



Energy audits and EnMS: key messages from the project National Observatories, programme assessments and policy implementation

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Italian National Agency for New Technologies,
Energy and Sustainable Economic Development



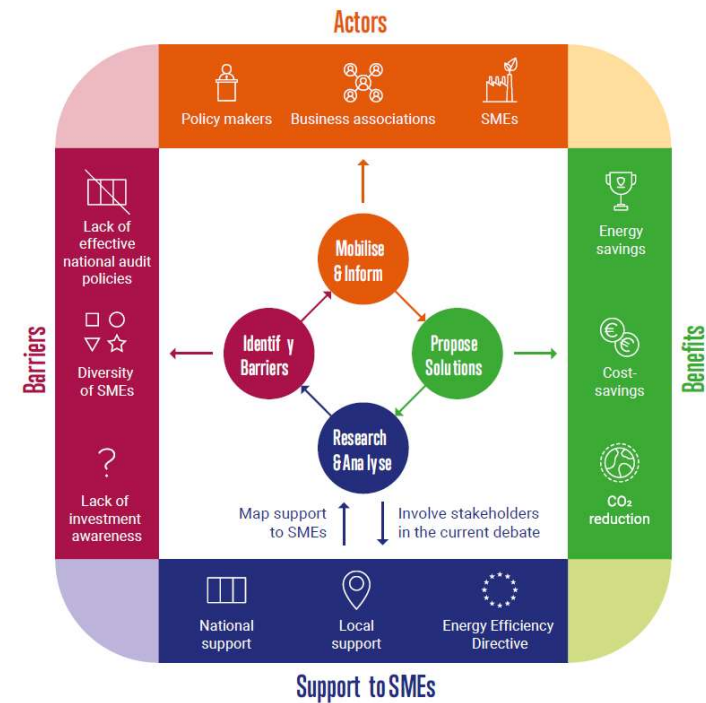
LEAP4SME

MAIN GOALS

- **Mapping and understanding** the complex context of national and local support to SMEs
- **Proposing effective and realistic solutions** to policy makers and implementers in terms of policy schemes, cross-cutting policy solutions embracing both energy and non-energy benefits, policy recommendations
- **Contributing**, through LEAP4SME research, analysis, and stakeholders' involvement, to help the Institutions finding solutions to fill the gap of data when it comes to match Energy & SMEs
- **Knowledge sharing** (successes, barriers and failures) on national policies



REVOLVE



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LEAP4 SME Stakeholders' engagement

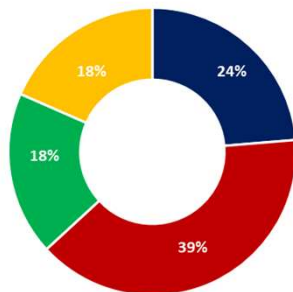


LEAP4 SME National Observatories

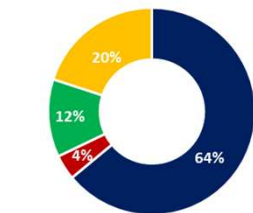
30 Meetings - more than 750 participants in 9 countries

