the frequency of energy saving office routines, related knowledge and skills, and the attitude and support for energy saving – but, obviously, to various extent in different countries and for different topics and questions.

However, **while there is an obvious increase in all aspects investigated, there is still room for improvement,** justifying not only the continuation of already existing energy saving practices but also the further escalation and expansion of efforts. The favourable impact of save@work is also apparent in the actual energy savings and cuts in carbon dioxide emissions achieved (see Chapter 1, section 1.3 for further details on this).

66% of post-campaign survey respondents liked the save@work campaign (a lot) and 92% of project partners were (very) satisfied with it. When asked about the continuation of energy saving efforts, **86% of the respondents believe that they could carry on in the future, the chief motivation for it being the importance of energy saving, with special attention to its environmental and social impacts.** Furthermore, many participants pointed out that the energy saving practices taken up during the campaign already became routine activities and (therefore) it would be easy to carry on doing them. However, respondents do not necessarily imagine this within the framework of a similar

campaign, since comparatively less, 55% of the participants stated that they would participate in a similar campaign.

The spill-over effects of the save@work campaign were also important and substantial. Already during the one-year campaign **82% of the respondents were inspired by save@work** to talk with their colleagues/ family members/ friends about energy saving, to invest in energy saving and/or to do energy saving activities at home or as part of another (not work related) community. These figures indicate that **the scope of the save@work campaign already reaches beyond the participating office buildings and its impact will likely be long-lasting.**



CHAPTER 3: The implementation of the save@work project in 9 countries: similarities and differences

The save@work campaign was implemented in nine European countries with different local opportunities, challenges and circumstances impacting the campaign. In this chapter we provide an overview of some of these differences and reflect on how they can be considered, or even taken advantage of in a European context. We first discuss recruitment, implementation and communication structures (section 3.1.), then materials, tools and events (section 3.2.), and finally the European aspect of the campaign and how it was communicated and taken advantage of in the nine countries (section 3.3.).

3.1. Recruitment, implementation and communication structures

The recruitment of buildings started very early in the project, and it became clear early on that there are considerable differences between the recruitment approach used by project partners. This was later confirmed by the first self-assessment survey as well as the follow-up discussion organized by DuneWorks in the framework of the 5th partner meeting.

Single vs. multiple contacts

The recruitment approach taken by each partner was influenced by a number of factors: (1) existing contacts and networks, (2) letters of intent collected from authorities during the proposal preparation stage, (3) national decision making structure for authorities, and the (4) local organization of authorities. Taking all these factors into consideration, the recruitment of authorities and buildings often started with existing contacts of the project partners. For some partners it meant addressing multiple contacts (Hungary, Italy, Latvia, Sweden), while other partners found a single communication channel or one contact which lead to the involvement of several buildings (Austria, France, the UK, Belgium, Germany). Those partners that relied on multiple contacts needed to communicate with all contacts separately, widening the contact circle if necessary in order to find the target number of buildings. In the end, these project partners had several authorities participating, some, but not all of them with several buildings (see Table 3.1). At the same time, partners who relied on one contact to begin with, often found all their participating buildings through that contact. This, however, did not mean that the latter group of partners found it easier to recruit a sufficient number of buildings as even communicating through one contact meant having to meet and convince different departments and levels of management to get the final agreement for participation and thus recruit a sufficient number of buildings.

As can be seen from the colouring of countries in Table 3.1, Belgium and Germany were in a mixed position. Recruitment in these countries happened through a single contact, by publishing a call through a province or involving one authority. However, the project partners then had the freedom to communicate with the authorities/buildings directly.



Single vs. Multiple contacts for recruitment	Country	No. of public authorities recruited	No. of buildings participating
single	Austria	1	31
	France	1	20
	The UK	3	17
	Belgium	21	21
	Germany	1	10
multiple	Hungary	13	19
	Italy	15	22
	Latvia	7	20
	Sweden	11	16

Table 3.1: The grouping of countries based on their recruitment approach

The reason it is important to note the difference between various approaches is the fact that the way initial contact was organized had an impact on communication and project implementation later on. For example, in some of the countries where buildings were found through single contacts (Austria, France and the UK), i.e. a higher level authority decided about participation and then convinced and asked authorities or buildings to take part, the project partner had a somewhat limited opportunity to communicate with the Energy Teams directly as they needed agreement from the higher level authority for some of the communication (e.g. how often they could send materials, etc.). This means that these partners had to plan some of the activities differently, especially at very busy campaign periods, thus the beginning and end of the competition year.

Also, as they needed to communicate to people in different positions (e.g. environmental and energy manager, marketing and communications manager, mayor, notary, etc.), they needed to use different communication tools as well as mention different advantages for participation. These were outlined and summarized in the Strategic Handbook (see section 1.2 on tools, and chapters VI. and VII. of the Handbook, see Annex I.²¹) for Energy Teams later formed and working in the buildings to facilitate their communication activities during the campaign, but based on the findings of the various self-evaluation tools, it appears that this summary and strategies would have been useful for consortium partners as well. Or, since most of them are aware of and use these tools, a review and explicit discussion of them at the first partner meeting may have been helpful.

Types of public organizations involved

In Germany, Austria and France, *one authority* participated - with 10, 31 and 20 buildings, respectively.

In Latvia and Sweden *several municipalities* were involved with single or multiple buildings, altogether 20 and 16, respectively.

²¹ The Strategic Handbook is available at https://www.sporolunk.org/images/partner/GDI-files/SW-A4Book-ENG_final.pdf



Finally, in Belgium, Hungary, Italy and the UK a *mixture of public organizations* joined. In Belgium a province and 20 municipalities. In Hungary 11 municipalities and 2 public institutions (the Office of the Commissioner for Fundamental Rights and a ministry) with 19 buildings in total. In Italy 7 municipalities, the Province and the Public Transport Company of a city, a university, a research centre and social housing offices, while in the UK the Land Registry with 12 of their buildings, and 3 municipalities.

However, although it was not studied in detail in the save@work project, the type of organization did not seem to have an impact on implementation and outcomes. The size of building or rather, the number of employees working there, and whether participating buildings had some level of contact with one another (a 'natural link', either organizational, social or psychological) were found to be more important. In the self-evaluation interviews several partners - Latvia, Sweden, Germany, France, and the UK - mentioned this. For this reason, meetings and events (e.g. national opening and midterm events) that provided an opportunity for the Energy Teams from several buildings to work together and share experiences, proved to be motivating. **Energy Teams wanted to know how they were doing in the competition in relation to other teams, but they also wished to see what the other teams were doing in order to save energy, whether they faced similar challenges, etc.**

Project implementation and communication structures

As it became clearer during the s@w project based on partner discussions and the first self-evaluation questionnaire that the recruitment approach used had a considerable influence on implementation and communication later on, DuneWorks suggested that project partners should prepare a drawing of their respective implementation and communication structures, starting from a general model of work drawn by DuneWorks based on the original description of work (see Figures 3.1., 3.2 and 3.3, and Annex IV. for the more detailed country figures).

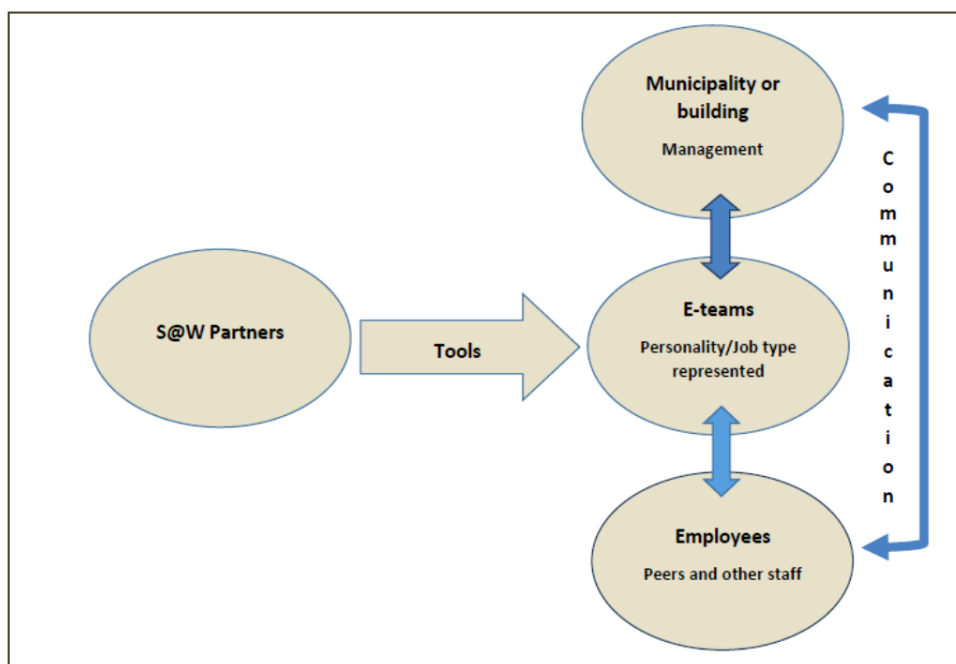


Figure 3.1: The general model of work with participating buildings in the save@work project

The individual project structures developed by partners (Figures 3.2 and 3.3) show considerable differences between participating countries. Apart from the visible impact of the recruitment approach taken, differences also exist in the communication of the project partner with Energy Teams and employees, the "positioning" of the tools (although they are not always indicated in the figures), and the communication with municipalities and the building management. These are described in the following paragraphs.

The structures developed by Belgium, Hungary, Italy, Sweden and Latvia (all with multiple organizations in the project) shows similarities, indicating also that communication is more or less done in similar ways with the participating organizations (Figures 3.2 and 3.3).

With the exception of Latvia, the arrow between the project partner to the Energy Teams is the most emphasized, indicating that most of the time and effort of the project partner was spent on communication to and with the teams.

In five cases the contact person (CP) at the participating building is represented separately (Belgium, Hungary, Latvia in Figure 3.2, Sweden and the UK in Figure 3.3) indicating that this person was the main contact with the project partner - as opposed to the Energy Team as a whole.

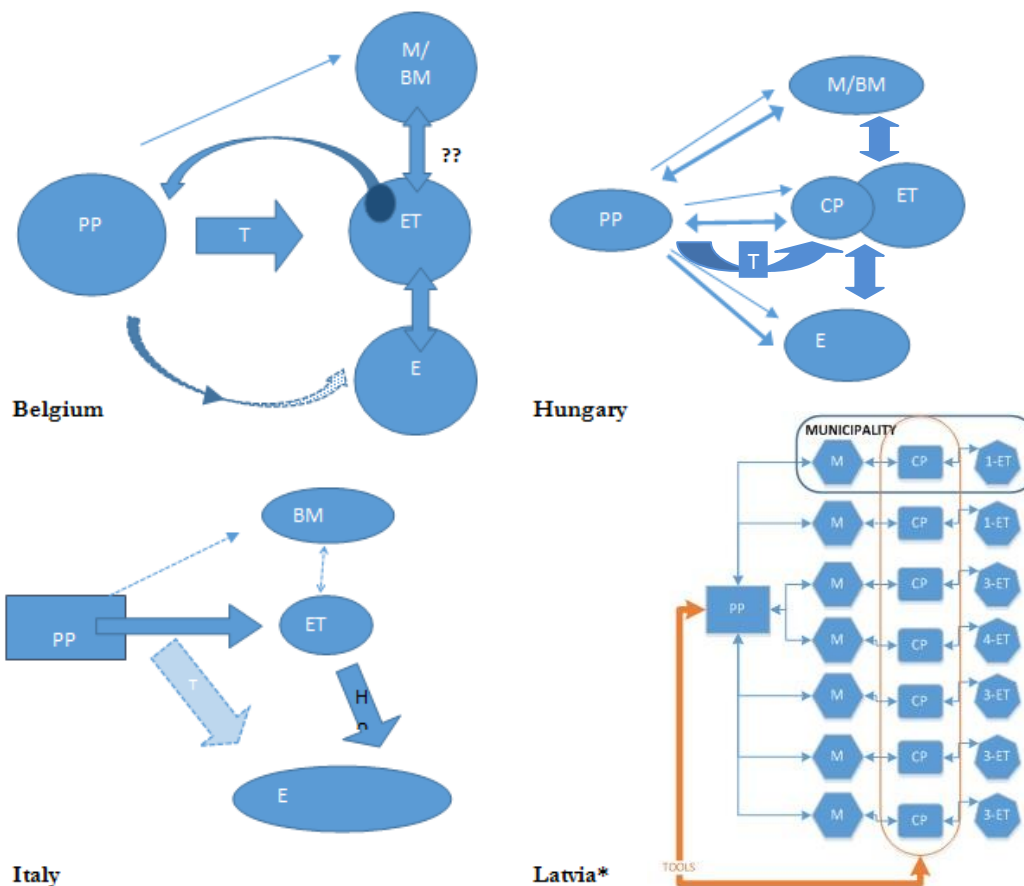


Figure 3.2: The project structures for Belgium, Hungary, Italy and Latvia (PP = project partner; E - employees; ET = Energy Team; M = municipality management; BM = building management; CP = contact person of the Energy Team; T = Tools; *most of the circles were too small to put letters in, see Annex IV. for further details)

The project structures representing Austria and France (both with one main organization) have a different structure, see Figure 3.3. In Austria the municipality management (MM) and building management (BM) are differentiated. The municipality management is on the left hand side of the figure and a dotted line was drawn around it and the project partner indicating a close cooperation between these players. In France the Sustainable Development Department (Dep) and the Energy Manager (EM) are included as important positions and players besides municipality management.

In Germany, although recruitment happened through one authority, afterwards this authority did not participate in the implementation closely. Communication happened between the local s@w partner and the buildings directly, with the authority following the project more from the distance, obviously interested in the outcomes, and at times participating at events.

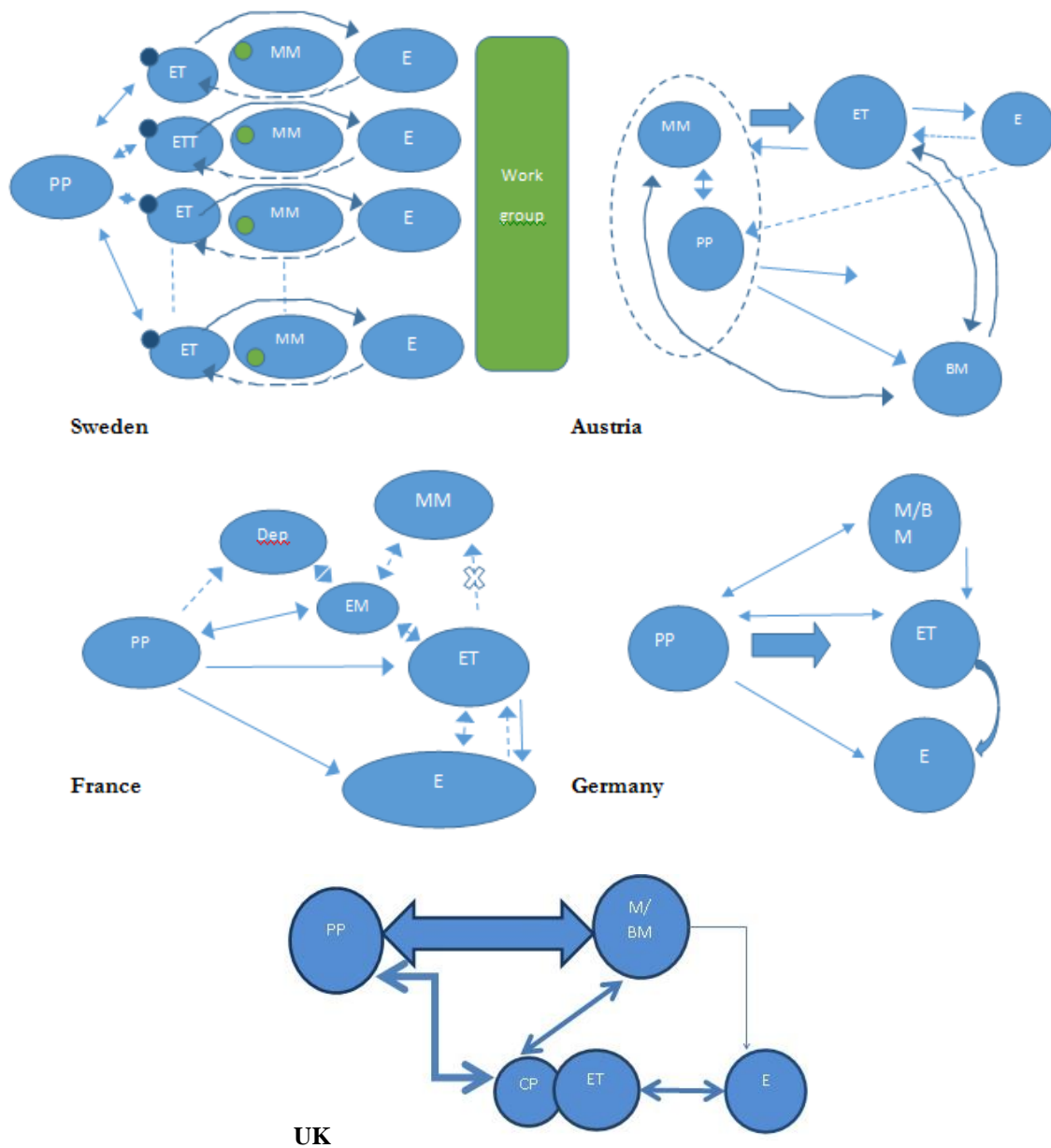


Figure 3.3: The project structures for Sweden, Austria, France, Germany and the UK (PP = project partner; ET = Energy Team; MM = municipality management; BM = building management; E = Employees; EM = Energy Manager; Dep = Department of Sustainable Development)

The lines for communication between the s@w project partner and the Energy Teams and employees are different in the countries:

- 🔌 The Energy Teams or contact persons communicated *back to the project partner*, but compared to one another these arrows are different in nature: ‘dotted’ (i.e. relatively weak in Sweden), thinner (Austria, Germany), the word ‘passive’ was added (Belgium), the communication was not indicated at all (Italy) or it was indicated to go through the contact person (Latvia, UK) or the Energy Manager (France).
- 🔌 The project structures as drawn by partners also indicate differences regarding the extent of direct communication between the project partners and the employees: some project partners did this actively (Latvia, Hungary, France, Germany with workshops, trainings events and presentations); others to a lesser extent (Belgium and Italy with tools and blogs) and others do not appear to have engaged in this at all trusting the Energy Teams, or in the case of the UK, the building management, to communicate with the employees (Austria, Sweden).

The positioning and placement of the tools also varies between countries:

- 🔌 In Belgium, Germany and Latvia the tools were emphasized, whereas in Hungary and France (arrows to Energy Teams and employees), and Italy (arrow mainly to employees) the tools appear to have taken a less prominent, though still important position, and in the figures for Sweden and the UK the tools were not shown at all.
- 🔌 Furthermore, the ‘tool’ arrows differ in where they were directed at: Energy Teams, employees, or both.

