SPEEDIER

SME Program for Energy Efficiency through Delivery and Implementation of EneRgy Audits D7.1 - SPEEDIER BEST PRACTICES GUIDELINES FOR SMES AND LARGE ENTERPRISES IN EU

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Abbreviations

- CEP Clean Energy for all Europeans' Package
- EC European Commission
- EED Energy Efficiency Directive
- ECM Energy Conservation Measure
- ESCO Energy Service Company
- MS Member States
- NEEAP National Energy Efficiency Action Plans
- NECP National Energy and Climate Plans
- SME Small and Medium sized Enterprise
- WP4 Work Package number 4 is about Development of content for SPEEDIER training materials
- WP5 Work Package number 5 is about Implementation of SPEEDIER Service in SMEs and large enterprises in 4 pilot regions
- WP6 Work Package number 6 is about Training of SPEEDIER Experts and future Trainers on SPEEDIER guidelines



Executive Summary

SPEEDIER is a highly innovative one-stop-shop solution that applies an integrated approach to SMEs energy management, providing information, advice, capacity building, energy auditing, financing, implementation of energy efficiency solutions and monitoring of impacts. The developed solution is being piloted and evaluated in SMEs in four pilot countries: Ireland, Italy, Romania and Spain.

The SPEEDIER system aims to support the EU in achieving its energy efficiency objectives by providing a means of easy uptake of energy auditing and implementation of suggested energy saving measures.

SPEEDIER delivers a self-financing outsourced energy management service enabling SMEs to implement energy conservation measures and to obtain access to the energy services market. The Service is available via energy consultants, auditors and experts and streamlines for SMEs the process of identifying and implementing Energy Conservation Measures (ECM) by outsourcing all time-consuming energy management activities that require technical expertise to a SPEEDIER energy expert.

This report will be a reference document for enterprises, to assist them in identifying and implementing actions to improve their energy efficiency measures.

In the first part of the document, results of the qualitative and quantitative analysis of the interviews that were carried out with a selection of SMEs from the different pilot sites and they have been qualitatively analysed. A series of lessons learned have been extracted and are further developed throughout the report.

This document also provides examples of best practices in the different sectors that have been extracted in the four pilot countries: Ireland, Italy, Romania and Spain, regarding the integration of ECMs. Twenty examples of small-to-medium size SMEs, which have implemented an energy conservation program are documented.

As part of this deliverable, best practices are extracted from the experience carried out in the SPEEDIER project. In this light, it was decided to approach the reporting from the point of view not only of SMEs but also of the energy experts, since they play a very important role in the SPEEDIER Service.

Section 4 is of particular interest for the experts, as it provides the means to approach SMEs and the Section 3 best practices for the achievement of a common objective. From the point of view of companies, Section 3 is the part of the document that will best support their needs and interests. In Section 3, SMEs can explore the direct results through different types of examples and recognize that, although it can still be improved, the application of energy conservation measures produces real energy savings.

Note 1: Section 4, i.e., the Conclusion section, presents a shortened version of the lesson learnt for the Best Practice Guide.

Note 2: The Best Practice Guide document is a step-by-step guide to improving energy efficiency in SMEs and large enterprises and achieving best practice. By following this guide, you will be able to determine what changes can be made in order to help you in the process of reducing operating costs, improving internal behaviour as well as the environmental







1 Introduction and Methodology

1.1 Introduction

The objective of this report is to become a reference document for SMEs, to assist them in identifying and implementing actions to improve their energy efficiency measures.

In the first part of this document, results of the qualitative and quantitative analysis of the interviews that were carried out with a selection of SMEs from the different pilot sites that have been qualitatively analysed. A series of lessons learned have been extracted and are further developed throughout the report.

Section 4 is of particular interest for SPEEDIER Experts, as it provides the means to approach SMEs and the Section 3 best practices for the achievement of a common objective. From the point of view of companies, Section 3 is the part of the document that will best support their needs and interests. In Section 3, SMEs can explore the direct results through different types of examples and recognize that, although it can still be improved, the application of energy conservation measures produces real energy savings.

1.2 Approach

This section describes the approach adopted to prepare this guide document and is illustrated in the following table.

Deliverable	Target population	Objective	Content
D7.1 SPEEDIER Best Practices Guidelines for SMEs and large enterprises in EU	SMEs in all Member States.	Illustrate how SPEEDIER has approached real-world use-cases and provide indicators of success. Encourage SMEs to find use-cases that may be similar to their own and which encourage them to consider in implementing Energy Conservation Measure (ECM) initiatives through SPEEDIER.	Collection of best practices.
	SPEEDIER partners and potential future partners	Illustrate how SPEEDIER has approached real-world use-cases and provide indicators of success. Draw conclusions about what are the real drivers of	

Table 1 Deliverable description





1.3 Objectives

The SPEEDIER Service was piloted in in four jurisdictions Ireland, Spain, Romania and Italy, and generated significant, valuable learning and outcomes in WP4, 5 and 6. The evaluation shown in this deliverable is based on the results of these work packages. The two primary objectives of the Best Practice Guidelines are as follows:

- An objective aimed "externally": use the experience collated to help expand client base of SPEEDIER. The intention is to show potential users how the SPEEDIER Service works, and the kind of real results that have been achieved by other SMEs that have been early adopters.
- An objective aimed "internally": use the experience obtained to support the learning
 process and discover what aspects of the SPEEDIER Service offering has resonated
 most with the first round of client engagement. This is also useful information that
 supports engagement when a new expert approaches SPEEDIER in order to see if it
 is an interesting service to add to their portfolio. Therefore, it can be used for expanding
 the group of experts of SPEEDIER.

1.4 Consent mechanisms and recruitment strategy

Before presenting the methodology that has been used to prepare this guide, it is important to define the consent mechanisms with SMEs and the recruitment strategy for experts in each case. As we will see, there are differences depending on the country:

- Ireland
 - Consent mechanisms: During the Irish pilot activities, LIT staff fulfilled the role of SPEEDIER Expert in all cases. A document was prepared to explain the objectives of the SPEEDIER project and what would be expected of participating SMEs. Agreement was obtained from all SMEs both in written and verbal format.
 - Strategy for recruiting experts: A key aspect of this strategy was the idea that the expert would be paid a small fee for a quick initial assessment funded by savings made following the assessment. Further work would then be based on the possibilities identified in that initial assessment. For example, if no-cost measures could be identified in the initial assessment, agreement could be reached on using some or all of these savings to fund the SPEEDIER Expert's time in follow-on activities.
- Spain
 - Consent mechanisms: PCT Cartuja staff fulfilled the role of SPEEDIER energy expert in all cases, shadowed by energy audit experts interested in



SPEEDIER model. A document was prepared to explain the objectives of the SPEEDIER project and the energy audit results and ECM for each company. Agreement was obtained from all SMEs both in written and verbal format.

- Strategy for recruiting experts: The energy audits of the buildings were implemented by PCT Cartuja / CTA, technically shadowed by SPEEDIER Experts (Valdemar Ingenieros and Irradia Energía). They were selected among the certified energy audit companies by the Andalusian Energy Agency (Regional Government official entity). Both companies have shared the SPEEDIER approach with PCT Cartuja and CTA during the auditing process and they have given feedback about the role of the energy experts in SPEEDIER.
- ➢ <u>Italy</u>

- Consent mechanisms: the interlocutor in Italy is the ESCO and not directly the SMEs, which already had collaborations with the ESCO; so the engagement is primarily with the ESCO who is supporting the SME in the process of energy efficiency audit and improvements. This approach is appropriate as the ESCO market in Italy is significantly more developed than the other jurisdictions which were part of the pilot.
- Strategy for recruiting experts: it was based on the network of Politecnico Milano and with dissemination activities. In the Italian case, an arrangement has been set up with ESCOs to act as experts.
- Romania
 - Consent mechanisms: SPEEDIER Experts agree and confirm on the mechanism implementation (SPEEDIER ring-fencing) with each SME's ownership representative by signing the ECMs summary sheet. The implementation process starts with no-cost measures and moves through the SPEEDIER process to more costly ones.
 - Strategy for recruiting experts: SPEEDIER Experts and trainers are selected from their energy agencies partners (5 persons) and leaders of both National Energy Auditors Associations (1+1). Due to COVID-19 situation, the process was started with the AEEPM in-house experts and their close partners. The selection was expanded with the energy expert members of the 2nd National Energy Auditors Association, but also with the hospitality consultants and the hotel owners wiling to extend their area of expertise and apply the SPEEDIER tools and methodology for future business. All categories of trainers and experts participated in SPEEDIER centralized training, in both 1st and the 2nd sessions.

1.5 Methodology and data gathering

A four phased approach was adopted to accomplish the Best Practice as follows:

- Selection of SMEs
- Interviews with the experts
- Interviews with the clients
- Identification and description of the Best Practices



1.5.1 Selection of SMEs – Phase 1

To help us prepare the Best Practice Guideline document, we selected some relevant participating SMEs. The following parameters were applicable in the selection process:

- 1. Status of implementation: to be able to evaluate the results in each SME, some measures must have been implemented to understand the experience of the people and of the expert and the savings they provide.
- 2. Size of the company: to have as representative a sample as possible, we choose SMEs of different sizes.
- 3. Country: to be equal, the same number of SMEs was selected from each pilot country, Ireland, Spain, Italy and Romania.
- 4. Sector: at least one typology from each sector that have participated in the pilot tests.
- 5. Savings: at the level of energy saving there has been a significant saving in each SME.

In order to have enough examples/samples to enable evaluation of all typologies but at the same time have a manageable number of examples, it has been decided that 5 examples per country was appropriate.

The following table presents the list of selected SMEs. Please note that engaging companies from Italy are identified with a number, as an agreement to declare their names has not be obtained and therefore are anonymous.

Company name	Country	Size of company	Type of company	
Tipperary Glass Ltd	Ireland	Medium	Industrial/ manufacturing	
Inagh Farmhouse Cheese	Ireland	Micro	Industrial/ manufacturing	
Valentia Slate	Ireland	Micro	Industrial/ manufacturing	
Modular Automation	Ireland	Medium	Industrial/ manufacturing	
Walsh Packaging	Ireland	Medium	Industrial/ manufacturing	
TEAMBIMCIVIL	Spain	Micro	Engineering	
HG Control	Spain	Micro	ICT	
alGenio	Spain	Small Digital Marke		
Nextu Formación	Spain	Micro	Training services	

Table 2 Selected SMEs



Ennde 3d	Spain	Micro	Engineering
SME1	Italy	Small	Industrial/ manufacturing
SME2	Italy	Large	Industrial/ manufacturing
SME3	Italy	Large	Industrial/ manufacturing
SME4	Italy	Small	Industrial/ manufacturing
SME5	Italy	Medium	Industrial/ manufacturing
Pensiunea Carol	Romania	Micro	Hospitality
Hotel Carmen	Romania	Small	Hospitality
Capital Plaza Hotel	Romania	Small	Hospitality
Vila Alpin	Romania	Micro	Hospitality
Le Boutique Hotel Moxa	Romania	Micro	Hospitality

Note: The size of the company was categorized based on the number of employees and/or the annual turnover as follows:

- Micro (< 10 employees or partners) & Annual Turnover ≤ 2MM€
- Small (10≤ employees or partners ≤49) or (Annual Turnover ≤ 10MM€)
- Medium (49<employees or partners <250) & (Annual Turnover ≤ 43MM€)
- Large (>=250 employees or partners) or (Annual Turnover > 43MM€)

1.5.2 Interviews with the experts – Phase II

The first step, in this phases, involved conduction of a series of interviews with the contact people in each of the projects. The purpose of the interview was to gather qualitative data about their personal experience of the SPEEDIER project. The data acquired included insights into what went well and what went wrong with their pilot trial implementation, from their point of view.

This also enabled us to identify which use-cases have been most successful and to select them as candidates to demonstrate Best Practices at work.



1.5.3 Interviews with the clients – Phase III

The objective of this phase as to identify both the weak and the strong points of the SPEEDIER process, using qualitative data from SMEs, that have applied the measures and actions, obtained from interviews. These interviews followed a common structure that included some key questions previously agreed among the members of the SPEEDIER consortium that participated in Work Package 7. The script-questionnaire was the result of two online meetings that were dedicated to this matter.

The persons chosen as interviewers were given some freedom to deviate from the script as the conversation flowed in order to let the respondents express themselves freely. They were also allowed to choose between in-person and remote interviews according to the health situation/Covid-19 restrictions in each country.

The average interview lasted around 20 minutes. Most of them have been fully transcribed using speech-to-text software. The average transcription is 1800 words long. All interview documentation has been sent to ITeC for further analysis.

The completed interviews have been reproduced in the Annex.

1.5.4 Identification and description of the Best Practices – Phase IV

The qualitative data gathered in the previous two phases, in addition to the information provided from the pilot leaders, enabled identification of use-cases for Best Practices in projects. These best practices were described in terms of the specific conditions that led to the successful improvement of energy efficiency and energy culture of the participating enterprises, in order to understand how these practices can be replicated in other Member States.

For clarification purposes, all the Best Practices examples have been described using the same structure, that is the result of a discussion among the members of the SPEEDIER consortium that participate in this Work Package 7:

- Descriptions of the SME;
- Issue/initial situation;
- Solution and SPEEDIER role;
- Conditions for implementation and success;
- Pitfalls to avoid;
- Impact.



2 Analysis of the interviews

The nature of the materials received at ITeC is qualitative: i.e., they are text that describe the experiences that each SME has had during their exposure to the SPEEDIER Service.

Considering the SPEEDIER project as a whole, the predominance of quantitative over qualitative data is clear. SPEEDIER was created to deliver measurable results to its clients, and therefore, it is built on the belief that figures (i.e., monetary, energy or environmental figures) are key for its success. In this context, introducing large quantities of qualitative analysis (words instead of figures) may be perceived as somewhat invasive.

The aim of the present chapter is to build a temporary bridge between words and figures. The instrument chosen for this task is Wordle, an analytics tool that is increasingly used on qualitative case studies – McNaught & Lam (2010), Dietz (2016) – and for its ability to summarize textual information and present it in a visual and clear way.

Wordle is a web-based application where the user uploads a text (in this case, the collection of transcriptions of the interviews) and then, it calculates the frequency (number of times) that each 'meaningful' word is used. The output is a 'word cloud' where the most used words are displayed using a font size that is proportional to their individual frequency in the text.

2.1 Overall analysis

This is the picture of the keywords that we get after feeding the Wordle application with the complete collection of transcriptions:



Figure 1 Wordle of the complete interview transcripts



The algorithm in this application determined that "Energy" is the most frequently used word in the interviews, followed by "Save". This indicates that SPEEDIER has successfully delivered the message of its main purpose, and also that the clients have had no difficulties in assimilating it.

It is interesting that the distillation of the interviews points towards "Save + Energy" instead of "Save + Money" or "Save + Environment":

- Monetary/financial considerations are important: "Cost" may not be found not among the most commonly occurring word in the interviews, but it still appears among the top-50 ranking. We could assume that when companies talk about consuming less energy, they do not need to stress that this means less expenditure.
- The frequency of "Cost" being found in the qualitative data is surpassed by the frequency of "Time". This implies respondents were more concerned with time considerations in comparison to cost considerations. More detailed analysis of the qualitative data indicates that SMEs believe that SPEEDIER should look to reduce its implementation times in the future.
- The analysis indicates that the environment is a consideration of many of the SME but it doesn't appear in the top-50 most commonly occurring words in interviews and responses.

Another particularly frequently occurring word is "Measure", which has been used in two contexts:

- As a synonym for "improvement action", when companies discussed the kind of adjustments, replacements, or alterations in their facilities to boost energy performance, as suggested by the SPEEDIER experts.
- As a synonym of "gauging" the results achieved by the improvement actions. Calculating 'exact' figures is relevant for some of the clients in the sample, since figures are a more rigorous way to back up the savings claims, and to justify the investments (and also to pave the way for other future investments).



Frequency index						
>1000	energy					
501 to 1000	measure	Speedier	save			
251 to 500	process	Expert	good	service	think	
151 to 250	time	System	training	apply	savings	
	difficult	Expected	communication	change	finance	
100 to 150	simple	People	decision	improve	efficiency	Improve
	year	Effective	business	explaining	answer	implement
	list	advantages	support	reason	aware	level
	information	Cost	start	application	doubts	help
	new	Change	companies	management	program	deductions

Table 3 Top-50 words according to frequency

Prepared by ITeC

2.2 Phased analysis

The next analysis step requires separation of the comments received from SPEEDIER clients into three groups:

- "Before": comments relating the motivations of the participating SMEs for contracting SPEEDIER services.
- "During": comments regarding the process of interaction with the SPEEDIER experts, receiving their proposals and advice, and choosing a course of action.
- "After": comments regarding the results and the suggestions for future iterations of SPEEDIER.

Before submitting the interview data to be processed by Wordle, the data was pre-processed to reduce the noise in the results, which will be described for each phase.

2.2.1 "Before" / the motivations

The interview data indicated that interviewees were quite explicit when discussing the economic benefits they expected when engaging with the SPEEDIER project, but less so when they were referring to the other, non-monetary potential benefits. The responses have ranged from those that were using the most updated, expert jargon ("reduce the carbon footprint") to those that used a much more naive, amateurish wording ("care for the planet", "go green"). Examples between those two extremes include "environmental benefits" and "energy efficiency". Considering that all these tags have been used as de-facto synonyms, we have replaced them with "sustainability" as a catch-all term covering this spectrum of answers.