Meetings organized from May 2022 to June 2023 by the 9 Energy Agencies

Meetings by type

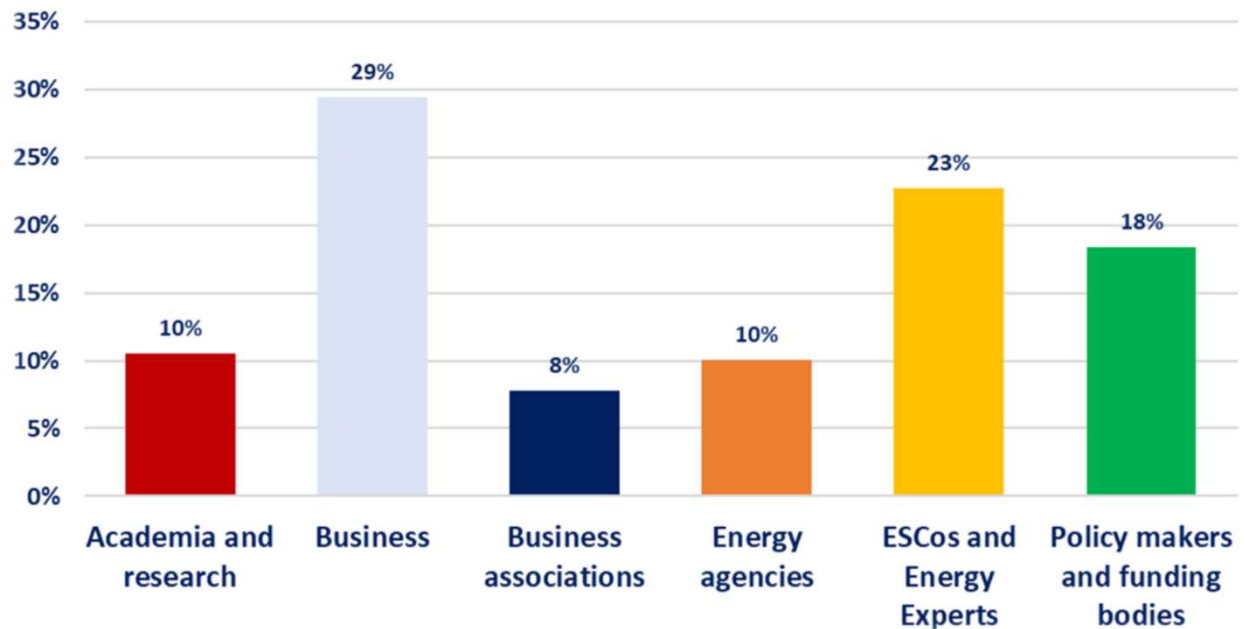


Participants by meetings type



■ Hybrid meeting
 ■ Interview
■ Live meeting
 ■ On line meeting

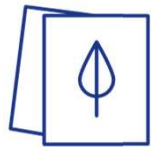
National Observatories:
Type of participants in the 9 LEAP4SME countries



National observatories

Main recommendations

From Policy Makers and Funding Bodies



One Stop Shop
Indicators
Financial Constraints
Tailoring
Policy Framework
Awareness
Skills
Monitoring
Simplification
Decision Making
Resource Audit
Audit Quality

From SMEs and Business Associations



One Stop Shop
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National observatories

Key recommendation 1

Addressing financial constraints

SMEs often have limited financial and human resources to engage in energy efficiency interventions or carry out audits that are not required by law.

- Tailored **soft loan programs** could be helpful to ensure better access to finance. It would also be beneficial to extend the payback period on loans.
- **Vouchers** can be used to support and motivate smaller enterprises to develop EAs and, later on, introduce EPIAs
- **Networks of firms** can alleviate the lack of resources and help in better exploiting EE opportunities, both in terms of technologies and access to incentives
- **Risk sharing facilities among different funding bodies** - such as guarantee and co-lending schemes- could help in sustaining EE investments
- A starting point to engage with SMEs could be **focusing on support measures directed towards commercial benefits**, such as installing solar PVs to reduce energy bills and help payback the loans quickly.

National observatories

Key recommendation 2

Tailoring

The disparity in size and core business of SMEs, and the different incidence of energy and resources costs, requires specific support measures and energy audit approaches.

Tailoring by sector

- EE mechanisms should be based on sectoral approaches more than on general programmes

Tailoring by size

- Micro SMEs could provide high potential savings but are more difficult to engage: simpler schemes could be applied to smaller businesses.

Tailoring the support and regulation framework

- Including EAs as an eligible cost in support measures
- Including Energy Management Systems in the requirements for private contracts or public tenders
- Redesigning existing EE subsidies according to a future taxonomy regulation

National observatories

Key recommendation 3

Policy Framework

Energy efficiency policies for SMEs must be based on a permanent, stable, and predictable regulatory framework

- In order for SMEs to adopt energy efficiency measures, government bodies need to **establish an enabling framework aimed at providing technical assistance and targeted information**.
- After the identification of energy efficiency measures in an audit, support is needed for their implementation.
- Existing subsidies could be **redesigned giving support to companies classified as green**, according to a **future taxonomy regulation**
- Loans are key to ensuring better access to finance, financing new investments, and business transfers for SMEs. Guarantee co-lending schemes for SMEs (risk sharing facility and co-lending among different funding bodies) could be another effective solution.

National observatories

Key recommendation 4 and 5

Monitoring and Raising Awareness

Energy consumption is rarely monitored by SMEs and monitoring systems are scarce.

