



# Smart advisor and Decision Support

## GEAR@SME: GENERATE ENERGY EFFICIENT ACTING AND RESULTS AT SMALL & MEDIUM ENTERPRISE

### Project Factsheet

Acronym:	Gear-at-SME
Title:	Generate energy efficient acting and results at small & medium enterprises
Coordinator:	Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek (TNO)
Reference:	894356
Type:	Coordination and Support Action



Program: Horizon 2020

Call: H2020-LC-SC3-2018-2019-2020

Start: 1<sup>st</sup> September 2020

Duration: 36 months

Website: [www.gearatsme.eu](http://www.gearatsme.eu)

Consortium: Nederlandse Organisatie voor Toegepast-  
Natuurwetenschappelijk Onderzoek (TNO)

CIT Industriell Energi AB (CIT)

CertiMaC Soc. Cons. a R. L. (CERTIMAC)

Berlin Energy Agency (BEA)

Servelect (SVT)

Cornelissen Consulting Services B.V. (CCS)

SYNYO GmbH (SYNYO)

Technical University of Cluj-Napoca (TUCN)

Confederazione Nazionale Dell'Artigianato e Della Piccola e  
Media Impresa Associazione Territoriale Di Ravenna (CNA)

Stichting CLOK (CLOK)



## Deliverable factsheet

Number:	D7.4
Title:	D6.3 Smart advisor and Decision Support
Lead beneficiary	SYNYO GmbH
Work package:	7
Task:	7.2
Dissemination level:	Public
Submission date:	28.03.2022
Contributors:	All partners with feedbacks and inputs

### Document history:

Revision	Date	Main modification	Author
1	29/03/2022	First draft with wireframes and screenshots included	Antonija Bogadi (SYNYO) Jonathan Haring (SYNYO)
2	31/03/2022	Second draft with wireframes and screenshots included	Antonija Bogadi (SYNYO) Jonathan Haring (SYNYO)



## Disclaimer of warranties

*“This project has received funding from the European Union’s Horizon 2020, research and innovation programme, under Grant Agreement No 894356”*

This document has been prepared by Gear@SME project partners as an account of work carried out within the framework of the EC-GA contract no 894356.

Neither the Project Coordinator, nor any signatory party of the Gear@SME Project Consortium Agreement, nor any person acting on behalf of any of them:

- makes any warranty or representation whatsoever, express or implied,
- with respect to the use of any information, apparatus, method, process, or similar item disclosed in this document, including merchantability and fitness for a particular purpose, or
- that such use does not infringe on or interfere with privately owned rights, including any party's intellectual property, or
- that this document is suitable to any particular user's circumstance; or
- assumes responsibility for any damages or other liability whatsoever (including any consequential damages, even if Project Coordinator or any representative of a signatory party of the MEAN4SG Project Consortium Agreement, has been advised of the possibility of such damages) resulting from your selection or use of this document or any information, apparatus, method, process, or similar item disclosed in this document.



## Executive Summary

This document is a report accompanying the design of the Energy Efficient SME online portal ([www.energyefficientsme.eu](http://www.energyefficientsme.eu)) architecture.

The deliverable D7.4 comes in response to Task 7.3 “Implementation and iterative rollout of the multilingual Smart Advisor (M9-M18)”.

Interactive online portal, independent of the GEAR@SME web page, has the purpose of sustainably exploiting the project outcomes targeted to SMEs, trusted partners, and energy service providers.

This task will ensure the implementation of the gathered tools, trainings and energy efficiency best practices within the online portal in an iterative manner, in the form of a smart advisor.

The Online Smart Advisor is connected to the tools, trainings and best practices directories to help end users find the right tools, trainings and best practices using innovative complex queries. The frontend advisor modules are implemented using modern visualization and interface frameworks with high usability to ensure an ideal user experience. The Decision Supporter is using semantic matching algorithms and/or machine learning technologies to provide the ideal information that allows SMEs, suppliers and Trusted Partners to better find the right tools that fit their needs. The Smart Advisor is accessible via main menu “Home” as “Implement” option.

Furthermore, this task has extended and connected the method guide “Handbook”, launched in D7.2 Online Awareness and Information Hub (M10), to Smart Advisor module. The Handbook is accessible via main menu “Home” as “Explore” option.