As for the communication between project partners and municipalities / building management:

- 🔌 It is interesting to note the variation in where municipalities were placed in the figures: on the right or in the centre (Latvia, Sweden and the UK), or on the left of the figure, indicating a relatively close cooperation with the project partner (Austria).
- 🔌 In Austria and Germany thin two-way communication lines represent the communication between the project partner and the municipality, whereas in Italy and Belgium the one-way-lines are ‘thin and dotted’ with a note that this communication channel was mainly used at the beginning of the campaign. In Hungary there was a two-way communication between the project partner and the municipality/building management as well as between the project partner and the Energy Teams, first of all through the contact persons within the Energy Teams. In addition, there was a one-way communication from the project partner towards the employees. Most of the communication happened between the project partner and the contact person. In the UK communication between the project partner and the municipality seems to be the most important for the project, whereas no communication lines between project partner and the municipalities or building management were drawn in the figures for France, Sweden and Latvia, indicating that this communication either does not exist or is not relevant for the project.
- 🔌 The communication between the management of municipalities and Energy Teams and/or employees was either not drawn at all or was over-arching (Sweden, the UK), crossed out (France), questioned (Belgium), dotted (Germany, Italy), or mainly one-way (Austria, Germany, Latvia) or represented by a thick arrow, suggesting its importance



(Austria). In Hungary all arrows related to communication within the municipality in the general model of work drawn by DuneWorks existed.

Summary and Conclusions

The recruitment of municipalities and buildings to participate in the save@work competition mostly started with the existing contacts of partners, building on the Letters of Intent acquired in each country for the project when still in the proposal stage. For some partners this meant addressing multiple contacts (Hungary, Italy, Latvia, and Sweden), while others had a single communication channel or one contact which lead to the involvement of several buildings (Austria, France, the UK, Belgium, and Germany). The recruitment method through existing or new, single or multiple contacts affected to some extent how close relationship the project partner had eventually with the building management, the Energy Teams and the employees. The degree of closeness influenced the effectiveness of the communication and how much the project partner knew what the Energy Teams were actually doing. This said, some of the project partners invested a great amount effort into building a well-working relationship with the management and/or the Energy Teams depending on the importance of each in implementation. In larger organizations the top-down communication and support for the campaign from the building management was important for the success of Energy Teams. For smaller organizations top-down support also had to be present, however, the informal contacts between Energy Team members and other employees were more important for the success of the work of the Team.

The project structures developed for Belgium, Hungary, Italy, Latvia and Sweden (all with multiple organizations in the project) were set up more or less along similar lines, indicating that the communication channels employed and used were also similar. The figures for Austria, France, Germany and the UK (all with one or very few main organizations) have a different structure, mainly relating to the different position and/or contact with the municipality/building management.

Finally, the project figures differ most when we zoom in on the communication lines (in general), and the position and contact with the municipality/building management. The variation in the representation of the communication lines (thick, dotted, absent, one- or two-way, 'at the start/end') suggest variation in the intensity of communication as well as in the particular selection of communication channels and tools used. Based on the project figures, we can conclude that the greatest effort in communication was invested into building and maintaining the contact with the contact person(s) and /or energy teams, depending on which was more important for the success of the project.

3.2. Materials, tools and events

As described in chapter 1.2, a great variety of materials and tools were developed in the save@work project, which were adapted and translated by partners for use in their particular local context. Partners were asked about their experience with the materials and tools in both of the self-evaluation surveys, and their responses to the first of these surveys were also discussed during the interviews DuneWorks conducted. Energy Teams and employees from participating buildings were



also asked about their use and experience with the tools and materials in the post-campaign survey. Below, we summarize the outcomes of the findings.

Later, in Chapter 4 we discuss in detail which tools and materials were the most used, successful and enjoyed by different groups of participants in all countries overall, also detailing the challenges that their development and use entailed. In the section here we focus on differences and similarities in the use of materials, tools and events as well as mention some that were developed by partners in addition to the project tools available to everyone. Discussing all of them in detail would go beyond the scope of this report, so we will focus only on selected items, mostly those that attracted the most or the least feedback.

Materials and tools

Starter Kits

As explained above in Chapter 1, at the beginning of the campaign partners assembled Starter Kits to facilitate the work Energy Teams as well as to help establish project identity in participating buildings. Starter kits contained a mix of promotion and motivational materials as well as measuring instruments. The content of the Starter Kit was discussed by partners, and guidelines were also provided by the work package leader. The resulting kits were similar (see Annex II.), but there were also some differences, allowing for adaptation to local conditions and needs.



The Starter Kit in Latvia

For example, in some countries the focus was placed more on providing measuring instruments, in others on providing motivational and promotional materials. There were also differences as to what type of instruments had been provided, for example, while all countries provided some kind of an energy consumption meter to their Energy Teams, only Austria, Belgium, France, Germany and Hungary provided power strips that allow the easy turning-off of several pieces of electronic equipment. Furthermore, some countries were especially creative in providing promotional materials with messages, e.g. Sweden provided dish clothes to their Teams, and Italy distributed magnets and pins with different messages and reminders.

Starter Kits were generally appreciated in all countries and by all groups in the project - Energy Teams, employees as well as project partners -, especially the promotional and motivational materials that, with the exception of France, proved very popular everywhere. Measuring instruments were appreciated most in Germany (by both Energy Teams and employees), Sweden (employees), Austria and Latvia (Energy Teams).

Action plan template

The action plan template was prepared to be used by Energy Teams to provide support for the planning of their activities. Due to various reasons, the delivery of the action plan template was late, and as a result some of the partners were not able to wait for the central project version and

developed their own templates. The advantage of this process was that it resulted in the sharing of different kinds of templates, thus partners were able to build on one another's work.

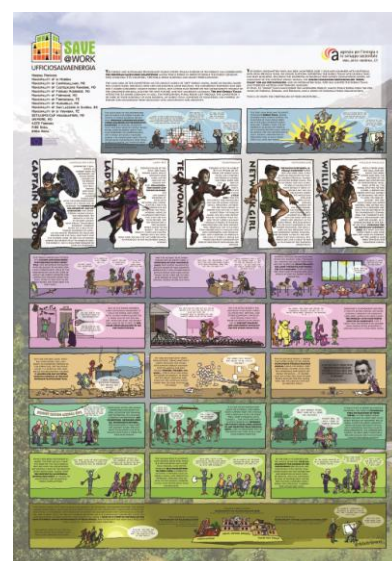
Partners from Belgium, Hungary, Italy and the UK developed their own action plan templates. In Hungary, in addition to the action plan template local partner GreenDependent (Hungary) also developed guidelines for the Energy Teams to help with the development of the plan.

Differences could not only be found in the template itself, but also in how it was used and how much assistance partners provided to Energy Teams in developing them. The partners who developed their own action plan templates - Belgium, Hungary, Italy and the UK - explained its use and discussed the development process with the Energy Teams at the initial training workshop. In Latvia Energy Teams developed their action plans with the assistance of the local partner at the second training workshop. In Sweden the central action plan template was modified to fit local needs, and Energy Teams also received help from the project partner in development. In Austria and Germany local partners provided considerable assistance to Energy Teams, and in many cases developed the action plans together with them. Finally, in France the action plan templates were not used by the Energy Teams, but by the local partner to monitor the progress of each Team / building.

Energy saving tips

The 24 thematic energy saving tips (see Annex III for a list of the topics covered) were developed centrally, and were then adapted and translated by project partners, and sent out biweekly to the contact persons or all members of the Energy Teams. Tips were designed in a way that they could be easily sent out in emails, posted on websites, printed as posters or flyers - so the Energy Teams could decide which way of dissemination fitted their needs best. They were given advice and tips on use in the Strategic Handbook as well as during the initial training events.

The energy saving tips were without question the most used and most useful tools in all countries, there is no difference between them in this regard. The adaptation process was different in countries: their content as well as the order of sending them out differed. In Latvia local partner Ekodoma also designed a calendar with tips for each month, the AESS, the local partner in Italy engaged a cartoonist to plan cartoon posters based on the tips and advice from the Strategic Handbook (see pictures on the right). There was also a lot of variation in how the tips were used by the Energy Teams: some managed to post tips on the local intranet so that employees could not log in without encountering them, and, for example, a smaller municipality in Hungary and several Italian buildings even posted them on the website of



the municipality as well as printed and distributed the ones relevant to households in the settlement.

Website, Energy Saving Tool and blog

Save@work had a central website and local websites for all participating countries. The local sites all had the same design, and included the Energy Saving Tool that required registration, the Green Clicks tool (see below), and the international blog. However, partners were free to add menus, decide about what exactly to post under the blog or news items, etc. They were also free to add more materials to the internal website that were accessible only to Energy Team members and employees from participating buildings.

On the one hand, the website itself - without the Energy Saving Tool, was considered a success by all partners, similarly to the adaptable design. It was also found useful by Energy Teams as well as employees, the most so in Hungary, Italy and Sweden.

On the other hand, it needs to be noted that the development, testing and use of the **Energy Saving Tool** proved rather challenging in the project. It was conceptualized to be a rather sophisticated tool: the building management could use it to monitor progress, project partners could use it to have an overview of the progress of the project in the country and in each participating building, to calculate energy savings and compare the buildings, and Energy Teams had to fill in consumption data for their building and could follow the results of their efforts. Different user groups had access to different datasets to avoid the misuse of data. Furthermore, the tool was important in determining which building achieved the most energy saving in each country as well as at the European level of the campaign. Developing and testing such a complex tool is very time-consuming, and as a result it was not quite ready for the start of the campaign. Moreover,, its use proved to be difficult for some Energy Teams who otherwise were not used to handling consumption data. Thus, **since the tool is central for the project even more focus would need to be put on its development phase, as well as in training employees in using it.**

The blog, the objective of which was to emphasize the European nature of the project, was also part of the website and included stories on local implementation and experiences from all countries. Local partners took turns to write the stories in which they often involved the Energy Teams. The stories were available in both English and the local languages. Even though they were well-liked, interesting and enjoyable, the blog was not among the most useful tools in the opinion of Energy Teams and employees in most countries, except for Sweden where based on the responses provided by employees it was among the three most useful tools and materials available to them.

Green Clicks tool

The Green Clicks tool was also part of the website, and required registration by the employees of participating buildings. It was intended to involve employees on an individual level and provide opportunities for them to learn and develop in the field of energy saving and efficiency, but in many countries it was not used very often. Project partners mentioned many potential reasons for this, for example difficult access, too uniform content, situation misfit and that it was difficult for employees to spend time using it at work. Even contests organized to encourage its use in Latvia (by Energy Teams), Austria and Hungary (by the project partners) did not help.



In the UK the tool was rewritten to fit the local situation, and this seemed to improve its use greatly as the tool was used most and was found to be one of the most useful by both employees (the only country in the project) and Energy Team members. Apart from the UK, Energy Teams in Austria and Italy also found the Green Clicks to be useful.

Newsletter: a new tool in selected countries

It has to be noted that the majority of partners reported that they developed materials to supplement the centrally prepared ones such as the calendar in Latvia, the cartoon in Italy or the guides for using the energy calculation tool and the action plan template in Hungary. Another such tool was a newsletter some of the project partners (in Austria, Belgium, Latvia, and Sweden) compiled regularly in order to inform and keep the management of the buildings engaged. In Sweden, this newsletter was not only sent to the management and the Energy Teams but also to municipalities that were not participating in the s@w project to make them interested and motivated to participate at a later point.

Events

Due partly to differences in the recruitment process and the challenges encountered during the process (see details in section 4.2), and partly to an effort to adapt the general events timeline and organization to local needs, there were variations in how the Opening Event and the initial workshops were organized in participating countries.

The opening event was meant to kick-off the competition at the national level. These were most often held for all the participating buildings in a country, often with the mayors, top managers and representatives of employees (or the Energy Teams if they were already formed) present. This was the case, for example, in Belgium, Germany, Hungary, Italy, Latvia and Sweden. In Belgium and Hungary, for example, starter kits were also distributed at the kick-off events, and in Latvia participants were also invited to participate in team building activities. However, as in some countries, for example, in the UK, participating buildings were situated rather far from one another, holding such an event proved impossible, and the several smaller kick-off events were held.

Based on the original project plan, partners intended to hold two training workshops at each municipality or participating building. The first workshop was planned to be prior to the opening event and to be more technical to collect baseline data for the local campaigns. The second workshop was intended for the Energy Teams in each building after the opening event. This original plan was abandoned by all project partners due to how the recruitment process and the forming of the Energy Teams happened: it had to be accepted that mainly as a result of lack of time (and sometimes motivation) on the part of participating authorities and municipalities, it was not possible and practical to organize two workshop for two different target groups. Thus, the contents of the two workshop was combined everywhere, except for Latvia. However, even here the target group of the workshops were the members of the Energy Teams, but the more technically and data oriented members of the Teams attended the first workshop, and those interested in motivation, the use of tools and preparing the action plans the second.






With the exception of the Latvian partner, all project partners held one training workshop for the Energy Teams. However, there were differences in how the training workshop was organized. In some countries there was a separate training workshop held for each Energy Team (e.g. in the UK and Germany), in others, e.g. Hungary, workshops were held jointly for selected Energy Teams (e.g. from the same municipality but working in different buildings or Energy Teams from buildings situated in the same region). In Italy, however, the local partner AESS held one big training event for all the Energy Teams as they wanted to provide extra motivation to the Energy Teams as well as an opportunity to network. Latvian and Swedish Energy Teams found the training workshops most useful for their work.

Concerning events one more finding needs to be mentioned, namely, that since the campaign and competition period was relatively long (12 months), extra effort had to be invested in maintaining the motivation and engagement of Energy Teams as well as employees. To this end, several partners (e.g. in Belgium, Germany, Hungary, Latvia and the UK) decided to organize national Midterm Events to where Energy Teams from all participating buildings were invited. The main purpose of these events was to re-motivate Team members through the sharing of experience, success stories and challenges as well as providing additional input on the use of tools and materials. In several countries information was provided on the European aspect of the project as well through sharing experience from other countries.

Finally, apart from the events organized by the project partners, Energy Teams also organized events for employees in their buildings. These events took different forms: discussion groups, quizzes, talks by experts, plant and seed swaps, baking competitions, Christmas parties, etc. These events were found to be one of the most useful tools in Belgium, France and Hungary by employees, and in Belgium, France, Germany and Sweden by Energy Team members.

Summary and Conclusions

Based on the analysis of the responses in the different evaluation tools used in s@w, the tools, materials and events can basically be placed into three categories:

-  useful, used and appreciated by the majority of project participant groups (partners, Energy Teams and employees);
-  useful, but their use could be improved but otherwise needed for the project;
-  useful and added to the project by selected partners during implementation.

In addition, we also identified some tools and methods that could be added to the inventory of a similar project in the future; these are discussed in section 4.3.

Tools, materials and events belonging in the first category (used and appreciated) include the energy saving tips, the website, the starter kits including the promotional materials and measuring devices as well as the various events, particularly the training workshops, though local events organized in the various buildings were found to be most useful.

Tools, materials and events in the second category can be improved in various ways, and the different participant groups in the project already provided some ideas as to how this could be done. For example, the local partner SWEA in the UK provided a good example on how the Green Clicks tool could be adapted to fit local user needs better, and the Hungarian partner on how the energy



calculation tool could be made more accessible through providing a guide for use. As for the Strategic Handbook for Energy Teams that was not top-rated and was indeed among the top three tools only in Germany, but was found useful by most project partners at the beginning of the campaign as revealed by the first self-evaluation survey, we conclude that more effort should be made for the sharing and using of its content during the second part of the campaign.

Furthermore, Energy Teams need different amounts of guidance and support in the use of the tools depending on the composition of the team, i.e. what kind of expertise the members of the team bring with them. In order to provide such tailor-made support, local implementation partners would need to invest in more effort to map the expertise and skills of Energy Team members, or, alternatively, include such activities in the training workshop. The relevant content of the Strategic Handbook could also be made use of to this end: for example, since energy saving tips proved to be so popular and useful everywhere, it may be worthwhile to develop management and group development tips specifically for the Energy Teams. Further ideas for development are discussed in Chapter 5.

The third category of tools, materials and events includes those that were found to be needed as implementation progressed in the s@w project: newsletter for the management, midterm events, or additional promotional and motivational tools.

Finally, as it was also observed in the Strategic Handbook, people are very different: they prefer different ways of communication. Thus, it is very important to use a variety of tools and communication channels in projects like save@work, and not just in a general sense, but in the communication of possibly each message. This also helps to remind people in different ways and strengthen and extend the message, for example, first through an email in the form of saving tips, then a sticker on the wall, a post on the website, and perhaps finally at an event. This way sustainable energy use behaviour and practices can become the general, accepted norm instead of the 'strange' green practice of the committed.

3.3. Competition and the European aspect of the campaign

In this section we focus on the European aspect of the campaign, the competition at the European level, and whether these were emphasized by the project partners and/or whether it played a role in the national campaigns or in the motivation of the Energy Teams in participating buildings.

In Germany the local partner BSU talked about the European setup of the s@w project but it attracted only a limited level of interest from both the management and the Energy Teams. Thus, it was not a motivational factor for authorities for joining the campaign.

The project partners in Austria, Belgium, Hungary, Italy and Latvia talked about the European aspect and competition at various occasions (meetings during recruitment, all campaign events, etc.) and in their experience it was only the management that was interested in this fact apart from selected Energy Teams who were, for example in Hungary and Latvia, very motivated by the **promise of the trip to Brussels** for the winning team. In Austria the front page of all the printed materials showed the European aspect of the project, and as a result it was often discussed by participants. The local partner, GEA believes that it helped attract employees to participate in the campaign.



In Belgium the link between s@w and the **Covenant of Mayors initiative** was emphasized, and in the opinion of AM, the local partner, it helped them, as a small organization, convince ‘others’ to believe in the project. In Hungary municipalities showed some interest in developing twin city relationships through meeting municipalities from various countries in the project. In Italy the s@w project was implemented in a region where the Covenant of Mayors initiative is very well-known, and seven municipalities that joined s@w are signatories of the Covenant as well. The s@w project can contribute to the implementation of action plans developed by municipalities to fulfil their obligations of being members of the Covenant of Mayors, specifically related to actions planned on achieving behaviour change.

In some of the countries (Sweden, the UK, and France) the interest of employees in the European competition element of s@w was rather high. In Sweden taking part in a European level competition is generally perceived as interesting and fun. At the same time, Energy Teams in the UK and France were interested in learning about how teams in other countries were doing. To support this, the local partner SWEA (in the UK) mentioned that they received numerous worried calls about the project during the Brexit campaign and voting that, according to SWEA, was a sign of how keen the teams were about the project.

3.4. Conclusions: dealing with and building on diversity in a European project

Diversity in a European project like save@work with this particular set-up and target group encounters with diversity on numerous levels:

- 🕒 the experience and expertise project partners bring to the project;
- 🕒 the (sometimes unconscious belief) about how change happens and should happen;
- 🕒 the way the project is implemented locally (see the project structures);
- 🕒 the way communication happens with participants: through the management vs. the Energy Teams directly, through a designated contact person or groups of people, relying mostly on emails or the phone, etc.;
- 🕒 the way events are organized: for all participants or for groups of participants due to large distances;
- 🕒 the ways in which tools are used and adapted;
- 🕒 and the list could go on...