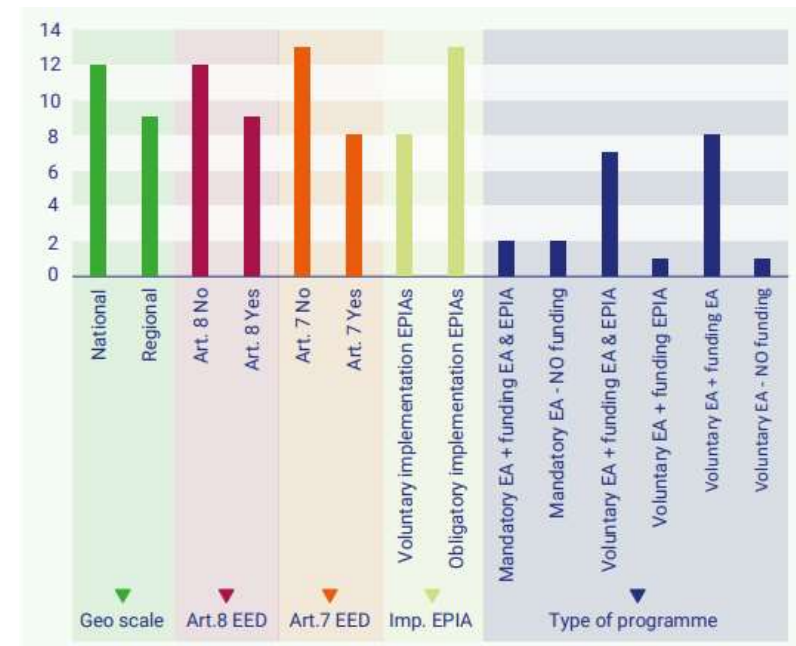
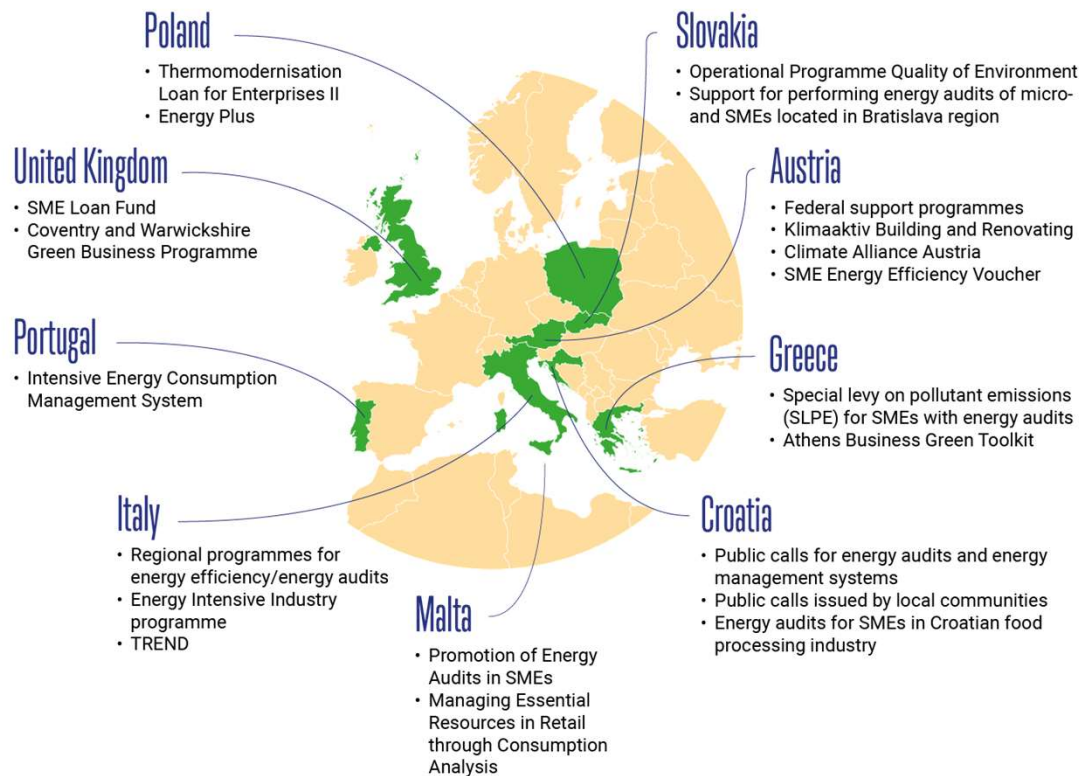
- **EnMS (also in simplified versions) should be promoted**, the adoption of EnMS could be effective in introducing continuous monitoring and to increase the implementation rate of EPIAs
- Monitoring should be tailored to the energy and resources profile of the business sector and done step by step, starting with minimal requirements

SMEs' awareness on energy consumption, EE options and support mechanisms is a necessary precondition to plan and implement effective EPIAs.

