



*A holistic framework  
for **Empowering SME's**  
capacity to increase  
their energy **efficiency***



POWER SYSTEMS LABORATORY  
ARISTOTLE UNIVERSITY OF  
THESSALONIKI

***8th Plenary Meeting Concerted Action for the Energy Efficiency Directive***

# **SME mPower Efficiency**

Prof. Grigoris Papagiannis  
Power Systems Laboratory  
Aristotle University of Thessaloniki, Greece

March 24, 2021 – Virtual Meeting



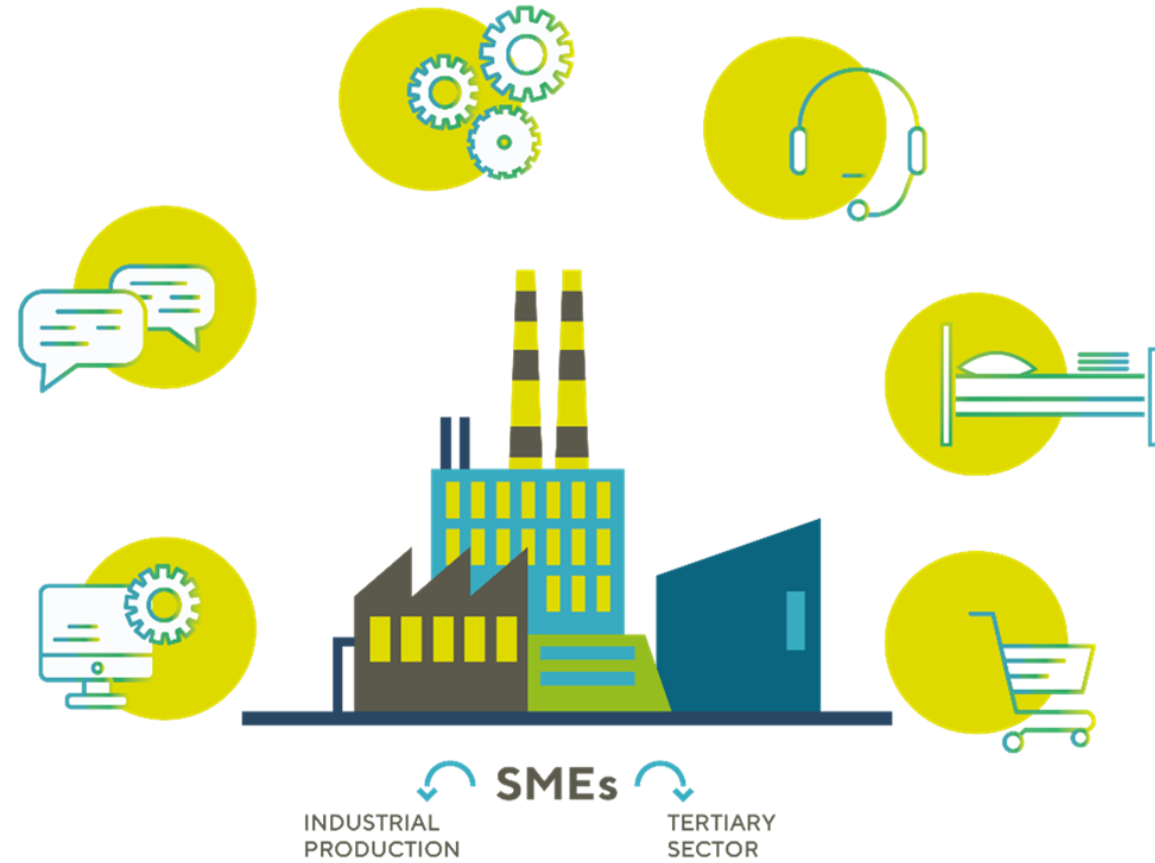
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847132