Diversity can be a great resource and can enrich the experience of the project for everyone as well as expand the tools and methods available for the completion of project tasks. However, in order for this to happen, it **needs to be recognized and explicitly discussed**. At save@work partner meetings members of the consortium regularly discussed diversity, e.g. in terms of approaches to local implementation, which was very useful. However, there could perhaps been even more effort made to build on it even more. For example:

- 🕒 it would have been useful to discuss recruitment and implementation plans in detail sooner in the project, and use different tools to facilitate this process - e.g. drawing and comparing project structure figures - earlier to be able to build on it more. This, in a similar project, is especially important to do as decisions made about recruitment or limits posed by the recruitment have quite a big impact on the project later: e.g. if we work with one large municipality and its 20 buildings, our communication



with participants will be quite different as compared to if we work with several municipalities and their buildings;

- 🔌 once the differences and similarities are clear, it is useful to have discussions - perhaps even in smaller groups based on identified similarities - about tools and strategies most appropriate for a given situation. For example, a discussion in the consortium on how to communicate with Energy Teams successfully through the management vs. a contact person vs. to the whole team.

Finally, **the diversity in a European project can be a motivating factor contributing to both learning and enjoyment** not only for project partners but also for participants, so it is important to include it in communication activities with them. The save@work project had an international blog and at the end a European brochure to emphasize this element, but in a future project it may be useful to include more tools to facilitate even more exchange between participants in different countries, for example, through organizing a European Midterm Even for Energy Teams, or an online discussion group for Energy Teams as part of the project website or set up as a closed group on a social media site.



CHAPTER 4: save@work success stories and challenges

In this chapter we discuss how useful the tools provided and events organised within the framework of the save@work project were, what participants enjoyed the most, and according to the experience of participating employees and project partners which activities, organisational structures, communication methods, etc. proved to be a success (section 4.1) and where the challenges lied (section 4.2). Finally, we also analyzed what participants and partners found to be missing or what they would do differently in hindsight, with the experience of the campaign (section 4.3). In other words, this chapter is about the lessons learnt, providing important information for similar future projects.²²

4.1 What worked best in the save@work campaign

Tools and events

First, we looked at the use and usefulness of the tools, materials and events developed as part of the save@work methodology (see Chapter 1, section 1.2). The post-campaign survey enquired about which tools and events respondents used or participated in and among them which ones they found most useful. **Energy Team (ET) members and other employees were asked separately**, Energy Team members were given a slightly longer list to choose from reflecting the fact that they had more tools at their disposal. These included, for example, the Strategic Handbook (a manual given to Energy Teams, including information about the campaign and tips on how to select team members, organize meetings, motivate colleagues, etc., for further details see Chapter 1), the initial training workshop (a one-time training workshop delivered by the national partner for Energy Teams) and other events organized by the national partner.²³

To allow for local differences to be shown, respondents could also add items of their own to the lists. When enquiring about the usefulness of tools and materials, respondents were asked to list maximum three items that they had found the most useful. In case of the question investigating the use of tools and materials, there was, obviously, no such limitation.

The most widely used campaign tools were the energy saving tips, the promotional materials and the save@work general website among Energy Team members and other employees alike as shown in Figure 4.1. It is also apparent from the figure that Energy Team members used the different save@work tools and participated in the related events in much higher proportions.

²² As the French project partner (Prioriterre) had to leave the project before it was finalized, the French results are excluded from the discussion in Chapters 2 and 4.

²³ Please note that in Austria there was an accidental mix-up of items between the lists presented to general employees and Energy Team members, therefore the values for some questions are based upon responses from 7 instead of 8 participating countries.

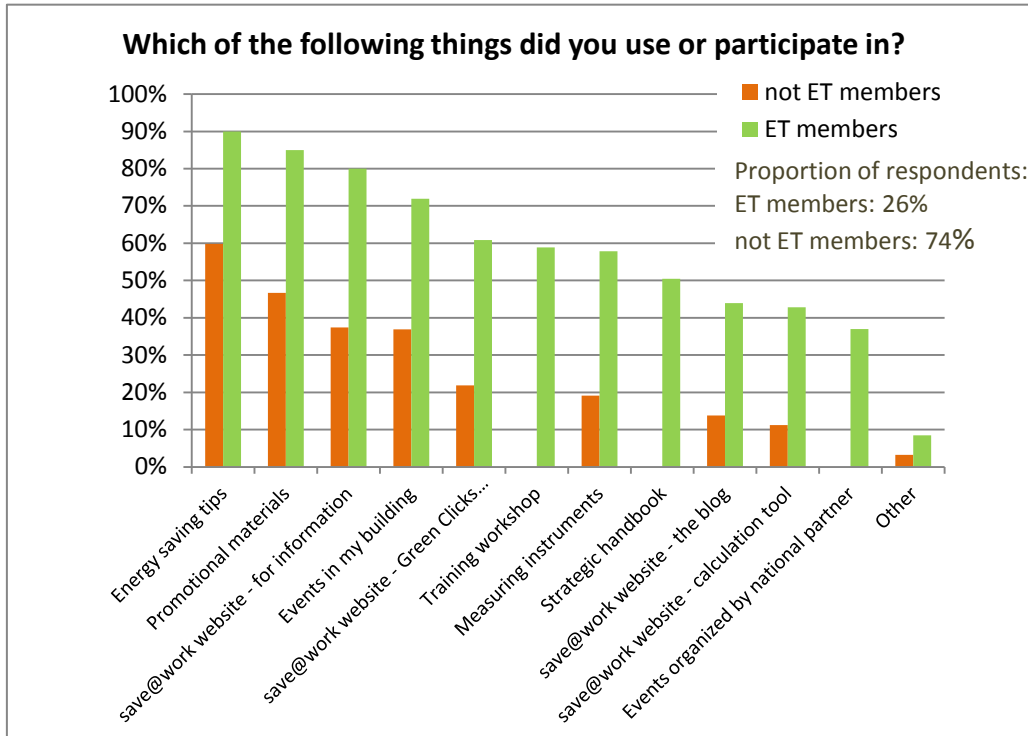


Figure 4.1: The use of tools and materials by different participant groups in the s@w project

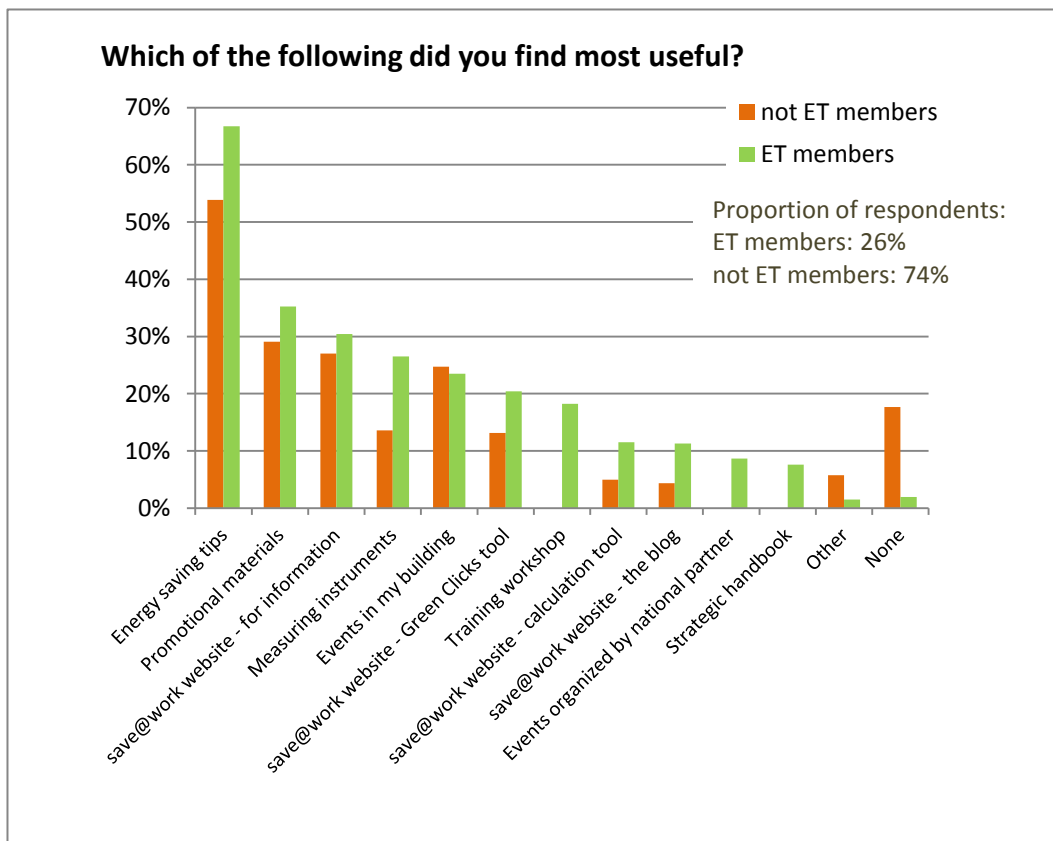


Figure 4.2: The usefulness of s@w tools and materials as evaluated by different participant groups

We also wanted to find out whether respondents found the same tools/events useful as they used/participated in. When asked about the usefulness, indeed, the top three items were the same, **both Energy Team members and non-member respondents found the energy saving tips the most useful material, followed by the promotion materials and the general information pages of the save@work website** (Figure 4.2).

Responses to the question on usefulness show lower percentages, since the number of list items that could be selected was limited to maximum three. As a general principle it can be stated that the more widely respondents used a given tool or participated in a given event, the more likely it was for them to find it useful. This is especially true for non-member respondents. At the same time, in their case the ratio of those who did not find any event or tool especially useful is relatively high, 18%.

In case of Energy Team members the above-mentioned correlation is not so distinct. The order of items on Figure 4.2 and 4.1 are similar, but the magnitude of usefulness differs in some cases. Thus, for example, the ratio of Energy Team member respondents who had used the general save@work website is more than double compared to other employee respondents, at the same time, in both cases around 30% of respondents found it useful. The same pattern can be observed in the case of events organized locally in the participating buildings and to some extent for promotional materials as well. Finally, it should also be kept in mind that Energy Team members had a slightly greater range of items they could select the three from.

It is therefore also worthwhile to analyze the results in terms of what proportion of those who used the tools or participated in the events found them useful. With this approach the usefulness rankings are somewhat different:

No.	ET member respondents	Other respondents
1.	Energy saving tips	Energy saving tips
2.	Measuring instruments	save@work website - for information
3.	Promotional materials	Measuring instruments
4.	save@work website - for information	Events in my building
5.	save@work website - Green Clicks tool	Promotional materials
6.	Events in my building	save@work website - Green Clicks tool
7.	Training workshop	save@work website - calculation tool
8.	save@work website - calculation tool	save@work website - the blog
9.	save@work website - the blog	
10.	Events organized by national partner	
11.	Other	
12.	Strategic handbook	

This way it becomes apparent that even though the **measuring instruments** were not very widely used (especially among non-member respondents), **many of those who did use them found them useful**. At the same time, **the usefulness of promotional materials and the save@work general website is somewhat less pronounced** from this perspective.

To complement these outcomes, we also considered the opinion of project partners. As part of the self-evaluation survey²⁴, project partners were also asked about the usefulness of tools, materials and events from two perspectives: usefulness for the Energy Teams (Figure 4.3) and usefulness for partners' work in the campaign (Figure 4.4). Partners could select a maximum of five tools (not three like participants), which allowed for higher percentages per item on average. **All partners think that the initial training workshops were the most useful tools, followed by promotional materials, and the energy saving tips.** It is obvious that there are differences between how Energy Team members, other participants and project partners evaluate the usefulness of s@w tools, materials and events. The differences can, of course, be explained by the differences in roles and responsibilities as well as the perspectives of these groups in the project. Nonetheless, **it is important to be aware of the existence of this difference when planning the materials and communicating about them.**

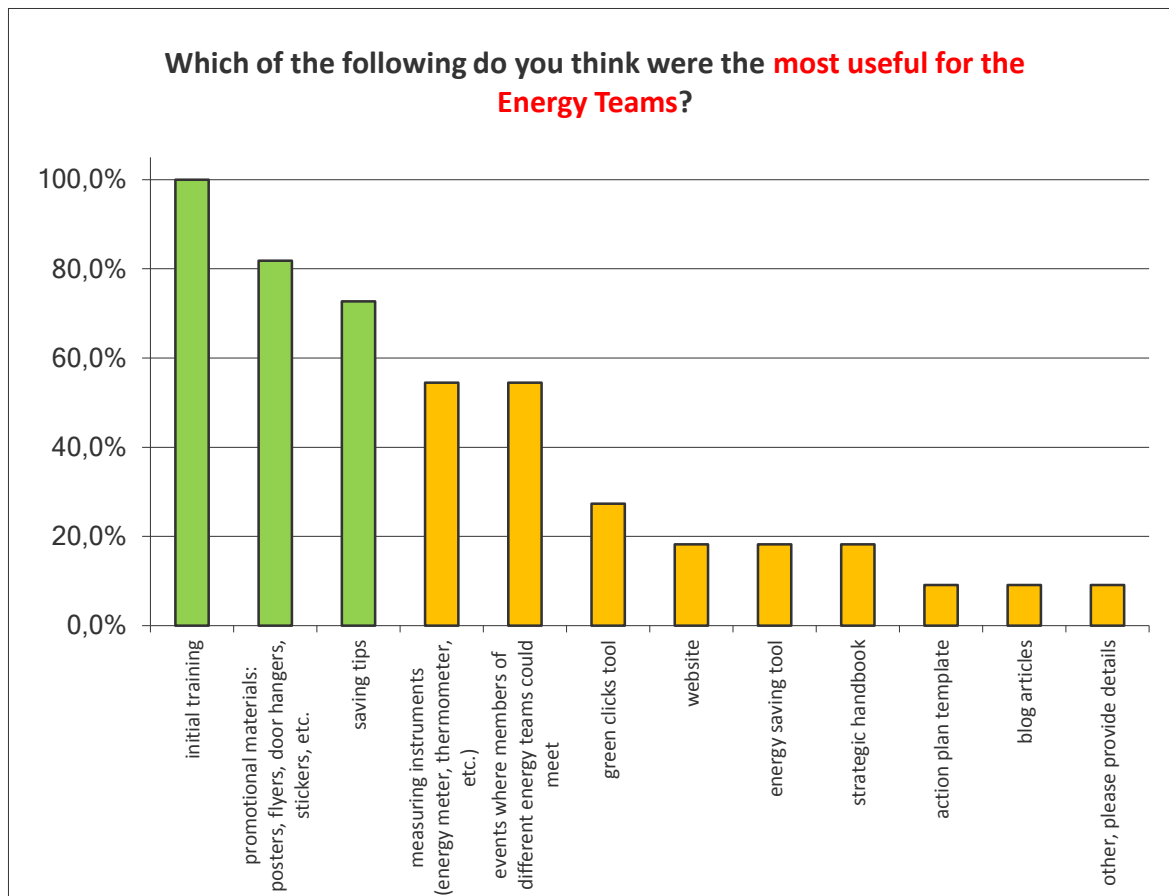


Figure 4.3: The usefulness of s@w materials, tools and events for Energy Teams - from the perspective of project partners

It is also important to note that even though some tools and materials were not considered to be the most useful in this end-of-project evaluation, for example, **the internal sites of the save@work webpage** (i.e. the Energy Saving Tool and the Green Clicks tool), **the blog page and the Strategic Handbook**, they were seen to be essential for the success of the project

- ⬆ either at a certain stage (e.g. the Strategic Handbook at the beginning to help with understanding, initial organization, planning and workshop content);

²⁴ For further information on the self-evaluation survey see Chapter 1, section 1.4.

- 🔌 or for a certain task (e.g. the Energy Saving Tool to monitor consumption and to help determine the winners of the competition);
- 🔌 or for providing an additional, distinctive communication channel to reach the target group (e.g. the Green Clicks tool to provide an individual learning opportunity).

However, since all these items required relatively large amount of resources to be developed, it is worthwhile to reconsider how they could be designed, disseminated or used in an even more effective manner in similar future projects (see Chapter 5 for more details). Furthermore, since the continuation of energy saving efforts – and thus the further use of developed materials and tools – after the one-year-long save@work campaign is a pronounced objective of the project, positioning the above mentioned tools better is still a possibility, and in the longer run their true potential can be realized fully.

Partners were also asked which materials they considered to be the most useful for their own work in the local implementation process. Energy saving tips and promotional materials also ranked high from this aspect as shown in Figure 4.4. The save@work website was thought to be more important from this aspect just like the Starter Kit and the initial training workshop, both also referring to the importance of brainstorming and exchange of experience among partners. The feedback on pre- and post-campaign surveys and their analysis was also deemed fairly useful.

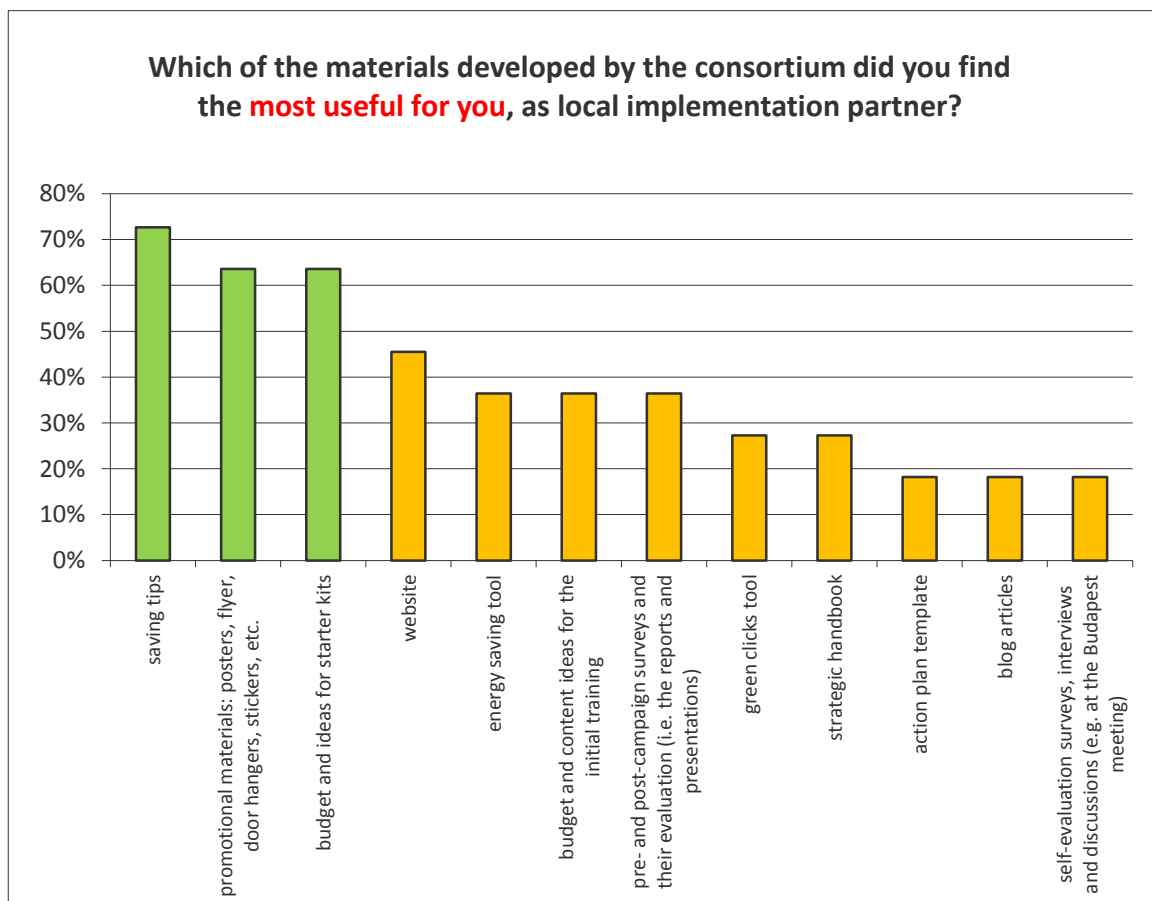


Figure 4.4: The usefulness of s@w materials, tools and events for project partners

Enjoyment

Besides the usefulness of materials and tools, the enjoyment element should not be underestimated either. Even if a tool or event is not directly useful as such for saving energy, it might still be indispensable for keeping up the energy saving spirit among the employees in the long run or helping them become a stronger-knit community. Therefore respondents were asked what they enjoyed the most during the campaign. For this question, there was no list provided, instead, they were asked to provide one thing they enjoyed the most during the campaign.