When this pre-processing step was added to the data analysis, "sustainability" was the most frequently identified word. This is consistent with "energy" being the most commonly found word in interviews and described in the previous section of the report.

The term "commitment" has also climbed positions in the ranking following similar preprocessing. In this case three references to commitment were counted as a single term:



- "Formal company commitment", this is, companies that have some kind of binding obligation to introduce improvements on their environmental performance. The obligation may not refer to absolute results, but relative according to past performance, so SPEEDIER can be used here as an instrument for fulfilling this commitment.
- "Informal company commitment", this is, companies that feel that they must do something environmentally-wise, although it is not yet defined, never mind quantified.
- "Commitment of the management", another curious formula that suggests that the decision to "go green" may be already taken by the C-suite but so far has not trickled down in the company and awaits implementation among the employees.



Figure 2 Wordle of the motivations

Other items on the ranking must be pointed out:

- "Clients" testifies that some companies feel the pressure of (parts of) their client base, suggesting that good environmental practices (that clients can perceive) could contribute to build loyalty with customers.
- "Opportunity", "Curiosity" and "Learning" seem to be the candid answers of some companies that enrolled SPEEDIER with a "nothing to lose" attitude.

2.2.2 "During" / the service

In this execution phase, the interviewees were asked to describe the service they were receiving from SPEEDIER, therefore the word analysis has detected a larger amount of adjectives.

"Communication" most commonly found word here albeit by a very narrow margin. Even though it is a noun, it is safe to say that it has been used largely as an adjective, to comment on the amount and/or the quality of the communication between SMEs and SPEEDIER experts.





Figure 3 Wordle of the service description

It should also be noted that:

- The frequency of the terms "New Ideas" and "Eye-opening" indicate that respondents felt the "originality" or "unexpected" that some SMEs clearly felt that SPEEDIER was not offering them off-the-shelf solutions.
- The frequency of the terms "Didactic" and "Helpful" suggest that the solutions offered were not just proposals left on a sheet of paper, but they were complemented by a significant amount of reasoning and question-answering that has not gone unnoticed by the respondents.

2.2.3 "After" / the results

In an ideal scenario, the kind of results at the end of the process should match, no matter how loosely, the kind of expectations at the beginning. This in practice rarely happens and was the case in the pilot implementations of SPEEDIER. However, it should be noted that not all SPEEDIER cases had been fully implemented at the time of this survey, therefore not every SME was in position to evaluate final results.

So instead of finding many references in the data to the economic and environmental benefits that were the main selling points, other, less measurable indicators, such as "Behaviour" were commonly found in the data.





Figure 4 Wordle of the results

"Behaviour" is the most commonly found term, but it should be considered in an appropriate context. In the context of the interviews, it has been frequently used not as an indicator of success (i.e., "SPEEDIER has help us to change our behaviour") but more as a warning (i.e., "until we effectively improve our behaviour, it will be difficult to achieve all the potential that SPEEDIER has unleashed"). Despite the technology involved, the human factor still plays a crucial role, and some SMEs seem to be somewhat sceptical regarding their capacities for influencing the environmental/sustainability habits of their employees.

"Useful" has appeared with a similar frequency. Although this is an unambiguously positive signal, it is appears to be a weak signal of progress considering that the ambitions for the pilot implementation were set higher. However, it should be seen as a good indicator that the proposals of the SPEEDIER experts were correctly targeted ("not a wasted effort") and that the clients still expect a measurable result, that is a reduction in energy consumption and thus financial savings, when all the measures will be in place and working.

2.2.4 "After" / room for improvement

The interviewees were also asked to suggest in which ways the SPEEDIER Services could be improved in the near future.





Figure 5 Wordle of the improvement suggestions

Again, the persons answering used different ways to express their opinion, so we have preprocessed and classified some of the responses as below:

- "Time" aggregates the input of those who have asked for:
 - Shorter response times: a number of clients mentioned that the pandemic has been distorting the communication between them and the experts
 - o Shorter training periods
 - Longer follow-up: clients are aware that they have started a lengthy process and some results will need time to show up. SPEEDIER should be with them also in this long term.
- "Depth" is not a demand for deeper analyses or proposals, but instead a demand for "variable" or "adaptive" depth. In the context of this analysis, in an SME, the proposal from SPEEDIER may be first pitched to middle management, but then the actual decision to adopt an Energy Conservation Measure (ECM) will be taken by higher level management. Engagement at this level requires a different level of detail, potentially providing greater detail about the financial model and less technical detail. A further modification/simplification of the approach to a more didactic approach to implement it among the personnel.
- "Data" aggregates the responses of those who have asked for more monitoring of the results. More detailed analysis of the responses indicate that respondents felt that they required less theoretical results calculated by SPEEDIER, but instead documenting them with hard data that may make for a smoother approval process for the remaining measures on their planning lists.

"Benchmarking" could have been included as a variation on the "data" requests, since it is a suggestion from companies that would like to compare their own results with the results of







3 Best practices

This section documents best practices from the SMEs that met the selection process defined in Section 1.3.1. More specifically, the SMEs that have been selected for showcasing their achievements that were characterised by the following:

- i. they were in an advanced state of application of the ECMs;
- ii. they were deemed suitably representative of SMEs of all sizes;
- iii. their representation covered all the countries involved;
- iv. they were representing different sectors; and
- v. significant energy savings resulted from the implementation of ECMs.

Individual agreements for being featured as a best practice project have been signed with those SMEs who were successful in achieving energy savings after implementing the energy efficiency measures.

3.1 Best Practice (BP)1 Tipperary Glass Ltd

Tipperary Glass is a leading independent glass processor and wholesaler based in Templemore, Ireland for over fifty years. There are two main arms of the business; processing and wholesale. The wholesale business consists of the importation and distribution throughout Ireland of raw glass and mirror sheets. These are sourced worldwide and arrive to Tipperary glass on float liners on racks, or in freight containers in endcaps.

The processing division manufactures these sheets into individual glass pieces by cutting them down and carrying out further processing, depending on the customer's requirements such as polishing, drilling, toughening, laminating, or painting.

This business is a Medium company (49<employees/partners <250) & (Annual Turnover ≤ 43MM€) from the Industrial/manufacturing sector, located in Templemore, Ireland.



Figure 6 Tipperary Glass Ltd



3.1.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Out-dated electric heating system (20-year-old storage heater with no time scheduling capabilities).
- Heavy Goods Vehicles fleet of 7 have no telematics or fleet management capabilities, and drivers do not have any training in safe and efficient driving.

3.1.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- Replace the existing electric heating system with Electric radiant heaters with better controllability and time scheduling.
- Implement Fleet Management and HGV driver training programme, SPEEDIER with Greener HGV programme and use ECM sheets to show savings.
- SPEEDIER looked for quotes from electric heater suppliers to find the best fit for the site, keeping the SPEEDIER Expert up to date at all times.

3.1.3 Conditions for implementation and success

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- Storage heaters were at the end of their life.
- Installation & commissioning of electric heaters done by supplier of the unit.
- Greener HGV programme was available in Ireland at the time, providing 30% grant funding for telematics.
- Case studies of similar ECMs were needed to prove worthiness of measures.
- Good exchange/communication with site manager (from seven site visits in 2021).

3.1.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- Grant funding is limited every year; ensure that SME is eligible for grant funding.
- Avoid listening to sales pitches, supplier pitches to make decisions.
- Try to monitor the energy use, if monitoring equipment is not available, use estimations based on case studies.
- Don't just focus on Electricity and Gas/oil. Look at the whole enterprise.
- Don't jump to High-cost measures unless specifically asked by site.

3.1.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 4 Tipperary Glass Ltd Measures and Savings



Tipperary Glass Ltd				
Measures	Savings (kWh per year)	Savings (kCO ₂ per year)		
Electric Storage Heaters	14460	4700		
Fleet Management with Greener HGV				
Programme	95318	42800		
Clean & maintain Air conditioning units	4032	1300		
Clean Skylights for more natural light	3710	1200		
Total	117520	50000		



Figure 7 Tipperary Glass Ltd Savings (kWh per year)



Figure 8 Tipperary Glass Ltd Savings (kCO₂ per year)



3.2 BP2 Inagh Farmhouse Cheese

Inagh Farmhouse Cheese is a small SME, which is dedicated to making St Tola goat cheese near the town of Inagh. They make a variety of cheeses including fresh crottin, classic logs, Greek and hard style, using locally sourced milk and most of it comes from their own herd of nanny goats.

This enterprise is a Micro company (<10 employees/partners) & Annual Turnover ≤ 2MM€ from the Industrial/manufacturing sector, located in Ennistymon, Ireland.



Figure 9 Inagh Farmhouse Cheese

3.2.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Kerosene boiler on site, over 20 years old.
- Liquid Propane Gas (LPG) tank installed, but not connected, due to kerosene boiler.
- Walk in Fridges need maintenance, in poor condition.
- Cooling of milk was done via a plate heat exchanger by an ice bank, this was identified as a significant energy user, so ways to improve efficiency were explored.
- The underfloor heating manifold system was only being controlled manually with the main flow valve; each individual run/room was not being controlled, meaning that the flow was equal to every room.

3.2.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:



- Install gas-fired continuous flow water heater in place of electric heater in milking parlour.
- Install condensing gas boiler in place of the kerosene boiler.
- Connect up the continuous flow heater and the boiler to LPG tank.
- Replace seals on Walk in fridges to reduce heat gains, clean the condensers and evaporators.
- Insulate the cooling system to reduce heat gains and improve efficiency.
- SPEEDIER contacted installers on behalf of the SME, collected quotes and provided case studies and clear step by step calculations to the SME to ensure they were satisfied with measures.

3.2.3 Conditions for implementation and success

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- The SME had great interest in energy efficiency and carbon neutrality.
- Communication with staff on site to get an understanding for heating comfort.
- SME was attracted by the offer that the energy assessment would be free.
- The maintenance and replacement of equipment that was at its end of life, was not previously done.
- Cost must be low for the implementation to proceed.
- Hot water and electricity monitoring helped progress the ECM implementation and provided valuable insights.
- Being a part of an Eco-Tourism cluster

3.2.4 Pitfalls to avoid

This is the pitfall to avoid in this case:

• Avoid renewable energy until the site has implemented energy conservation and energy efficiency measures.

3.2.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 5 Inagh Farmhouse Cheese Measures and Savings

Inagh Farmhouse Cheese				
Measures	Savings (kWh per year)	Savings (kCO2 per year)		
Replace kerosene Boiler to LPG for Condensing				
gas boiler	27597	7960		
Ice Bank Energy Reduction	466	150		
Walk in Fridges Maintenance	7040	2280		
Insulating heat exchanger and piping	2315	750		
Thermostat replacement & Automatic Control				
strategy	3064	700		
Wash Hand Basin Optimisation	3054	700		
Total	43536	12540		







Figure 10 Inagh Farmhouse Cheese Savings (kCO₂ per year)

Figure 11 Inagh Farmhouse Cheese Savings (kCO₂ per year)

3.3 BP3 Valentia Slate

Valentia Slate is the oldest quarry in production in Ireland. It opened in 1816. Valentia Slate company Limited is a locally-owned and managed company. They have six skilled staff who



carry out the full production process from extraction of blocks from the rockface to the final finishing and dispatch of the order. They collaborate with local designers and artists to ensure that their products are of the highest practical and aesthetic quality.

This business is a Micro company (<10 employees/partners) & Annual Turnover ≤ 2MM€ from the Industrial/manufacturing sector, located in Gortgower, Ireland.



Figure 12 Valentia Slate

3.3.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Old site on an island, with heavy reliance on Oil
- Electric saw was used for cutting vertical cuts of slabs of slate
- Horizontal cuts were cut with an excavator

3.3.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- Replace saw with another saw that can cut vertically and horizontally.
- SPEEDIER provided an energy savings analysis on the new process of mining compared to the older process.
- Changing of electricity supplier could reduce energy costs by €2000 a year. However, because they had just changed supplier, the ECM couldn't be done.

3.3.3 Conditions for implementation and success

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- The management had already contemplated on the proposed solutions, but once they were presented with the monetary savings from the running costs and the reduced reliance on delivered fuels, the decision to implement the measures was obvious.
- Management showed interest in Energy efficiency and carbon neutrality.



3.3.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- Looking into the energy breakdown for sites is too time consuming for micro enterprises
- For micro enterprises, one good measure is all that is required.
- Energy consumption isn't the only impact on a site
- Employees of Micro Enterprises do not have much time, so any information needed has to be found on site visits.
- Some maintenance managers have no IT skills, MS application skills or email skills, hence site visits are the best method to gain insight.

3.3.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 6 Valentia Slate Measures and Savings

Valentia Slate			
Measures	Savings (kWh per year)	Savings (kCO ₂ per year)	
New Mining Saw, removing the use of the			
diesel fuelled excavator	66050	16500	
Total	66050	16500	



Figure 13 Valentia Slate Savings (kWh per year)




Figure 14 Valentia Slate Savings (kCO2 per year)

3.4 BP4 Modular Automation

Modular Automation is a company that specializes in providing high-quality, reliable solutions for the world's leading medical device and technology manufacturers. They are characterized by the seamless integration of the latest automation engineering technology with highly efficient and customized software solutions.

It is a Medium company (49<employees/partners <250) & (Annual Turnover ≤ 43MM€) from the Industrial/manufacturing sector, located in Shannon, Ireland.



Figure 15 Modular Automation



3.4.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- multiple buildings, but the Heating, Ventilation, and air conditioning (HVAC) services are controlled manually.
- From a breakdown perspective, Modular automation had no information on where their electricity or gas was being used.
- There was a large number of fluorescent tube lighting in 2 of the 3 buildings.
- The Air handling unit had no maintenance or servicing schedule.

3.4.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- Replace controller unit on site for the Air handling unit. No sensors are working, only temperature and time schedules can be changed.
- Introduce a Building Management System, energy monitoring and feedback loop to automatically control services on site.
- Reduce unwanted heating, ventilation, and air conditioning.
- Replace fluorescent tube lighting with LED lighting.
- Replace air handling unit filters and have a monthly inspection of the AHU.

3.4.3 Conditions for implementation and success

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- The clients' desire to be more carbon neutral brought more interest to energy efficiency.
- Due to the age of the business and a changeover of staff, there was no real understanding of how the building is controlled or being run. Connecting the monthly bills of gas and electricity to on site processes was useful to get interest from management.
- The age of the building pre-2005 gave way to easy ECMs like lighting ECMs.
- Scope of Assessment and measures was very clear.
- Good relationship with suppliers can help with negotiating quotes.

3.4.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- Try to get as much information as possible from site visits, as obtaining information is a slow process.
- Ensure that the ECMs are manageable, and easy to. If the measure is too complex, management might not have enough knowledge to understand it and will be wary.

3.4.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.



	Table	7	Modular	Automation	Measures	and	Savings
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Modular Automation				
Measures	Savings (kWh per year)	Savings (kCO ₂ per year)		
BMS, Energy Monitoring and control strategy				
upgrades	44879	10290		
Reduce Building 1 heating systems				
thermostat Set point by 1 degree	11423	2000		
Reduce time schedule of heating systems in				
Building 1	57119	11690		
LED Lighting Upgrade	103784	33680		
Reduce building 1 boiler set point by 5				
degree	51927	10630		
Reduce AHU Fan Speed	2767	900		
Change Filters in AHU	986	320		
Total	272885	69510		



Figure 16 Modular Automation Savings (kWh per year)





Figure 17 Modular Automation Savings (kCO₂ per year)

3.5 BP5 Walsh Packaging

Walsh Packaging are a company that supplies paper bags to wholesale trade. Walsh Packaging employs more than 50 people and is a family business. It is therefore a Medium company (49<employees/partners <250) & (Annual Turnover \leq 43MM \in) from the Industrial/manufacturing sector, located in Roscrea, Ireland.

The business was established in 1942 and is one of the largest paper bag manufacturers in Ireland, producing a high percentage of all paper bags supplied to the pharmacy, fast food, unlicensed, fashion and retail industries in Ireland. Walsh paper bags are recycled and recyclable, as well as compostable.



Figure 18 Walsh Packaging



3.5.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Walsh packaging is located in a very old building and the equipment inside is also very old
- The roof is an old asbestos roof, and the heating system used on site was 2 oil fired blower units. These units were very inefficient at heating the space, with staff at one end of the warehouse feeling warm and at the other end feeling cold.
- The equipment on site used induction motors pre IE1 (~25-50 years old) these units produced a low power factor for the site as a whole.

3.5.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- A change in heating was needed, as the units were coming to the end of their life; SPEEDIER proposed using radiant heating for the older building, reducing the loss of heat through the roof. The fabric first approach was too costly.
- SPEEDIER took quotes for new blower units, gas fired radiant heating and electric radiant heating and compared effectiveness against cost.
- The motors were deemed to be replaced, with the SME willing to have multiple motor suppliers survey the site and replace the motors. This was cut short due to a health and safety shut down of site, thus the motor replacement was put on hold.

3.5.3 Conditions for implementation and success

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- Willingness to upgrade and become more energy efficient from SME and Management
- Staff comfort was at risk due to the heating system.
- The age of the building and the equipment made it easier to suggest replacing equipment.
- Equipment was at the end of its life, which helped with the acceptance of the measures relating to replacing the equipment.
- Good relations with the site managers were developed from multiple site visits.

3.5.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- Other issues arose on site, mainly the health and safety site shutdown
- If there is any equipment to be installed, make sure that installation is part of the cost, especially with the wide variations in install quotations; SMEs want warranty and guarantee from suppliers that proper commissioning will be done.