## “Empowering” SMEs to reduce energy consumption

### Motivating and facilitating SMEs

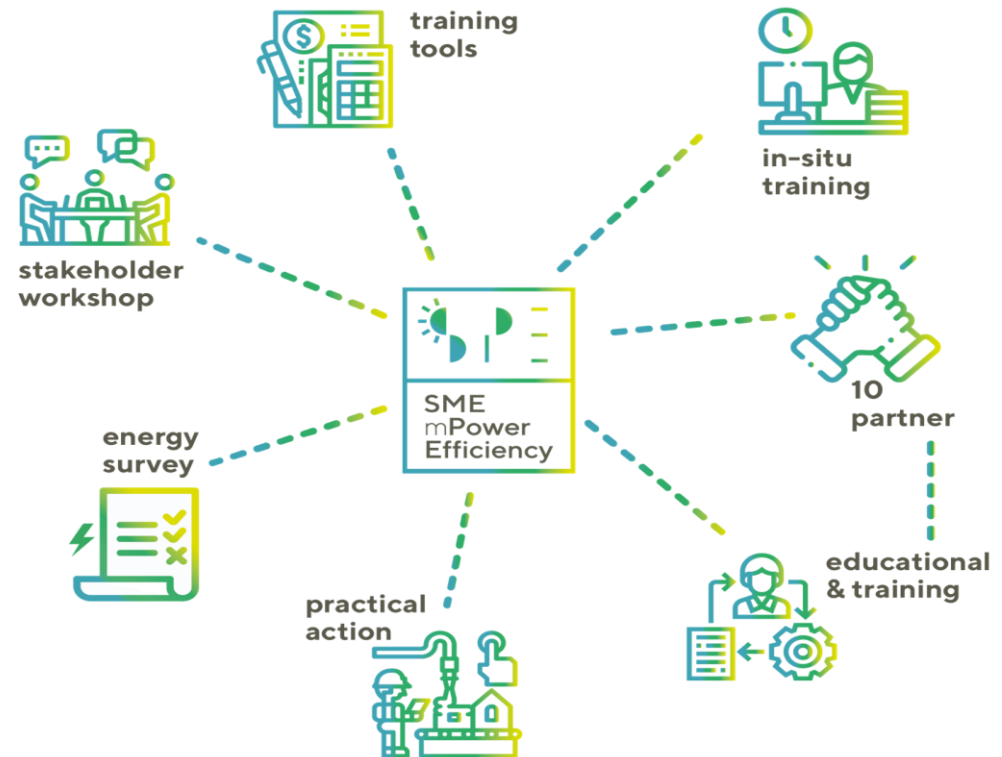
- to undergo energy audits
- to become familiar with the energy management concepts and tools
- to seek funding opportunities
- to implement energy saving measures increasing their energy efficiency