Responses show that **the majority of respondents valued and found enjoyment in acquiring new knowledge ('becoming more aware')** and **receiving concrete ideas that they can implement ('two-weekly tips')**. Furthermore, as shown in Figure 4.5, they also enjoyed the **community/ team aspect of the project** and related activities and events ('teamwork', 'local actions', and 'events'). Therefore, it proved to be an excellent approach to place a strong emphasis on group and community building throughout the save@work campaign, something that was also commented on by the senior management of buildings at Working Group meetings and closing events.

It is interesting to note that the process of saving energy or the savings realized were not so much regarded as enjoyable. Gifts and prizes were not valued very highly either from this point of view even though promotional materials were considered relatively useful by several participant groups (see above). It needs to be mentioned here that at the time of filling in the post-campaign survey participants had not yet received the final prizes.

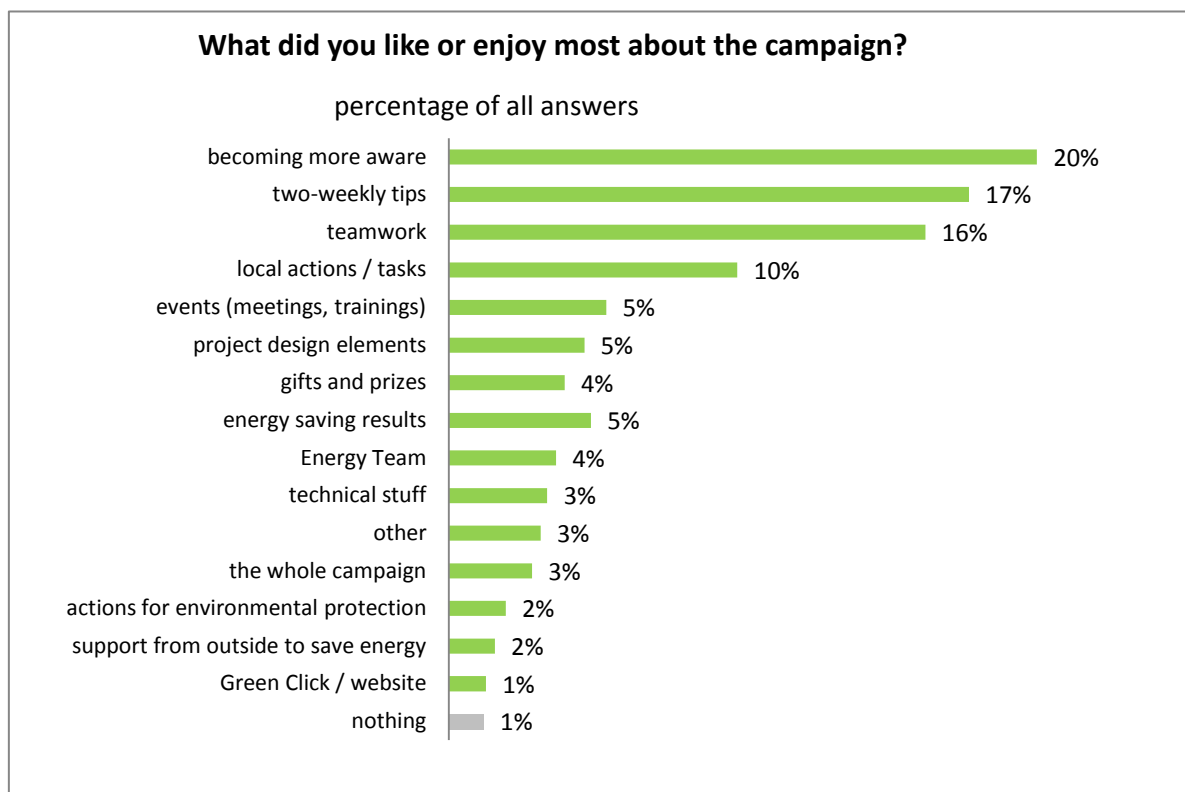


Figure 4.5: Participants' view on what they found the most enjoyable in the s@w campaign

At this point, it is interesting and useful to compare what respondents found enjoyable with why they joined the s@w campaign, something that we investigated as part of the pre-campaign survey.

There is, obviously, a difference between these questions as well as the methodology of collecting responses. While for enjoyment respondents were not given any prompts but were expected to provide free text responses, when studying the reasons for joining the campaign they could select one or more items from a list of options (Vadovics and Szomor, 2017). As shown in Figure 4.6, half of the respondents selected that **they joined because they were interested in saving energy and other environmental issues, and the second most often selected answer was that they wanted to learn about energy saving (37%)**. Furthermore, 24% of those responding selected wanting to learn about something new as a source of motivation as well.

Thus, some parallels can be drawn between these and the responses given in the post-campaign survey to what respondents enjoyed the most: **learning new things seems to be an important part of motivation to participate as well as enjoyment**. At the same time, in the pre-campaign survey the option 'I like to work in groups, together with others' was selected by only 14% of the respondents as a reason for participation, despite the fact that teamwork was an element enjoyed by many. Thus, it may be useful to **confront participants with this finding in future campaigns to help them understand at an early stage in the project or campaign how important for success, and at the same time, for enjoyment, group building and cooperation are**.

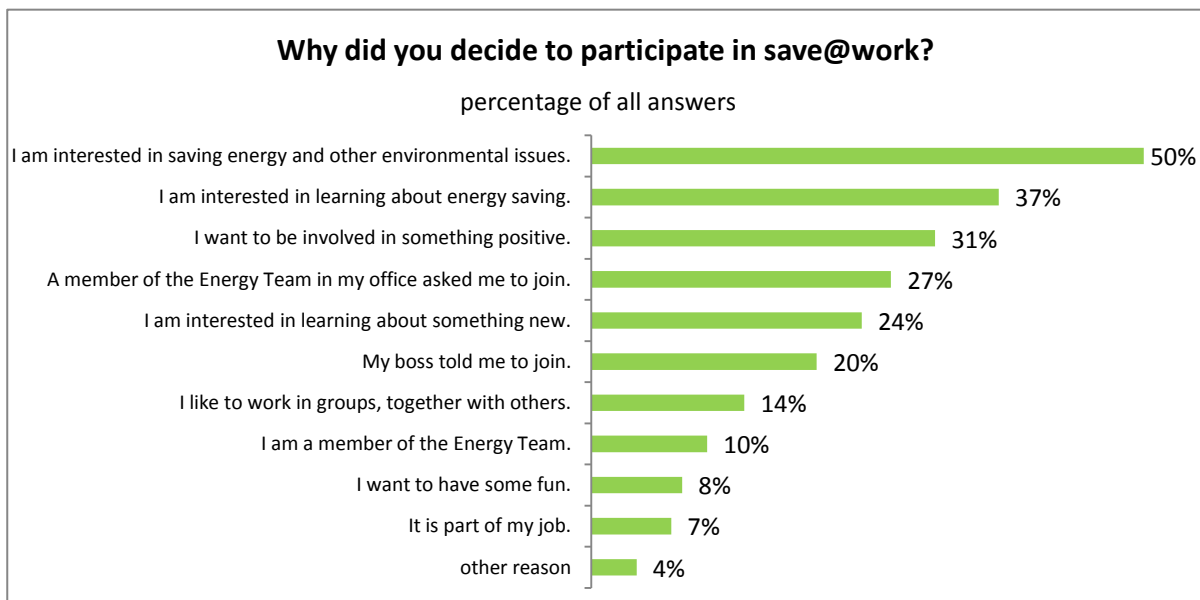


Figure 4.6: Reasons given for joining the s@w campaign by participants at the start of the campaign

Success factors and success stories

Based on feedback from Energy Teams provided in the 'best campaign questionnaires' and also from project partners in the second self-evaluation survey, success stories were collected, mostly related to the various activities Energy Teams initiated in the participating buildings in 8 countries. Some of these activities could be directly related to energy saving, while others were focusing more on creativity and community building.

Having, establishing and cultivating personal contacts

In the self-evaluation survey project partners were asked to describe what was the most successful in their country as well as relate success stories from different areas of the project (e.g. working with the management and Energy Teams, tools and methods developed, etc.). Several partners pointed out the importance of personal contacts, both between the national partner and Energy Teams, and between the local Energy Team and colleagues. Furthermore, two partners mentioned that the midterm events they had organized were well-received and considered as very useful in facilitating exchange between the Energy Teams of different buildings while the competition was still ongoing.

Being creative and fostering an inquisitive atmosphere

Internal competitions, quizzes, video clips, communicating own calculations related to energy saving were the most widely mentioned good examples that local Energy Teams organized or used with great success. Bringing arts in as an aid for energy saving efforts were also mentioned by a few partners: e.g. complementing the tips with a quotation by a famous author, organizing a creative writing competition, or hosting an arts exhibition related to energy saving/ climate change within the participating building.

Success story from the UK - The most successful activity was the one centred around computer and screen switch off. Each member of staff at the Land Registry have two screens, many of which were left on at the end of the day. A member of the Energy Team worked out how much energy this wasted over the space of an hour, multiplied it by the number of people in the office and across the 12 participating Land Registry offices, showing a significant impact against a 14 hour night period. The Energy Team member who came up with the calculations then wrote a blog about it on the Land Registry blog page. This became a big hit and a campaign was rolled out across the organisation.

Careful selection of buildings and Energy Team members, involving the management

At the end of the second self-evaluation survey partners were asked to share some tips for success. The majority of them mentioned involving the top management more closely, as well as selecting the buildings as well as members of the Energy Teams more carefully, possibly designating the responsibility of a contact person/leader to someone within the team of dedicated members coming from diverse backgrounds. The Energy Team should ideally include somebody from the technical staff (e.g. building manager or energy manager), from maintenance (e.g. cleaning) and the management as well.

Sharing responsibility within the Energy Team and meeting regularly

The best campaign questionnaires filled in by Energy Teams and then summarized by project partners also highlight the importance of the above aspects for achieving success. Besides, partners also concluded that sharing responsibilities clearly and more or less evenly among Energy Team members, and meeting even more frequently than once a month in an informal setting are also important success factors.



Success story from Italy - Collective meeting of employees such as 'shared lunches' (where employees brought from home selected lunch items to be shared with the other colleagues) or Christmas parties/dinners where energy saving issues were also discussed were big successes. The human dimension of such events – rediscovering the pleasure of human relationships within the organisation – was really appreciated and most of the municipalities experiencing those events, are planning to continue organising them in the future.

Providing feedback and motivation on a regular basis

Providing regular feedback on energy savings to employees and/or the top management also proved to be important, in several buildings it was done as part of the regular staff meetings. Colleagues also welcomed the energy saving Christmas party and other informal office events which included energy saving elements. They were also open to playful initiatives, such as 'energy detectives/ commando', 'Mr Watt' or the 'Energy Saving Santa Claus', and were motivated by quizzes and other internal competitions – as already mentioned earlier. Chocolate was a common treat for employees who paid attention to basic energy saving practices, with great success in several countries.

Balance between technical and creative aspects

Once again it was pointed out that a good balance between technical aspects and creative campaign elements ensures the successful implementation of planned energy saving measures. Reaching out to employees through the office intranet and providing an 'idea box' with the help of which anybody could give an input to the save@work campaign also proved to be working very well.

Success story from Hungary - Two of the Hungarian buildings chose to carry out their energy saving activities in the framework of 'topic months', meaning that in each month of the competition period they focused on a different special activity to enhance energy saving. This way besides the routine practices of turning down the heating, switching off the lights and office equipment at the end of the day, etc. employees could use their creativity and work towards more savings either directly or indirectly. For example, in April they decorated their workstations with more greenery, in September one office held a 'bike to work' event, while the other building rearranged the furniture in their office rooms using professional help to make it more energy efficient, e.g. by using natural light better, by placing lighting better, etc.

Providing a supporting environment for energy saving and considering comfort

Modifying automatic settings and introducing new office regulations in a way that they support energy saving within the building – or alternatively, integrating the save@work action plan into the office strategy or other important strategies/ plans – also proved to be beneficial. Moreover, combining **energy saving measures with increasing the comfort of employees**, e.g. purchasing desk lamps, optimizing office temperature in a way that temperature actually increased in some places (but decreased in the majority of rooms), installing decorations that increase the feeling of warmth in winter (e.g. through colours), attracted an especially positive response.



Success story from Belgium, from the winning team: Energy Hackers Collectife - The team started with a very powerful communication campaign: on the day the whole campaign started they hacked the computer system at the municipality and displayed the save@work logo a campaign message on the screen of each employee. On the same day, they visited each office to inform everyone about the campaign and establish a shared understanding of the overall aim: save as much as possible and win the campaign. After this, apart from continuing with repeated and varied campaign messages, e.g. bi-weekly saving tips by email, reminders around the office, they implemented a number of smaller measures: adjusted the heating, installed LED lights, and supported employees to change their behaviour in various ways, also offering small motivating rewards like chocolates. In addition, the members of the Energy Team regularly went around the offices to make sure that lights and equipment were turned off when not in use, the heating turned down when not needed, etc.



4.2. Challenges encountered in the save@work campaign

As it can be seen from earlier chapters, the save@work project managed to achieve a lot of its objectives and has also managed to initiate longer-term change and important spill-over effects. Still, project partners struggled with several issues during implementation, and in this section we review these challenges, from the project partners' point of view.

In the first self-evaluation survey completed about 4 months after the competition started, partners were asked what they found challenging at the beginning of the campaign, and also whether they managed to find a solution to these challenges. The three tasks that the majority of partners found challenging at this time were (1) collecting historical and current energy consumption data from participating buildings, (2) testing and completing the online Energy Saving Tool, and (3) keeping the Energy Teams engaged and active. The difficulties surrounding the development and use of the Energy Saving Tool were already discussed in section 3.2., so here we will focus on the two other tasks, which remained a challenge all through the project as was confirmed later by the second self-evaluation survey.

In addition to these three challenges, other issues such as recruiting a sufficient number of buildings to participate, and creating the Energy Teams in the buildings were also mentioned as significant in the first survey. Furthermore, in the second and final survey partners listed encountering difficulties in (1) communicating effectively with the Energy Teams, (2) Team members being overloaded with work and not having a sufficient amount of time and/or a sufficient level of authorization from the management for s@w related tasks. Below, we discuss these issues and in our discussion we also consider relevant insights from the self-evaluation interviews conducted with partners.

Recruiting buildings to participate

Project partners generally felt confident about recruiting a sufficient number of buildings to participate in the project as each country had several letters of intent from authorities and



municipalities already during the proposal stage. However, in almost all the participating countries these **letters of intent did not prove sufficient**: some otherwise interested authorities reconsidered or were forced to reconsider their participation for various reasons. Thus, new participants needed to be found. This naturally delayed the recruitment process, especially if the local partner was not prepared for a larger number of potential participants to withdraw from the project. Although some partners had been ready for this and already had a well-thought out recruitment strategy in place, the consortium as a whole was not fully prepared for the challenge posed by finding a sufficient number of participating buildings. This resulted in the delay of delivering some of the tasks later on (e.g. forming the Energy Teams, organizing the initial training workshops or completing the pre-campaign survey).

In the end, the challenge of recruitment was overcome in most of the countries (see section 1.3. on results and participant numbers), but in a future project, we would suggest some changes in recruitment efforts and tools used, please see Chapter 5 for details of these suggestions.

Lack of motivation and time

Although there were, obviously, some very motivated Energy Teams participating in save@work in each partner country, in general partners had to find creative ways to deal with an overall lack of motivation to engage and be proactive on the part of public authorities. This could often be connected to two reasons. First of all, public employees in all countries seem to be overloaded with work already, partly due to a lack of resources available to the public sector, often as a result of various austerity measures. This, combined with the fact that employees often did not receive a sufficient level of authorization from the management for carrying out save@work project related tasks and activities resulted in a lack of motivation to participate in or initiate campaign activities.

Partners applied a variety of tools and methods to overcome this issue, for example:

- 🕒 by signing agreements with the management of municipalities for participation in the project including granting sufficient time to employees for completing project tasks;
- 🕒 through discussing this issue with representatives of the management at working group meetings; and
- 🕒 through keeping the management informed about project activities and progress.
- 🕒 Providing intermediate smaller prizes for completing certain project tasks and related dissemination activities also helped, for example, in Hungary.

Still, in a future project we would suggest further integration of project activities into the general activities and tasks of participating buildings and employees, as discussed in Chapter 5 in more detail.

The third reason for lack of motivation is different in nature from the other two in that it is connected to the difficulty of keeping up motivation during a relatively long campaign period (12 months in the case of s@w). From the point of view of changing behaviour and helping the changed behaviour and practices become the norm, the length of the campaign was definitely advantageous, however, from the point of view of motivating participants, it posed challenges. Thus, in addition to trying to involve the management more, project partners also applied and developed several tools and methods to maintain the motivation of Energy Teams. First of all, by using a gamification approach and providing challenges that were constructed to engage and mobilize the



Teams as well as the employees. The focus and topic of these challenges varied from country to country as the local context required. Small prizes provided for challenges that were completed best motivated some Teams even more. Another tool was the organization of midterm events and thus providing an opportunity for Energy Teams from different buildings to meet and exchange experience. Finally, partners often motivated Teams by providing tailor-made support to them, and contacted them on a regular basis either through phone or email.

Managing communication at multiple levels

As shown in the project structure figures introduced and described in section 3.1. (and see Annex IV. as well), project partners needed to communicate with very different target groups in the s@w project: with the management (including mayors, building and energy/environmental managers, communication managers, etc.), the Energy Teams and often also with employees. This required a rather complex communication strategy and using a variety of tools.

The greatest challenge for the project partners was to manage the communication with the management, especially given that their commitment and support had a great impact on the success of the campaign in the buildings managed by them, especially if the building had a large number of employees. Although s@w consortium members regularly discussed this issue at partner meetings and exchanged experience and ideas for managing communication with this influential target group, it would probably have been useful to have a strategy for communication including some specific tools to help engage the management.

Communicating with the Energy Teams proved to be challenging for a different reasons, especially if communication happened through a designated contact person like in Hungary, Latvia or Sweden. Part of the difficulty arose from the fact that project partners often were not notified if the contact person changed and a new person took over. Furthermore, for project partners it was rather difficult to motivate the new person if he or she did not receive an introduction from the municipality and was just assigned the task among numerous others. Finally, having just one person as contact appeared to provide for a very narrow communication channel, especially if the person was not very active, or did not have any communication experience and found it a challenge to pass information on, etc. Thus, the importance of a careful build-up of Energy Teams is reinforced from this aspect as well.