These features have high novelty and are being implemented reusing existing elements of previous projects by the consortium. This task, as well, includes continuous maintenance and testing of the web portals functionality.



## Table of contents

Smart advisor and Decision Support.....	<b><u>Error! Bookmark not defined.</u></b>	<b><u>1</u></b>
Deliverable factsheet.....	<b><u>Error! Bookmark not defined.</u></b>	<b><u>3</u></b>
Disclaimer of warranties.....	<b><u>Error! Bookmark not defined.</u></b>	<b><u>4</u></b>
Executive Summary.....	<b><u>Error! Bookmark not defined.</u></b>	<b><u>5</u></b>
Table of contents.....	<b><u>Error! Bookmark not defined.</u></b>	<b><u>6</u></b>
1 GEAR@SMEportal.....	<b><u>Error! Bookmark not defined.</u></b>	<b><u>8</u></b>
2 Outline of the content.....		9
2.1 „Home” page.....	<b><u>Error!</u></b>	
<b><u>Bookmark not defined.</u></b>		<b><u>9</u></b>
2.2 „Explore” page.....		12
2.3 Smart Advisor or “Implement” Page.....		16
3 Conclusion .....	<b><u>Error! Bookmark</u></b>	
	<b><u>not defined.</u></b>	<b><u>21</u></b>



## 1 GEAR@SME portal

The GEAR@SME web platform has been set up to provide visibility to the project and access to public relevant non-IP- sensitive sources and results. The project web platform is updated periodically with the results from WP3 and WP5; lessons learned and the database of the best practices, training materials, analysis and calculation toolset, and tools to support SMEs in finding the right experts and providers for their needs.

The main roles of the web platform are the following:

- providing a space for resources, contents and digital materials for all project target groups and will be divided in Supply (suppliers of energy services towards SMEs), Demand side (SMEs searching for energy services) and Trusted Partners.
- providing the ideal information that allows SMEs, suppliers and Trusted Partners to find and use the right tools that fit their needs through the Decision Supporter, using semantic matching algorithms and/or machine learning technologies
- creating Community of practice that facilitates exchange of practices, experiences, vision and ethical code, opinions and feedback on the available tools, but also to plan joint initiatives, meetings or events.

The portal design is modern and addresses the latest state of the art functionalities. The portal is optimized for the web search engines and will be monitored with the use of a Google Analytics Tool. Table 1 summarizes the main portal categories.

Table 1: GEAR@SME portal categories

<b>Home / About</b>	This part contains links to project related information, to a brief description of the GEAR@SME Framework, and project partner information.
<b>Explore</b>	This part contains results from the deliverable D3.1 “Handbook for an integrated GEAR@SME Methodology”. It offers advice, training materials, and supporting tools designed to help any organization or individual who wants to support SMEs in their efforts to improve energy efficiency.
<b>Get Inspired</b>	This part provides the inspiring cases and real-life inspiration gathered from WP5.
<b>Implement: Tools</b>	This part contains a toolset to support the methodology developed and presented in Smart Advisor. It contains energy and administrative tools to support SMEs in finding the right experts and providers for their needs, and contracting support.



<b>Implement: Trainings</b>	This part contains downloadable trainings to support SMEs and Trusted partners.
<b>Implement: Best Practices</b>	This window contains the list of the GEAR@SME best practices and their related descriptions, presenting results from WP4, "Use cases: bringing methodology into practice", specifically deliverables D4.2-D4.6.
<b>Interact</b>	This part is maintained by SYNYO. It is accessible with a password gained in registration process. Users will participate in discussions to get the direct advice from the local experts, exchange practices, experiences, visions, opinions and feedback on the available GEAR@SME tools, and plan joint initiatives. Community of practice plays a crucial role for the sustainable exploitation of project's results.

### **GEAR@SME portal Action Plan**

M1-M6: SYNYO conceptualized and set up the online portal and started implementing the strategy and Search Engine optimization (SEO) parameters.

M5-M10: The portal was enriched with contents by all partners, in line with the project progress and the achievement of results, and it is being regularly updated.

M9-M19: The portal is enriched with contents provided by partners to roll out the Smart Advisor with Tools, Training and Best Practices (results gathered from WP3 and WP4).