- The main challenge to increase the EE in SMEs is to promote a **culture of energy efficiency**, hence **continuous training, formation and information is necessary**.
- Policies should include **information campaigns** to make SMEs aware of which support measures are available as well as to constantly re-engage them.
- Special attention should be paid to inform and train SMEs also about costs and benefits associated to EAs and the implementation of EPIAs.

Support measures for EAs and EE in SMEs: analysis of good practices

21 policies and programmes analysed in 9 European countries



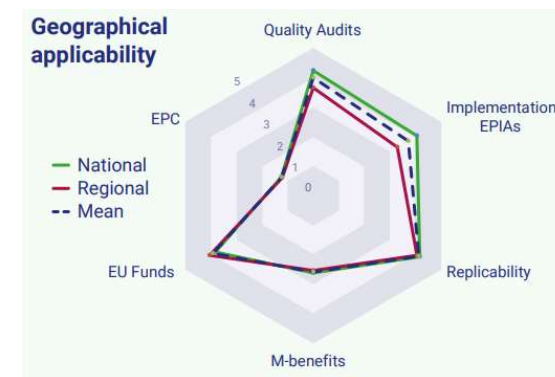
LEAP4SME (2022) , D3.3
Compilation of good practices

Support measures for EAs and EE in SMEs: analysis of good practices

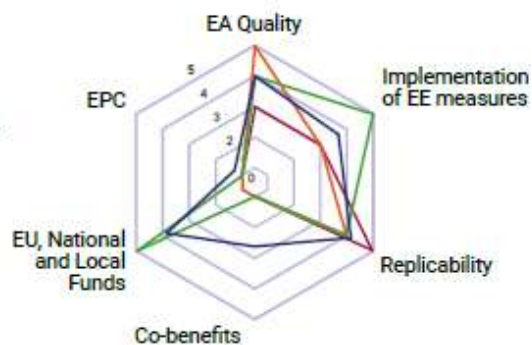
21 policies and programmes analysed in 9 European countries

Features evaluation (1= Not at all, 5 =Yes, completely)
1. Quality Audits: Does the programme/policy required the EA performed according to the best practices? Use of international standards, norms, protocols and certification procedures
2. Implementation of the EPIAs addressed in the EA with measurable results.
3. Replicability of the audit programme on a relevant number of SMEs in terms of sector/sixe/energy consumption.
4. Comprehensive approach in terms of succesful co-benefits that emerged from the implementation of the EA.
5. Use of European and/or local incentives/funds/programmes within the EAs campaign.
6. Use of the Energy Performance contracting

- ✓ Quality energy audits are higher in EED policies than in the voluntary programmes
- ✓ High quality audits are linked to obligatory implementation of Energy Performance Improvement Actions (EPIAs)
- ✓ Stand-alone audit programmes seem not to have restrictive quality standards



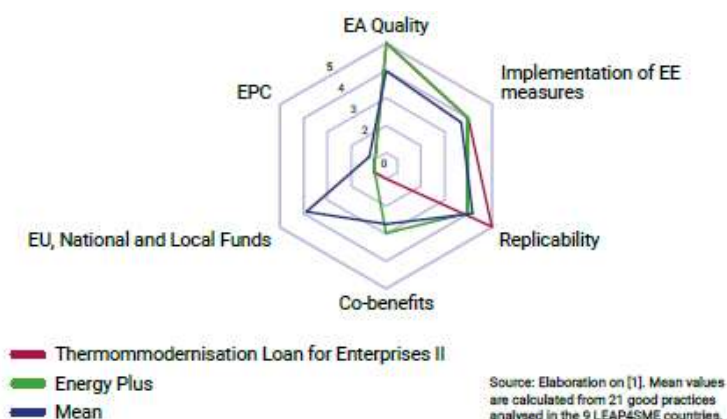
Support measures for EAs and EE in SMEs: analysis of good practices - Italy



- Regional programmes for energy efficiency/energy audits
- Energy Intensive Industry programme
- TREND - Technology and Innovation for Energy Saving and Energy Efficiency
- Mean