Finally, it is important to note that communication and using appropriate communication strategies and tools can provide solutions to a variety of challenges encountered in projects like save@work. In the first self-evaluation survey partners were also asked about the solutions they came up with for the issues they faced, and increasing the amount of communication activities was naturally one of the most often cited response. This, for example, meant forming closer links with the building management and the Energy Teams, communicating with not just one but several members of the Energy Teams as well as communicating more with their own colleagues and s@w partners.

Collecting energy consumption data

The collection of both historical and current energy consumption data, although very important for energy saving campaigns, proved to be one of the most challenging tasks in a number of buildings



in all participating countries. There are different reasons for this. First of all, Energy Teams, responsible for providing this data to project partners through entering it into the Energy Saving Tool, often did not have a member who was authorized to handle and/or had access to such data. As a result, Energy Teams had to find the source of data in their building, which was often a challenge as energy consumption data is not readily available everywhere, and then establish contact and acquire the necessary permission to receive and use the data. Then, in quite a number of buildings the collection of the appropriate historical energy consumption data was in itself a relatively challenging research task as this data was not stored and handled in a systematic way. Participating authorities and municipalities were often not sure where their meters were, and if their shared energy systems with other organizations, they were not sure which were their own meters and which their neighbours', and, in general, there was quite a **considerable lack of energy data management systems including a lack of employees or teams of employees responsible for managing them** in buildings in all participating countries. There were, of course, exceptions to this rather general challenge, but only a few. Thus, the save@work project contributed to the realization of this fact as well as a resolve from management to overcome this, sometimes already during the project.

Filling in the pre- and post-campaign surveys

Save@work consortium partners prepared carefully for the administration of both the pre- and post-campaign participant surveys as based on their prior experience the expectation had been that it would prove to be challenging to collect the required number of responses.

Based on the Description of Work for the save@work project, 40% of employees in participating buildings were required to fill in the survey. This is a rather high number, but the save@work consortium wanted to gain a sufficient amount of information on campaign participants and buildings.

As partners did not expect the survey response collection process to be easy, the consortium spent time and effort on brainstorming and collecting ways in which employees in participating buildings could be motivated to fill in the survey. The ideas brainstormed were summarized in a file and circulated within the consortium, with updates and an additional tool (letter to the management to support the survey) for the post-campaign survey.²⁵ From among these methods partners in different countries selected different ones, and, indeed, different methods worked well in different settings. For example, giving a small prize for buildings that managed to complete the largest number of surveys as compared to their total employee count proved to be very successful in Hungary, but did not motivated employees in Germany.

Similarly, different countries experienced different challenges, but challenges, especially for filling in the pre-campaign survey, were most apparent in Austria, Germany and the UK, where employees in participating buildings were extremely reluctant to participate - in spite of the different methodological solutions partners used (see details in Vadovics and Szomor, 2017). Methods that were very successful in other countries (e.g. setting a prize in Hungary) did not work in these. As a result, in these countries the **response rate was lower than would be desirable** (see Table 4.1). The response rate was lower than planned in all participating countries as it did not reach the planned 40%, but still a sufficient number of responses were provided for analysis.

²⁵ The tips collected for the pre-campaing survey can be found in Vadovics and Szomor, 2017.



Finally, it is worth noting that one of the reasons for the difficulty of collecting responses was the fact that there are many tasks in campaigns and competitions like save@work that need to be completed simultaneously at the beginning and at the end of the campaign. Thus, one of the solutions could be to allow for a longer time for the completion of these tasks, or to schedule them differently. In Chapter 5 we introduce a slightly altered timeline that could provide at least a partial solution to this challenge.

Country	Response rate for surveys	
	Pre-campaing	Post-campaign
Austria	6,0%	6,9%
Belgium	35,4%	18,0%
France	9,8%	7,3%
Germany	5,6%	6,1%
Italy	28,4%	24,6%
Hungary	35,5%	18,7%
Latvia	39,3%	25,8%
Sweden	30,4%	16,6%
UK	2,3%	4,2%
for consortium as a whole	17,2%	11,9%
average of countries	21,4%	14,2%

Table 4.1: Response rates for the pre- and post-campaign surveys

4.3 Elements potentially missing from the save@work campaign

Both participating employees and local project partners were asked whether they thought there was anything missing from the save@work campaign, something that could have contributed to more energy savings or a more successful campaign. Project partners were also asked if they would do anything differently if they could start the campaign over again. The information provided for these questions provide further ideas as to how to design a similar project in the future.

Post campaign survey: participants' perspective

When asked in the post-campaign survey if they thought anything was missing from the campaign that could have helped save (more) energy, only between 5% (Hungary) and 26% (Belgium), or on average 17%, of the respondents replied with 'yes' as shown in Figure 4.7. Thus, overall, **the majority of respondents therefore felt that there was nothing missing**. In Hungary and the United Kingdom the ratio of respondents missing anything is especially low.

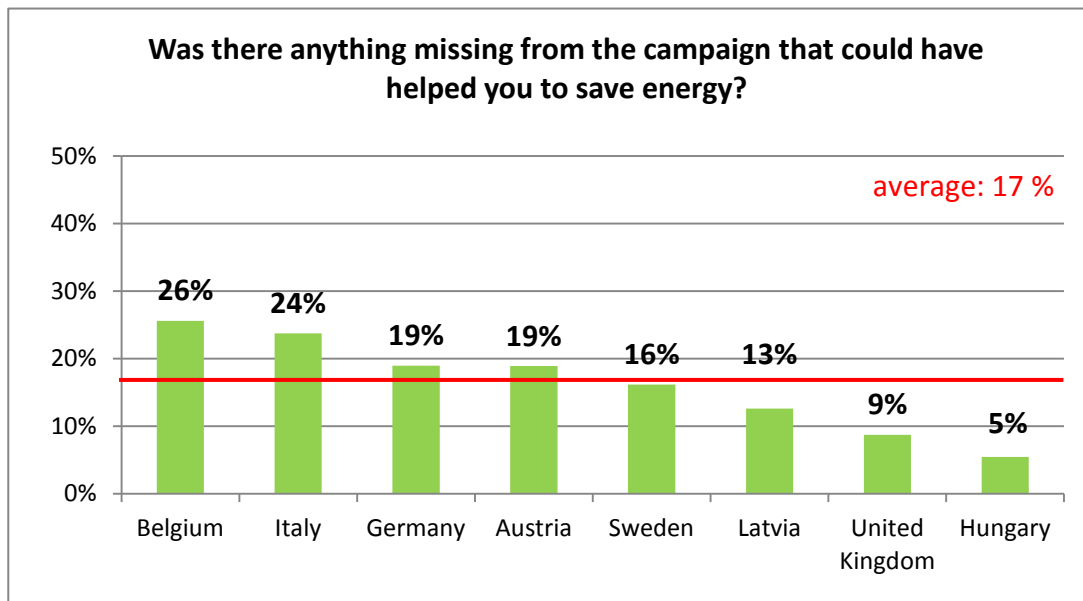


Figure 4.7: The evaluation of whether there was anything missing from the s@w campaign by campaign participants in different countries

89% of those who replied that there were some things missing from the campaign also provided explanations even though this was not required in the survey. Figure 4.8 presents an overview of responses. It can be seen that even here 5% of the responses reinforce the fact that nothing was missing from the campaign. Still, 25% of the respondents who were missing something mentioned that they would have liked **more information**. Many of them said this in a general sense, without providing details as to what kind of information they would have liked to receive. However, those who did provide further details pointed out that **more guidance on how they could set the electric equipment they work with to save more energy** would have been helpful. It should also be mentioned here that out of the 66 respondents who indicated that they would have appreciated more information, 28 were Belgian, the majority of whom – based on the information provided by the project partner – were from a building with a relatively passive Energy Team and a low level of campaign activity.

Respondents also wished for **more support from office management and more active engagement of their colleagues**. Since earlier we showed that respondents felt that support for energy saving from both the management and their colleagues already increased to some extent during the campaign (see Chapter 2, Figures 2.11-2.13), this probably means that some employees still feel that there is room for improvement in this regard. As the involvement and support of management was also mentioned as an important success factor, involving somebody from the top management in Energy Teams could be an effective way of increasing leadership support.

As for having a '*more personal approach*', some respondents expressed a need for more tailored solutions and more face-to-face communication. This and the need for more specific guidance on how to set the office equipment to energy saving mode – also mentioned earlier – all indicate problems that could be addressed by the Energy Teams most effectively in the future (see Chapter 5 for details of our suggestions).

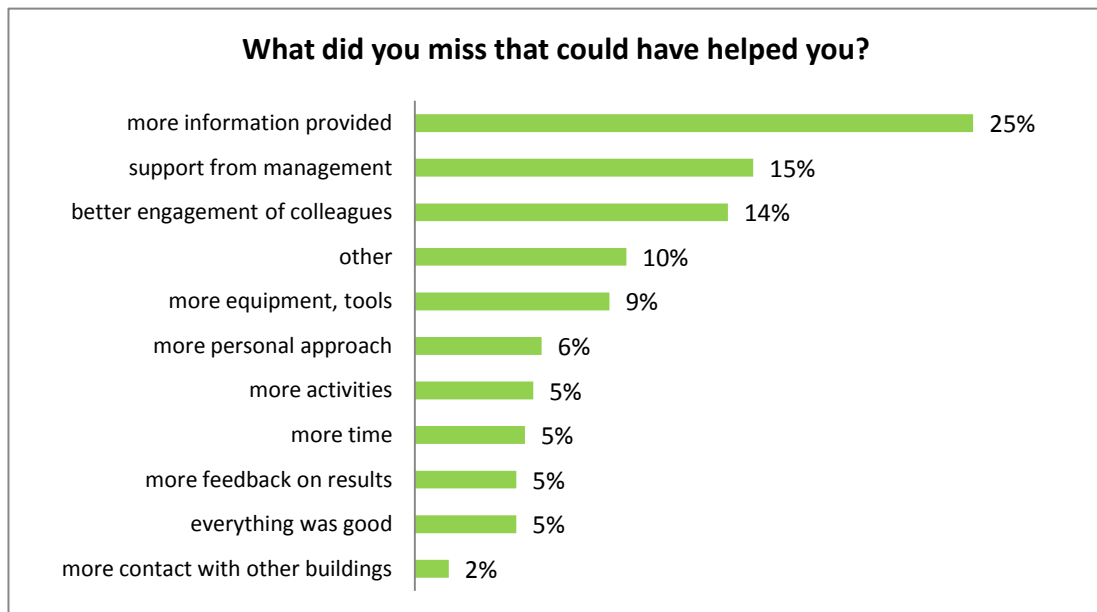


Figure 4.8: Respondents' view of what was potentially missing from the s@w campaign

Self-evaluation survey: project partners' perspective

In the self-evaluation survey project partners were also asked if they felt the need for any additional materials or tools which could have been helpful for the (greater) success of the s@w campaign. The list they could select items from was based on the individual interviews conducted earlier with partners, however, they were also free to add other issues as they felt necessary. The item selected by far the most partners was the need for an **online tool for easier communication during the testing phase of the Energy Saving Tool** (Figure 4.9). We discussed this issue in more details in section 3.2 above. However, it is worth noting here that the complications around the development and testing of the online tool resulted in the delay of presenting it to Energy Teams (e.g. it could not be presented during the initial training workshops in some of the countries), which might at least partly account for the reason why it was not as popular among participants as had initially been expected.

As shown in Figure 4.9, the need to **engage the top management and other colleagues** more closely in the energy saving efforts, partly through providing regular feedback, is - once more - highlighted as partners express the need for a '*tool to engage top management*' and '*tool to display and monitor energy consumption*'.

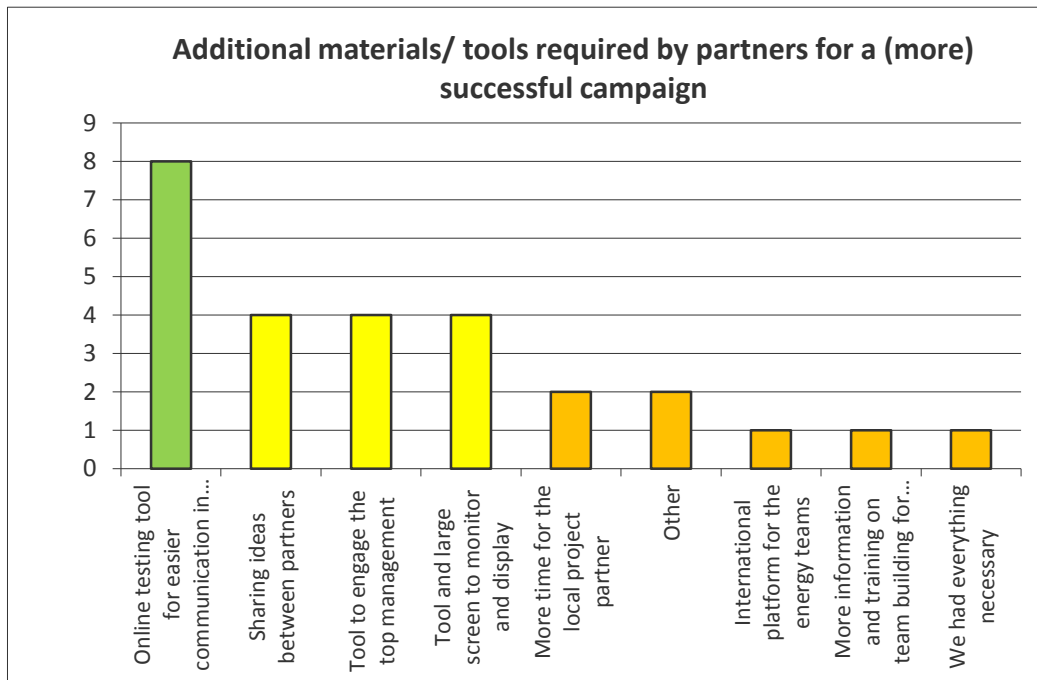


Figure 4.9: Tools and methods potentially missing from the s@w campaign in the opinion of project partners (n=12)

Best campaign questionnaires: Energy Team members' perspective

Apart from the question about potentially missing campaign elements in the post-campaign survey for all respondents, and the self-evaluation survey for project partners, Energy Teams were also asked what they would do differently in a similar campaign as part of the best campaign questionnaires²⁶. Around 60% of the Energy Teams responded with a 'yes' to this, and shared insights that could be placed into six different categories: 1) the organization of the Energy Team; 2) the planning of the campaign; 3) the content of the action plan; 4) communication of the campaign; 5) type of activities in the campaign; 6) interaction with the local save@work partner. Besides, they could also add anything else if they deemed it necessary.

Around 20-30 comments arrived for each of the categories, with the exception of '**organization of the Energy Team**', in which case the number of comments was double this amount signalling the importance of the topic, and 'interaction with the local save@work partner', where there were only 3 comments. This might mean that Energy Teams were very satisfied with the interaction with project partners, although, since the filling in of the best campaign questionnaire was not anonymous (as they constituted part of the evaluation for one of the competition categories) it most probably played a role and respondents might have felt less open about providing feedback related to certain topics.

In relation to the organization of the Energy Teams many comments pointed out that they would **select Energy Team members more carefully**, and would share the workload between members more evenly. As to the desired composition of the differently **selected 'ideal' Energy Team**, **several respondents commented that they would include members from the top management and from**

²⁶ For further information on the different evaluation tools used, please see Chapter 1, section 1.4.

the department responsible for maintenance, or that they would invite at least one member per department. All these aspects have already been emphasized above. It is an interesting contrast, that while seemingly many teams struggled with the ideal member composition, the Strategic Handbook, which contained a number of tips – including advice practically identical to the conclusions just drawn – on this topic, had not been as widely circulated as initially desired. Moreover, it is possible that since the Handbook was distributed at the beginning of the campaign where there were a number of tasks to complete, members of the Energy Teams might have felt overwhelmed to spend time on studying it. Thus, for similar projects in the future it may be useful to either provide the Strategic Handbook in a modular manner (i.e. chapter by chapter as relevant during the campaign) or regularly remind participants about the content, e.g. through specific organization and management tips for the Energy Teams.

Concerning the communication of the s@w campaign several Energy Teams mentioned **that they would want to communicate about the save@work campaign more**: some externally, some making more use of the internally available channels (e.g. intranet), while others mentioned using more kinds of channels or involving the leadership more - again echoing the advice and tips given in the Strategic Handbook. Furthermore, there were Energy Teams from three different countries who emphasized the importance of more **face-to-face communication** in the future.

Two teams suggested that a **national blog for Energy Teams** would be useful to exchange experience. Since there was such a blog site available, maybe the problem was that they could not write on it directly or did not know about the opportunity. However, those who knew about it did not rate the blog to be very useful (see section 4.1). Therefore, it would be worthwhile to reconsider the management and communication of such blog sites in similar future projects and perhaps provide more opportunity for participants to publish their stories on it more directly.

Summary and Conclusions

In summary it can be concluded that all important participant groups - Energy Teams, participating employees and project partners - appear to agree that there are no essential or basic tools and materials missing from the save@work campaign 'toolkit'. However, there are some tools that could be added to further improve the effectiveness of the campaign. One such tool would be a communication tool to help involve the top management more as well as make their involvement and support more apparent to employees to increase their level of activity and motivation. Another opportunity for improving the campaign from the point of view of tools and materials is the changing of the use or some other features of some of the existing tools. One of these is the Energy Saving Tool that could be made more user-friendly. Another example is the Strategic Handbook that should be used in a more step-by-step fashion with regular reminders for Energy Teams about the content as it seems to be very relevant, though not readily accessible as yet. Finally, the blog could be made more readily accessible to Energy Teams for use in more national level communication and information exchange between them.

It is also worth noting that these conclusions are very much in line with those drawn after considering similarities and differences between national level implementations in the nine countries. Consequently, they are important to consider when rethinking the save@work methodology.



CHAPTER 5: Conclusions and recommendations for future projects

In Chapter 5 we come back to the save@work methodology and review it based on the findings of our analysis presented in this report (section 5.1). Following this, we provide practical tips for implementers of (similar) behaviour change focused projects (section 5.2). Finally, we summarize the lessons learnt in the save@work project in five main recommendations (section 5.3).

5.1. Rethinking the save@work methodology: suggestions for an improved plan

Based on the findings presented in this report so far, in this section our objective is to reconsider the save@work methodology and make suggestions for an improved plan that could be used in future campaigns. We do these by discussing the suggested changes one by one as well as including a reconsidered project implementation as well as a materials and tools figure (Figure 5.1 and 5.2, respectively).

Project implementation structure(s): recognizing and learning from diversity

As it became apparent in the save@work project, although all national partners were able to follow the general project implementation plan, there were considerable differences in implementation between partners concerning recruitment, communication, the use of materials and tools, etc. Thus, in a future project we would suggest a **more explicit discussion of the local implementation and communication plans** and the use of tools - such as the drawing of project implementation figures like the ones presented in Annex IV. here - to facilitate this process. Furthermore, it is also useful to start this process as soon as possible, preferably already at the kick-off meeting, and have regular discussions about differences and similarities about implementation throughout the project at project partner meetings. Save@work partners followed this practice, however, through forming specific smaller 'implementation teams' along similarities or differences may help enhance this process further and increase the learning impact. For example, in the save@work project small teams could have been formed based on working with one main authority representing all the participating buildings in the competition (Austria, France, Germany and the UK) or working with several authorities each representing a few buildings (Belgium, Italy, Hungary, Latvia, and Sweden), with the groups first sharing their experience and tools first 'internally' to be able to develop more tailor-made solutions, but then eventually sharing their conclusions with the whole team.