3.5.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.



Table 8 Walsh Packaging Measures and Savings

Walsh Packaging				
Measures	Savings (kWh per year)	Savings (kCO ₂ per year)		
Replacing Heating system (Older blower				
units for radiant heating)	16534	4400		
Replace Motors	20110	6500		
Monitoring System	19226	6200		
Set point Reduction	4409	1200		
Heating Time Schedule reduced	5512	1500		
Capacitors to reduce Wattless load	0	0		
Lighting Upgrade	4742	1500		
Compressor Leaks	9240	1500		
Total	63239	18400		



Figure 19 Walsh Packaging Savings (kWh per year)





Figure 20 Walsh Packaging Savings (kCO2 per year)

3.6 BP6 TEAMBIMCIVIL

This company, along with 23 others currently, are part of the PCT Cartuja complex in the Italian Pavilion building. The Cartuja PCT is the main space for innovation in Seville, a Scientific and Technological Park that brings together 536 companies and start-ups, training and research centres and with an extensive cultural and leisure offer.

The company offers various services such as construction engineering, BIM consulting or elearning.

TEAMBIMCIVIL is a Micro company (<10 employees/partners) & Annual Turnover ≤ 2MM€ from the Engineering sector, located in Seville, Spain.





Figure 21 TEAMBIMCIVIL

3.6.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Company created in 2018 in the Technoincubator Marie Curie (TMC). The company is hosted in a 28.17 m² office on the first floor.
- The energy consumption of the company consists only of the electricity consumption of the office, because they do not have other facilities or fleet of vehicles.
- The electricity supply is contracted by the property, PCT Cartuja, S.A. The company does not pay for the consumption up to a maximum of 8 kW/m². TeamBIMCivil has never exceeded this threshold.
- The average of consumption has 195.3 kWh / month. Taking into account the surface of the office (28.17 m²), the annual electricity consumption per square meter is 83.19 KWh/m².

3.6.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- An energy report has been made for the TEAMBIMCIVIL, based on the historical energy baseline data for the years 2019 and 2020. Year 2019 and 2020 was chosen because of the impact of the pandemic in the consumption.
- The data was collected by the management team of the building, PCT Cartuja, S.A. The energy audit report proposes a series of improvements, advice or measures, to promote responsible and sustainable consumption of energy that contributes to a decrease in energy consumption, the cost of said energy and CO₂ emissions, without reducing the comfort of people.



3.6.3 Conditions for implementation and success

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- An optimal degree of efficiency will be achieved when consumption and comfort are in the right proportion. The most economical energy saving measures, which can even involve a zero economic cost, are those that have to do with our habits. Simple gestures, such as turning off the light when it is not necessary, or closing the windows of common areas in winter, do not cost money and always save energy.
- For the office to be energy efficient, it will depend to a large extent on the correct use of the lighting, air conditioning and electrical equipment systems of the office.
- With the application of good practices for energy saving in companies, it is intended to achieve the following:
 - Change the consumption habits of workers, providing them with awareness and responsibility with the environment.
 - Make the company more efficient from the energy point of view, reducing CO₂ emissions.
 - Carry out exemplary actions
 - Reduce the economic cost associated with the energy consumption of the company.

3.6.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- In many cases, the most complicated thing can be to reach agreements between people who use common spaces, when selecting the appropriate temperature and lighting levels.
- One of the main difficulties is to get the commitment from the company and the staff for the training, because the cost of the company's energy consumption does not lie with them, but with the property owners.

3.6.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Since the office space is rented, and is part of a bigger property, in order to calculate the impact of the measures for this office only, we decided to follow the following reasoning: we apply the measure to all the building and then we divide the impact by the number of all the companies/tenants in the complex (24). Furthermore, we have reduced that impact by 10% to exclude the common spaces.

TEAMBIMCIVIL					
Measures	Savings (kWh per year)	Savings (kCO2 per year)			
LED Lighting Replacement	3507.39	666.38			
Repercussion PCT CARTUJA Measurements in thermal installations. Heat pump replacement	1851.00	429.75			

Table 8 TEAMBIMCIVIL Measures and Savings



Measurements in the epidermis. Replacement of carpentry with another with better thermal		
qualities	2423.85	676.88
Use of renewable energy sources	1484.74	669.75
Behavioural change related to Lighting	105.60	34.80
Behavioural change related to computer		
equipment	140.40	46.80
Behavioural change related to air conditioning	246.00	81.60
Behavioural change related to ways of working	40.80	13.20
Total	9799.78	2619.15



Figure 22 TEAMBIMCIVIL Savings (kWh per year)



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Figure 23 TEAMBIMCIVIL Savings (kCO2 per year)

3.7 BP7 HG Control

This company, along with 23 others currently, are part of the PCT Cartuja complex in the Italian Pavilion building. The Cartuja PCT is the main space for innovation in Seville, a Scientific and Technological Park that brings together 536 companies and start-ups, training and research centres and with an extensive cultural and leisure offer.

HG control is an authorized distributor of the international brand Honeywell. Honeywell is a product based company in the building control sector and centralized technical management systems (BMS).

HG control is made up of professionals in building automation and management systems, with proven experience in building control such as Hotels, Hospitals, Sports Centres, heated swimming pools.

This business a Small company (10≤ employees/partners ≤49) or (Annual Turnover ≤ 10MM€) from the Information and Communication Technologies sector, located in Seville, Spain.





Figure 24 HG Control

3.7.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Company allocated in 2016 in the Technoincubator Marie Curie (TMC). The company is hosted in a 23.47 m² office in the first floor.
- The energy consumption of the company consists only of the electricity consumption of the office, because they do not have other facilities or fleet of vehicles.
- The electricity supply is contracted by the property, PCT Cartuja, S.A. The company does not pay for the consumption up to a maximum of 8 kW/m². HG Control has never exceeded this threshold.
- The average consumption was 203.70 kWh / month. Taking into account the surface of the office (23.47 m²), the annual electricity consumption per square meter is 104.14 KWh/m².

3.7.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- An energy report has been made for the company HG CONTROL based on the historical energy baseline data of the years 2019 and 2020, chosen because of the impact of the pandemic in the consumption.
- The data was collected by the management team of the building, PCT Cartuja, S.A. The energy audit report proposes a series of improvements, advice or measures, to promote responsible and sustainable consumption of energy that contributes to a decrease in energy consumption, the cost of said energy and CO₂ emissions, without reducing the comfort of people.



3.7.3 Conditions for implementation and success

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

An optimal degree of efficiency will be achieved when consumption and comfort are in the right proportion. The most economical energy saving measures, which can even involve a zero economic cost, are those that have to do with our habits. Simple gestures, such as turning off the light when it is not necessary, or closing the windows of common areas in winter, do not cost money and always save energy.

- For the office to be energy efficient, it will depend to a large extent on the correct use of the lighting, air conditioning and electrical equipment systems of the office.
- With the application of good practices for energy saving in companies, it is intended to achieve:
 - Change the consumption habits of workers, providing them with awareness and responsibility with the environment.
 - Make the company more efficient from the energy point of view, reducing CO₂ emissions.
 - Carry out exemplary actions
 - Reduce the economic cost associated with the energy consumption of the company.

3.7.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- In many cases, the most complicated thing can be to reach agreements between people who use common spaces, when selecting the appropriate temperature and lighting levels.
- One of the main difficulties is to get the commitment from the company and the staff for the training, because the cost of the company's energy consumption does not lie with them, but with the property owners.

3.7.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Since the office space is rented, and is part of a bigger property, in order to calculate the impact of the measures for this office only, we decided to follow the following reasoning: we apply the measure to all the building and then we divide the impact by the number of all the companies/tenants in the complex (24). Furthermore, we have reduced that impact by 10% to exclude the common spaces.

HG Control				
	Savings (kWh per	Savings (kCO2 per		
Measures	year)	year)		
LED Lighting Replacement	3507.39	666.38		
Repercussion PCT CARTUJA Measurements in				
thermal installations. Heat pump replacement	1851.00	429.75		

Table 9 HG Control Measures and Savings



Measurements in the epidermis. Replacement of carpentry with another with better thermal		
qualities	2423.85	676.88
Use of renewable energy sources	1484.74	669.75
Behavioural change related to Lighting	110.40	36.00
Behavioural change related to computer		
equipment	146.40	48.00
Behavioural change related to air conditioning	256.80	85.20
Behavioural change related to ways of working	43.20	14.40
Total	9823.78	2626.35



Figure 25 HG Control Savings (kWh per year)



11



Figure 26 HG Control Savings (kCO2 per year)

3.8 BP8 alGenio

This company, along with 23 others currently, are part of the PCT Cartuja complex in the Italian Pavilion building. The Cartuja PCT is the main space for innovation in Seville, a Scientific and Technological Park that brings together 536 companies and start-ups, training and research centres and with an extensive cultural and leisure offer. alGenio is a data driven agency that designs a marketing strategy tailored to the client. They are a Micro company (<10 employees/partners) & Annual Turnover ≤ 2MM€ from the Digital Marketing sector, located in Seville, Spain.



Figure 27 alGenio



Horizon 2020 European Union Funding for Research & Innovation This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847034

3.8.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Company allocated in July, 2020, in the Technoincubator Marie Curie (TMC). The company is hosted in 87.68 m² office in the first floor.
- The energy consumption of the company consists only of the electricity consumption of the office, because they do not have other facilities or fleet of vehicles.
- The electricity supply is contracted by the property, PCT Cartuja, S.A. The company does not pay for the consumption up to a maximum of 8 kW/m². alGenio has never exceeded this threshold.
- The average consumption was 471.60 kWh / month. Taking into account the surface of the office (87.68 m²), the annual electricity consumption per square meter is 67.48 KWh/m².

3.8.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- An energy report has been made for the company alGenio based on the historical energy baseline data of the years 2019 and 2020. The year 2019 and 2020 was chosen because of the impact of the pandemic in the consumption.
- The data was collected by the management team of the building, PCT Cartuja, S.A. The energy audit report proposes a series of improvements, advice or measures, to promote responsible and sustainable consumption of energy that contributes to a decrease in energy consumption, the cost of said energy and CO₂ emissions, without reducing the comfort of people.

3.8.3 Conditions for implementation and success

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- An optimal degree of efficiency will be achieved when consumption and comfort are in the right proportion. The most economical energy saving measures, which can even involve a zero economic cost, are those that have to do with our habits. Simple gestures, such as turning off the light when it is not necessary, or closing the windows of common areas in winter, do not cost money and always save energy.
- For the office to be energy efficient, it will depend to a large extent on the correct use of the lighting, air conditioning and electrical equipment systems of the office.
- With the application of good practices for energy saving in companies, it is intended to achieve:
 - Change the consumption habits of workers, providing them with awareness and responsibility with the environment.
 - Make the company more efficient from the energy point of view, reducing CO₂ emissions.
 - Carry out exemplary actions



Reduce the economic cost associated with the energy consumption of the company.

3.8.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- In many cases, the most complicated thing can be to reach agreements between people who use common spaces, when selecting the appropriate temperature and lighting levels.
- One of the main difficulties is to get the commitment from the company and the staff for the training, because the cost of the company's energy consumption does not lie with them, but with the property owners.

3.8.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Since the office space is rented, and is part of a bigger property, in order to calculate the impact of the measures for this office only, we decided to follow the following reasoning: we apply the measure to all the building and then we divide the impact by the number of all the companies/tenants in the complex (24). Furthermore, we have reduced that impact by 10% to exclude the common spaces.

alGenio				
Measures	Savings (kWh per year)	Savings (kCO2 per year)		
LED Lighting Replacement	3507.39	666.38		
Repercussion PCT CARTUJA Measurements in				
thermal installations. Heat pump replacement	1851.00	429.75		
Measurements in the epidermis. Replacement of				
carpentry with another with better thermal				
qualities	2423.85	676.88		
Use of renewable energy sources	1484.74	669.75		
Behavioural change related to Lighting	254.40	84.00		
Behavioural change related to computer equipment	339.60	112.80		
Behavioural change related to air conditioning	594.00	196.80		
Behavioural change related to ways of working	99.60	32.40		
Total	10554.58	2868.75		

Table 10 alGenio Measures and Savings









Figure 29 alGenio Savings (kCO2 per year)



3.9 BP9 Nextu Formación

This company, along with 23 others currently, are part of the PCT Cartuja complex in the Italian Pavilion building. The Cartuja PCT is the main space for innovation in Seville, a Scientific and Technological Park that brings together 536 companies and start-ups, training and research centres and with an extensive cultural and leisure offer.

Nextu Formación is based on three main services: training, development (mainly executive and team coaching) and strategic and organizational consulting. It is a Micro company (<10 employees/partners) & Annual Turnover ≤ 2MM€ from the Training services sector, located in Seville, Spain.



Figure 30 Nextu Formación

3.9.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Company allocated in 2013 in the Technoincubator Marie Curie (TMC). The company is hosted in a 43.50 m² office on the first floor.
- The energy consumption of the company consists only of the electricity consumption of the office, because they do not have other facilities or fleet of vehicles.
- The electricity supply is contracted by the property, PCT Cartuja, S.A. The company does not pay for the consumption up to a maximum of 8kW/m². Nextu Formación has never exceeded this threshold.
- The average consumption was 49.8 kWh / month. Taking into account the surface of the office (43.50 m²), the annual electricity consumption per square meter is 13.13 KWh/m².

3.9.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- An energy report has been made for the company Nextu Formación based on the historical energy baseline data of the years 2019 and 2020. Year 2019 and 2020 was chosen because of the impact of the pandemic in the consumption.
- The data was collected by the property of the building, PCT Cartuja, S.A. The energy audit report proposes a series of improvements, advice or measures, to promote responsible and sustainable consumption of energy that contributes to a decrease in energy consumption, the cost of said energy and CO₂ emissions, without reducing the comfort of people.



3.9.3 Conditions for implementation and success

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- An optimal degree of efficiency will be achieved when consumption and comfort are in the right proportion. The most economical energy saving measures, which can even involve a zero economic cost, are those that have to do with our habits. Simple gestures, such as turning off the light when it is not necessary, or closing the windows of common areas in winter, do not cost money and always save energy.
- For the office to be energy efficient, it will depend to a large extent on the correct use made of the lighting, air conditioning and electrical equipment systems of the office.
- With the application of good practices for energy saving in companies, it is intended to achieve the following:
 - Change the consumption habits of workers, providing them with awareness and responsibility with the environment.
 - Make the company more efficient from the energy point of view, reducing CO₂ emissions.
 - Carry out exemplary actions
 - Reduce the economic cost associated with the energy consumption of the company.

3.9.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- In many cases, the most complicated thing can be to reach agreements between people who use common spaces, when selecting the appropriate temperature and lighting levels.
- One of the main difficulties is to get the commitment from the company and the staff for the training, because the cost of the company's energy consumption does not lie with them, but with the property owners.

3.9.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Since the office space is rented, and is part of a bigger property, in order to calculate the impact of the measures for this office only, we decided to follow the following reasoning: we apply the measure to all the building and then we divide the impact by the number of all the companies/tenants in the complex (24). Furthermore, we have reduced that impact by 10% to exclude the common spaces.

Nextu Formación				
Measures	Savings (kWh per year)	Savings (kCO2 per year)		
LED Lighting Replacement	3507.39	666.38		
Repercussion PCT CARTUJA Measurements in				
thermal installations. Heat pump replacement	1851.00	429.75		

Table 11 Nextu Formación



Measurements in the epidermis. Replacement of carpentry with another with better thermal		
qualities	2423.85	676.88
Use of renewable energy sources	1484.74	669.75
Behavioural change related to Lighting	26.40	8.40
Behavioural change related to computer		
equipment	36.00	12.00
Behavioural change related to air conditioning	62.40	20.40
Behavioural change related to ways of working	10.80	3.60
Total	9402.58	2487.15



Figure 31 Nextu Formación Savings (kWh per year)





Figure 32 Nextu Formación Savings (kCO2 per year)

3.10 BP10 Ennde 3d

This company, along with 23 others currently, are part of the PCT Cartuja complex in the Italian Pavilion building. The Cartuja PCT is the main space for innovation in Seville, a Scientific and Technological Park that brings together 536 companies and start-ups, training and research centres and with an extensive cultural and leisure offer.

Ennde3D is an external engineering department, focused on R + D + i, management, development and manufacture of products. It is a Micro company (<10 employees/partners) & Annual Turnover ≤ 2MM€ from the Engineering sector, located in Seville, Spain.



Figure 33 Ennde 3d



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847034

3.10.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Company allocated in 2017 in the Technoincubator Marie Curie (TMC). The company has been hosted until October 2020 in a 46.94 m² office on the 4th floor. The company moved to a 18 m² office on the 1st floor in November 2020.
- The energy consumption of the company consists only of the electricity consumption of the office, because they do not have other facilities or fleet of vehicles.
- The electricity supply is contracted by the property, PCT Cartuja, S.A. The company does not pay for the consumption up to a maximum of 8kW/m². Ennde3D has never exceeded this threshold.
- The average consumption was 43.08 kWh / month in the first office and 126.56 kWh / month in the second office. Taking into account the surface of the both office (46.94 m² and 18 m²), the annual electricity consumption per square meter is 70 KWh/m2. Comparing with other offices it is very high since the employees and the activity of the company is the same as before but in a smaller office.

