



# DEESME

National schemes for energy efficiency in SMEs

## Final Project Results



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 892235. The responsibility for the information and the views set out in this leaflet lies entirely with the authors. The European Commission is not responsible for any use that may be made of the information it contains.



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## Introduction

The DEESME project focused on enabling companies to manage the energy transition by taking profit of multiple benefits from energy management and audit approaches, it also provided guidelines and recommendations for national authorities to empower their schemes under article 8 EED (now 11), using the multiple benefits' approach.

The project identified and shared good practices from national schemes, EU projects, and other initiatives with national authorities and supported them in developing more effective policies dealing with energy audits and energy management systems.

This report collects and summarises the main project outputs, including policy recommendations for National Authorities in the implementation of Article 11 of the Energy Efficiency Directive, best practices identified on the multiple benefits approach applied to energy audits and management and finally, results from DEESME's audits in SMEs and how the Multiple Benefits impact their company.



## Recommendations to National Authorities

DEESME provided policy recommendations for National Authorities to face the challenges of implementing Article 11 of the Energy Efficiency Directive (EED) through an interactive map (see next page) and a comprehensive report.

The recommendations were collected from 10 countries (Austria, Bulgaria, Croatia, Finland, Greece, Ireland, Italy, Poland, Slovenia and Spain) which demonstrated how relevant challenges of implementing energy management systems for companies will be with the implementation of Article 11 of the Energy Efficiency Directive.

The report highlighted the following aspects:

- Identified barriers and solutions
- Consultations with companies and key actors
- New challenges with the changes of the EED
- Discussions with National Authorities

# Interactive map of policy recommendations



## Investment analysis of the Multiple Benefits

The calculation tool developed in the framework of DEESME allows to analyze Energy efficiency investments including the associated Multiple Benefits (MBs).

Multiple Benefits are not usually included in investment evaluations, due to a general lack of data, methodology and skills.

This tool allows to give a good feedback to companies on the economic return of their energy efficiency investments and the associated MBs.

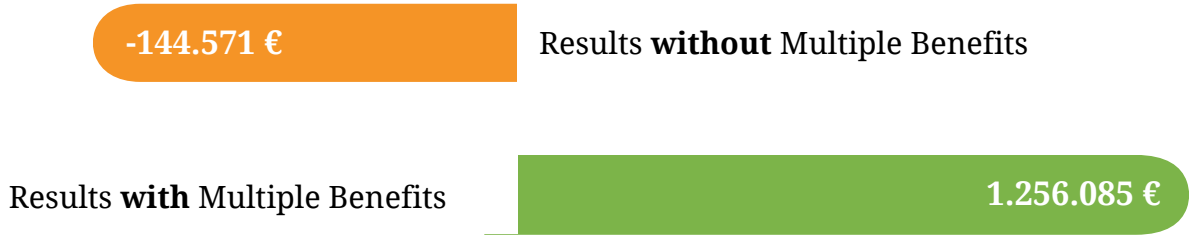
Some of the Multiple Benefits are relevant for company purposes like the calculation of the carbon footprint or other information needed to complete economic social and environmental sustainability assessments that are increasingly requested to comply with new EU regulations.



# Results from a Bulgarian company audited



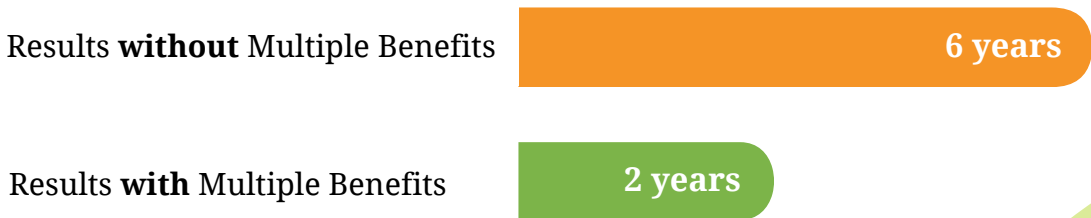
## Net Present Value



## Internal Rate of Return



## Payback time





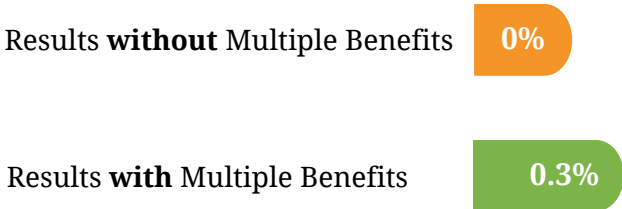
# Results from a Bulgarian company audited