M15-M20: The portal is being widened with online communities of practices, and it is regularly updated. The strategy for further ownership, update and use of the online portal, and defined business model applied for the sustainability of the platform are being developed with all partners and are a part of the exploitation plan.





## 2 Outline of the content

### 2.1 “Home” page

The front page (“**Home**”) is conveying the central idea of the project by highlighting the main facts in brief and providing information on the project vision as well as the project number and the coordinator. The identification of user’s needs section addresses the main target groups and directs them to specifically tailored materials titles as: “Explore”, “Implement”, “Get Inspired”, and “Interact”. By clicking on “About” link, the user gets more detailed information about the project, guidelines for the use of the portal, and about GEAR@SME methodology.

## SAVING ENERGY, TOGETHER

Adopting energy efficiency and renewable energy measures helps businesses to be healthy and future-proof. However, businesses, in particular SMEs, often have limited knowledge, resources, and motivation to adopt energy efficiency and renewable energy measures. These individual barriers can be removed by developing [energy collectives](#) and by paying attention to [multiple benefits](#).

Working together makes energy saving easier, more affordable, and more fun. Key to the GEAR@SME methodology is therefore a collective approach to energy efficiency and renewable energy in SMEs, in which they are motivated and unburdened by someone they already know and trust – a so-called [Trusted Partner](#).

The Trusted Partner role can be taken by any organization that already has a supporting or facilitating relation with specific [clusters of SMEs](#).

The GEAR@SME project supports Trusted Partners who want to stimulate the uptake of energy efficiency and renewable energy measures. The project also supports the so-called [Multiplying Organizations](#) who want to facilitate Trusted Partners in creating local energy collectives.

To this end, this website offers a [handbook, training materials and tools](#) and [inspiring practices](#) across Europe. Here, answers can be found to all kinds of questions ranging from general (such as “Where do I start”) to detailed (“What to pay attention to when contracting energy service suppliers for projects in my energy collective?”). Or join our online [community](#) and start a discussion topic of your own.

In case you need expert advice or support on your overall SME engagement strategy, or if you need help when implementing specific guidelines or tools, please [contact us](#).

[Read more...](#)