3.10.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- An energy report has been made for the company Ennde3D based on the historical energy baseline data of the years 2019 and 2020 because of the impact of the pandemic in the consumption.
- The data was collected by the property of the building, PCT Cartuja, S.A. The energy audit report proposes a series of improvements, advice or measures, to promote responsible and sustainable consumption of energy that contributes to a decrease in energy consumption, the cost of said energy and CO₂ emissions, without reducing the comfort of people.

3.10.3 **Conditions for implementation and success**

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- An optimal degree of efficiency will be achieved when consumption and comfort are in the right proportion. The most economical energy saving measures, which can even involve a zero economic cost, are those that have to do with our habits. Simple gestures, such as turning off the light when it is not necessary, or closing the windows of common areas in winter, do not cost money and always save energy.
- For the office to be energy efficient, it will depend to a large extent on the correct use made of the lighting, air conditioning and electrical equipment systems of the office.
- With the application of good practices for energy saving in companies, it is intended to achieve:



- Change the consumption habits of workers, providing them with awareness and responsibility with the environment.
- Make the company cleaner and more efficient from the energy point of view, reducing CO₂ emissions.
- Carry out exemplary actions.
- Reduce the economic cost associated with the energy consumption of the company.

3.10.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- In many cases, the most complicated thing can be to reach agreements between people who use common spaces, when selecting the appropriate temperature and lighting levels.
- One of the main difficulties is to get the commitment from the company and the staff for the training, because the cost of the company's energy consumption does not lie with them, but with the property owners.

3.10.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Since the office space is rented, and is part of a bigger property, in order to calculate the impact of the measures for this office only, we decided to follow the following reasoning: we apply the measure to all the building and then we divide the impact by the number of all the companies/tenants in the complex (24). Furthermore, we have reduced that impact by 10% to exclude the common spaces.

Ennde 3d				
Measures	Savings (kWh per year)	Savings (kCO2 per year)		
LED Lighting Replacement	3507.39	666.38		
Repercussion PCT CARTUJA Measurements in thermal installations. Heat pump replacement	1851.00	429.75		
Measurements in the epidermis. Replacement of carpentry with another with better thermal				
qualities	2423.85	676.88		
Use of renewable energy sources	1484.74	669.75		
Behavioural change related to Lighting	97.20	32.40		
Behavioural change related to computer				
equipment	129.60	43.20		
Behavioural change related to air conditioning	225.60	74.40		
Behavioural change related to ways of working	37.20	12.00		
Total	9756.58	2604.75		

Table 12 Ennde 3d Measures and Savings









Figure 35 Ennde 3d Savings (kCO2 per year)



3.11 BP11 SME1

SME1 is a joint venture between Versalis, a company specialized in the production and marketing of petrochemicals, and Novamont, a leader in the bioplastics market. It is a company that produce integrated green chemicals.

It is a Small company (10≤ employees/partners ≤49) or (Annual Turnover ≤ 10MM€) from the Information and Industrial/ manufacturing sector, located in Italy.



Figure 36 SME1

3.11.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

• The company registers very high thermal energy consumption.

3.11.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

• SPEEDIER contributed to help the company in identifying possible Energy Conservation Measures (ECMs) that could be applied and implemented in order to reduce the energy consumption.

3.11.3 Conditions for implementation and success

The following is the condition for the application of the measures and the actions carried out for the successful application of the solutions:



• The identified ECMs need to be approved at company level in order to start their implementation. It could take time to purchase new insulation materials and to apply the structural changes to facilities.

3.11.4 Pitfalls to avoid

This is the pitfall to avoid in this case:

• High structural changes and investments in case of uncertainty on future savings.

3.11.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 13 SME1 Measures and Savings

SME1				
Measures	Savings (kWh per year)	Savings (kCO2 per year)		
Facility Management Changes	122500	33075		
Regularly clean lights and air filters during peak				
cooling or heating season	49000	13230		
Install Task Lights and upgrade to dimmable LED	196000	52920		
Replace boiler and insulate tubes	122500	33075		
Total	490000	132300		



Figure 37 SME1 Savings (kWh per year)





Figure 38 SME1 Savings (kCO2 per year)

3.12 BP12 SME2

SME2 commercializes both in Italy and abroad agricultural products, also in the fresh product sector of the first range.

It is a Large company (>=250 employees/partners) or (Annual Turnover > 43MM€) from the Information and Industrial/ manufacturing sector, located in Italy.



Figure 39 SME2



3.12.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

• The company wants to optimize their energy use because it could lead to a significant amount of savings.

3.12.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

• SPEEDIER contributed to spreading the awareness of ring-fencing mechanism inside the company, thanks to the staged approach of starting from no-cost measures to reach the medium and high-cost measures in the next months/years.

3.12.3 Conditions for implementation and success

The following is the condition for the application of the measures and the actions carried out for the successful application of the solutions:

• The company needs to deeply consider and analyse the potential use of photovoltaic panels in all the facilities, since it would need a relevant investment.

3.12.4 Pitfalls to avoid

This is the pitfall to avoid in this case:

• Rush in the decision and implementation of ECMs without a solid analysis of benefits and risks.

3.12.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

SME2			
Measures	Savings (kWh per year)	Savings (kCO2 per year)	
Adjust thermostats for seasonal changes and			
Keep exterior doors closed while running HVAC.	32000	8640	
Efficient use of lighting	32000	8640	
Change Air-filters and install better insulation			
solutions	64000	17280	
Consider use of photovoltaic panels	192000	51840	
Total	320000	86400	

Table 14 SME2 Measures and Savings









Figure 41 SME2 Savings (kCO2 per year)



3.13 BP13 SME3

SME3 is a company that produces white paper and covers for use in packaging board and industrial packaging. One hundred and thirty-five thousand tons of paper are currently produced annually using an automated, computer-controlled process facility with high technical standards.

It is a Large company (>=250 employees/partners) or (Annual Turnover > 43MM€) from the Information and Industrial/ manufacturing sector, in Italy.



Figure 42 SME3

3.13.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

• The company registers very high thermal energy consumption (more than 100 GWh/year)

3.13.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

• SPEEDIER contributed to help the company in identifying possible Energy Conservation Measures (ECMs) that could be applied and implemented in order to reduce the energy consumption

3.13.3 Conditions for implementation and success

The following is the condition for the application of the measures and the actions carried out for the successful application of the solutions:

• The implementation of measures requires time because of the large size of the company and the number of facilities involved.



3.13.4 Pitfalls to avoid

None in this particular case.

3.13.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 15 SME3 Measures and Savings

SME3			
Measures	Savings (kWh per year)	Savings (kCO2 per year)	
Enable sleep settings and energy management function on all multifunction devices	86400	23328	
Keep engines clean, minimize lighting in non- working areas and install better insulation			
solutions	172800	46656	
Facility Management Changes	230400	62208	
Ensure team members in each department are trained on the importance of energy management and basic energy conservation			
practices.	86400	23328	
Total	576000	155520	



Figure 43 SME3 Savings (kWh per year)





Figure 44 SME3 Savings (kCO2 per year)

3.14 BP14 SME4

SME4 was founded in 1975 in Caronno Pertusella (VA), for the distribution of flexible rubber hoses for hydraulic and industrial applications, together with a small unit for the production of low pressure PVC hoses. In 2014, it entered the field of products for crushing quarry materials (crushing, screening sieving and slurry pumps). Since then it has continued in the development of its various activities, becoming a product technology leader in its target markets. It is a Small company ($10 \le employees/partners \le 49$) or (Annual Turnover $\le 10MM \le$) from the Information and Industrial/ manufacturing sector, located in Italy.



Figure 45 SME4



3.14.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

• The company wants to invest in energy efficiency to gather both economic and energy use savings, but also to increase their productivity

3.14.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

 Include a list of no-cost and low-cost measures to implement in the near future with the goal of obtaining enough savings to be able to re-invest them in more expensive ECMs and support the ring-fencing mechanism.

3.14.3 Conditions for implementation and success

The following is the condition for the application of the measures and the actions carried out for the successful application of the solutions:

• In order to involve all company's employees in this process, it is important to spread and increase the awareness of the potential benefits of the energy efficiency measures identified.

3.14.4 Pitfalls to avoid

This is the pitfall to avoid in this case:

• The risk is that the change of mentality and the structural changes will require more time than expected.

3.14.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 16 SME4 Measures and Savings

SME4			
Measures	Savings (kWh per year)	Savings (kCO2 per year)	
Enable sleep settings and energy management			
function on all multifunction devices	22500	6075	
Regularly clean lights and air filters and use of			
task lighting	15000	4050	
Repair leaks and adjust pressure in compressed			
air systems.	45000	12150	
Use heat-insulating materials for doors and			
windows	67500	18225	
Total	150000	40500	





Figure 46 SME4 Savings (kWh per year)



Figure 47 SME4 Savings (kCO2 per year)

3.15 BP15 SME5

Since 1948, SME5 has been producing natural latex articles for industry, hospitals, pharmaceuticals, health care, scientific laboratories, zootechnics and sport. They realize special articles in rubber, para, neoprene, silicone, PVC, nylon and others, both from drawing and on specific request, using the most recent technologies always in step with the markets in continuous development.

It is a Medium company (49<employees/partners <250) & (Annual Turnover ≤ 43MM€) from the Information and Industrial/ manufacturing sector, located in Italy.





Figure 48 SME5

3.15.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

• This medium-size company in the rubber and plastic industry aims at increasing the attention towards energy audits, since the investment in energy efficiency are not in line with the industry benchmark.

3.15.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

• SPEEDIER tool and initiative helped the company in identifying a few ECMs that could bring initial savings in order to start a long-term plan of investments in energy conservation measures.

3.15.3 **Conditions for implementation and success**

The following is the condition for the application of the measures and the actions carried out for the successful application of the solutions:

• The identified ECMs need to be approved at company level in order to start their implementation.

3.15.4 Pitfalls to avoid

This is the pitfall to avoid in this case:

 The risk is that the expected savings are not fulfilled by the no-cost measures that will be implemented and consequently are not enough to cover future investments in medium-cost ECMs. In that case, it will be necessary to identify more ECMs that could bring higher savings to the company.


3.15.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 17 SME5 Measures and Savings

SME5		
Measures	Savings (kWh per year)	Savings (kCO2 per year)
Transformer load reduction/change and other		
structural changes	11200	3024
Use of bright colours for walls to reflect light		
and efficient use of lighting	30800	8316
Change Air-filters	14000	3780
Total	56000	15120







Figure 50 SME5 Savings (kCO2 per year)



3.16 BP16 Pensiunea Carol

Pensiunea Carol is a small family hotel with 12 rooms and a small restaurant serving only tourists, with 3 people working on it, including the owner. It is open all year round, 7 days a week.

It is a Micro company (<10 employees/partners) & Annual Turnover ≤ 2MM€ from the Hospitality sector, located in Târgu Neamţ, Romania.



Figure 51 Pensiunea Carol

3.16.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Excessive consumption of energy used and interest in reducing CO₂ emissions. The initial data of energy use:
 - Electricity 15600 kWh/year
 - Natural gas 138800 kWh/year
 - Domestic hot water 73800 kWh/year
 - Heating 65000 kWh/year

3.16.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- SPEEDIER experts helped the SME with an energy assessment and solutions suggestions for improvement.
- During the process, the hotel owner expressed his interest to become SPEEDIER energy expert and helping other SMEs in the region.
- SPEEDIER helped also with staff training.



- The hotel's ambition is to become *carbon neutral by 2050* and take the engagement to implement all suggested ECMs and to **use the financing fence** mechanism for this.
- ECMs:
 - Energy Consumption monitoring: energy consumption is regularly monitored to assess energy savings and to identify abnormal changes in energy consumption
 - Information to guests: leaflets in the guest's rooms
 - Staff training
 - Windows insulation: energy saving double glazing was installed during extension (+40%) of the hotel
 - > Building insulation: high-level insulation
 - > Hot water-saving: low-flow devices have been installed in the hotel rooms
 - > Integration of renewable energies: domestic hot water from solar
 - > Integration of renewable energies: electricity from PV solar sources

3.16.3 **Conditions for implementation and success**

The following are the conditions for the application of the measures and the actions carried out for the successful application of the solutions:

- During the process, the hotel makes a small extension and starts to implement most of the suggested Energy Conservation Measures.
- For the costliest ECMs the hotel applies for energy solar solution investment subsidies.

3.16.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- Not to use the financing fence mechanism for implementation but to expect subsidies.
- Not to monitor energy consumption and the way employees perform their tasks regarding energy saving.

3.16.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 18 Pensiunea Carol Measures and Savings

Pensiunea Carol		
Measures	Savings (kWh per year)	Savings (kCO2 per year)
Energy Consumption monitoring	3088	1627
Information to guests: leaflets in the		
guests rooms	3088	1627
Staff trainings	8030	4233
Windows insulation	9750	5099
Building insulation	10300	5387



Hot water saving: low-flow devices have		
been installed in the hotel rooms	13284	6947
Integration of renewable energies:		
domestic hot water from solar	40000	20920
Integration of renewable energies:		
electricity from PV solar sources 27kwh	15600	8829
Total	103140	54669



Figure 52 Pensiunea Carol Savings (kWh per year)





Figure 53 Pensiunea Carol Savings (kCO2 per year)

3.17 BP17 Hotel Carmen

Hotel Carmen is a hotel with 60 rooms and restaurant serving breakfast and dinner, with 32 people working on it. It is open all year round 7days out of 7.

It is a Small company (10≤ employees/partners ≤49) or (Annual Turnover ≤ 10MM€) the Hospitality sector, located in Predeal, Romania.



Figure 54 Hotel Carmen



Horizon 2020 European Union Funding for Research & Innovation This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847034

3.17.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Excessive consumption of energy used and interest in reducing CO₂ emissions. The initial data of energy use:
 - Electricity 370425 kWh/year
 - Natural gas 1687495 kWh/year
 - Domestic hot water 1040545 kWh/year
 - o Heating 646950 kWh/year

3.17.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- SPEEDIER experts helped the SME with an energy assessment and solutions suggestions for improvement.
- SPEEDIER also helped with staff training.
- The hotel takes the engagement to implement all suggest ECMs and to use the financing fence mechanism.
- ECMs:
 - Energy Consumption monitoring: energy consumption is regularly monitored to assess energy savings and to identify abnormal changes in energy consumption
 - > Information to guests: leaflets in the guest's rooms
 - Staff training
 - > Windows shadow system.
 - > Hot water-saving: low-flow devices installed in the hotel rooms

3.17.3 **Conditions for implementation and success**

The following is the condition for the application of the measures and the actions carried out for the successful application of the solutions:

• During the process, the hotel starts to implement most of the suggested Energy Conservation Measures but due to the Covid-19 situation expect to have cash-flow problems.

3.17.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- Not to use the financing fence mechanism for implementation but to expect subsidies.
- Not to monitor energy consumption and the way employees perform their tasks regarding energy saving.

3.17.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 19 Hotel Carmen Measures and Savings

Hotel Carmen



Measures	Savings (kWh per year)	Savings (kCO2 per year)
Energy Consumption monitoring	41158	21844
Information to guests: leaflets in the guests		
rooms	41158	21844
Staff trainings	71500	38856
Hot water saving: low-flow devices have		
been installed in the hotel rooms	18521	10483
Electricity consumption monitoring: AC		
consumption	187298	97956
Total	359635	190983



Figure 55 Hotel Carmen Savings (kWh per year)





Figure 56 Hotel Carmen Savings (kCO2 per year)

3.18 BP18 Capital Plaza Hotel

Capital Plaza Hotel is a small hotel with 25 rooms and a small restaurant, with 40 people working in it. It is open all year round 7/7.

It is a Small company (10≤ employees/partners ≤49) or (Annual Turnover ≤ 10MM€) the Hospitality sector, located in București, Romania.



Figure 57 Capital Plaza Hotel



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847034

3.18.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Excessive consumption of energy used and interest in reducing CO₂ emissions. The initial data of energy use:
 - Electricity 72036 kWh/year
 - Natural gas 549364 kWh/year
 - Domestic hot water 364576 kWh/year
 - Heating 184788 kWh/year

3.18.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- SPEEDIER experts help the SME with an energy assessment and solutions suggestions for improvement.
- SPEEDIER also helped with staff training.
- The hotel takes the engagement to implement all suggest ECMs and to use the **financing fence mechanism** for this.
- ECMs:
 - Energy Consumption monitoring: energy consumption is regularly monitored to assess energy savings and to identify abnormal changes in energy consumption
 - Information to guests: leaflets in the guest's rooms
 - Staff training
 - > Electricity consumption monitoring: AC consumption
 - > Hot water-saving: low-flow devices to be installed in the hotel rooms

3.18.3 **Conditions for implementation and success**

The following is the condition for the application of the measures and the actions carried out for the successful application of the solutions:

• During the process, the hotel starts to implement most of the suggested Energy Conservation Measures.

3.18.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- Not to use the financing fence mechanism for implementation but to expect subsidies.
- Not to monitor energy consumption and the way employees perform their tasks regarding energy saving.

3.18.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 20 Capital Plaza Hotel Measures and Savings

Capital Plaza Hotel		
Measures	Savings (kWh per year)	Savings (kCO2 per year)



Energy Consumption monitoring	12500	6613
Information to guests: leaflets in the guests		
rooms	12500	6613
Staff trainings	29754	16163
Windows shadow system	32811	17160
Hot water saving: low-flow devices installed		
in the hotel rooms	7205	4078
Total	94770	50627



Figure 58 Capital Plaza Hotel Savings (kWh per year)





Figure 59 Capital Plaza Hotel Savings (kCO2 per year)

3.19 BP19 Vila Alpin

Vila Alpin a small family hotel with 14 rooms and a small restaurant serving tourists, with 7 people working in it, including the owner. It is open all year round 7 days out of 7.