Facilitate a better integration of the project into existing municipal structures

There are several outcomes in the save@work project – in several cases the lack of engagement from top management, lack of time and authorization for employees to work on the project, difficulty of collecting energy consumption data, etc. - that suggest that better integration of project activities into existing municipal structures and processes may help overcome a variety of issues and contribute to success significantly. Furthermore, as it is the overall objective of the save@work project consortium - and we imagine similar project consortiums in the future - to lay the



foundations for long-term sustainable energy use practices in participating buildings, such an integration may be beneficial from more than one aspect.

Thus, there is need for tools to communicate with the top management as well as perhaps an increased number of preparatory Working Group meetings and specific workshops to find ways together with participating municipalities in which such an integration can be achieved. For example, it would be important to link energy saving efforts more to already existing or planned municipal strategies such as climate change and adaptation strategies, environmental strategies, etc. The Strategic Handbook already gives advice on this, and save@work also prepared National Strategy Papers to facilitate this process. In addition, several municipalities participating in save@work already recognized this and took advantage of this, but there is definitely room for improvement.

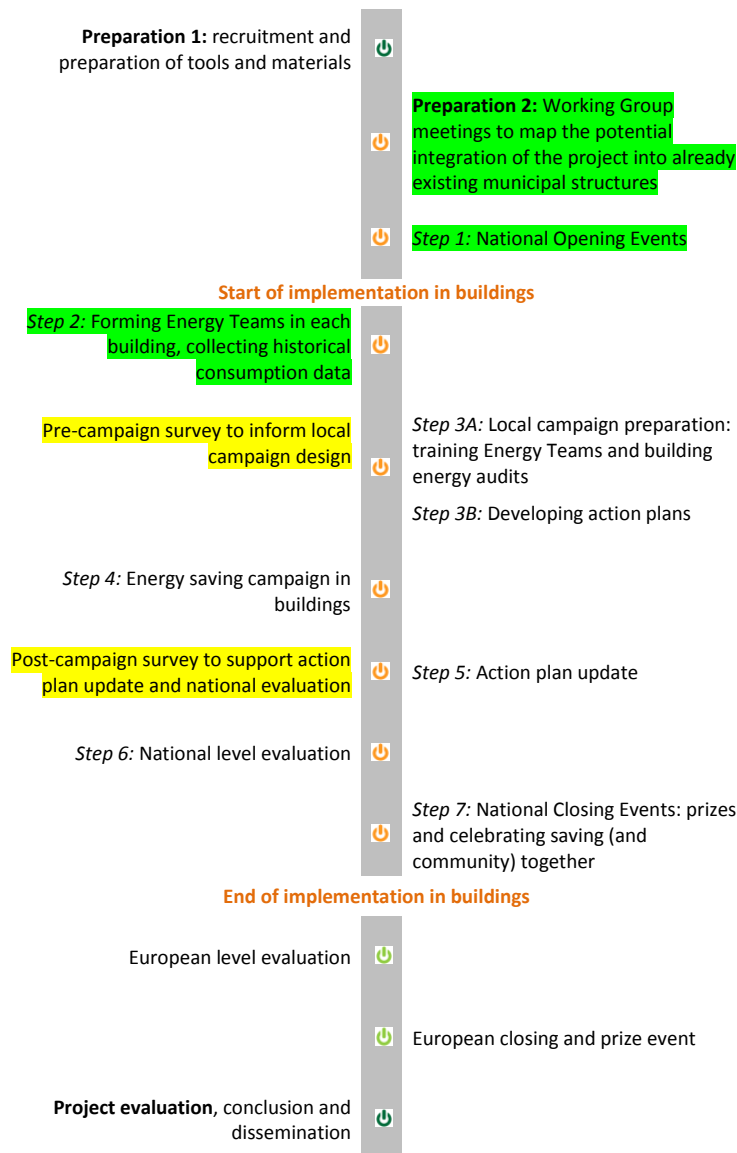


Figure 5.1: Suggested changes in the project implementation timeline
 (Green highlights: steps altered for improved implementation,
 Yellow highlights: evaluation steps altered for improved implementation)

The timing of activities

In the save@work project, especially in the year-long campaign phase, there were too many tasks and activities for participating buildings to complete at the beginning of the campaign: forming Energy Teams, completing baseline assessments (i.e. simple audits), collecting historical energy consumption data, drawing up action plans, involving employees in the pre-campaign survey, holding initial workshops, etc. Thus, we suggest allowing for a sufficiently long preparation phase in order to prepare the competition, and thus, the energy saving phase better. Changing the order of steps may be a good idea to allow for this to happen: as indicated in Figure 5.1 (cf. Figure 1.3), we propose holding the National Opening Events prior to forming the Energy Teams (some participating countries, e.g. Germany and Hungary already followed this practice). This way, the Opening Events could also serve as the finalization of the otherwise often challenging recruitment process: still wavering authorities could be invited as guests and could potentially be convinced at these events. Furthermore, having a face to face event would allow for giving advice and guidance to participants about some of the initial steps, such as forming the Energy Teams, local communication, data collection, etc.

Use existing tools in new ways to help create a more tailored approach

Buildings that participate in campaigns like save@work are often very different: they work to different timelines, they make decisions following different structures, they are organized into different departments, they are very diverse in terms of already existing sustainable energy strategies and processes, their available infrastructure supporting energy efficiency and saving are different, the attitude and knowledge of their employees to energy saving varies, etc. Therefore, it is very important to assist them in developing tailored local action plans - using the general guidelines, tools and materials provided 'centrally'. In save@work we found that **the pre-campaign survey can be an important source of information for helping to create campaigns tailored to local needs**. The contents of the pre-campaign survey need to be planned well in order to provide useful information on existing attitudes and norms to, knowledge and practices of, and barriers to energy saving, motivations for employees to engage in change, etc. This information supplemented with the findings of the baseline assessment (simple audit) and historical consumption data can help draw up locally relevant action plans. The post-campaign survey could contribute to drawing up the revised action plans for the continuation of activities following the campaign period in a similar fashion.

In save@work the original project plan had not yet realized the role of the pre-campaign survey in this, however, adjustments were made during the campaign and extra tools developed to help make up for this. Still, in a future campaign developing a tool to make survey analysis easier and quicker would be very useful. Furthermore, we suggest timing the pre- and post-surveys a little bit differently from their timing in the current campaign - as indicated in Figure 5.1 (cf. Figure 1.7).

Teamwork, group building, Energy Teams

As it was explained in section 1.2, the save@work methodology already recognized the importance of groups in motivating, supporting and maintaining change, creating new norms and practices as well as empowering individuals to become change agents. Thus, communities, especially



the Energy Teams formed in each participating building were already in the forefront. As a result, the Strategic Handbook included chapters on forming and developing groups (see Annex I.), the focus of the first set of energy saving tips was in fact on forming Energy Teams (see Annex III.), group building activities were included in the programme of some of the National Opening Events (e.g. in Latvia) or the initial training workshops (e.g. in Hungary). Still, based on feedback from participants as well as the top management who all recognized that **group building is an important part of energy saving activities, group building and development could have an even more prominent position in similar campaigns in the future**: it could become the part of a follow-up training workshop for Energy Teams or be incorporated into the programme of midterm events, and a separate set of tips could be developed specifically to help build, develop and maintain groups, partly using already available materials and information in the Strategic Handbook. Potentially, group building and development could become part of the Green Clicks tool as well. This is all the more important since teamwork and working groups were found to play an important role in creating not just useful, but also enjoyable energy saving campaigns (see more details in section 4.1).

Materials and tools reconsidered

As it was discussed above, there were no essential or basic tools missing from the save@work project methodology. Our most important finding was that **the use of several tools could be made more effective in different ways**, most of them discussed already in Chapter 2 and 4. Here, we would like to emphasize once more the challenges surrounding the development and use of the online Energy Saving Tool and the conclusion of the save@work consortium that in a similar project it may be useful to consider using (and potentially improving) an already existing calculation tool. Moreover, in order for such a tool to be used by project participant groups, it is important to make it user-friendly, and thus **test it (i.e. pilot it) with user groups** (in the case of s@w, municipal employees) not only with project partners.

Furthermore, there are some tools that could be developed in addition to the ones already existing, or based on the ones already existing. We mentioned such a development for

- 🕒 facilitating the discussion of national (or local) project implementation structure;
- 🕒 the pre- and post-campaign surveys;
- 🕒 group development tips and training workshops; and
- 🕒 regular national newsletter to keep important project stakeholders, e.g. the management of buildings, updated about the progress of project (we described above in section 2.2 that such a tool was already used by some partners in Austria, Latvia and Sweden).

These tools are all marked in capital orange letters in the reconsidered project materials and tools figure (Figure 5.2 cf. Figure 1.4).

Finally, additional tools could be used to encourage and facilitate the sharing of experience and ideas at the international level between project partners as well as Energy Teams and potentially even between interested employees and/or members of management. An international blog was already part of the save@work methodology, however, through the tools used in the evaluation process a suggestion came up for an online discussion group either as part of the internal project website or a separately established closed group in a social media platform. Such groups can be very



successful if they are communicated and moderated well and may enhance the experience of all participating groups.


<p>Materials for Energy Teams:</p> <ul style="list-style-type: none"> 📌 Starter Kit: <ul style="list-style-type: none"> • Measuring devices (e.g. energy meter, thermometer, etc.) • Promotional materials 1: flyers, posters, door-hangers, stickers • Promotional materials 2: chocolates, mugs, bags, etc. 📌 MODULAR Strategic Handbook 📌 GROUP BUILDING, COMMUNICATION AND MANAGEMENT TIPS 📌 Biweekly thematic saving tips 📌 Simple audit template 📌 Action plan template WITH GUIDE 📌 Templates for activities and communication (quizzes, letters, posters, etc.) 📌 Challenges 	<p>Online tools:</p> <ul style="list-style-type: none"> 📌 website 📌 Energy Saving Tool 📌 Green Clicks 📌 Blog 📌 CLOSED GROUP FACILITATING DISCUSSION BETWEEN PARTICIPANTS 	<p>Events:</p> <ul style="list-style-type: none"> 📌 Initial training workshop for Energy Teams (and interested employees) 📌 FOLLOW-UP TRAINING WORKSHOPS (e.g. on group development) 📌 National Opening Event 📌 Working Group Meetings ❖ National Midterm Event 📌 National Closing event 📌 European Prize Event
<p>save@work tools, materials and methods</p> 		
<p>Communication and dissemination:</p> <ul style="list-style-type: none"> 📌 COMMUNICATION TOOLS FOR ENGAGING THE MANAGEMENT ❖ NATIONAL NEWSLETTERS FOR MANAGEMENT (AS WELL AS DISSEMINATION PURPOSES) 📌 Press releases ❖ Pre-campaign survey report ❖ Pre-campaign survey report for participating buildings/authorities 📌 National brochure on campaign and results 📌 European brochure on campaign and results 📌 Meetings with authorities not yet involved in campaign 📌 National strategy papers 📌 Presentation on final report on campaign, results and lessons learnt 		
<p>Evaluation:</p> <ul style="list-style-type: none"> 📌 PLANNED DISCUSSIONS ON LOCAL PROJECT IMPLEMENTATION STRATEGIES 📌 Pre- and post-campaign surveys: SURVEYS TO SUPPORT ACTION PLAN DEVELOPMENT 📌 EASY TO USE SURVEY ANALYSIS TOOL FOR PARTNERS ❖ Template for pre-campaign survey report for participating buildings/authorities 📌 Best campaign questionnaire 📌 Self-evaluation questionnaires (mid-term and final) 📌 Final report on campaign, results and lessons learnt 		

Figure 5.2: Tools, materials and methods reconsidered for the s@w methodology (Items marked with ❖ were not planned originally but were included already in the project. Items highlighted in orange are newly proposed for the reconsidered methodology.)

5.2. Practical tips for (behaviour change) project implementers

This section is intended to be a 'storehouse' of ideas and tips as well as serve as a kind of checklist for project implementers. It is based on the experience of the save@work project consortium and the lessons learnt in the project. Thus, it is supported both by practical experience of working with authorities, Energy Teams and public employees and our research into our impact, successes and challenges using a variety of qualitative and quantitative methods. The ideas and tips are grouped into different categories. Neither the order of categories nor the number of tips they contain is indicative of their importance.

Recruitment

- 📌 **Map recruitment strategies in your consortium** and share ideas and tips for effective and motivating communication strategies. Use the save@work Strategic Handbook as a starting point for this.
- 📌 **Plan your recruitment process well giving yourself sufficient time:** a lot of things will later be determined by how your recruitment goes (commitment to the project, motivation of participants, understanding of project, etc.).



- 🕒 **Letters of Intent**, signed by the leadership of the public buildings for proposal submission, are important but they are not sufficient for ensuring participation. They need to be confirmed as soon as possible once the project proposal is accepted.
- 🕒 In addition to Letters of Intent it is important to have a **recruitment plan** in place with sufficient time allowed for press releases, face to face meetings, etc.
- 🕒 In order to gain positive commitment from the management include a tool and more strategies to engage them. This is important as later on you will need positive communication from the management to the employees.
- 🕒 Think ahead about your **target group**: what kind of municipalities, departments and buildings do you wish to engage with? Adapt the recruitment method to match the needs of the target group, and fine-tune the method during the recruitment phase.
- 🕒 Once the management is ready to participate, sign **participation and co-operation agreements** with them detailing what both parties need to do to ensure success. Make sure time and resource requirements are clear to the management, and ask them to grant sufficient time for their employees to work on the project.
- 🕒 Discuss how the **project fits into the already existing strategies**, plans, processes, etc. of the municipality and find common goals, processes, etc.

Timing

- 🕒 Your participants, e.g. buildings will progress with project activities and through project steps at their own pace. It is always a challenge to keep to a common timeline between countries but it can be surprisingly difficult to keep to a common timeline between participating buildings within one country. The solution is to allow for flexibility in your plans while you have concrete and well-communicated deadlines for tasks.
- 🕒 Prepare a project timeline for the recruitment stage so that your participants know what they are signing up to. Regularly update this timeline and communicate all updates very clearly to all participant groups.

Communication

- 🕒 Map the different types of communication activities you will need to do (with management, with Energy Teams, with employees, with the media, etc.) and the different tools necessary for their success.
- 🕒 **Do not underestimate the importance of face-to-face communication** at all levels and for all purposes: with management, with Energy Teams and with employees. It is important, effective and enjoyable to meet in person whether that be in meetings, training workshops or larger events.
- 🕒 **Facilitate the exchange of experience**, both good practice and challenges at all levels: local, national and European.
- 🕒 **Establish different channels** for the exchange of experience: online in the form of a blog or closed group, and offline at community events including group discussions.
- 🕒 **Use several communication channels** for communicating the same message: people prefer and respond to different channels, and you do need to **repeat even the simplest message**. Be creative!



- 🕒 Maintain **regular communication** with and provide **feedback** to the important participant groups in the project: to the management (newsletter, Working Group meetings), to Energy Teams (emails, phone calls, events, etc.) as well as employees.
- 🕒 Facilitate the communication of your local participants (i.e. Energy Teams) by providing them with communication tools and ideas: remember, they are not experts! The save@work Strategic Handbook can help with ideas.
- 🕒 Spend enough time and resources on **dissemination**: it is motivating for participants to read and hear about 'their' project in the media.

Events

- 🕒 Events are important and can contribute to the success of your project, so make sure to have them and prepare for them carefully. They are great for: information exchange, providing motivation, networking, dissemination, and if organized well, for team building.
- 🕒 Plan with and **organize different types of events**: local, regional (if relevant), national and in a European project: international as well. Although participants are sometimes challenging to recruit, in the end they always find them motivating.
- 🕒 If your project includes a longer campaign period (9-12 months), plan with Opening, Midterm and Closing events. Use the Midterm event to strengthen motivation, share experience and provide feedback as well as additional input.
- 🕒 Encourage the local teams to **organize various local events**: lunches for employees, talks, quizzes, plant swaps, baking and writing contests, bike to work events, Christmas parties, etc. They all **help build a supportive community, motivate employees** as well as create a sense of enjoyment and positive atmosphere around sustainable energy use - on top of raising the level of awareness.
- 🕒 Entrust participants with presenting their own stories, challenges and achievements even if they seem reluctant at first.
- 🕒 Organize your events in a way that fits the focus of your project. i.e. make sure to **organize 'green' events in a sustainable energy project**.

Creating and training local teams (Energy Teams)

- 🕒 It is much better to **have a local team to implement** a behaviour change campaign than just a single responsible person: in groups responsibility can be shared, more skills are available, they can empower people and individuals do not feel alone with the task.
- 🕒 Allow a sufficient amount of time for the forming of the local team and facilitate the process with training, tips and advice. The save@work Strategic Handbook includes some useful materials for this.
- 🕒 Help select the members of the Energy Team carefully: make sure that different departments are represented, different skills are available, responsibility can be shared, etc. If possible, invite a member of the management and a more technically oriented person (ideally the building or energy manager) to join.
- 🕒 Make sure that the tasks and responsibilities of the local team are clear and the workload is shared as evenly as possible. Ask for a designated point of contact, preferably more than one person in order not to lose contact if someone leaves or is on holiday.



- 🕒 **Train the local teams well:** one training event will probably not be enough. It is important to train them not only in expert matters (i.e. how to save energy, how to collect energy data, how to use the project tools, etc.) but also in management and team building ideas (e.g. how to plan a campaign, how to develop their group and deal with disagreements, etc.).
- 🕒 Besides energy saving tips, also **provide management and team building tips** developed specifically for facilitating the work of the local teams.
- 🕒 **Communicate with your local teams regularly, but also visit them.** It is best to do the baseline assessment and the basics of the action plan for the campaign together with them.
- 🕒 Provide tools and materials to help the work of teams: measuring devices (e.g. energy meter, thermometer), promotional materials (e.g. flyers, stickers, chocolates, textile bags, mugs, etc.), example quizzes are very useful and appreciated. Check the save@work Starter Kits for inspiration.
- 🕒 Allow for and create opportunities as well as tools for local teams to share their experience: through online tools as well as face to face events.
- 🕒 Provide regular feedback to your local teams on their progress: they need constructive feedback on all aspects of their work (energy saving, challenges completed, action plan content, etc.) to be able to stay motivated and focused.
- 🕒 Be prepared that some of your local teams may lose their motivation and focus during the campaign. Share ideas in your project team for getting over them. Here are some from save@work: regular contact, challenges, feedback, events, and sharing between teams.
- 🕒 Reward your local teams: it is useful and can be motivating to have smaller prizes for the best completion of some tasks (e.g. pre-campaign survey, challenges).