Figure 1. Home page: Central idea of the project

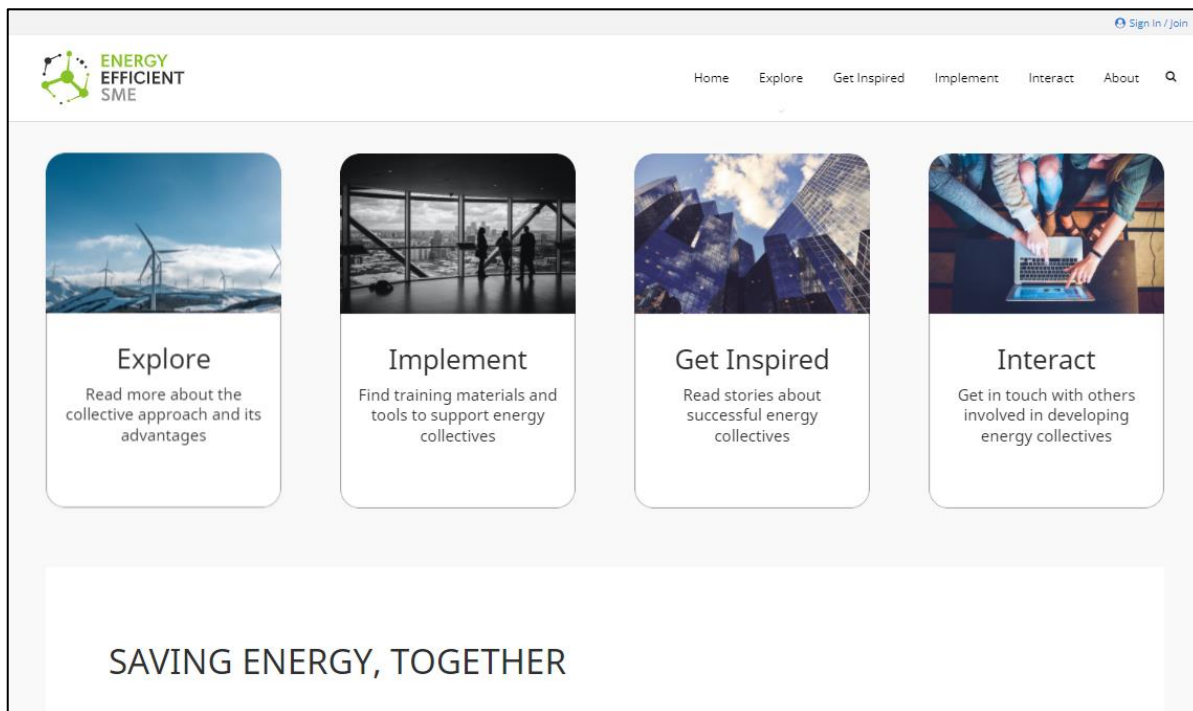



Figure 2. Home page: Identification of user's needs

### ABOUT THE ENERGY EFFICIENT SME PLATFORM

The platform [energyefficientsme.eu](http://energyefficientsme.eu) is developed for anyone who is concerned with supporting SMEs to run a sustainable business. Are you a business association, business park manager, local government, or business advisor? Then you may take interest in the [collective approach](#).

This platform was developed on behalf of the GEAR@SME consortium. All information has been developed or collected from existing sources by the consortium partners, reviewed, and made available for use by all to whom it may be of interest. The platform provides answers to questions such as:

- How can I motivate SMEs to take interest in energy efficiency and renewable energy?
- How can a collective approach help remove barriers to energy saving?
- How do I develop an energy collective with a cluster of SMEs?
- Which measures are most interesting to focus on, and how do I choose between them?

The information on this platform is organized via four routes which – depending on your knowledge needs and personal interests – can be used to navigate through the contents:

[Explore](#) – For those who wish to know more about the collective approach. The Handbook is organized into five key topics relevant to developing collectives with a cluster of SMEs, which you can explore chronologically or thematically. The Handbook contains links to supporting tools and materials, which can also be accessed directly through the Smart Advisor (see below).

[Implement](#) – For those in search of supporting materials and tools for developing an energy collective. The Smart Advisor gives access to training material to help Trusted Partners master the key concepts, practical guidelines on a variety of topics such as identifying relevant stakeholders, or contracting energy service suppliers, information on attractive energy efficiency technologies for SMEs, and tools for identifying and calculating (multiple) benefits.

[Get Inspired](#) – For those who wish to see examples of other Trusted Partners who have developed successful energy collectives.

[Interact](#) – For those who wish to get in touch with other developers of energy collectives, or who wish to raise a specific discussion topic.

All guidelines and tools are freely available from this website. However, for the application of most guidelines and tools, a certain level of expertise and/or technical knowledge is recommended. In case you require expert advice or support, or if you need help implementing specific training materials, guidelines or tools, please contact one of the GEAR@SME consortium members.

Figure 3. About page, detailed description of actions for energy saving in SMEs



**ABOUT THE GEAR@SME CONSORTIUM**

The [GEAR@SME consortium](#) consists of knowledge institutes, multiplying organizations, and energy service suppliers from Austria, Germany, Italy, the Netherlands, Romania, and Sweden. The consortium partners offer direct support, motivation, and energy expertise to the Trusted partners of the use cases, in all the steps of initiating and operating a local energy collective.

For more information on the GEAR@SME consortium and their activities, please visit the respective company websites or [contact us](#).

**ENERGYEFFICIENTSME**

This portal equips "Trusted Partners" and SMEs with valuable support materials and the toolset with a database on best practices for energy efficiency measures, analysis and calculation tools, contracting support tools, and training interventions and resources.

This project has received funding from the European Union's Horizon 2020 Coordination & Research and Innovation Action under Grant Agreement No 894356.