It is a Micro company (<10 employees/partners) & Annual Turnover ≤ 2MM€ from the Hospitality sector, located in Covasna, Romania.



Figure 60 Vila Alpin



3.19.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Excessive consumption of energy used and interest in reducing CO₂ emissions. The initial data of energy use:
 - Electricity 50422 kWh/year
 - Natural gas 229698 kWh/year
 - Domestic hot water 103644 kWh/year
 - Heating 126054 kWh/year

3.19.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- SPEEDIER experts help the SME with an energy assessment and solutions suggestions for improvement.
- SPEEDIER will help also with staff training.
- The hotel's and take the engagement to implement all suggest ECMs and to use the financing fence mechanism for this.
- ECMs:
 - Energy Consumption monitoring: energy consumption is regularly monitored to assess energy savings and to identify abnormal changes in energy consumption
 - Information to guests: leaflets in the guest's rooms
 - Staff training
 - > Efficient lighting: new bulbs
 - > Hot water-saving: low-flow devices to be installed in the hotel rooms

3.19.3 **Conditions for implementation and success**

The following is the condition for the application of the measures and the actions carried out for the successful application of the solutions:

• During the process, the hotel starts to implement most of the suggested Energy Conservation Measures.

3.19.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- Not to use the financing fence mechanism for implementation but to expect subsidies.
- Not to monitor energy consumption and the way employees perform their tasks regarding energy saving.

3.19.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 21 Vila Alpin Measures and Savings



Vila Alpin		
Measures	Savings (kWh per year)	Savings (kCO2 per year)
Energy Consumption monitoring	5600	3170
Information to guests: leaflets in the guests		
rooms	5600	3170
Staff trainings	56024	29733
Hot water saving: low-flow devices have		
been installed in the hotel rooms	18656	9757
Efficient lighting new bulbs	4034	2283
Total	89914	48113



Figure 61 Vila Alpin Savings (kWh per year)



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Figure 62 Vila Alpin Savings (kCO2 per year)

3.20 BP20 Le Boutique Hotel Moxa

Le Boutique Hotel Moxa is a small city hotel with 30 rooms and a small, with 41 people working in it. It is open all year round 7/7.

It is a Small company (10≤ employees/partners ≤49) or (Annual Turnover ≤ 10MM€) from the Hospitality sector, located in București, Romania.



Figure 63 Le Boutique Hotel Moxa



3.20.1 Issue/initial situation

To start the SPEEDIER process, the first step is to identify the issue or some initial conditions conducive to carrying out an energy improvement process. These are the issues and initial conditions for this particular business:

- Excessive consumption of energy used and interest in reducing CO₂ emissions. The initial data of energy use:
 - Electricity 50904 kWh/year
 - Natural gas 458135 kWh/year
 - Domestic hot water 247393 kWh/year
 - Heating 210742 kWh/year

3.20.2 Solution and SPEEDIER role

SPEEDIER's role has been to propose the most appropriate solutions to these issues and to advise for the correct application of the following measures:

- SPEEDIER experts help the SME with an energy assessment and solutions suggestions for improvement.
- SPEEDIER will help also with staff training.
- The hotel's and take the engagement to implement all suggest ECMs and to use the **financing fence mechanism** for this.
- ECMs:
 - Energy Consumption monitoring: energy consumption is regularly monitored to assess energy savings and to identify abnormal changes in energy consumption
 - > Information to guests: leaflets in the guest's rooms and TV display in the lobby
 - Staff training
 - Automatic control of electricity in guest rooms: "economy box" to shut down the electricity when guests leave their rooms
 - > Hot water-saving: low-flow devices to be installed in the hotel rooms

3.20.3 Conditions for implementation and success

The following is the condition for the application of the measures and the actions carried out for the successful application of the solutions:

• During the process, the hotel starts to implement most of the suggested Energy Conservation Measures.

3.20.4 Pitfalls to avoid

These are the pitfalls to avoid in this case:

- Not to use the financing fence mechanism for implementation but to expect subsidies.
- Not to monitor energy consumption and the way employees perform their tasks regarding energy saving.

3.20.5 Impact

The measures applied and their impact are described in the table and graph below, showing the effect that the SPEEDIER Service has had.

Table 22 Le Boutique Hotel Moxa



Le Boutique Hotel Moxa		
Measures	Savings (kWh per year)	Savings (kCO2 per year)
Energy Consumption monitoring	10180	5368
Information to guests: leaflets in the guests		
rooms and TV display in the hotel lobby	10180	5368
Staff trainings	25400	13704
Hot water saving: low-flow devices have		
been installed in the hotel rooms	34635	18114
Automatic control of electricity in guest		
rooms: "economy box" to shut down the		
electricity when guests leave their rooms	6108	3457
Total	86503	46011



Figure 64 Le Boutique Hotel Moxa Savings (kWh per year)





Figure 65 Le Boutique Hotel Moxa Savings (kCO2 per year)



4 Conclusions: lessons learned

The data gathered for supporting the development of this document has proved to be a valuable source of information for supporting whether the SPEEDIER Service is heading in the right direction.

The lessons learned are evidenced by a qualitative analysis of the interviews.

This examination of the case profiles and the interviews has revealed some shared patterns and trends that appear in a number of cases. The most relevant cases are discussed in more detail here, with analysis of the qualitative and quantitative data gathered as part of these pilot cases analysed to deliver learnings, recommendations and conclusions that will be useful for SPEEDIER experts and their potential clients.

> A fresh look from the outside can make the difference



Unquestionably, any expert that comes from outside an organisation to review the energy activity of a company is at a comparative disadvantage with regards to the technical staff that work full time there. Insiders know every detail about the equipment and the building, how it is used and maintained, and also, which are the behaviours of the workforce in the company. Gathering all this data and information during a few visits is not an easy task for the SPEEDIER experts. They are outsiders and therefore, would be unfamiliar with the installation they are auditing.

This lack of familiarity however also has been shown to prove an advantage in reviewing the energy activity within an SME:

They highlighted things we weren't aware of, simple little energy savings measures. They brought to our attention ways we can reduce our energy costs and improve our environmental efficiency.¹

¹ From the transcript of the interview with Tipperary Glass (IE). The quotations in this section of the document may have been slightly edited for clarity.



Some companies have been surprised by the kind of observations made by those outsiders after seeing their equipment and buildings for the first time. This "fresh look" allowed an unprejudiced analysis that was supportive of successful first steps in the relationship between companies and experts.

This success is not only a matter of detecting issues that may have been overlooked by the in-house technicians, but the experience with the pilot cases shows that it can be a true ice breaker:

The level of analysis that was done by [the SPEEDIER expert] has opened our eyes. We didn't do the level of analysis that he did for us, it definitely showed a lot of information.²



Many of the SMEs within the study are not novices when it comes to investigating ECMs in their equipment and their buildings. Energy efficiency influences costs and therefore it makes financial sense that companies manage any activity that impacts their bottom lines.

Cost-conscious companies often try to "go green" on their own. As previously, stated in the previous point, internal staff are in a good position to identify where and how they are wasting energy and money.

However, not all attempts to approach sustainability, from an internal point of view, has been successful:

I signed up for a free webinar about environmental awareness and they mentioned there that there were grants available (...) But in the end we didn't apply for any grant and left it at that.³

³ From the transcript of the interview with Modular Auto (IE)



² From the transcript of the interview with St. Tola (IE)

These failures seem to be caused by a mix of inconsistent leadership, poor commitment, insufficient resources and lack of scheduling:

(Putting into practice) energy saving measures is kind of left to me and what I can do and what I have time.⁴

In other cases, the companies report that they have already been approached by energy service companies (ESCOs) that offer similar services to the ones in the SPEEDIER portfolio. However, the SPEEDIER approach seems to have an edge over this competition:

The collaboration with ESCOs is frequent in Italy, also for smaller companies. But the SPEEDIER tool could identify some opportunities that usually [went unnoticed] by the traditional energy audits.⁵

In summary, is up to the SPEEDIER Service to deliver on the level that these companies want or face the risk that they will give up on the energy efficiency sustainability challenge for good.



This is closely related to the previous point, because the failure to implement an in-house energy efficiency plan has been frequently related to the absence of an in-house energy expert / champion / responsible leader.

Of course, this "authority figure" is uncommon in companies of the services sector, but maybe it should not be so in SME companies on the manufacturing business. But even in these cases, the technicians are there to run the machines and make sure that the production lines do not stop. The main function in the company is not to worry about how they could save on the energy bills, never mind the environmental footprint:

⁵ From the transcript of the interview with SME2 (IT)



⁴ From the transcript of the interview with St. Tola (IE)

There's no energy manager as such. We just sit around and have a chat amongst ourselves and we kind of make a decision from there.⁶

In general, the interviews show a constructive attitude from these mid-management people with a technical role in the company, that otherwise could have argued that energy efficiency was "not their job". They do acknowledge that (ideally) energy efficiency should be part of their job description, but right now they simply do not have the means to add it to their already long lists of responsibilities:

Nobody else here had the expertise and the time to work out [how to solve] some ridiculously wasteful practices that we had.⁷

I have technical knowledge of energy saving measures and energy efficiency through my role in the company but not to a level the SPEEDIER expert would have.⁸

From this, we can assume that bringing in an external SPEEDIER expert is not perceived as an intrusion. Quite the contrary, it is seen perhaps as a complement or a relief for starting up a task that "needs to be done", but that it requires a push from outside of the company. After this initial push, some companies are confident that the momentum created will remain:

Energy is not our core business and [this made] the start a little slow due to our limited knowledge. But after the first project training, things became clearer.⁹



⁶ From the transcript of the interview with St. Tola (IE)

⁹ From the transcript of the interview with Pensiunea Carol (RO)



⁷ From the transcript of the interview with St. Tola (IE)

⁸ From the transcript of the interview with Modular Auto (IE)

Following on the previous reflection about external SPEEDIER experts being much more "allies" than "enemies", the analysis of the interviews suggests that some of the companies have entrusted the experts with plenty of details about their operations. The result is that in some cases the SPEEDIER experts have come back with a similar level of detail in their proposals.

In the case study of St. Tola (IE), when the interviewee was asked to grade the service provided by SPEEDIER, he praised the effort of the expert to find a supplier of thermostats that could withstand the extreme humidity of the factory. Until now they have used conventional thermostats that "burned out every couple of months"¹⁰ so the move towards these elusive, more rugged units has been qualified as a true improvement.



Picture: Double L Group

In the example above, the client has highlighted what apparently seems to be a minor detail of component sourcing and has given it the status of (nearly) proof of success. This is particularly interesting, since the choice of component is not relevant to the main goal of the operation (i.e., the type of thermostat has no incidence whatsoever in the energy savings of the facility). But nevertheless, it has solved a true problem for the technician in charge (therefore, a problem for the company) even if it was not part of the core mission of SPEEDIER.

The lesson here is that it is worth approaching the clients with a broad problem-solving frame of mind instead of a narrow energy-saving agenda. It is true that this is not a formula to be applied widely: some companies may not be open to outsiders poking into every corner of their facilities. But if they do, it is an opportunity for productive engagement with them.

¹⁰ From the transcript of the interview with St. Tola (IE)



No tech can succeed without the right attitude



This collection of experiences reveals how important the human factor has been for the success of a many of the measures proposed by SPEEDIER.

First of all, a managerial team that empathises with the concept of saving energy and emissions, and gives it an adequate priority, makes for a smoother decision process.

But no matter how environmentally friendly the top management may be, if the people who use the facilities do not endorse the objectives, the results will suffer. It would be a mistake to rely upon the technology, hoping that a sophisticated equipment may compensate for the staff misusing the equipment, lighting, or HVAC.

Some of the SPEEDIER experts have described situations like this as a problem due to a lack of awareness. So perhaps, the solution is to invest some time and energies into explaining to everyone in the company the motivations of the changes introduced and try to make they fit in the company culture. Any strategies proposed to a company should include some kind of "awareness check" – it may seem a superfluous thing to do, but it could be a very valuable indicator, almost like an energy consumption check.

"No success without the right attitude" is a way of summarising this issue. But it would be even better to think in terms of "No success without the right collective attitude". Everybody in the company should get involved.

> Long-term support for a long-term process





Horizon 2020 European Union Funding for Research & Innovation This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847034 Companies already know that optimizing energy consumption is more of a marathon than a sprint! The interviews report cases of companies drafting multiannual programmes to implement progressively the measures proposed by the SPEEDIER project.

These programmes tend to prioritise the low complexity / low cost / quick return first and leave the high complexity / high cost / slow return for later. This is absolutely understandable and legitimate:

We started with simple measures, and we hope to obtain savings that we can re-invest in more expensive investments.¹¹

This means that somewhere down the line, the company will have to implement the really complex measures is when they will really need external help.

Some interviewees have already detected that the SPEEDIER Service has assumed a longer-term responsibility:

We feared that [SPEEDIER] was coming here to tell us a list of things we should do and then walk away.¹²

This may be a strong selling point for SPEEDIER: it is not just a service for diagnose (what is wrong) and for repair (how to fix it). It cares for the final result (check if it is fixed properly) and provides support throughout the whole process.

Another reassuring perception is that there is no self-delusion among SMEs about the duration of the process: virtually everyone assumes that it will be a long-term commitment. Achieving the goals should keep the company management and the staff motivated:

Every year our people seem more interested and involved in this.¹³

Understandably, the SPEEDIER experts should remain vigilant and make sure that their client companies remain interested, reassess their goals in the process and help them through their environmental contribution ambitions.

¹³ From the transcript of the interview with SM3 (IT)



¹¹ From the transcript of the interview with SME3 (IT)

¹² From the transcript of the interview with Modular Auto (IE)

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Annex interviews

Ireland

Expert

What business advantages do you think there are regarding other ways of approaching energy efficiency?

Apart from the business, the knowledge that you get from undertaking these energy conservation measures and from talking to these sites there, they are more energy aware now and they bring that home now and bring that energy efficiency home. There is definitely a monetary savings there that you can't really monitor because you can't go to everyone's house but just by speaking about it and energy efficiency people kind of pick up these tips and how to save their own money at home. There is a societal advantage were everyone can benefit from this approach and the controllability of buildings and understanding how your building works is good for a financial standpoint. To understand in inputs and outputs of the business, there is an advantage to it. The more outputs that you have, let's say, your production is more output compared to how much electricity you are using, things like that its these metrics that you can use to sell your product more. In most business models are looking for energy efficiency and understanding energy usage on sites.

How did you know that they would bring these knowledges to their homes and buildings? Did you get it back from SMEs?

Yeah, we do capacity building events like a DGE code. We talked to micro enterprises so that these would be two if not one or two people working in a business like, bakers, it could be truck drivers or things like that trying to get their transport business up and running. These are the start of let's say what could become smaller or medium enterprises. They usually come to these events looking for digital scales and also

learn a bit about energy and when they leave the place, they are more interested in the energy side of things than the digital side of things. We always represent their business as a house, and how to save money in their house is a start, to save money in their business side. They all come back to us, like we do two days, were one day we talk through energy efficiency measures and what energy efficiency really is and about climate change. The second they come around to us to ask us questions like 'what boiler should I change out?' 'What zoning should I do?' things like this. They are looking at their house before they are looking at the business kind of way, they pick up those tips and tricks, which they can use wherever. Also, from the pilot sides of SPEEDIER service, a lot of the people in contact with were already really interested in energy efficiency but when you start talking to the lower staff, people on production lines and general staff they are more interested in like 'How do I save a buck?' and if you bring that to the business and say everyone should know about energy efficiency. We can see that change and that advantage that everyone from the company save money at home by themselves.

What is the main reason behind why they have implemented energy efficiency measures according to you?

It depends on the company really, like we have one company is that their push is from their clients and their clients are big and they are looking for a 5 year carbon plan, this 5 year carbon plan will set out that there are carbon aware because they want to be carbon neutral in 5 or 10 years, and their client wants to see that and want to see that they actually trying to make a difference. While other companies are looking at production side of things, the energy efficiency, the running costs will be lowered from this investment, in that kind of way. We helped them look at moving around equipment and changing the pieces of equipment that will reduce the running cost overall and that kind of struck a chord with them and they were like,



that's what we want to do, reduce carbon and running costs. So, costs, client push, that's, mainly the only thing that is the reason behind so far.

Do you think your work will be financed through savings?

I think it will, with SEAI they brought this new voucher where an energy audit can be undertaken with up to €2,500 compensated to the SME. I think with this kind of idea the auditor has to come in and get paid for their performance of their energy audit through limitation. It is a really good idea, but to understand how much you are supposed to pay you need verification of those savings. Verification of those savings can be very difficult because you need energy monitoring, you can either have a data logger which costs more money or manual readings, and manual readings are going to take more time off staff. The verification of savings is the only thing, I would say the work will be financed through savings and I think that it is below 5% their savings is definitely enough, especially with some of the savings we are seeing at sites. It's just verifying how much the actual savings are rather than the calculated savings.

Do you think SMEs are aware of any other grants, any other SEAI grants?

I don't think so because I only came aware of it recently. I think all of the energy auditors will be aware of it and so they will offer it to SMEs for their services. They can go out and look for business that can pay them through the energy grant and after that we look at financing through implementation that kind of a way. Another good way of doing it would be to use that support scheme for energy grants €2,500 and start of your ring-fencing mechanism with that and then pay for performance after that so you could see more savings through energy auditors based on the savings they are producing, rather than 'here's money for an energy audit and now you can go away.' I think it is kind of a good idea for a business model for energy auditors and energy assessors to kind of get more out of their work rather than 'Here's

a piece of paper and sign this and you are off, you can do whatever you want with it.'