Group and community building

- 🕒 Group-based activities as well as **group and community building** are very important in behaviour change programmes for several reasons (e.g. people see that they are not alone, they receive encouragement and motivation, they develop solutions together, etc.), so make sure to include them in your campaign. Building a cohesive employee group is almost a prerequisite for behaviour and practice change based energy saving efforts: cooperation is needed to change automatic unsustainable practices.
- 🕒 In changing behaviour, **creativity, enjoyment and comfort** play a big part: people are more likely to take up a new practice if it not only saves energy but also contributes to their well-being.
- 🕒 Help participants realize that they are not only **part of a local, but also a national and European community**, the members of which of want to contribute to more sustainable energy use. This provides motivation as well as the realization that each small step counts if it is carried out by lots of people - their efforts add up.
- 🕒 Having a competition element in campaigns can help provide additional momentum and motivation to change, especially if the competition is organized between groups who otherwise cooperate. Local teams from different buildings will (hopefully) be motivated to do at least as much as teams in other buildings, so make sure to provide feedback to them. Be careful, though, to keep a healthy balance between the collaborative and the competitive aspects of the campaign.



Tools and materials

- 🕒 It is very useful to have centrally developed tools and materials in the context of a European project. However, make sure to **adapt the materials to the local context both in content and time of delivery** (e.g. energy saving tips developed for heating may be needed at different times in Italy and in Sweden). You can find a lot more information and examples of this if you review save@work materials and tools in Chapter 1.2.
- 🕒 Some of your materials may need to be adapted more than others, depending on the local context, and the infrastructure, knowledge and skills available there. For example, if you have automated lighting in a building, your lighting tips will need to be very different to those buildings with no automation. Make sure to introduce and explain the use of tools and materials, giving examples on why and how they are to be used. Remember, the members of the local teams are not experts, thus the reason for having some of the tools or the value of these tools may not be obvious to them.
- 🕒 **Prepare guidebooks to ease the use of your more complicated materials** (e.g. online energy saving tool) or those requiring expert knowledge (e.g. action plan template).
- 🕒 Enable and encourage **local teams to prepare their own materials**, e.g. by providing templates and examples (you may want to get inspiration from the save@work templates provided to Energy Teams). Encourage the sharing of ideas for new materials between the local teams.
- 🕒 If possible, **test and pilot the most important tools** with members of the target group to ensure that they are as user-friendly as possible (e.g. you may want to do this with online tools such as the energy saving tool or the Green Clicks tool in save@work).
- 🕒 **Provide regular feedback from energy consumption tools**: this way you provide reports on progress and also provide an example on how the tool can be used (i.e. your local teams can use it in a similar way when they report to the management and the employees).

Evaluation and data collection

- 🕒 In energy consumption reduction campaigns you will need to have access to reliable data, preferably on historical as well as current consumption. However, **never assume that data is readily available!**
- 🕒 As soon as you start the project, start investigating the availability of data, and **make it a condition for participation** if you can.
- 🕒 If possible, involve the persons with access to energy consumption data as part of the local teams; this will save you a great deal of time and effort.
- 🕒 **Include an evaluation component** in your campaign: if possible both the evaluation of the impact of your campaign (e.g. pre- and post-campaign surveys) and that of your own efforts (i.e. self-evaluation).
- 🕒 Pre- and post-campaign **surveys** - if planned and used well - **can also contribute to the preparation of local action plans** for the campaign and its future in the target group. Well-planned surveys can help make your campaign be even more responsive to the local context.
- 🕒 **Communicate the outcomes of your evaluation** amongst your stakeholders, it is an important part of the feedback that you share with them.



5.3. Summary and Conclusions

Based on the experience of the save@work project as well as the analysis presented in this report including the numerous successes as well as the challenges that needed to be overcome, we have drawn the following **5 most important lessons learnt and recommendations** for future behaviour change projects focusing on energy use - or, indeed, on any other area of practice.

🔥 **INTEGRATE AND MAKE IT THE NORM:** behaviour (or practice) change related activities work best if they are integrated as much as possible into everyday processes, tasks, job descriptions and strategies. Employees need to see them as part of their job and not have to worry about spending time and effort on it in their free time or taking away time from their 'regular tasks'. This way sustainable energy use behaviour can become the new norm that everyone strives to achieve as part of their work.

Integration, however, should not mean that no special and/or additional activities, training, events, etc. are needed to achieve sustainable energy use.

🔥 **BUILD COHESIVE GROUPS AND EMPLOYEE COMMUNITIES:** both research and practice, including our experience in save@work, point toward the importance of small groups and communities in changing, supporting and maintaining more sustainable (energy use) behaviour and practices as well as being a source of enjoyment, fun and learning. We know, groups do not become cohesive by themselves, therefore, as part of any campaign it is of vital importance to spend time and effort on building cohesive groups and employee communities through specifically focused activities and training as well as through creating opportunities where groups can develop naturally.

🔥 **KNOW WHAT YOU WANT TO CHANGE:** in order to be able to know whether efforts to change energy use behaviour and to reduce consumption are successful, we need access to historical and current energy consumption data. If no data management system exists yet, campaigns like save@work can help with setting up simple processes and establish responsibilities for managing them, which seems to be a general need identified by the project.

Furthermore, data and information are also needed on behaviour, practices, skills, knowledge and infrastructure specific to local contexts, and supporting or hindering sustainable energy use. Uncovering them should constitute an important part of the baseline assessment.

🔥 **CHANGE AND LEARNING NEW THINGS CAN BE ENJOYABLE:** changing routine and habitual behaviour and practices poses challenges. Thus, connecting the necessity for change and learning new things with enjoyment, increasing comfort and well-being is important. Participants in the save@work project acknowledged the existence of this connection: learning new things and becoming more aware were important motivations for joining the campaign as well as important sources for enjoyment.

🔥 **RECOGNIZE AND BUILD ON DIVERSITY:** in a European campaign it is important to follow a shared timeline, structure and content. However, it is just as important to allow for flexibility thus provide methods and tools tailored to local contexts and circumstances. This should be seen as an opportunity for learning and sharing, and campaigns should include opportunities to reflect and build on the resulting diversity that can help enrich the learning experience of all participants. Self-evaluation methods proved helpful in save@work for recognizing and appreciating diversity.



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ANNEXES

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ANNEX II: DESCRIPTION OF THE STARTER KITS FOR EACH S@W PARTICIPATING COUNTRY

Austria	Smart Plug In	Plugbars	Electricity Meter	rs (3 different ver	Cloth Bags	Mugs	Doorhangers							
	26	78	26	1170	250	156	260							
Belgium	Energy meter type 1	Energy meter type 2	Timer	Room thermometer (min & max)	Extension Cord with on/off button	SDHC cart (for energy meter type 1 = data logger)	luxmeter	Sticker (2 types)	Sticker with logo (to personalise the energy meter, timer etc...)	Chocolate with logo and 'thank you'	Mugs with project logo & logo energy team	Bags	1 or 2 items to decide that will be developed during the campaign	
	23	23	23	23	22	22	1	1200	200	5000	144	30		
France	Lux meter	wattmeter	Fridge thermometer + room thermometer	Thermo hygrometer	multisoket plug	s@w Stikers+ briefcase	doors hanger x1 or 2 versions	sticker x3 version						
	21	21	21	21	21	21	1000	1000						
Germany	Energy-saving thermometer	Stickers - 2 versions	Door hangers	Fridge thermometer	Thermo-Hygrometer	Badges E-Team	Energy measuring device	Chocolate treat	multiple socket plug	Note - due to the large no. of participants, we might need to order more stuff as the competition progresses				
	1000	3000	1000	60	60	200	30	1000	40					
Hungary	Energy meter	Power strip with switch 1-2 sockets	Power strip with switch 4 sockets	Thermo- and humiditymeter	Linen bags	Stickers	Door hangers	Fridge thermometer	Mugs with project logo					
	65	17	65	60	200	5600	1000	20	400					
Italy	Energy meter	Stickers s@w logo - small	Stickers Energy Teams	Stickers - s@w slogan	Biodegradable plastic Bags	Stickers s@w with energy saving tips	Fair trade chocolate and candies box	Magnets s@w	button pins s@w	reminder stickers for meters readings sheet (each sheet 24 stickers)	Summary of ET activities before, during and after the campaign +			
	25	2000	1000	1000	200	1500	20	1000	2000	30	20			
Latvia	Energy meter (wi-fi)	CO2&thermo&humidity meter	Lux meter	Stickers x 3 versions	Door hangers x 3 versions	Chocolate treat x 6 versions	S@W badges							
	20	20	20	1050	600	1200	150							
Sweden	Small "table-stands"	Stickers "turn off light"	Stickers "Turn off computer"	Sticker with various energy saving messages	badges with various energy saving messages	Large "table stands"	Chocolate treat "Thank you - you are good at energy savings"	Dish cloth "I prefer to work full"	Posters	Energy meters	Paperbags			
	4000	1500	1500	2000	1000	400	7000	400	100	20	400			
UK	Posters	Stickers x 3 versions	Door hangers x 2 versions	Owl Monitors	Ecobuttons	Edimax smart plug	Room thermometer	Fridge thermometer	Individual Socket Monitors					
	140	2400	1200	3	50	20	100	40	50					



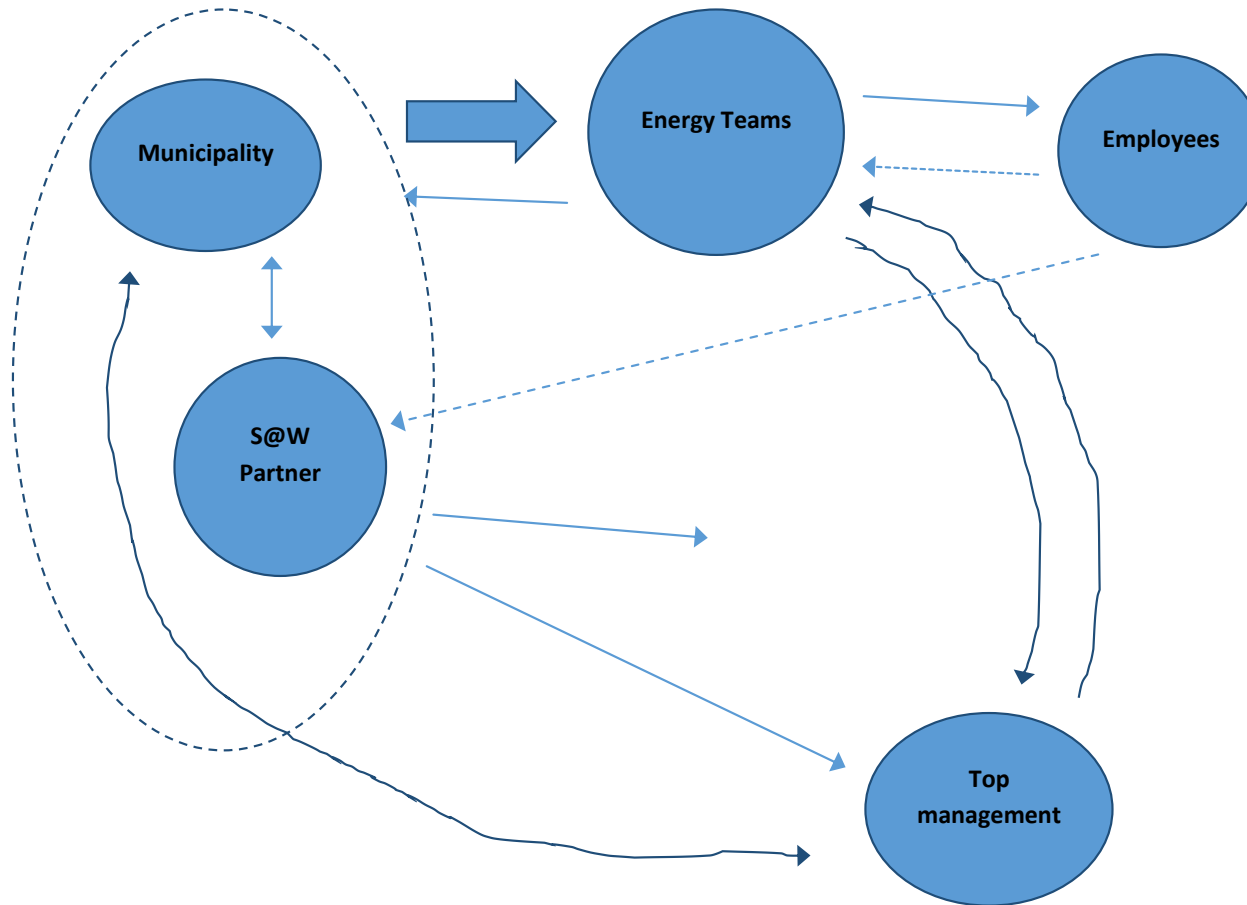
ANNEX III: LIST OF TOPICS FOR ENERGY SAVING TIPS IN S@W

No	MONTHS	TIPS
1	March 2016	Green team building , initial energy check, action plan, etc. - partly based on the strategic handbook
2	March 2016	Electricity use - general guidelines and principles
3	April 2016	Computers, laptops, monitors
4	April 2016	Lighting - general guidelines
5	May 2016	Printing and copying
6	May 2016	Other electric office equipment
7	June 2016	Out of office (holidays)
8	June 2016	"Cool rooms": Cooling and air conditioning
9	July 2016	Do a night walk to detect unnecessary energy consumption
10	July 2016	Office environment (park, garden, greenery)
11	August 2016	Water use – kitchen, toilets, bathroom
12	August 2016	Travelling to work / elevators
13	September 2016	Heating - general guidelines, maintenance
14	September 2016	All kinds of office supplies (incl. Paper)
15	October 2016	Furniture and Plants
16	October 2016	Heating - what else can you do?
17	November 2016	Lighting - what else can you do?
18	November 2016	Holiday season, Green celebrations
19	December 2016	Green charity/volunteering
20	December 2016	Ventilation and air quality
21	January 2017	Kitchen, food and drinks (for office employees)
22	January 2017	Being @ meetings: energy consumption of your workstation
23	February 2017	Organizing and Catering green events - meetings, workshops, public participation events, cultural events, etc. (events that municipalities usually organize)
24	February 2017	Next steps after Save@Work