- ▶ Home
- ▶ Interact
- ▶ Explore
- ▶ Get Inspired
- ▶ Contact

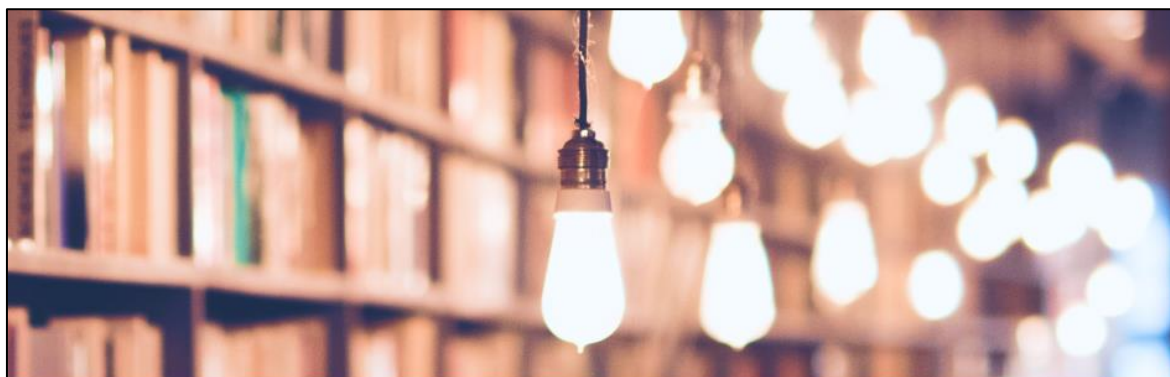
© 2022 - Gear@SME. All Rights Reserved.

Terms & Conditions | Website Design: SYNYO

Figure 4. Home page: Footer with project’s information and contacts

## 2.2 “Explore” page

This part contains results from the deliverable D3.1 “Handbook for an integrated GEAR@SME Methodology”. It offers advice, training materials, and supporting tools designed to help any organization or individual who wants to support SMEs in their efforts to improve energy efficiency. The results are adjusted for online use, simple to orient the user, and with downloadable materials. Materials are linked to Smart Advisor, i.e., (“Implement” page) via links, where appropriate.



## Introduction

[Go to Explore Overview →](#)

This handbook describes how to support SMEs in a cluster (a local industrial area, a business park or the SMEs in a municipality), to improve the sustainability of their businesses by taking energy efficiency and renewable energy measures.

It explains useful steps and activities for coordinating a collective approach to providing this support and targets primarily the coordinator (the Trusted Partner) but also supporting organizations and energy service suppliers. Explore the different parts of the handbook, via the visual below. We recommend that you start with [A collective approach – the concepts](#).

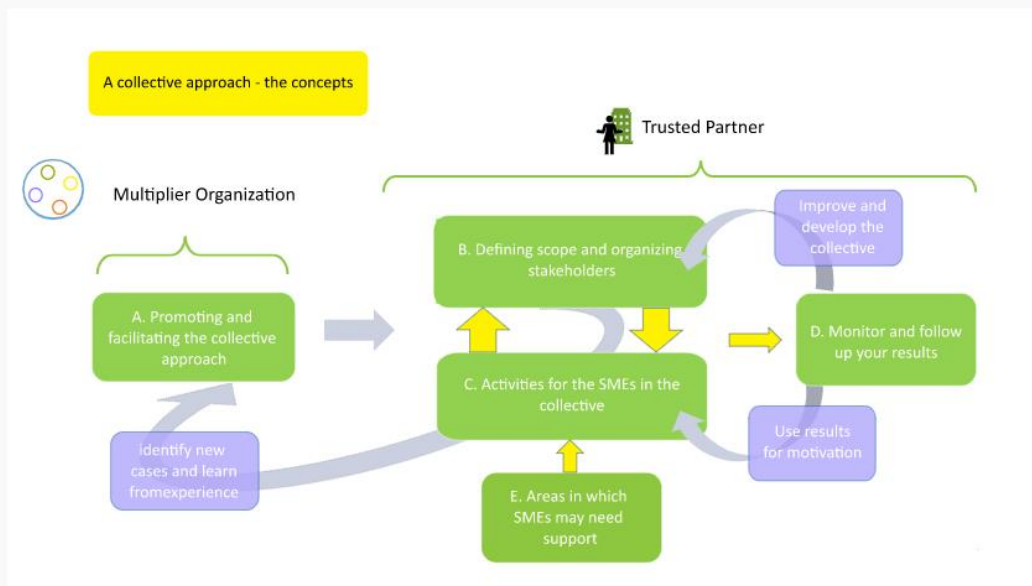


Figure 10. Handbook: Main page with interactive infographics



- A Multiplying the collective approach
- B Defining scope and Organizing stakeholders
- C Activities for SMEs in the collective
- D Monitor and follow up on your results
- E Areas in which SMEs need support

## B. Define scope and organize stakeholders

**Introduction**

In this chapter, you will find a six-step guidance on how to define the scope of your work in terms of overall objectives, activities and services to offer, how to motivate the SMEs to participate, and to organize the stakeholders. It is primarily relevant for you if you have the role of a Trusted Partner. You will find support for getting started with a collective approach or to develop those aspects that you find especially challenging.