How has communication been with the SME?

It has been good, but it has been troublesome enough during the summertime I would say. During the start, I only have been in contact with these SMEs since January myself. Since January, it has been good feedback once you provide something from them. Once you have an idea inside your head, show them your idea 'Here's my idea listed A to Z,' they pick out which ones they like, so you go with that and back with a high-level come energy assessment, and they see the energy assessment and see that it makes sense. The only way to communicate is to provide something, otherwise they don't see the point in communicating with you. They could think it is another scam or something. They are not interested in having a conversation. It is mostly over phone, quick chats about energy efficiency and what is the best way to go around it and getting their input rather than us doing all the work for them. Cause at the end of the day the project is only 2 years and after this they are going to have to go do their own assessment. We are trying to tell them that we shouldn't be doing all the work for you, we should kind of do few things and show you so you can do it yourself. Therefore, you can do it yourself and not have to pay anyone.

What if there was no grant for energy audit? Do you think energy savings costs could be financed through savings?

I think yes but what I think would happen is, in my opinion, is that energy auditors and energy assessors will do a quick energy audit. High level, desktop look of things. Probably will have no information available for them to actually make decisions, then they will rush into providing VST's on compressors and motors, things like that. They will rush into ECM's thinking that they will need to make money out of it, so I need to get this done quick. So 'replace this,' 'replace that,' 'get rid of that, and get rid of this.' The idea of the ringfencing mechanism is that you start of slow, and you



build up speed and momentum as you go along. So, reducing set point, reducing heating schedules things like that. As I said before also verifying the savings from that is very difficult, you will need a full year to figure out whether it is working or not and I don't think the energy auditor is willing to wait a year to get paid. Then again that's more commitment on the energy auditor's side.

How has the application of the measures been? Have they followed your directions?

We have gotten a couple of implementations and a few ongoing now. They really value our opinions and our directions as well. We kind of get them involved in most of the planning of things like that. It has been good so far but again we are not supposed to be to be of and end of when it comes to installing LPG or a boiler system or things like that. We need specific experts on that, and we'll get them in contact with that and we talk with them, to the experts, they kind of give ideas and we just tick off and say that checks out and this checks out that kind of a way. We are kind of consulting rather than actual hands on and installing the boilers and things like that for them. They really value our opinions and they do follow our directions. When as an example we gave them directions, there was a boiler in the lower unit that blows hot air into an old factory, the factory is about 50 to 60 years old, and we told them to put in radiant heaters because radiant heat won't rise with air, and it won't go through your roof. So, they went along with this, and they definitely agreed with us, and they brought in an expert and the expert agreed with us with what we said. That's kind of the most important things is that we build that trust with them and say that your best interests are in mind.

Would you intend to continue the SPEEDIER service if you were not with LIT?

I've been in contact with a few people in LIT if we could continue supporting these SMEs and we have built up a relationship with them and its kind of in the overall plan of LIT to get this sustainable, micro economy going, and get SMEs and southwest area of Ireland running. So definitely I would continue it because now a lot of implementations been brought to fold because of heating season in horizon, and people are worried that if the summer was so hot will the winter be so cold, so we are kind of looking at heating systems now. Once you get the first ECM down its they will listen to everything we say. We will be able to verify these savings at the of this year. It is the snowball effect, to start one ECM and they will all fall into place and all fall in line.

Are you intending to use the SPEEDIER concept for implementing the ECM's?

The ringfence mechanism needs a push to start off. Let's say you reduce your setpoint in your boiler, your old kerosene boiler, you're going to save a good bit in a year, but they won't see that savings in a year until you have a monitoring system in place. So, they come to us with ideas like we need to change this out, this is at its end of its life and from that savings you're going to say, we have saved this amount within a year if there is a payback period within 5 years, if you are looking at a 5-year thing instead of a yearby-year thing.

Would you recommend this system to other experts? Why?

I would yeah, because the idea behind the ringfencing mechanism is really good and I think for office-based SMEs it is probably the best way to go, that small build up, that kind of a way. With more like the spoke SMEs and things like that there are a lot of issues regarding the ringfencing mechanism because there's nothing to change other than equipment in that kind of a way. So, again you can still use the ringfencing mechanism, you don't have to start that no cost you can start at mid cost and work your way around again. So, I think the idea behind it is very good, but you can chop and change between starting at low cost, no cost and high cost. I think you can start mid cost and then go high cost, and again with the 5-year plan in mind, I think other experts should definitely look at this.

Could you list the advantages of the SPEEDIER service?



The advantages of it are kind of the push for implementations is the main thing like there are so many different sites that have energy audits done and they might have looked at the energy audit once and never looked at anything that was said in it. The SPEEDIER service kind of breeds this kind of a push for implementation that you have to implement these, and you if you don't start with one of them, you're not going to able to continue your mechanism. So, I think that's one advantage of it that its kind of implementation focused to kind of get the energy auditor idea you need, that pristine document that's 6,000 pages long with every single detail in it but nothing is done, so you have everything planned out, but nothing done. That is the main benefit of SPEEDIER service were you kind of skip the streamlining reporting part and go straight to the implementation part.

What would you improve of the whole system?

One improvement I have is to start with monitoring, so if you could start of the whole process by engaging with the client, get your billing, analysing the billing, figure out if there is savings from the suppliers, then you look at the other ECM's going on onsite I think when you go onsite that time, you should really start of with monitoring equipment of some sort. From that you should show them how to take down energy readings and things like that and force this idea of monitoring into their mind so that once you change out you know exactly what you are using in a month and your verification of savings are probably in two or three months instead of one year to figure out how much savings you have had with the bills

Modular Auto

What has been the main reason for you to join Speedier Service?

For us initially here, our CEO was made aware of the SPEEDIER project. She was very keen on making environmental improvements and looking at energy assessments, first time the company has looked down that route. I reached out to the link that has been provided at the time, spoke with some people in LIT and dipping our toes into it to get an initial assessment and see what improvements we can get here.

How was communication with the expert SPEEDIER?

The first contact I had was someone who made a forum for ourselves and energy assessors, so that was quite good. Then spoke with Steven, and communication with Steven has been very good, and clear especially through emails and such.

So everything was explained well and you understood how the SPEEDIER service will take place?

Yeah, yeah and even the output of that and the presentation and going through what he found, was different and low input and high input was quite good.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like?

Yes, it's been really good and what I've liked is what Steven had come on site and done his assessment, taken some information data. He came back looking for additional information, which we attained a short while ago, and he has also came back supporting us through the improvements. It has been much more hands and it has been very good.

How did you like about the explaining of the different energy savings measures and how



we will be implementing the measures? Did you like the explaining?

Yeah, am its quite good, some of the information has been top level and some of it has been my level. A bit more technical and easier to digest, and the key part was I have been taken information Steven has given and we have been settings business objectives. Settings goals for 3 to 5 years. I guess I have to translate that to the business leadership team and apart from the improvement in sustainability, also look into any return in investment planning and pitch in a slide for that. There will be some tweaking for various levels.

Since you were a technical knowledge and energy savings and all those things, it was easier for you to understand those things, but for someone who doesn't know anything about energy saving measures and energy efficiency, it would be difficult for them to understand?

Yeah, I wouldn't say I would be an expert, I would have knowledge of it through my role but not to a level Steven would have. The information may need to be made simpler for the guys and lots of it has to do with kilo watt hours and that means very little to people not in that world. I suppose lots of these people will refer to how much it will save you? What's your carbon footprint? What's that equate to? That is were it keeps it simple for people to say, yes it is a benefit or not. Were as if u go into kill watt hours and figures it can be confusing for people.

How has the decision been taken when deciding which energy savings measures to apply?

So, am we are probably not fully boxed of on this just yet. Steven has given us a list of I suppose actions that we can take, its for me to suppose move forward with that is data, we are still at a data collection stage. But for me to go to my leadership team with that 3 to 5 year plan, I need to really build a case for, okay we are going to take action in changing all the lights to LED or solar panels, whatever it might be I really need to build that structure presented it back as a business model. What's the cost and what are the benefits. Obviously, it is low level hanging fruit, whether its education training, again that should be an easy uptake from the management team, but that could go so far. It's really if we can make physical changes where we can really make improvements and some of those are costs to start process. So it is a good time to doing because anything that will probably be starting we will be looking at next year really, therefore I can look towards budget, time of the year would have an aspect of what measure would be taken up first.

When you decided to go ahead with SPEEDIER service what was your intention behind it?

It was the green image, our CEO is quiet environmentally aware, lots of our customers who are big companies who have much sustainability on their radar and I suppose there's twofold as one being green ourselves but also shown our client were green and also to keep working with them.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the experts?

Yeah, some of the measures have been simple where I know SPEEDIER has been doing some training, in their videos and presentations. Any doubts? Steven has been great and he's only onsite and only got on last week and working with me on what we need to get to on data analysis and sent me an about hour ago getting an email to gain access to our management system and see what capabilities are. He brough in expert from manutech onsite last week. It has been great and any question he has been supportive.

The change of behaviour to save energy has been difficult to apply?

Am so again yeah, we haven't fully gotten to the stage of rolling out the plan to the site wipe team. Some of the changes, again we see talking about reducing the temperature down in the work areas, we will have to see how that goes if we decide to go with it. There are definite behaviour challenges because again people don't see that as their issue, and some are environmentally aware but there are some who



think its not their bill or their concern. So, there will definitely challenges on that for behaviour.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

At the moment that question is invalid because we haven't got to the true saving element of it as we are in the planning stage.

So you haven't implemented the energy conservation yet only planning right now? So there are not yet implemented yet?

So Steven has done an energy assessment, he has giving us a top level suggested measures that we need to get more information on to say okay we need 12 or 15 and what ones we will take on year, two, three or five. We are slightly strange business we are not a production facility where we have a shift of 8 hours that's repeatable, we are very much produce based. We have grown 3 facilities, while we may be building a produce, we are running a machine in build area 1 and in two weeks' time we would have a totally different energy consumption from that as we would have that running for 8 hours for 5 weeks. So we are trying to simplify it to make it applicable to facility energy as to also production element also.

If it weren't for this self-financing system from SPEEDIER, would you have made any energy deductions? Why?

Yes, we would have, considered it to be honest. It would not have been a higher a priority to pay for an energy assessment. What we did like about this was that SPEEDIER was gonna stay accompanying us through the journey instead of telling us what to do and being more hands on. It's a much more beneficial process but I would like to think we would have gone that route. But the self-financing part did speed up the process.

Do you have your funds dedicated for implementing energy saving measures?

Not yet, we budget, next two to three months I would be putting down facts and figures. Steven and I will work on what thoughts will occurred to make the changes to improve our BMS and so

on. That would be pushed on the leadership and so on.

Do you know about grants available for SMEs for conducting audits and for implementing savings measures?

I would be aware of some grants. I know there was a grant for, I met an energy assessment company and they had a convention and I signed up for a free webinar about environmental awareness and they mentioned there that there were grants available. What would be beneficial is when I sit with Steven and we actually put down our objectives and what we should do and what we could do and what the likes to do. Were the grants support the business proposal.

Have you applied for any grant before this?

No I have not.

What are the advantages of SPEEDIER service?

The self-financing service is a major benefit and I think the knowledge from Steven and as Padraig I spoke to previously, they have been really good and it's like they are not providing a service, its their directly coming to us and they want to make the improvement. Instead of coming here to tell us a list of things we should do and walk away, its very much making change for the right reason and I think that is a massive benefit. Thoroughly engrossed in their work, while it has been self-financing, there has been dedication as if they were making money for there changes they made, so again its really reflective on how dedicated they are on what they are doing.

Would you agree that the SPEEDIER is removing some of the barriers in implementing energy efficiency measures?

Yes I would, the fact that it is free, you don't have to ask if it would cost anything. Especially with the pandemic everything has gone up price, and costs for everything so it was a massive benefit. If anybody came to me I would recommend SPEEDIER because of that.

What would improve of the whole system?



Horizon 2020 European Union Funding for Research & Innovation

The overall service, I think mentioned this, that it should be easier to access training easier. So again we spoke on behaviour stuff there should be few different tiers of training elements. If you think about the CEO who are extremely busy people, CEO and leadership don't have much time so asking anyone on 2 hours on environmental will achieve to its entirety. I think at that level a 30 minute max session for the people who don't have time. As the likes of myself would benefit from the 2 hour sessions and there's definitely a while line of environmental in my title its not my bread and butter, healthy safety is. There is definitely scope there for education and improvement of environmental people that its not what we do day to day. I suppose what I would like to occur in the future is that I would like to be able to walk around and be more aware. Having some sort of indicators in the mind for change. Are you aware of this? And making these small changes can actually improve an there is some scope of this that can be improved from that point of view. Different levels of training on whoever you are pitching it to. They want in very short terms and so maybe some short videos, animations etc to get the message across.

What would attract more employees to attend the training?

Face to face is better in my opinion and short video type of trainings with power points slides is an effective way because people listen. Also access to the training is key because we have seen two weeks in a row the training provided wasn't manageable to fit in 2 hours in the morning. If the training was a shorter training and given a week to attend the training, whatever time will suit you and given an alert to attend the training, to apply flexibility to the training. Anything interactive is also good during the trainings. Piece the information or questions as the training goes on. There's loads of smart training available and mechanisms. You want to make environmental training as friendly, and give them the appetite for it, getting their interest there. Maybe having a forum would be handy for discussions and problems through the forums and such. Sharing information and knowledge.



St. Tola

What has been the main reason for you to join SPEEDIER service?

We got involved to save money first of all, another reason is that all food companies above a certain size have a program called origin green, it is basically about sustainability, so you must produce reports every year to show that you have taken steps to make things more efficient. The SPEEDIER program was good to help with that because a lot of the time we didn't have any new ideas, and they helped us with coming up with new plans on just how we constantly progress with it. That's really the two major reasons, the origin green program and the hope that we can stop wasting money I suppose.

Where do you have to submit that annual report for origin green?

You do an update to the report every year and every five years you submit a new report. So, there's pressure on constant improvement with it. Ford B will not give you your annual marketing grant without having completed the origin green program, you also need to take a part in a lot of Ford B events. They do, bloom in phoenix park which is a big event, and you can't take part in unless you have origin green completed. So, there's a bit of pressure to get it done.

How was communication with the expert SPEEDIER?

It was great because they were very accessible, we can always kind of get them ask questions whenever we wanted. We landed on a bit of an unusual situation I suppose with our program, that Padraig who's in charge came to us the day covid started, so everything kind of broke out and I didn't see Padraig again for nearly a year. Things didn't run as smoothly as would have if not for covid, but I think everything at the moment is affected like that. Yeah, they were very accessible, and communication was very easy with them. They looked in the directions we wanted them to look, and so yeah it was very good.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

Everything worked very well, I still haven't completed all the steps in it but Steven and LIT were very good at researching the very things we needed and coming back to me with several options on how to progress with the step. Like an example would be, we wanted to replace thermostats because our environment is so humid, our thermostats burnout every couple of months, so Steven went out and researched what waterproof/high humidity thermostats are available and where to get them and how they would work for us which was still good because I didn't have enough to do it. It was really good to have someone there doing it for me.

Has the expert's way of explaining the different energy saving measures been successful?

Yeah, we have spent a lot of time going through the different options and where we will save energy, and where we are using too much energy. So, they have been quite good at explaining all the different sources and different options available.

Are you happy that they have cleared your doubts regarding any of the energy savings measures?

Yeah, they were great but the major problem from my side was not having time to go and get everything done. Most of our work with the program has been in the summer months, when we are extremely busy here. When really in winter months are when we actually get the jobs done. So, there are a lot of things on the list now that we are hoping to do very shortly.

How has the decision been taken when deciding which energy saving measures to apply?

So, how much we would save, the cost doing it and how necessary it was to do them. We replaced out boiler, and we chose to go ahead with that step because our boiler is very old and



Horizon 2020 European Union Funding for Research & Innovation needs to be replaced, so there was more urgency in that step for example. Really what we looked at was the cost and how long it would take to return the savings to cover the cost.

Do you have any energy manager dedicated to take decisions on this?

No, really we sit around and have a chat amongst ourselves and we kind of make a decision from there. There's no energy manager as such, it is kind of left to me and what I can do and what I have time.

Has the application of the measures been simple?

No, but we are getting there, there are a lot of things we still haven't done but we are still planning to do. Our peak season will end at the end of September and then we will get more of the jobs done. I think the SPEEDIER program ends in October, but we will be implementing a lot of these measures from start of October till the end of February.

Was understanding these implementations of these measures easy?

Yeah, Steven was particularly great for giving us a breakdown on how things work. I think the example I can think of is changing from oil to gas heating and he did a lot of research and broke it down and very simply on the kilowatt hours used and the savings with the switch over from gas to electricity. It's very clear and done out in a systematic way.

The change of behaviour to save energy has been difficult to apply?

So long as they can see the savings will repay the cost quickly, then yes, they are very keen to do it. The money is really what they will look at and if it makes sense then they are more than happy to work with them and make the changes that are necessary.

The other employees working in this company, were they happy to support these decisions?

They would be, a lot of it wouldn't directly affect them, because a lot of the stuff kind of goes on in the background. Everyone would know about it since it's so small here and we would all be chatting about it and everyone would agree, and it would make sense to them what we are doing. We had some ridiculously wasteful practices that we moved on from, but nobody liked that we didn't have any solution but now we do have a solution.