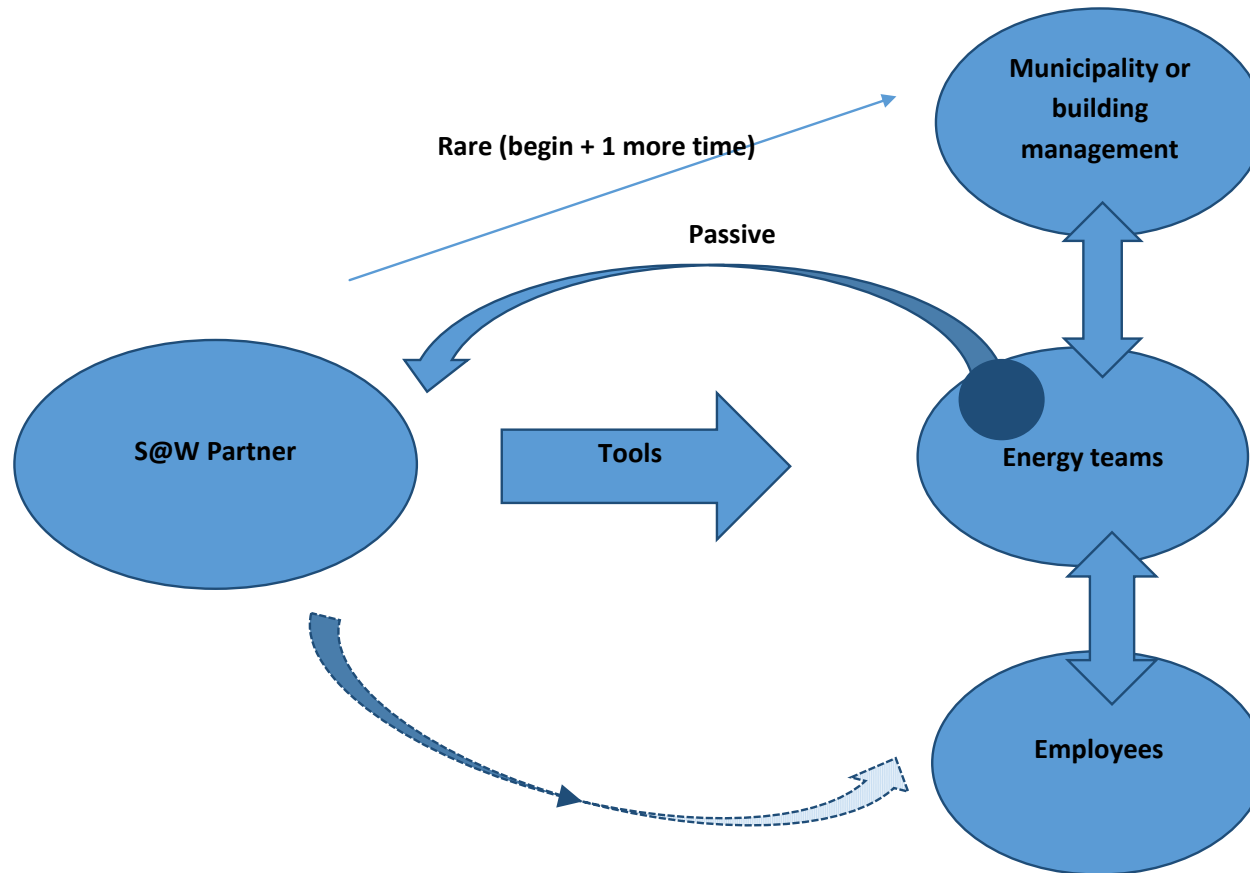


ANNEX IV: PROJECT IMPLEMENTATION AND COMMUNICATION FIGURES FOR THE 9 COUNTRIES PARTICIPATING IN S@W

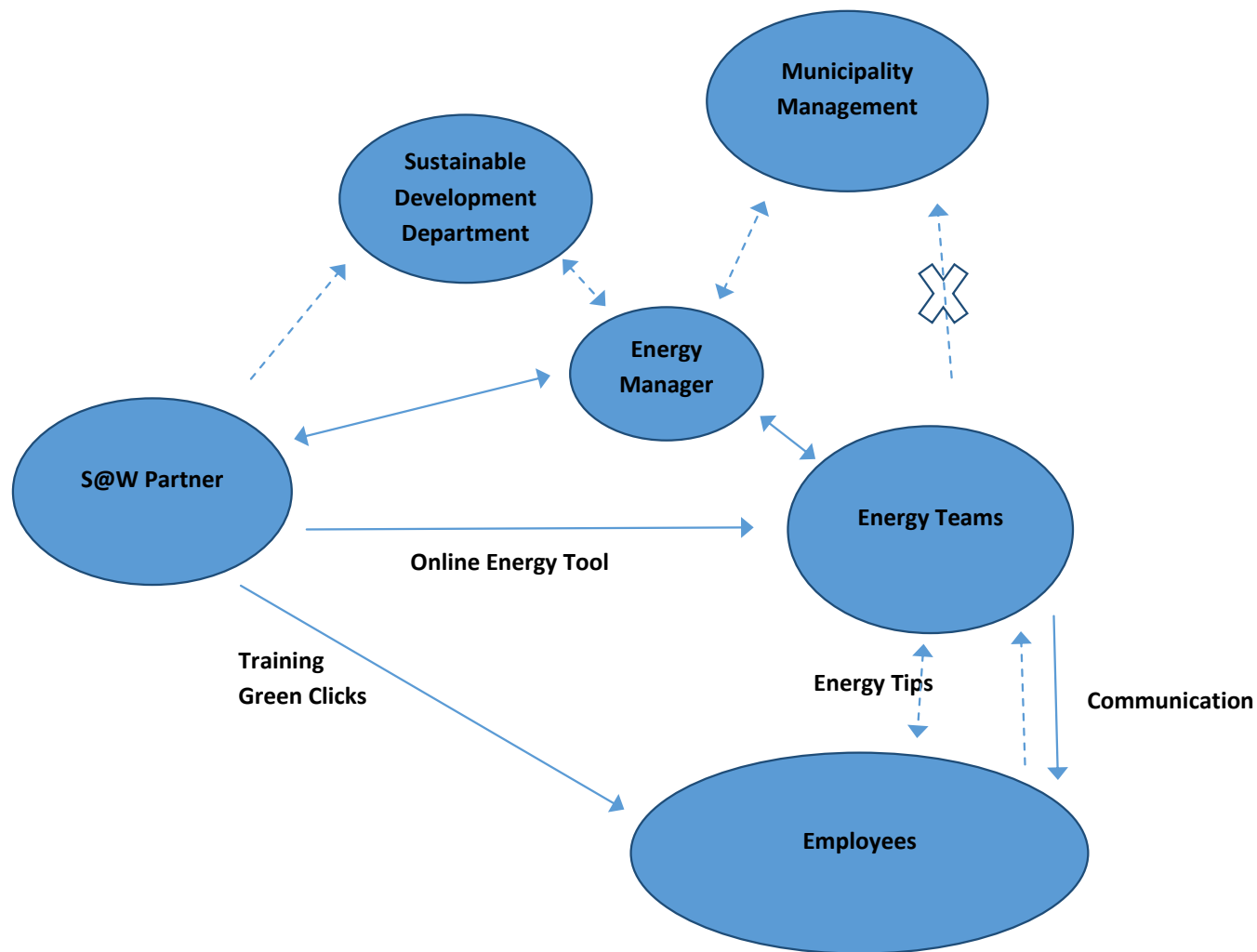
s@w Austria



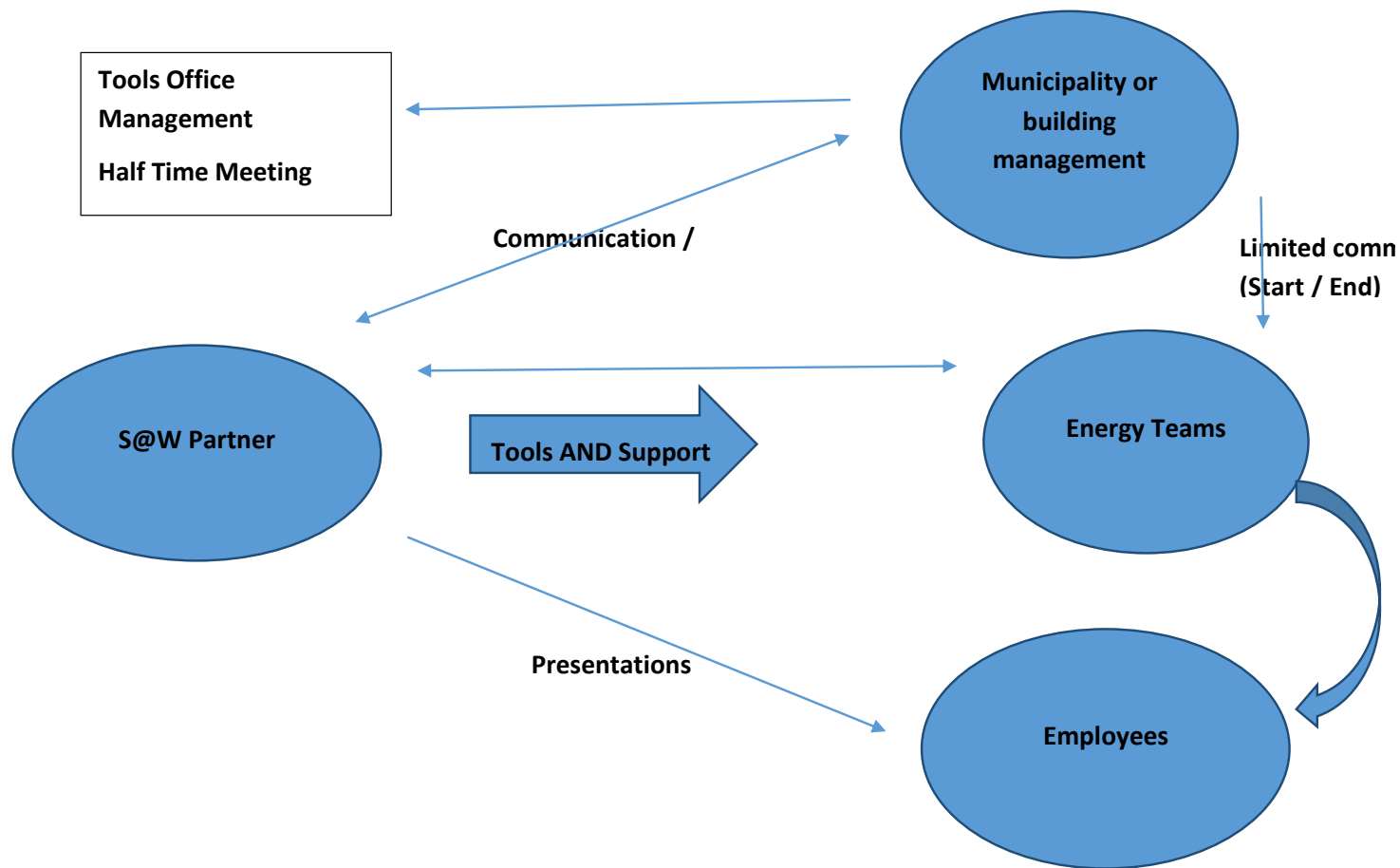
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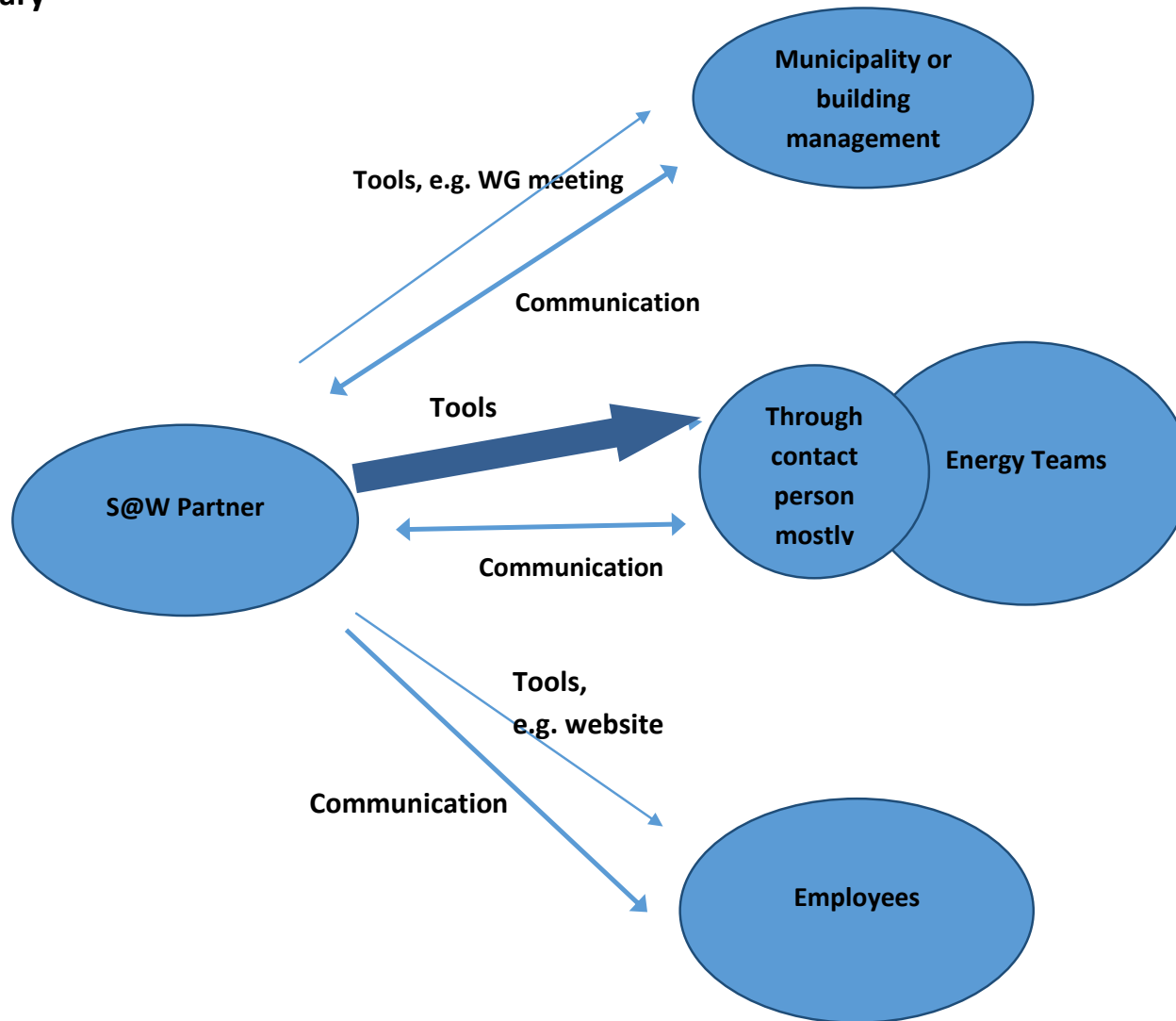
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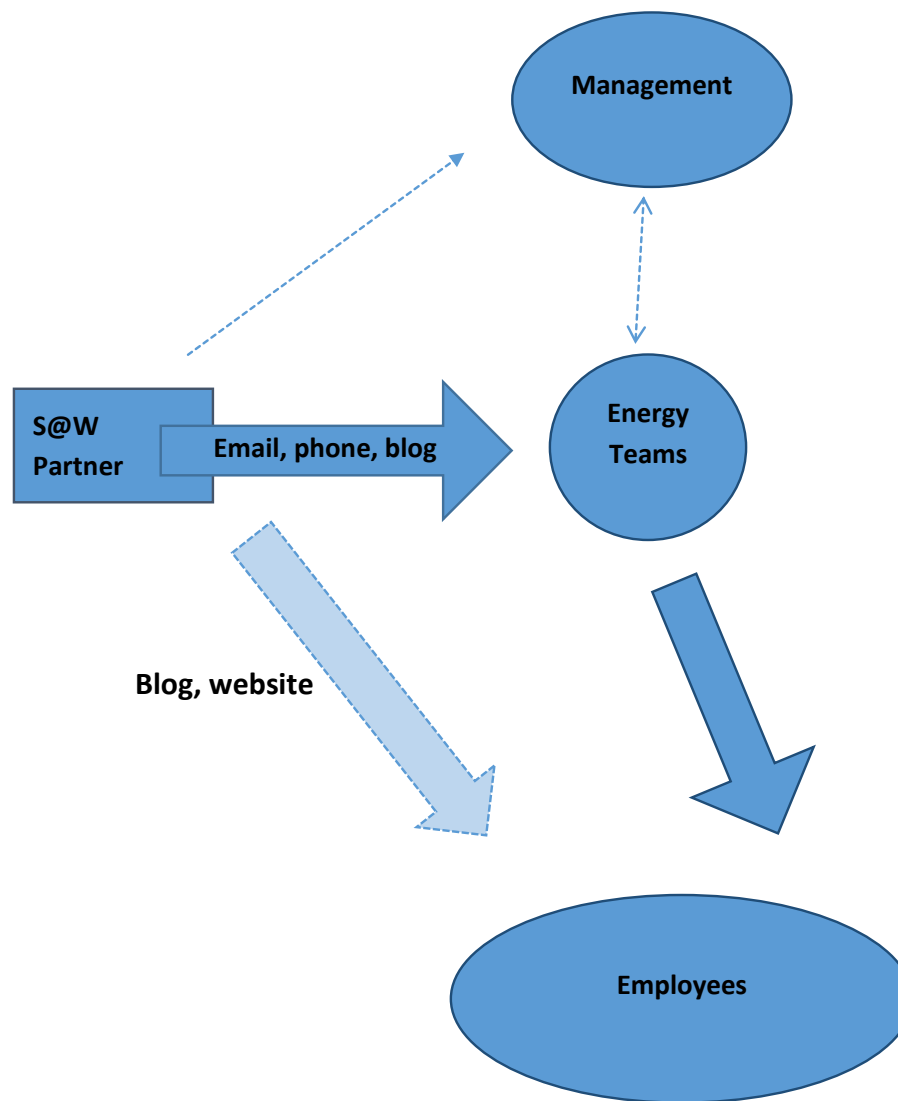
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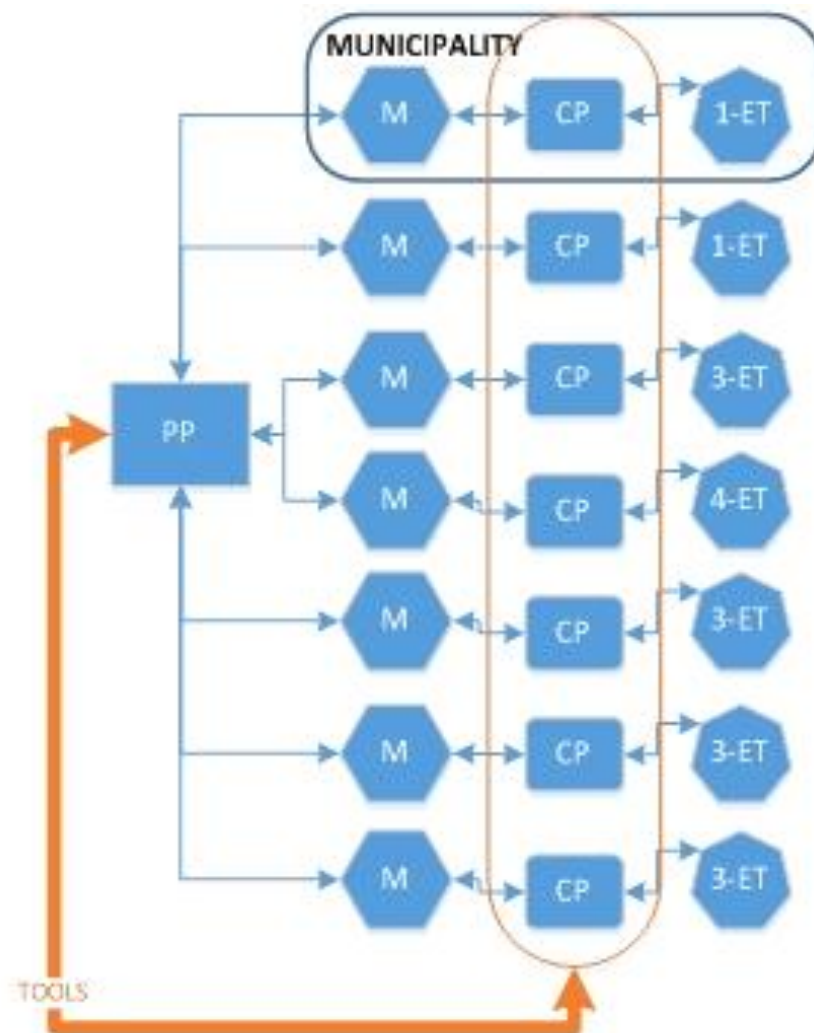
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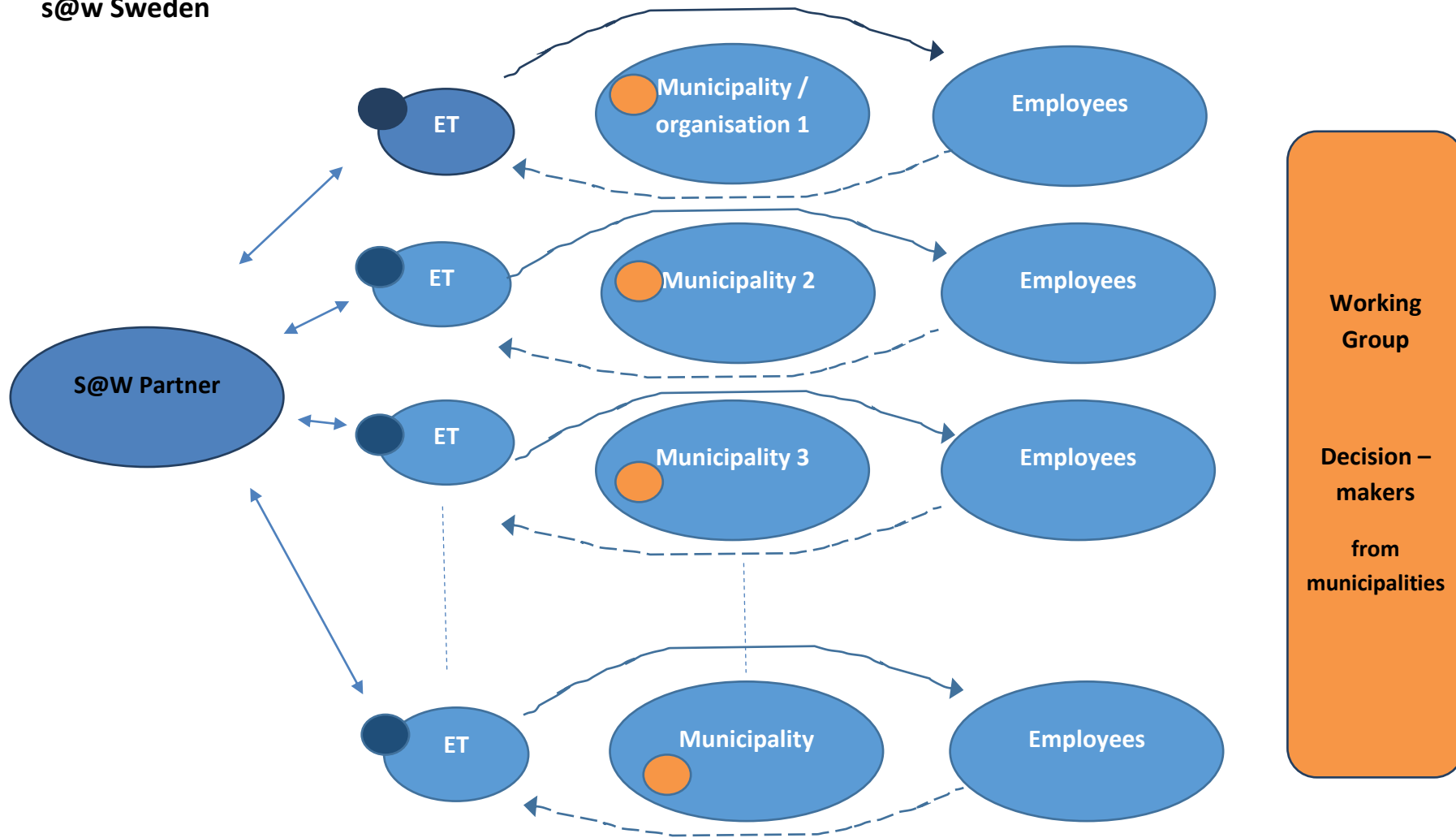
s@w Italy



s@w Latvia



s@w Sweden



s@w UK