## Net Present Value



## Internal Rate of Return



## Payback time



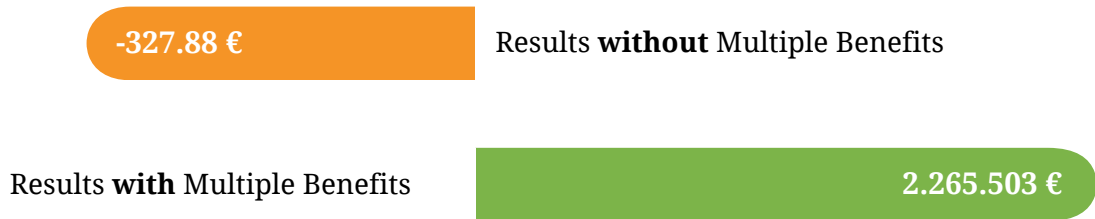




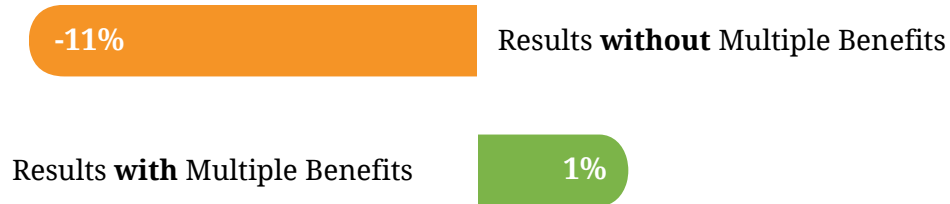
# Results from a Bulgarian company audited