Was the SPEEDIER expert helpful to overcome those malpractices?

Yeah, they were good at explaining the different ways of working around them that nobody else here had the expertise and the time to work it out. They were guite good at being able to say 'That's not right,' 'That's really wasteful,' and one example I can think of is that we had a boiler that had to be powered from outside but that it was so bad because the atmosphere was bad that it the moisture would cause the timer switch to blow out. So, we didn't use a timer switch and we left the boiler constantly on and using power all the time, when we only needed the particular boiler twice a day, so we replaced that with a gas boiler that heats the water at a continues flow heating system so that it heats up the exact amount of water that you need for the system rather than an electric boiler running 24 hours a day 7 days a week. That's gone now so it only runs 10 minutes twice a day. They found the solution to that, we were looking at it and kept saying the timer is blown and there's nothing we can do, and they said that it was quite simple 'put this boiler right here that will do the job,' and that as an example that worked really well.

Where you able to achieve the savings through the energy savings measures implemented?

Yeah, there seems to be savings made, we expect from our change over from kerosene and electricity heating and save almost \in 2000 alone. The fridge seals will be replaced very soon and we are kind of hoping there will be a big saving there, but the figures we have so far seems to say that on the heating systems that there is a saving of \notin 2000 a year. Which will cover the cost of implementation in 2 and a half years, which is pretty good and we are happy with that.



If it weren't for this self-financing system from speedier, would you have made nay energy deductions? Why?

Yeah, we would but we are always looking to stay safe with the origin green program but we kind of hit a dead end and we were stuck for ideas on where to go. We wouldn't have hired a private energy consultant, to help with this, so the program really has streamlined the process that we had new ideas and new directions to go.

What is the reason you would have not contacted any private energy consultant?

I never really thought of it and I have been doing the origin green program for years and just kind of working on it myself as I went along but I suppose I have done all the easy things and I just ran out of ideas. Maybe someday we would have hired somebody to help but we had no plans to do it.

Could you list the advantages of the SPEEDIER service?

The main advantage is to have someone there, an expert on call that can look through your premises and say 'these are six or ten things you can do,' it is very helpful to have someone there who has the time and the expertise to look at it from the outside. When you look at things from the outside sometimes you don't see them and there were obvious things there I just didn't notice. By bringing outside people in, they were quite good at saying 'what about this and what about that,' and they are very easy to communicate with and they are willing to go whatever direction you want them to go.

Are you aware of any of the available grants for SMEs regarding energy efficient implementations?

We have details from Steven and LIT as well, we got some of that through the SPEEDIER program and so we are hoping to really use some of that information as well. I knew there were grants there but I didn't know the details.

What would you improve of the whole system?

Maybe, that the program wouldn't end, and maybe run the program longer and maybe covid has caused problems but I suppose we are finishing up with SPEEDIER but we are only halfway.



Taylormade System

What has been the main reason for you to join the SPEEDIER service?

The main reason we joined was because we were doing a separate training course in Limerick IT in Thurles campus, and we had a speaker there who was the member of the speedier team and kind of introduced themselves part of the overall course we were doing and so it seemed interesting then when we heard about the project.

How was the communication with the expert in SPEEDIER?

Not to be negative but it has been quite difficult due to covid. Steven was here in the beginning of July and that was the first time I would have met Steven, so there were emails going back and forth for a couple of months before that so. Covid has definitely hindered communication because I would have liked to do a face to face a lot sooner, because it is easier to work that way.

What is the main motive of energy auditing and saving energy in joining SPEEDIER service?

It's a combination of reducing our carbon footprint as a business but yes also the savings part.

Have you got any demands from any customers regarding carbon footprint and carbon savings?

With the business that we are in right now, no we have not. We have had no customers request that.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

I suppose I would have preferred if we did something face to face sooner, so the explanation of the SPEEDIER was done through email and as far as I remember there was some documentation and I don't remember exactly but I would have liked more face-to-face time to do it. To be honest a Teams call would have helped but we didn't do that either so. The only communication we had was email and that one visit on site.

Has the expert's way of explaining the different energy savings measures been successful?

Yeah, no we have gotten very good documents I believe three or four weeks ago with the explanation or the opportunities that we had to reduce our costs and improve our carbon footprint. Everything that we have gotten back was very good.

How was the decision been taken when deciding which energy saving measures to apply?

I will give you a small explanation to our company, so we are part of US multinational but the site here in Ireland has 91 staff, first of all we would have to get approval for capital expenditure and the rules kind of there at the moment for it to be successful is payback should be less than 2 years. That's just a baseline rule, after that then there are other mitigating factors to be considered as well. So, that definitely drives our decision about what we can and can't do. There is one example there, I am not seeing the payback until year 5 so that is a problem for me, and it is difficult for me to get approval for capital expenditure to do that, unless again there are mitigating factors like machinery end of life and so on.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?

As again we haven't applied any of the measures yet, again we only got to report back 3 weeks ago so are at an early stage, so I don't have a further answer on that one.

The change of behaviour to save energy has been difficult to apply?

I suppose prior to speedier we changed all our lighting in the factory from old sodium and florescent fittings to LED lighting. So, there is an


appetite within the business to do that and I think everybody nowadays are aware that we need to improve. More so this week when you see a lot the weather events that have happened around the world and we see that the damming report that went back into the UN about how serious the whole climate change issues is. So, that must have influenced people more so than ever. I think it's easy because there is a worldwide case there at the moment.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

As I said before, we haven't applied any of the savings yet, there is one thing we will probably go ahead with in the next couple of weeks which was a suggestion to change our gas boiler to a condensing gas boiler. Our old boiler there at the moment is nearly at the end of life anyways so it is easier for me to get a capital expenditure for that one. That was one of the recommendations on the report that something we will go ahead, were two of the other recommendations 10-to-15-year cap expense. So, I may need to put together a bigger proposal to get that cap signed off. We have bit more work to do.

If it weren't for this self-financing system from SPEEDIER, would you have made any energy deductions? Why?

Yeah, the lighting was put in because we knew, obviously we went from 100-watt fitting to 12watt fitting, so there was going to be a saving over the year. It was easier enough for us to the calculations and that ourselves and on the report, we got back from Steven he broke down our gas consumption, oil and electricity. The electricity one was quite interesting because we didn't do the level of analysis that Steven did for us, it definitely showed a lot of good information. So, if hadn't got SPEEDIER, we probably wouldn't have the level of analysis that we have got, so I think that is helping us quite a lot, to move in a better direction. If speedier wasn't there we wouldn't have looked at it.

Would you agree SPEEDIER has been helpful to achieve some of the barriers in terms of implementation of measures?

I think yeah, the fact that if I am going for capital expenditure at a corporate level, the fact that I have a detailed report and detailed work done by the speedier project, that is going to make my case easier. It is not just a financial benefit, but the customers are going to come knocking at some stage asking so we need to be ahead of the problem.

Do you have any fund for energy management and energy efficiency?

No, we don't have any dedicated fund due to our company being thinly spread out.

Are you aware of the current funds existing in Ireland to carry on in implementing energy efficient measures? Do you find this accessible?

I probably have not enough information on this, and I haven't made the time to look for it but if it was easy for me to find then it would be more use to me.

Could you list the advantages of the SPEEDIER service?

It is definitely as I mentioned a before it gives me a foundation for a cap expenditure proposal definitely. Also, the level of analysis that was done by Steven has opened our eyes to where we might have an overuse on electricity at the weekends, we can then put some measures in place to help use reduce our consumption at low production times. The analysis and the information coming back has been excellent.

How do you manage your energy bills?

We have our own finance database back so we would break it down by our supplier, so if it was gas or electricity, we'd see what our monthly cost is. We aren't measuring that against our production volumes and our production demands is pretty stable, we have seen a lot of changes in the last couple of months and the price of electricity increasing also and that's were the fluctuation comes from for us, it's not our demand.

What would you improve of the whole system?



Horizon 2020 European Union Funding for Research & Innovation Covid has been the main difficulty in this situation. The process was quite slow because of it and painful. The key thing going forwards is communication, facetime and even if its Teams meeting or of something like that. The analysis of data has been helpful and excellent work and opened our eyes in some areas of the business.

Tipperary Glass

What has been the main reason for you to join SPEEDIER service?

The reason we joined quite simply was to save energy costs and to save on environmental footprint. Try and cut costs and help the environment.

Do you have any green image obligation?

We have no obligations, but we do have a general ethos and an initiative to try and improve where we can, it's kind of a company policy, not a written one but just something adopted by directors and myself to try and continuously improve. To try and reduce our footprint and we just like to constantly improve our environmental efficiency as we go along.

How was communication with the expert speedier?

Yeah, it was quite good, we dealt with Padraig first and Steven afterwards, very good at communicating and I've no issue with either.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

Firstly, we initially met them at a meeting which was held by LIT and that was a one to one, face to face kind of communication and then they came here, the two guys, in our meeting room and we had further communication. There were emails and back and forth telephone communication. Overall, the experience was good, we are still in the process, and we might get more feedback at the end of the process. Today the communication has been good, however I'm mostly dealing with Steven now, he's quite helpful, he's quick to respond to emails, and answers his phone when we ring, and he gives a good explanation whenever we have a question. We have no problems with Steven. We would like to give feedback at the end of the process because right now we are coming midway and we haven't actually done anything, we just went through what we could do and we talked about what we will do, we haven't gone to the next steps.

Did you like the way energy savings measures were explained?

Yeah, I think they were pretty good, and they had pretty good knowledge of it. I think Padraig and Steven would have good knowledge on how we could save on costs, they were able to explain it quite well and I was happy enough with that.

What were the considerations while you decided, you will go ahead in implementing measures?

Cost was always a big thing, you have to consider how much it costs, what will the payback be, how long it will take to payback and that's a big consideration for us and we do have money to invest but we don't want a very long payback and we don't want a massive investment cost unless the payback is quite short. We are looking at costs and payback very closely, those are the two things we look at closely and the amount of energy we save is important as well but its kind off goes inline with cost. The more energy expends the more costly it is.

Has the application of the measures been simple? Has there been any doubts by the experts?

I suppose at this stage we can't really answer that question because we haven't gone to the application stage with any of the suggestions yet. What I would say is that we had some queries with potential suggestions, and we were able to iron out and discuss which ones wouldn't be suitable, some stuff we initially was suggested but once we discussed it with SPEEDIER, they were able to see that it weren't suitable suggestions to take. There was some back-and-forth conversation which was ironed out quite well. We can answer that question better at the of the project.

The change of behaviour to save energy has been difficult to apply?

We haven't discussed at a management level yet, there are going to be changes and it can be difficult but there is no opposition towards change when the change seems to make sense. What's been suggested has been mostly welcomed fairly well and consistently, when it does come down to implementation there may be some resistance from an employee level, but we haven't yet encountered it yet.

If it weren't for this self-financing system from SPEEDIER, would you have made any energy deductions? Why?

Yes, we would have, and we already have. Before SPEEDIER came along we already conducted an energy audit through a 3rd party service provider who made several suggestions for energy savings, and we are currently undergoing three of those projects they're all requiring investment from us. So, they are not self-financing system, I am not majorly convinced by the self-financing system, I think its something that makes sense, and it costs money, and it is paying itself off in a certain amount of time, it's worth the investment. While the self-financing system is good, because we don't have to spend any of our budget, we don't mind spending our own budget and that budget is going to the right place. So, to answer your question, yes have and we would have, if those suggestions were made to us to invest in certain energy savings measures, that would have been considered.

Do you have any dedicated energy efficiency fund within your organisation?

Recent years we had to budget for it, because of that audit we took with the 3rd party provider, they have suggested three particular energy savings investments we could make and so allocated budget towards energy savings measures in recent times as a result of their suggestions.

Are you aware of any grants available for SMEs regarding conducting interviews or implementing energy measures?

Yes, we have received several grants for energy saving measures from the SEAI in



Ireland and they have been helpful. Very helpful in fact, there was a grant towards the audit and there was a grant towards the project assistance of those measures I talked about so the third-party provider also led the project management for those three services. We also received a grant towards that and we also going to be receiving 25% grant from the SEAI on those three measures/investments that we are making. So we have received three grants for energy savings in recent times, the audit, the project assistance and the investments in the energy savings plan.

Where you aware of these grants or were they suggested to you by the third party service provider?

It was suggested to us by the third party to us.

How did you the like process of availing the grant?

We were very satisfied and glad to get the grant funding. It was as bit of time and paperwork but it's not overly boredom some, sometimes it can take a long time to get paid the money which is probably something we would be unsatisfied about it is one feedback point I have for them, it can take a while and I had to follow up a lot to actually get the final payment, I don't know why that is the case but you get it eventually. I don't think the SEAI are the worst for paperwork, there are other government bodies who take a lot longer to process a grant than they do.

Why did you decide to contact an energy audit?

We contacted an energy audit because our energy costs were rising every year and so we wanted try help reduce them. We were already using this third party as an energy broker and so they also operated in that side and they do the brokerage of electricity costs and they also offered a service of project assistance and auditing of your energy usage so we approached them and asked them if they could do this for us.

So you have an energy management system implemented within your organisation were you monitor your energy costs and energy consumption?

Yes, it is really the finance office that on an ongoing basis who review the costs and we investigate why the rising with our third party or internally with ourselves.

Could you list the advantages of the SPEEDIER service?

They highlight things we weren't aware of, simple little energy savings measures, they are bringing to our attention ways we can reduce our energy costs and also help save/improve our environmental efficiency. They are also good in that they also help us with the procurement aspect, but we haven't gotten to the latter stages of that but I'm hoping that they can help us secure our investment in our energy savings measures. If they can do that for us that would be very helpful.

What would improve of the whole system?

It has been pretty good so far. Maybe a little quicker on the response time. I think the guys have pretty good knowledge and good at communication, maybe move on a bit quicker with the energy saving measures that we discussed, that would be a suggested improvement. It's been a few weeks now since we last spoke and if we can move it a little quicker that would be my suggestion.

Have you or any of your colleagues attend any SME training conducted by Steven?

No, I wasn't sure if we needed to even though we have conversed so much before. I didn't know if we needed to also attend his training because we already had numerous meetings with Steven and Padraig. They went through various different things already also they were at the conference we were at LIT Thurles a number of months ago and they spoke in lengths that time about different energy saving measures. Honestly we have been quite busy as of late and I didn't know whether or should it have been necessary to attend since we already have heard so much from them. At this point I just wanna move forward with their suggestions, and move on with what they have selected to do.



Spain

Peculiarities of the Spanish pilot:

PCT Cartuja pays for electricity unless SMEs exceed a consumption limit (which does not happen very often, since they are small companies with very low consumption), so this pilot decided to focus more on awareness and education of companies on issues of consumption and energy saving. SMEs do not pay directly for electricity, so they do not perceive whether or not there was really a saving for taking action.

alGenio

What was the main reason for joining SPEEDIER?

We are very aware of sustainability

How was the communication with the SPEEDIER expert (in your case, with Blanca Gómez)?

Efficient

How was the presence of the SPEEDIER expert accompanying you during the related activities? Has she resolved doubts? Has it been easy to contact her?

Yes

How did your organization make the decision to decide which measures to implement?

We took every proposal made in good faith.

How simple has the application of the savings measures been? Has the SPEEDIER expert answered all his questions and concerns?

Actually, we already had most of the proposed measures implemented, even some more

How easy has it been to adapt your day-today behaviour to achieve energy savings?

Being a matter of conscience and conscience of a large part of our team, it has not posed any difficulty, since we do it in our environment on a regular basis.

Has the expected energy savings been achieved? If not, even without reaching the stated objective, has there been any improvement?

Our activity depends entirely on electricity consumption as computer equipment is our work tools. Also in summer we have no choice but to put the air conditioning. We are very excited that one day the PCT Cartuja will depend exclusively on renewable energy. In terms of lighting, we loved it when they changed the luminaires for more efficient ones

If it weren't for SPEEDIER's self-financing system, would your organization have achieved any energy savings? Why?

We do not know the exact consumption to know if there have been energy savings, but by the simple fact of promoting said savings in the Cartuja PCT, it is sure that overall improvement will have been achieved

What do you consider to be the advantages of the SPEEDIER service?

In addition to the proposed actions, the awareness that involves people who have not previously considered improving energy matters.

What do you consider to be the disadvantages of the SPEEDIER service?

None. Thanks for everything.



Nextu

What was the main reason for joining SPEEDIER?

Sensitivity to energy efficiency as a way of caring for our planet.

How was the communication with the SPEEDIER expert (in your case, with Blanca Gómez)?

Close and professional

How was the presence of the SPEEDIER expert accompanying you during the related activities? Has she resolved doubts? Has it been easy to contact her?

She has explained the project and solved doubts

How did your organization make the decision to decide which measures to implement?

With consensus and acceptance

How simple has the application of the savings measures been? Has the SPEEDIER expert answered all his questions and concerns?

The implementation of LED luminaires has been a success due to the improvement of the image of our company as well as the energy savings achieved.

How easy has it been to adapt your day-today behaviour to achieve energy savings?

We have not had to adapt any behaviour, just benefit from the improvements made in lighting.

Has the expected energy savings been achieved? If not, even without reaching the stated objective, has there been any improvement?

We do not know the exact consumption to know if there have been energy savings, but by the simple fact of promoting said savings in the Cartuja PCT, it is sure that overall improvement will have been achieved

If it weren't for SPEEDIER's self-financing system, would your organization have achieved any energy savings?

I cannot answer this question for the reason explained above.

What do you consider to be the advantages of the SPEEDIER service?