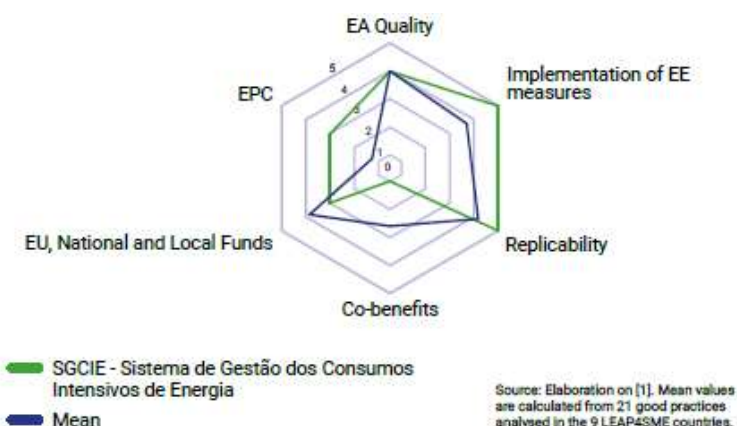
	Regional programmes for energy audits for SMEs	Energy Intensive Industry programme	TREND
Article 8 EED	Yes	No	No
Years	2015-2020	2015- Ongoing	2010-2013
Typology	Regional programmes including partial financing of the EA	National programme not including the financing of the EA	Regional programme including partial financing of the EA
EE measures implementation	At least one		
Description	Regions and Ministry of Economic Development, co-financing the implementation of energy audits in SMEs or the adoption of ISO 50001	Obligation for energy-intensive companies to carry out energy audits to benefit from the tax relief requested voluntarily by the companies	Aimed at promoting awareness, competences, and tools for energy efficiency in SMEs.
Results	<ul style="list-style-type: none"> Lombardy, Sardinia, Campania and Emilia Romagna have achieved satisfactory results. Not all Italian regions have joined the calls 	<ul style="list-style-type: none"> 2,845 energy audits regarding 2,546 SMEs (yrs. 2018-2019). 94% manufacturing SMEs, with an overall consumption of about 8.8 Mtoe. 	<ul style="list-style-type: none"> 60 suppliers of technology and/or energy services participated 175 enterprises presented a project for financing EPIAs

Support measures for EAs and EE in SMEs: analysis of good practices - Poland



	Thermomodernisation Loan for Enterprises II	Energy Plus
Article 8 EED	Yes	Yes
Years	2019-2022	2019-ongoing
Typology	Regional programme including a financial incentive on the EA and on the EPIAs implemented	National programme including a financial incentive on the EA and on the EPIAs implemented
EE measures implementation	More than one	At least one
Description	Loans for projects aimed at improving the energy efficiency of SMEs, the use of renewable energy sources and energy modernisation of buildings, increasing energy efficiency by at least 25%	The objective of the programme is to reduce the negative impact of companies on the environment, including the improvement of air quality, by supporting investment projects
Results	53 companies benefited from the loan	280 applications were submitted, 150 companies benefited from the loan

Support measures for EAs and EE in SMEs: analysis of good practices - Portugal



	Intensive Energy Consumption Management System SGCIE
Article 8 EED	No
Years	2008-Ongoing
Typology	National programme not including the financing of the EA
EE measures implementation	At least one
Description	All companies consuming >500 toe/year, are obliged to carry out energy audits - 8-year periodicity - and to elaborate the Energy Consumption Rationalization Plans (PREn), establishing targets for Energy and Carbon intensity and Specific energy consumption. By the end of each PREn period, operators must reduce their target indicators – Energy intensity and Specific energy consumption – in 4% or 6% depending on their reference consumption.
Results	Until December 2020, 1290 intensive energy consuming companies were registered online and 1850 PREn were approved. There were 1850 audit whose potential is 186 ktoe/year of final energy, from transversal and specific measures.

Conclusions

- Due to the intrinsic **heterogeneity** of the SME sector, designing EE policies for SMEs remains a difficult task
- SMEs are facing several economic, organizational and technical barriers
- Several instruments and good practices are available to promote EE and support SMEs

The interaction with stakeholders has provided useful recommendations:

Main outcomes from Observatories and policy assessment

- ✓ **Tailoring** support through strategic segmentation (in term of size and activity of the target companies)
- ✓ **Simplify** the policy schemes and balancing the **economic** and **supportive** policies
- ✓ Encouraging **EE networks** as cost-effective actions for SMEs
- ✓ Promoting the **development of good quality energy audits** and work on the availability of **benchmarking information at SMEs level**, to inform the decision-making process at company level
- ✓ Support actions and synergies among **Chambers of commerce, Business associations, financial institutions** to engage the SMEs

Thank you for your attention!

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