## Net Present Value



## Internal Rate of Return



## Payback time





## Results from an Italian company audited



### Net Present Value

Results **without** Multiple Benefits

440.224 €

Results **with** Multiple Benefits

1.480.908 €



### Internal Rate of Return

Results **without** Multiple Benefits

17%

Results **with** Multiple Benefits

43%



### Payback time

Results **without** Multiple Benefits

5 years

Results **with** Multiple Benefits

2 years



## Results from an Italian company audited



### Net Present Value

Results **without** Multiple Benefits

20.494 €

Results **with** Multiple Benefits

334.460 €



### Internal Rate of Return

Results **without** Multiple Benefits

9%

Results **with** Multiple Benefits

57%



### Payback time

Results **without** Multiple Benefits

6 years

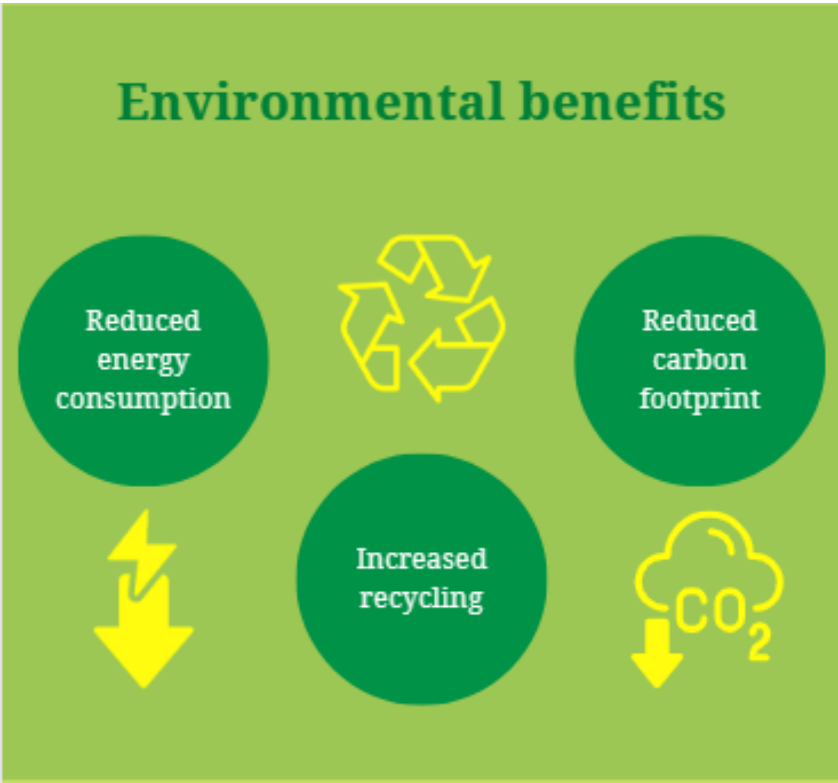
Results **with** Multiple Benefits

2 years

# Multiple Benefits identified for SMEs during audits

### Environmental benefits

- Reduced energy consumption
- Increased recycling
- Reduced carbon footprint



The infographic features a light green background with three dark green circles containing text. The top row includes 'Reduced energy consumption' with a lightning bolt icon, a central recycling symbol, and 'Reduced carbon footprint' with a cloud and CO2 icon. The bottom row includes a downward-pointing lightning bolt icon, 'Increased recycling' with a circular arrow icon, and a downward-pointing cloud and CO2 icon.

### Productivity and quality

- Improved quality and maintenance
- Increased utilisation
- Improved product/service efficiency



The infographic features a light green background with three dark green circles containing text. The top row includes 'Improved quality and maintenance' with a gear icon, a central icon of hands holding a gear, and 'Improved product/service efficiency' with a gear icon. The bottom row includes a checkmark icon, 'Increased utilisation' with a circular arrow icon, and an icon of a person climbing a gear.

# Multiple Benefits identified for SMEs during audits

## Employee and customer satisfaction

Acquisition of new customers



Increased employee and customer satisfaction

Improved stakeholder relationship



## Innovation

Introduction of new products/ services



Development of innovations

## Best practices for SMEs in implementing Multiple Benefits

The DEESME project gathered a wide range of best practices on applying the multiple benefits approach to energy audits and management, the report collected 10 best practices that can be implemented for companies in the four testing countries: Italy, Bulgaria, Poland and Germany.

The report highlights how these practices can and should be used as a management tool and provides the methodology for the identification of best practices within the DEESME project. The report also offers a focus on the key learnings that can be used as guidelines for future implementations.

DEESME also provided a summary of these practices into seven infographics (see next page).

Accurately identify areas of energy waste



Develop accurate recommendations for improvement

e.g changes to equipment, operations, or maintenance practices



# 1. Complete & accurate data

Complete and accurate data comes from an energy audit, which provides a complete data set for taking decisions on energy issues.

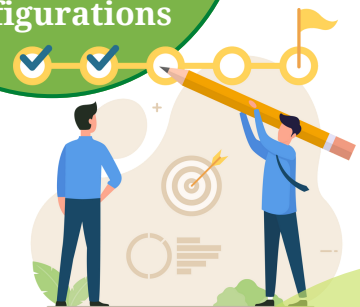
Begin activities in advance

which will allow companies to collect and analyze accounting data in depth



Track progress over time or analyze energy performance under different configurations

e.g assess the effectiveness of energy conservation measures and identify new opportunities for improvement









Help to identify the most significant areas of energy consumption and waste



Track progress over time and find areas of improvement

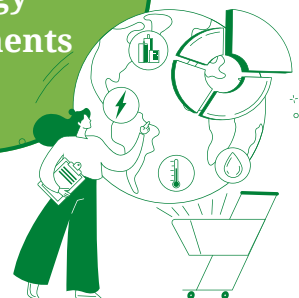


## 4. Quantification of energy-related problems

Help companies to comply with regulations, attract investors, and enhance reputation



Make informed decisions about energy investments



Ensure that employees and managers understand the multiple benefits approach

and the requirements of the energy management system



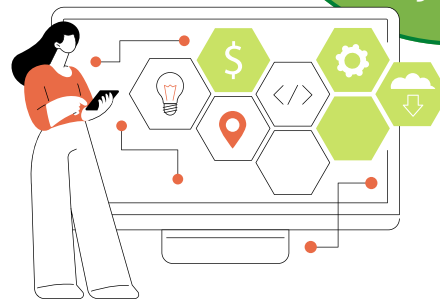
Build a culture of energy efficiency and sustainability

e.g improve the organization's energy performance



## 5. Training personnel and managerial staff

Develop knowledge and skills that employees need to perform their roles in the Energy Management System