The advice and information of the measures implemented in the workplace with the consequent impact of improvement in our daily working life.

What do you consider to be the disadvantages of the SPEEDIER service?

None



Ende

How many people make up your company?

Between 2 and 12, with an average of 5, since they have different collaborators who are not 100% fixed all the time, but a minimum of 2 always.

How many people normally work on site?

Only 2

Have they appointed someone as energy manager?

Himself (Carlos Pérez)

What do they use on a day-to-day basis that generates electricity consumption?

Computers and other IT equipment, lighting, AC, coffee maker

How was communication with the Speedier expert?

In principle there is no SPEEDIER expert for this pilot, but Blanca has been the point of contact for any questions or information so in a way she has taken on the role of the expert. Communication has been good, either by email or phone and Blanca has always been available to assist, so in this sense we are very satisfied.

Did the Speedier expert explain clearly enough the alternatives you had for saving energy?

At the beginning there was a lot of information that I did not understand, but when I read the report everything became quite clear. Blanca was always available for any questions we had about measures.

Did you feel that the Speedier expert was accompanying you throughout the whole process?

Blanca has accompanied us during the process, and she has acted in a way that would be the SPEEDIER expert, giving us the necessary information, reminding us of the

steps to follow and being there during each step of the way.

Has the Speedier expert answered your questions adequately?

Yes, Blanca has always been eager to answer these questions.

Which have been your motives to choose the energy saving measures that you have applied?

Actually in our situation, since we do not pay the electricity bill directly, it would be very easy to turn a blind eye. Many in my position are sure that many do not care, but I do. I think it is worth making small efforts to raise awareness and save energy as much as possible.

Has the application of the measures been simple?

Yes, little things like not leaving computers on and turning off the lights are simple, but many times they are things that you forget. But as far as possible, yes, it has been very easy to apply.

Have you felt stimulated to change your behaviour to save energy? Has it been difficult?

Yes, and it hasn't been difficult at all.

Do the real energy savings match the expected energy savings? If the expected savings have not been achieved, do you perceive at least a worthwhile improvement?

We have not obtained results per se because we have a very small consumption, and we have not had other measures to compare either. I would like to be able to see the metrics more often, to be able to access to see how the measures have impacted our consumption.

What has been the main reason for you to join Speedier service? Have your expectations been fulfilled?

The service was offered to the companies that are part of the technology park, I accepted it out of curiosity, as it was a subsidized project, I had



nothing to lose and I wanted to know more about this issue.

If it weren't for Speedier self-financing system, would you have implemented any energy saving measures? Why?

(As they do not pay the bills, it does not really apply to them, but it has served them a lot even though they have applied only the free measures. At this level of free measures, they have considered it very useful, even though they have not entered the phase of changing equipment for more efficient ones, for example)

What needs to be improved in the Speedier service?

I would like to be able to access the metrics whenever I want.

Would you recommend Speedier to another company like yours?

Yes, for us it has been very useful. In addition, for other companies that are responsible for their energy bill, the financing mechanism can come in handy so that they are not discouraged by those first payments.

Italy

SME1

What has been the main reason for you to join Speedier Service?

The willing to discover more about energy efficiency and the opportunity to have a support from ESCO to identify some energy efficiency measures and investments that could help the company in increasing the economic performance.

How was communication with the expert speedier?

Our communication with the ESCO was clear and constant

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

The support we received was important for us because we were able to receive clear information and to plan the implementation of the energy conservation measures in an efficient way.

Has the expert's way of explaining the different energy saving measures been successful?

The energy saving measures were described in a clear manner and they were also expanded thanks to the support of the SPEEDIER tool.

How has the decision been taken when deciding which energy saving measures to apply?

The decision was taken at the Top Management Level because it involved a series of facilities that needed some structural changes.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?





The change of behaviour to save energy has been difficult to apply?

Not at all, because we were already active in the field of energy efficiency and energy audits, therefore our people are aware of the importance of energy management.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

As said before we are in the process of implementation but what has been suggested by ESCOs during these years most of the time resulted in line with the expectations, so for the moment we can say that we are in line with the planned and expected savings, both in terms of economic savings but also energy use savings.

If it weren't for this self-financing system from Speedier, would you have made any energy deductions? Why?

Yes, every year in our business plan we have a part of investments dedicated to energy efficiency. Of course the model of self-financing suggested by SPEEDIER is an effective and common approach.

Could you list the advantages of the Speedier service?

It provides information, tools and awareness on the importance of energy management in companies. Therefore, it could be helpful and a big support for all the companies, in particular for SMEs.

What would improve of the whole system?

I have no particular suggestion

SME2

What has been the main reason for you to join Speedier Service?

The main reason (I think for all the companies) is to save money first of all. Moreover, we pay attention to the link between energy efficiency and sustainability, therefore we are always open to discover new opportunities and ideas.

How was communication with the expert speedier?

The communication was clear and productive, even if during the Covid-19 it was more difficult to keep up with the activities. Certainly, the priorities for companies, especially SMEs were others.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

I can say that we had the right support in this process. The collaboration with ESCO is frequent in Italy, also for smaller companies.

Has the expert's way of explaining the different energy saving measures been successful?

We could analyse the SPEEDIER tool and identify some opportunities at more general level than the details that we usually have through traditional energy audits. I think SPEEDIER concept could be important as a support for all the companies which do not have the financial resources to perform an energy audit frequently.

How has the decision been taken when deciding which energy saving measures to apply?

The decision was taken after an evaluation of the potential benefits and possible criticalities.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?



As said, the support was constant and they were very collaborative, making the process of implementation easier, although it takes a lot of time.

The change of behavior to save energy has been difficult to apply?

Not really, we have been interested in these topics for many years, therefore it is not something really new for us.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

We have not finished to implement all the measures selected because it requires also structural changes, but we already see the results of some no-cost ECMs.

If it weren't for this self-financing system from Speedier, would you have made any energy deductions? Why?

Yes, I think that nowadays energy efficiency and energy management are fundamental for every company in the world. Therefore, the goal should be to be able to obtain savings through self-financing systems, but in any case companies should understand that all the investments, if accurately implemented, will bring a lot of savings and benefits in the next years.

Could you list the advantages of the Speedier service?

It can represent a helpful support for all companies that are involved in energy audits processes. It gives a more general point of view and it provides new opportunities that could be followed.

What would improve of the whole system?

I think that it should consider the fact that savings coming from no-cost measures will not be seen immediately, therefore it is important also to incentivize companies to invest in energy efficiency measures.

SME3

What has been the main reason for you to join Speedier Service?

We decided to be involved to explore new opportunities that could lead us to implement new measures of energy efficiency. Moreover, we are always interested in programmes financed by Horizon.

How was communication with the expert speedier?

It was very good because they were very accessible, also because we have a continuous collaboration with ESCOs or other companies which support energy management processes.

Has the expert's way of explaining the different energy saving measures been successful?

Yes, they were always precise in the suggestions that we received.

How has the decision been taken when deciding which energy saving measures to apply?

The decision was taken looking at what measures could have been applied consistently with our targets of energy savings and with our budget.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?

The support of the ESCO was mainly in identifying the best solutions to implement. Then the real process of implementation is still undergoing; we started from more simple measures and we hope to obtain important savings that we can re-invest in more expensive investments.

The change of behavior to save energy has been difficult to apply?

It is always important to increase the awareness on the importance of energy





Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

For sure we are having some improvements, even if the production has been stopped due to COVID, I think that at the end of the year we will measure important % of savings in terms of energy used.

If it weren't for this self-financing system from Speedier, would you have made any energy deductions? Why?

Every year we try to make intelligent investments in energy efficiency and of course the best option is to choose low-cost measures that assure high savings.

Could you list the advantages of the Speedier service?

The service has several advantages because it enhances the importance and the knowledge on energy efficiency measures. Therefore, it pushes companies to invest in solutions that provide them a lot of benefits, both hard and soft.

What would improve of the whole system?

In my opinion it is just a matter of awareness in the different countries. Regarding Italy I can say that the energy efficiency topic is growing fast.

SME4

What has been the main reason for you to join Speedier Service?

Mainly to obtain energy savings and economic savings.

How was communication with the expert speedier?

We did not communicate a lot but the suggestions and the process was clear from the beginning

Has the expert's way of explaining the different energy saving measures been successful?

It was clear, I think that there is a vast range of possible saving measures nowadays, so it is always interesting to look at new possibilities and to find innovative ways of save energy consumption.

How has the decision been taken when deciding which energy saving measures to apply?

The decision was taken after an evaluation of the potential benefits and possible criticalities.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?

The implementation is all but easy, because it requires competence, new materials and changes in the different facilities, so the process is long but it worth it.

The change of behaviour to save energy has been difficult to apply?

I think that the change of behaviour could be one of the most difficult parts, but in our case people are well "trained" and are aware of the importance and of the benefits that these actions will bring.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?



The energy savings are a little bit lower than expected, but in any case they represent an improvement with respect to the initial situation.

If it weren't for this self-financing system from Speedier, would you have made any energy deductions? Why?

This year I do not think so, because the Covid-19 crisis put in evidence that at this moment our priorities must be different from savings in terms of energy use.

Could you list the advantages of the Speedier service?

It is a well organized project that can help multiple companies from very different industries. I think this is one of the major advantages because every industry has its own characteristics. However, the Speedier service can fit with all of them and bring a concrete support in the energy management process.

Romania

Expert2

What has been the main reason for you to join Speedier Service?

I was involved in energy projects during the last 12 years. But I use to work with AEEPM from the very beginning. SPEEDIER proposes a new approach to the energy assessment process so I intend to be more involved with SMEs and energy audits using this new methodology.

What business advantages do you think there are regarding other ways of approaching energy efficiency?

The proposed way of financing futures energysaving measures with saved money from already implemented measures become attractive for SMEs and I think the process will be more easily for them.

Do you think your work will be financed through savings?

Most SMEs are working on this approach.

In our business model, we have proposed to take 5% off the SME's savings and direct it towards Speedier service, to finance it. What do you think about it?

Depend on the size and the type of business but is feasible.

How has communication been with the SMEs?

Very good.

How has the application of the measures been? Have they followed your directions?

They were very surprised that most of the measures are common-sense and low cost but after staff, training sessions start the implementation.



Do you intend to continue with the speedier service? Why?

Yes, I will continue with this methodology due to the approach proposed.

Would you recommend this system to other experts? Why?

Yes, hope to build an extensive network of experts.

Could you list the advantages of the Speedier service?

The new approach of the energy assessment. New financing mechanism. European support.

What would improve the whole system?

It is very important to fill the SPEEDIER IT application with European good practices so the SMEs can compare the measured proposed and results with similar businesses.

Capital Plaza Hotel

Small hotel with 25 rooms and a small restaurant serving tourists. Located on the Climate zone 2. Permanent Staff: 40. Open all year round 7/7.

What has been the main reason for you to join Speedier Service?

We meet the AEEPM representative promoting the SPEEDIER on the occasion of the National Tourism Fair, and we agree to be part of it.

How was communication with the expert speedier?

The communication was challenging due to the Covid-19 situation but fruitful.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

The SPEEDIER expert helps us a lot. We like the process and also the SPEEDIER methodology.

Has the expert's way of explaining the different energy-saving measures been successful?

The expert present us with all the Energy Conservation Measures proposed for our business, detailed and full of examples, and we already start the implementation.

How has the decision been taken when deciding which energy-saving measures to apply?

We decide together with the expert starting with low-cost measures.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?

Challenging due to the Covid-a9 situation but we have full support from the expert. Slowly we advanced, collect results, and monitoring.





Not so difficult but time-costly.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

We start the savings monitoring process.

If it weren't for this self-financing system from Speedier, would you have made any energy deductions? Why?

The SPEEDIER financing mechanism is most effective as cash-flow.

Could you list the advantages of the Speedier service?

The most important is the methodology and energy training.

What would improve the whole system?

Not for the moment.

Hotel Carmen

We are a medium-size hotel with 60 rooms and a restaurant serving breakfast and dinner operating all round year. Located in the Predeal city part of the Climate zone 4. We have 32 permanent staff.

What has been the main reason for you to join Speedier Service?

On the occasion of the National Tourism Fair, we meet the AEEPM representative promoting the SPEEDIER and we agree to be part of it.

How was communication with the expert speedier?

Due to the Covid-19 situation, we can meet in person as much as we want but we communicate excellently with the people of SPEEDIER. This was challenging but fruitful.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

Even we use to speaking in the long-distance middle the expert delivers it very effectively. We like the process and also the SPEEDIER methodology.

Has the expert's way of explaining the different energy-saving measures been successful?

The expert was very convincing and we already start the implementation.

How has the decision been taken when deciding which energy-saving measures to apply?

We decide together with the expert starting with low-cost measures.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?

We	start	the	imple	ementa	ition	with
comm	onsense	mea	sures	and	with	staff



The change of behavior to save energy has been difficult to apply?

Not so difficult. We learn a lot.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

We start the savings monitoring process and will register all improvements.

If it weren't for this self-financing system from Speedier, would you have made any energy deductions? Why?

The SPEEDIER financing mechanism is new for us but effective.

Could you list the advantages of the Speedier service?

The most important is Expert help.

What would improve the whole system?

More good practices example and comparison with other similar business.

Le Boutique Hotel Moxa

A small city hotel with 30 rooms and a small restaurant serving only tourists. Located into Climate zone 2. Permanent Staff: 41. Open all year round 7/7.

What has been the main reason for you to join Speedier Service?

We meet the AEEPM representative promoting the SPEEDIER on the occasion of the National Tourism Fair, and we agree to be part of it.

How was communication with the SPEEDIER expert?

The communication was excellent.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

The SPEEDIER expert helps us during the process. We like the process and also the SPEEDIER methodology.

Has the expert's way of explaining the different energy-saving measures been successful?

All the Energy Conservation Measures proposed by the expert were detailed and we already start the implementation.

How has the decision been taken when deciding which energy-saving measures to apply?

We decide together with the expert.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?

Not so simple for the Covid-19 period, challenging as we were closed during the pick of the season, but we start the implementation, collect results, and monitoring.

The change of behaviour to save energy has been difficult to apply?



Not so difficult but time-costly.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

We start the savings monitoring process.

If it weren't for this self-financing system from Speedier, would you have made any energy deductions? Why?

The SPEEDIER financing mechanism is most effective as cash-flow. The energy was not a priority for us but now see an opportunity.

Could you list the advantages of the Speedier service?

The most important is the methodology and staff energy training.

What would improve the whole system?

Not for the moment.

Pensiunea Carol

We are a small family hotel with 12 rooms and a small restaurant. We have only 2 persons as permanent staff and the owner.

What has been the main reason for you to join Speedier Service?

On the occasion of the National Tourism Fair, we meet the AEEPM representative promoting the SPEEDIER and we agree to be part of it.

How was communication with the SPEEDIER expert?

We communicate weekly and this was very helpful for us. Due to the Covid-19 situation, we have to learn a lot from the people of SPEEDIER and this was challenging since energy is not our core business.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

Yes! We like the process and the expert aria of expertise but also the SPEEDIER methodology.

Has the expert's way of explaining the different energy-saving measures been successful?

The star was a little bit slow due to our limited knowledge but after the first project raining things become more clear.

How has the decision been taken when deciding which energy-saving measures to apply?

We decide together with the expert starting with low-cost measures.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?

We decide to start the implementation of the suggested measures at the same time with the small extension of the hotel building. The expert helps us with all explanations and also with the staff training.

The change of behaviour to save energy has been difficult to apply?

Not so difficult but challenging due to the limited time of staff to participate in the pieces of training. But they are young and eager to learn.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

We start the savings monitoring process and register all improvements.

If it weren't for this self-financing system from Speedier, would you have made any energy deductions? Why?

SPEEDIER helps us to realize that also energy savings can help the hotel business and improve brand visibility.

Could you list the advantages of the Speedier service?

Expert knowledge is the most important added value of the energy-saving process.

What would improve the whole system?

More in-house training modules and translate them into Romanian.

Vila Alpin hotel

Small family hotel with 14 rooms and a small restaurant serving only tourists. Located into Climate zone 4. Permanent Staff: 6 + 1 (the owner). Open all year round 7/7.

What has been the main reason for you to join Speedier Service?

We meet the AEEPM representative promoting the SPEEDIER on the occasion of the National Tourism Fair, and we agree to be part of it.

How was communication with the expert speedier?

The communication was challenging due to the Covid-19 situation but fruitful.

The process of accompanying the expert with you throughout the process, how would you describe it? Do you like it?

The SPEEDIER expert helps us a lot. We like the process and also the SPEEDIER methodology.

Has the expert's way of explaining the different energy-saving measures been successful?

The expert presented us with all the Energy Conservation Measures proposed for our business, detailed and we already start the implementation.

How has the decision been taken when deciding which energy-saving measures to apply?

We decide together with the expert.

Has the application of the measures been simple? Has there been an effective answer to the doubts by the expert?

The most challenging was to change staff energy behaviours. But we advanced, collect results, and monitoring.

The change of behaviour to save energy has been difficult to apply?



Not so difficult but time-costly.

Has the expected energy savings occurred? If not, even not achieving the expected savings, has there been an improvement?

We start the savings monitoring process.

If it weren't for this self-financing system from Speedier, would you have made any energy deductions? Why?

The SPEEDIER financing mechanism is most effective as cash-flow. The energy was not a

priority for us, but after training, we see an opportunity.

Could you list the advantages of the Speedier service?

The most important is the methodology and energy training.

What would improve the whole system?

Not for the moment.



