



AUDIT2MEASURE

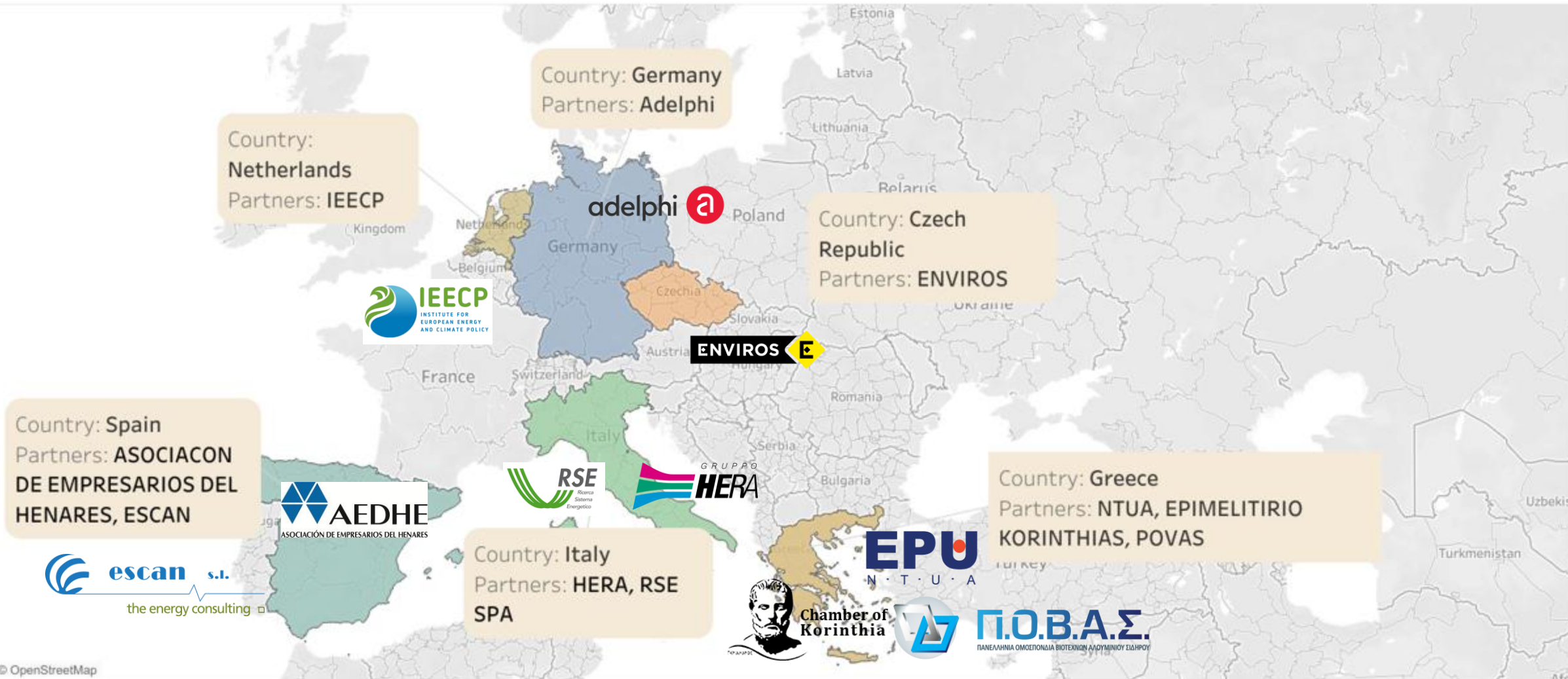
Boost the impact of audits: How to implement Art. 11 of the EED into national legislation



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Partners involved







Audit 2 Measure Partners



Audit2Action strategy



Art 8: State of the art of national auditing systems

	 CZ	 DE	 GR	 IT	 ES	 NL
Energy audit obligation since	2000	2015	2015	2015	2016	2008
Criteria for audit obligation for non-SMEs (MWh/a)*	>200	>500	All	>523,5	All	>50
Criteria for audit obligation for SMEs (MWh/a)*	>5,000	-	-	>1,000	-	-
Frequency of mandatory audits (years)	4 (10)	4	4	4	4	4
Mandatory Financial metrics for ESM recommendation**	IRR, NPV	IRR, NPV	LCC	IRR, NPV	SPP	ROI
Exemption through certified Energy Management Systems	ISO	ISO, EMAS	ISO	ISO	ISO	ISO
ESM implementation obligation since	-	2022 to 2024	-	2020	-	2019
Obligation criteria for ESM implementation (MWh/a)*	-	>10,000	-	>1,000	-	>10,000
Selection criteria for mandatory ESM implementation	-	NPV > 0 in 3 years	-	1 ESM	-	ROI > 0 in 5 years
Period for mandatory ESM implementation (years)	-	1.5	-	4	-	4

Key findings

- Target groups for the audit obligation differ strongly among surveyed countries.
- ISO certified EMS exempt from audits in all countries, EMAS only in Germany.
- Italy and the Netherlands have set ESM implementation obligations with varying criteria.
- Control and enforcement measures mainly on random sample basis, only the Netherlands control all audits.
- To date, only Germany and Italy have conducted national evaluations. Spain is currently carrying it out.
- Requirements for ESM assessment metrics in audits vary strongly:

ESM economic metrics	CZ	GR	DE	IT	NL	ES
Simple Payback Period (SPP)	O	O		O		O
Return On Investment (ROI)					O	
Internal Rate Of Return (IRR)	O		O	O		R
Net Present Value (NPV)	O		O	O		R
Life Cycle Cost Analysis (LCCA)		R				

Art 8: Overview of 27 national auditing systems

AUSTRIA	
ENERGY AUDIT POLICY	
AUDIT2MEASURE	
Audit obligation	
Implemented since 2015	Relevant regulations EEEG 2014 & Eff-RefG 2023
Audit frequency 4 years	
Target companies Non-SMEs	Number of targeted companies Approx. 2.039
Exempted sectors	N/A
Audit / ENMS scope and boundaries At least buildings, processes and transport within national boundaries, excluding third party facilities and vehicles.	
Minimum audit / ENMS coverage N/A	
Quality and compliance	
Relevant Authority Austrian Energy Agency/ E-Control	
Audit templates Yes, available here.	Data collection Submission via electronic reporting platform every year
Quality control N/A	Penalty for non-compliance Up to 20.000 €
Existence of a national evaluation of the audit policy framework Yes, in 2019. Available here.	
Auditors	
Qualification system Score-based license system	
National registry Yes	Auditor organisations E-Control
Quality control N/A	Penalty for non-compliance N/A
Obligation to implement Energy Saving Measures (ESM)	
Implemented since No	Relevant regulations -
Targeted companies -	Obligation deadline -
ESM selection criteria -	

Methodology

- Outreach to 27 countries using Audit2Measure network (1.5-year process)
- Contact through partners with national agencies, ministries and experts.

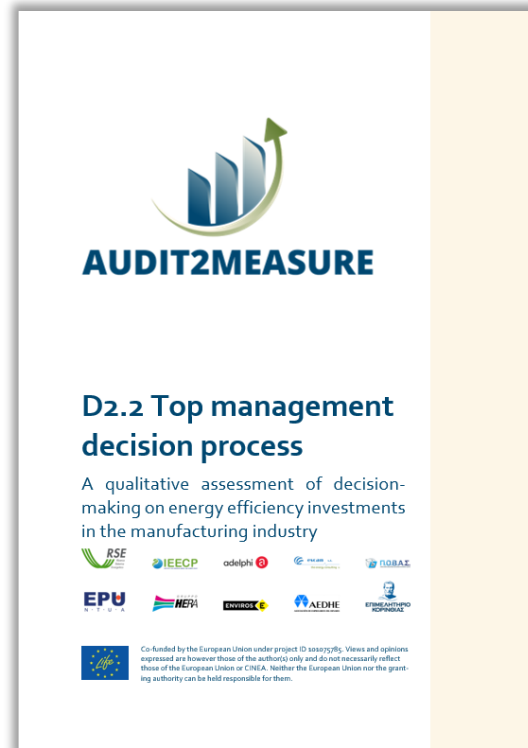
Content:

- Information on the specific criteria of the obligation and the control and enforcement measures
- Useful links to regulations, national templates and guidance documents.
- Structure of the market of energy auditors and ESCOs
- Existence of an ESM implementation obligation.

Selected key findings:

- In 2019 all Member States had finally implemented Art 8 EED 2012.
- 8 Member State have already included energy-consumption criteria.
- 4 Member States have an ESM implementation obligation in place.
- National evaluations are lacking or not disclosed in most Member States

Further publications



→ Analysis of decision-making processes in companies



→ Analysis on barriers and drivers affecting the uptake of ESM in companies

Report on implementing Art. 11 EED in national policy.

SUMMARY OF RECOMMENDATIONS



Financial incentives

Funding oriented towards high-impact measures, as well as small financial incentives, may nudge companies to carry out their audits earlier than required. This could also be achieved through a ranking system where companies' performance in the energy audits is certified.



Regulatory measures

Setting guidelines and minimum requirements for the content of action plans would ensure their quality and feasibility. Additionally, a performance monitoring scheme – based on targets built upon the audit results – would better evidence the impact of such plans.



Support

A complete environmental energy management system should include the metering of energy consumption and potentials for savings. Training and capacity building programs for auditors and companies should also push action beyond the minimum requirements of an energy audit.



Audit quality

Official certification for auditors, paired with a specification of tools and methods for the collection of data, would standardise the quality of energy audits. The inclusion of multiple benefits in the evaluation of measures may also shift managers' perception of energy efficiency.



Control, monitoring and evaluation

Energy efficiency monitoring schemes should be sensitive to sectoral specificities. This requires a segmented approach to data collection, which would also allow for a comprehensive, yet comparable overview of implementation rates of energy efficiency measures in industry.