- B.1 Forming an Energy Working Group +
- B.2 Setting your ambition +
- B.3 Defining services and activities +
- B.4 Motivating SMEs to participate +
- B.5 Involving the right stakeholders +
- B.6 Developing the organizational structure -

You develop a long-term structure for the organization, ownership, membership and revenue flows of your collective. For less mature energy collectives, free participation for the SMEs might be preferable - as the collective evolve so does organizational structure, into more formal commitments. [READ MORE](#)

Resources: Define scope and organize stakeholders →

Figure 11. Handbook: Subsection





← Back to Explore Overview

## B Define scope and organize stakeholders

**B1. Forming an Energy Working Group**

You form a core group of persons who can support you in the development of the collective. The group could consist of representatives from SME frontrunners, energy associations, or other enthusiastic stakeholders.

**B1. Forming an Energy Working Group**

---

**B.2 Setting your ambition**

---

**B.3 Defining services and activities**

---

**B.4 Motivating SMEs to participate**

---

**B.5 Involving the right stakeholders**

---

**B.6 Developing the organizational structure**

Forming an Energy Working Group

Training - Saving Energy Together: Why

Training - Collective Energy Projects: Introduction

Figure 12. Handbook: Subsection 1



## 2.3 Smart Advisor or “Implement” page

The Smart Advisor is represented as “Implement” page on the portal. It has three subsections: Training, Tools, and Best Practices.

Trainings can be filtered by category (Multiple benefits, Establishing the collective, Collective energy projects, Other), language (German, Dutch, Italian, Romanian, English) and target groups (Trusted Partners, SMEs, Energy Service Providers). Each training has a title, short description and downloadable materials.