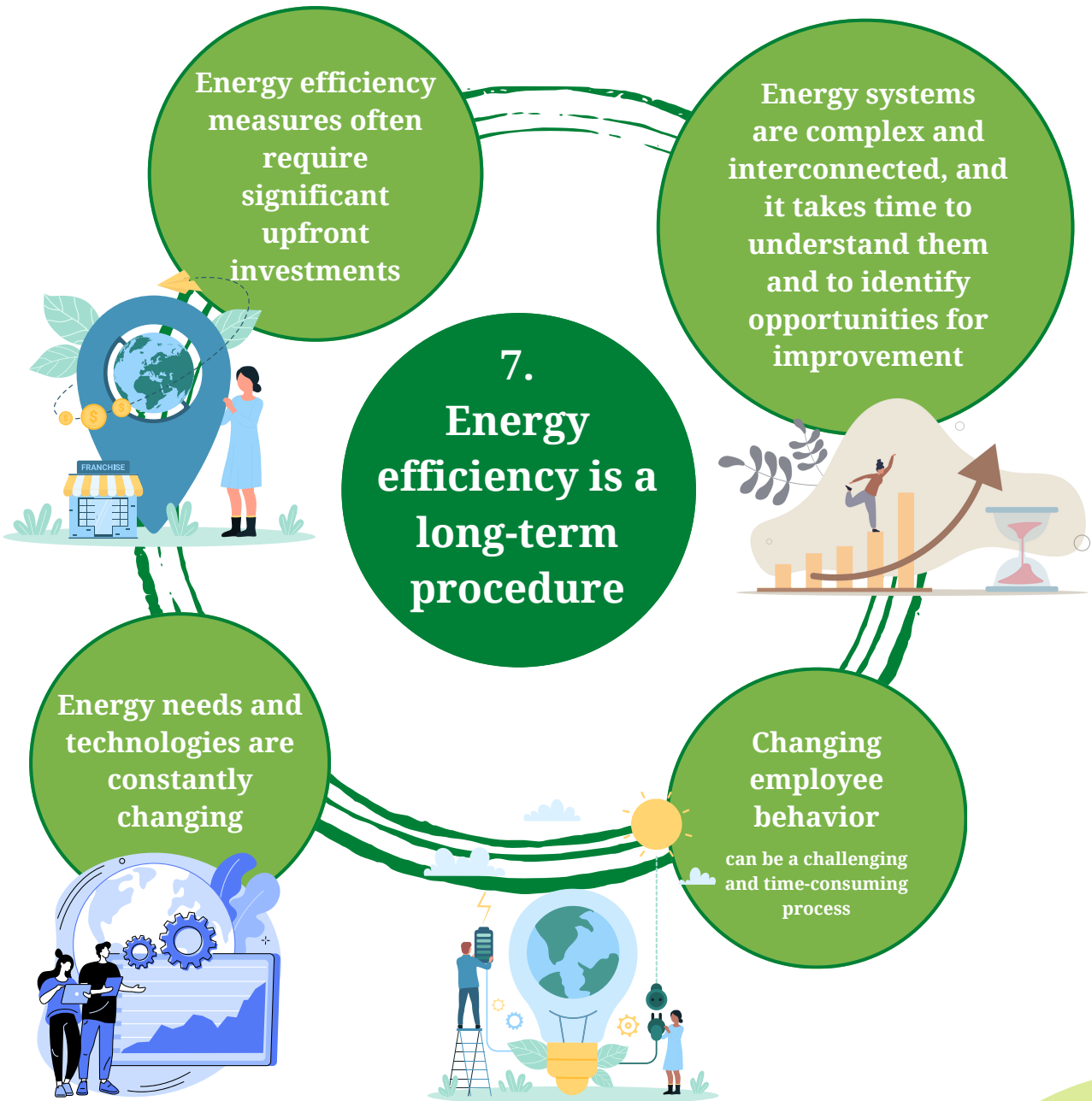
Energy efficiency measures often require significant upfront investments

Energy systems are complex and interconnected, and it takes time to understand them and to identify opportunities for improvement

## 7. Energy efficiency is a long-term procedure

Energy needs and technologies are constantly changing

Changing employee behavior can be a challenging and time-consuming process



## Project partners



## Discover DEESME 2050!



DEESME 2050 is a continuation of the DEESME project and develops energy efficiency projects in SMEs for European 2050 targets, in the furniture sector.



Follow the project on [LinkedIn](#), [Twitter](#) and find all the project's contents on our [website](#).

## Contact

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