Methodology

- Based on survey of auditors and companies of the baseline reports of the project, interviews with national authorities and on the ongoing cooperation between project partners and companies
- Comparison of Art. 8 EED and Art. 11 EED 2023
- Identification of synergies of Art. 11 EED with other EU policies
- Identification of gaps, barriers and unrealized potential concerning the uptake of ESM of national audit systems based on Art. 8
- Recommendations for national policy makers
- Recommendations to improve the European framework

Links & updates

<https://ieecp.org/wp-content/uploads/2024/09/A2M-D7.4-Policy-Recommendations-1st-edition.pdf>

Art 11: Evolution of the European requirements

ART 8 EED 2012		➔	ART 11 EED 2023
MANDATORY MEASURES FOR MEMBERS STATES			
Energy Management Systems	No obligation.		Companies with an average annual energy consumption of more than 85 TJ (e.g. 23.6 GWh) over the last three years are obligated to set up a certified EMS.
Energy audits	All large companies are obligated to carry out an audit every 4 years.		Companies with an annual energy consumption of more than 10 TJ (2.78 GWh) over the last three years are obligated to carry out an audit every 4 years.
ESM implementation	No obligation.		No obligation, but companies above 10 TJ publish an Action Plan with economically and technically feasible measures from the audit as well as their annual implementation rate.
Obligation exemptions	Companies with a certified EMS or environmental management system do not have to carry out audits.		Companies with EPC or a certified environmental management system are exempt from the EMS and audit obligation.
Audit criteria	<ul style="list-style-type: none"> Member States establish transparent minimum criteria for energy audits in accordance with Annex VI. Audit can be part of an environmental audit. 		<ul style="list-style-type: none"> Member States establish transparent minimum criteria for energy audits in accordance with Annex VI considering relevant European or international standards. Audit can be part of an environmental audit.
Auditor requirements	Accredited independent auditors or inhouse experts.		Accredited independent auditors or inhouse experts.

Art 11: Evolution of the European requirements

ART 8 EED 2012		➔	ART 11 EED 2023
MEASURES AT THE DISCRETION OF THE MEMBERS STATES			
Public data disclosure	No recommendation.		Disclosure of energy and water consumption of targeted companies.
Data collection	No recommendation.		Development of platforms to facilitate data collection.
District heating potential	Assessment of technical and economic feasibility of connecting the audited company to a district heating or cooling network.		Assessment of technical and economic feasibility of connecting the audited company to a district heating or cooling network.
Support measures	<ul style="list-style-type: none"> • Programmes to encourage SMEs to undergo energy audits. • Support schemes to cover costs of audits and the implementation of highly cost-effective recommendations for SMEs. 		<ul style="list-style-type: none"> • Programmes to encourage and technically support SMEs to undergo energy audits. • Set-up of Energy Audit Centres to conduct energy audits. • Support schemes to cover costs of audits and the implementation of highly cost-effective. • Support for the quantification of multiple benefits of ESM, the development of energy efficiency roadmaps and of energy efficiency networks for SMEs.

Art 11: Recommendations to national policy makers

Financial incentives

- Targeted funding of high impact measures with low implementation rates
- Incentives (tax reliefs) for early audit birds to avoid bottlenecks and high prices
- Energy efficiency awards and promotion campaigns to reward best practices

Regulatory measures

- Minimum requirements and guidelines for the content of action plans
- Long-term energy efficiency and CO₂ reduction strategies
- Implementation obligation for specific ESM and companies (low hanging fruits)

Company support measures

- Promotion of CO₂ reduction targets and dedicated energy efficiency budgets
- Promotion of integrated environmental management systems
- Further trainings for energy auditors
- Trainings and information campaigns for SMEs and larger companies

Focus on audit quality

- Implementation guidance for ESM
- Highlighting Non-Energy Benefits in audits
- Standardized tools and methods for data collection and specific requirements for audits reports
- Qualified label for energy auditors

Control, monitoring and evaluation measures

- Compliance, quality control and enforcement
- National sub-sector or sector specific audit system evaluations
- National public database for audit reports and results

Art 11: Suggestions to the European Commission

Support control and monitoring of national audit systems

- **Develop standardized data submission templates**
- Create interactive data collection platform
- Improve compliance checks and impact analysis

Strengthen evaluation and transparency at national level

- Set clearer requirements for NECP reporting
- **Increase disclosure of national audit system evaluations**
- Improve tracking of affected companies and compliance rates

Promote implementation obligations for highly viable ESMs

- Encourage implementation obligations for viable ESMs
- Set energy intensity thresholds for mandatory implementation
- Provide guidance and tools for monitoring ESM implementation

Harmonise audit and auditor quality standards

- Establish EU-level audit requirements
- **Standardize audit report content and auditor qualifications**
- Encourage consideration of Non-Energy Benefits (NEBs)

Emphasize synergies and increase integration between EU regulations

- **Align EED with IED, E-PRTR, and CSRD**
- Highlight synergies between energy and pollution reduction plans
- Utilize data across various reporting requirements

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Netherlands

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and the Energy Management
Maturity Model

Unlocking Energy Efficiency: How
the Audit2Action Strategy is
Bridging the Gap Between
Energy Audits and Energy-
Saving Measures



Thank you.

For more info, visit our website or contact us:



<https://ieecp.org/projects/audit-to-measure/>



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