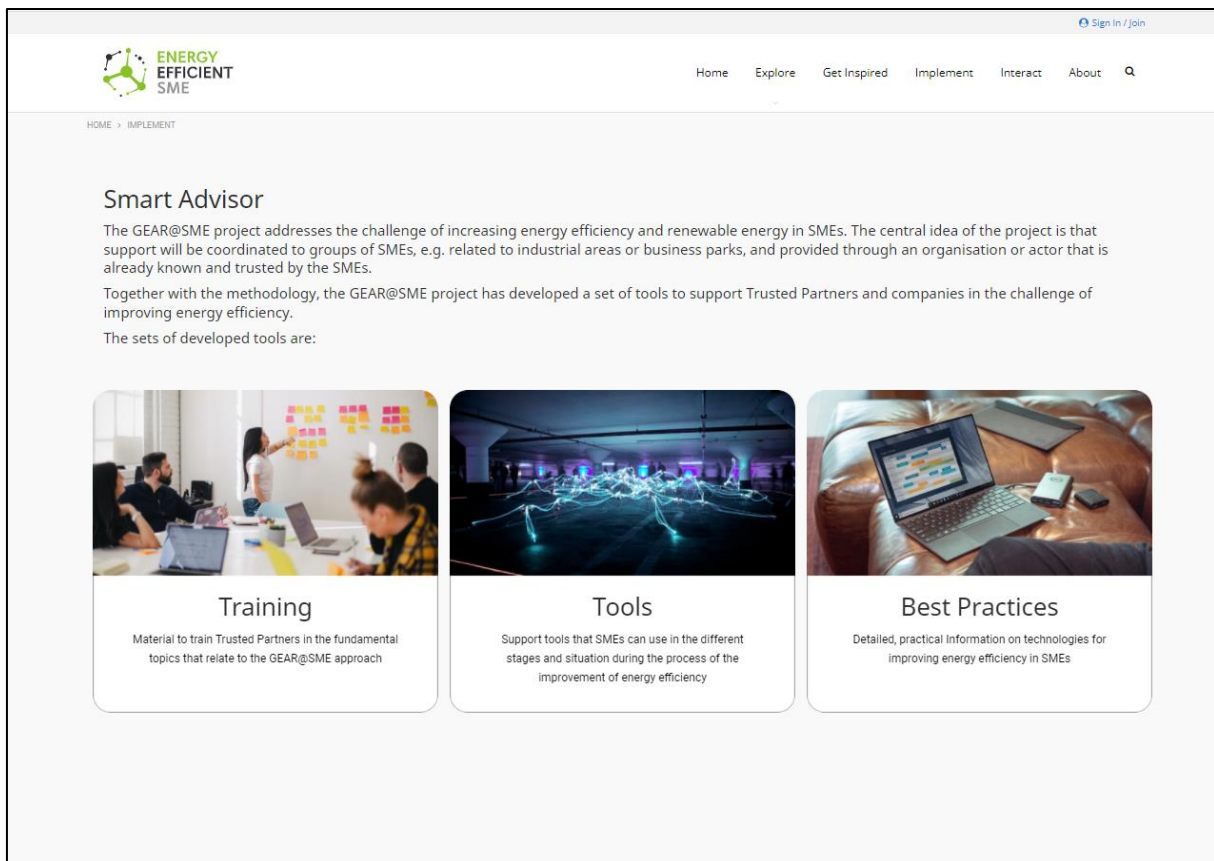


Figure 13. Smart Advisor: Overview





The screenshot shows the 'ENERGY EFFICIENT SME' website interface. At the top, there is a navigation menu with 'Home', 'Explore', 'Get Inspired', 'Implement', 'Interact', and 'About'. A search icon is also present. Below the navigation is a breadcrumb trail: 'HOME > TRAININGS'. On the left side, there is a 'Filter results' sidebar with a 'RESET FILTER' button. The sidebar contains three sections: 'Categories' with options 'Establishing the Collective', 'Collective Energy Projects', and 'Multiple Benefits'; 'Languages' with options 'English', 'Dutch', and 'Italian'; and 'Target groups' with options 'Trusted Partner' and 'Energy Service Supplier'. The main content area displays four training cards. Each card has a title, a list of tags (e.g., 'Establishing the collective', 'English', 'Trusted Partner'), a short description, and a 'Download training' button. The cards are: 'EC1 Saving Energy Together: Why', 'EC2a Energy Collectives: Getting started', 'EC2b Energy Collectives: Defining activities', and 'EC2c Energy Collectives: Continuity'.

Figure 14. Smart Advisor: Training

This figure shows a close-up of the first training card from Figure 14. It features the title 'EC1 Saving Energy Together: Why' in a large, bold font. Below the title are three tags: 'Establishing the collective', 'English', and 'Trusted Partner'. The main text of the card reads: 'This training provides an introduction on how potential Trusted Partners can use their role to support a group of SMEs to improve the sustainability of their businesses by taking energy efficiency and renewable energy measures.' At the bottom of the card is a button labeled 'Download training' with a download icon.

Figure 15. Smart Advisor: Training box



Tools can be filtered by category (Energy Tools, Administrative Tools, Other), language (German, Dutch, Italian, Romanian, English) and target groups (Trusted Partners, SMEs, Energy Service Providers). Each tool has a title, short description and downloadable materials.

The screenshot shows the 'ENERGY EFFICIENT SME' website interface. On the left, there is a 'Filter results' sidebar with sections for 'Categories' (Energy Tools, Administrative Tools), 'Languages' (German, English, Dutch, Romanian, Italian), and 'Target groups' (SMEs, Trusted Partner, Energy Provider). The main content area displays four tool cards:

- Energiebuch E-Tool:** Energy tools, German, SMEs. Description: 'The Energiebuch E-tool helps managers of SMEs to evaluate energy consumption data and energy-related key performance indicators over time...' Includes a 'Link to tool' button.
- SME Energy CheckUp:** Energy tools, English | Dutch, SMEs. Description: 'The SME Energy Checkup is a free online scan that provides advice into and information to SMEs on energy saving measures...' Includes a 'Link to tool' button.
- Monitoring & Targeting (M&T):** Energy tools, English, SMEs. Description: 'The M&T tool provides energy professionals with a trend for the energy consumption and an understanding of the correlation between energy consumption and production...' Includes a 'Link to tool' button.
- SET Tool:** Energy tools, German | English | Romanian | Italian, SMEs. Description: 'The SET Tool allows a company to do a self-assessment of their energy efficiency...' Includes buttons for 'Bureau Boudesteijn', 'Contact', 'CCS', 'Contact', 'CLOK', and 'Contact'.

Figure 16. Smart Advisor: Tools



### Energiebuch E-Tool

Energy tools German SMEs

The Energiebuch E-tool helps managers of SMEs to evaluate energy consumption data and energy-related key performance indicators over time. With a minimum of work, it is possible to obtain a good overview of all relevant operating data: recording of energy costs, examination of machines and vehicle fleet, and evaluation of CO2 emissions. The results can be compared to sector benchmarks. The tool also provides "add-on modules" (eg. PV calculator, electricity and energy tax rebate, business development plan, CO2 pricing,...). Source: Mittelstandsinitiative Energiewende und

[Link to tool](#)

Figure 17. Smart Advisor: Tool box

Best practices can be filtered by application, payback time, energy saving potential, target groups, language (German, Dutch, Italian, Romanian, English) and target groups (Trusted Partners, SMEs, Energy Service Providers). Each tool has a title, short description and downloadable materials.



Home Explore Get Inspired Implement Interact About 
Sign In / Join

HOME > BEST PRACTICES

**Filter results** RESET FILTER

**Applications**

- Compressed Air
- Renewable
- Cooling
- Energy Management

**Languages**

- English

**Target groups**

- SMEs

**Payback time in years**

From To

**Energy Saving Potential**

From To

### OPTIMISATION OF COMPRESSED AIR USER APPLICANCES

Compressed air
English
SMEs

**Payback Time: 3 - 6 years**

**Energy Saving Potential: 0 - 15 percent**

"Compressed Air is an essential part of modern industry used by nearly every branch of production. In some sectors compressed air can take up to 20% (glass industries even 40%) of the electrical energy used. On average about 7% to 11% of the electrical energy in industry is used for compressed air. Due to its bad efficiency, compressed air is the..."

Download document

### SOLAR THERMAL PLANT

Renewable
English
SMEs

**Payback Time: 3 - 6 years**

**Energy Saving Potential: 20 - 30 percent**

"A solar thermal system transforms sunlight directly into heat. The thermal energy obtained from this transformation is used to heat the water necessary for the uses of the building as domestic hot water, for space heating or directly for use in the production cycle. As a renewable energy source, low-temperature solar thermal technology has..."

Download document

### REDUCTION OF COOLING LOAD AND FREE COOLING

Cooling
English
SMEs

**Payback Time: 2 - 10 years**

**Energy Saving Potential: 9 - 80 percent**

"The need for cooling depends on two factors: • the heat load defined by the need for process cooling/storage • heat gains produced by multiple heat sources. The greatest heat gain for cold rooms is due to the hot air passing through open doors. This normally represents 30% of the total heat gain of a cold room. This measure does not reduce..."

Download document

Figure 18. Smart Advisor: Best Practices



## OPTIMISATION OF COMPRESSED AIR USER APPLICANCES

Compressed air English SMEs

Payback Time: **3 - 6 years**

Energy Saving Potential: **0 - 15 percent**

"Compressed Air is an essential part of modern industry used by nearly every branch of production. In some sectors compressed air can take up to 20% (glass industries even 40%) of the electrical energy used. On average about 7% to 11% of the electrical energy in industry is used for compressed air. Due to its bad efficiency, compressed air is the..."

[Download document](#)

Figure 19. Smart Advisor: Best Practice box

### 3 Conclusion

The current design concept of EnergyEfficientSME.eu is the second iteration of the user experience on the online platform. It is based on the initial planning at the proposal stage and on further discussions with the GEAR@SME partners. Additional feedback rounds will follow with the scope of improving the design and the experience provided to the platform's users.

Features in the next design iteration will include a "Search" function on every page of the platform, as well as adding more content to the "Implement" and implementing "Interact" pages. Demo-content is already online, and the public launch will full content will be in April 2022.