Working with energy experts, mainly from SMEs, decision makers and stakeholders



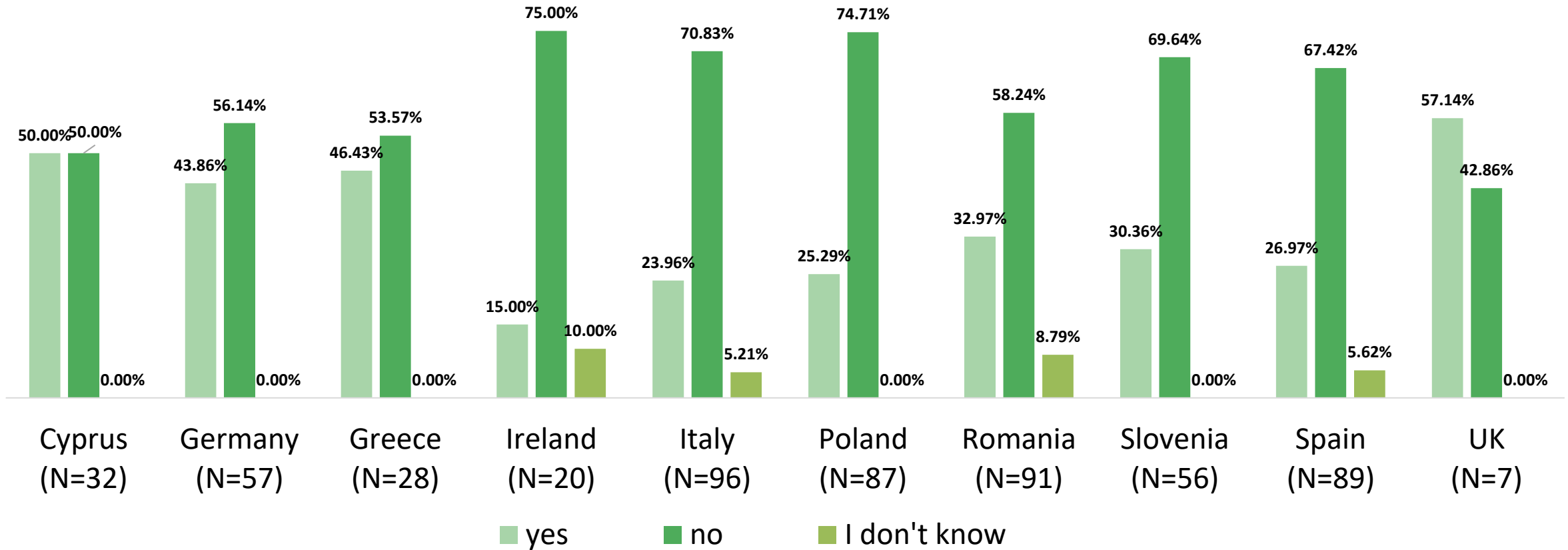
# The SME mPower Efficiency in numbers

- ✓ **Accredited Education & Training courses** for more than **720 energy experts** mainly from SMEs
- ✓ ON site **Short trainings** for at least **800 staff & decision makers in SMEs**.
- ✓ Field work at least in **160 SMEs**
- ✓ Targeted **workshops** for stakeholders
- ✓ **Consultation** on funding options
  - Long lasting training material
  - Web platform for energy analytics
  - Monitoring & Targeting and Measurement & Verification tools



# Energy audits in SMEs – How it looks like?

Conducted **energy audits in SMEs** by country – 563 SMEs



Survey results presented in the Sustainable Places 2020 Conference, October 27-30, 2020 by the projects



# The SMEmPower - Pathway so far

**Preliminary energy evaluations** in SMEs as part of the practical action of the E&T courses

**First editions** of the E&T courses concluding in each partner country

**270** energy experts participating in the accredited E&T courses

**52** SMEs selected and engaged for the practical action

Due to the COVID-19 situation all activities implemented from distance.

Following outcomes are from 4 of the partner countries, where the practical action concluded.



# SME mPower – Barriers in data collection



	Barriers	Potential Solutions
<b>Technical</b>	Lack of <u>detailed energy consumption data</u> per energy system. Lack of experienced personnel to handle or retrieve data	Technical analysis of the energy systems. Use of typical values per SME sector.
	Only aggregated <u>production data</u> available for the manufacturing process	Estimates and development of scenarios for baselines.
	No <u>cost analysis</u> available	Estimated values were used based on the local regulations.
<b>Legal, societal</b>	COVID-19 situation added additional barriers in <u>the access to SME facilities and offices</u>	Better collaboration with SME representatives participating in the E&T courses. Detailed presentations of the SMEs for the working groups
	Reluctance in participating, <u>low interest in energy efficiency investments</u> this period	Extended communication with decision makers to highlight the multiple benefits of improving energy efficiency. Facilitating in seeking financing opportunities
<b>Policy</b>	Lack of specific policies for SMEs to promote energy efficiency	Collaboration with stakeholders, SME associations and regulating authorities to promote specific policies and incentives.





## Collected data included

- Energy systems description
- Operational data of the SME (production plans, scheduling of shifts, etc)
- Monthly energy consumption data per energy type;
- Monthly production data or indicators of services provided or turnover

More issues with very small SMEs regarding the availability of data

Participation of SME owners or external experts is crucial for successful implementation

Use of the M&T and M&V tools developed by the project to check data.



# SMEmpower –Keep the customer satisfied!



Main outputs of the preliminary evaluation to auditors or auditees



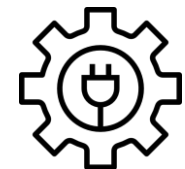
Proposed solutions and energy efficiency action plans



Measurement & Verification of the results using the project tools



Proposed financial resources



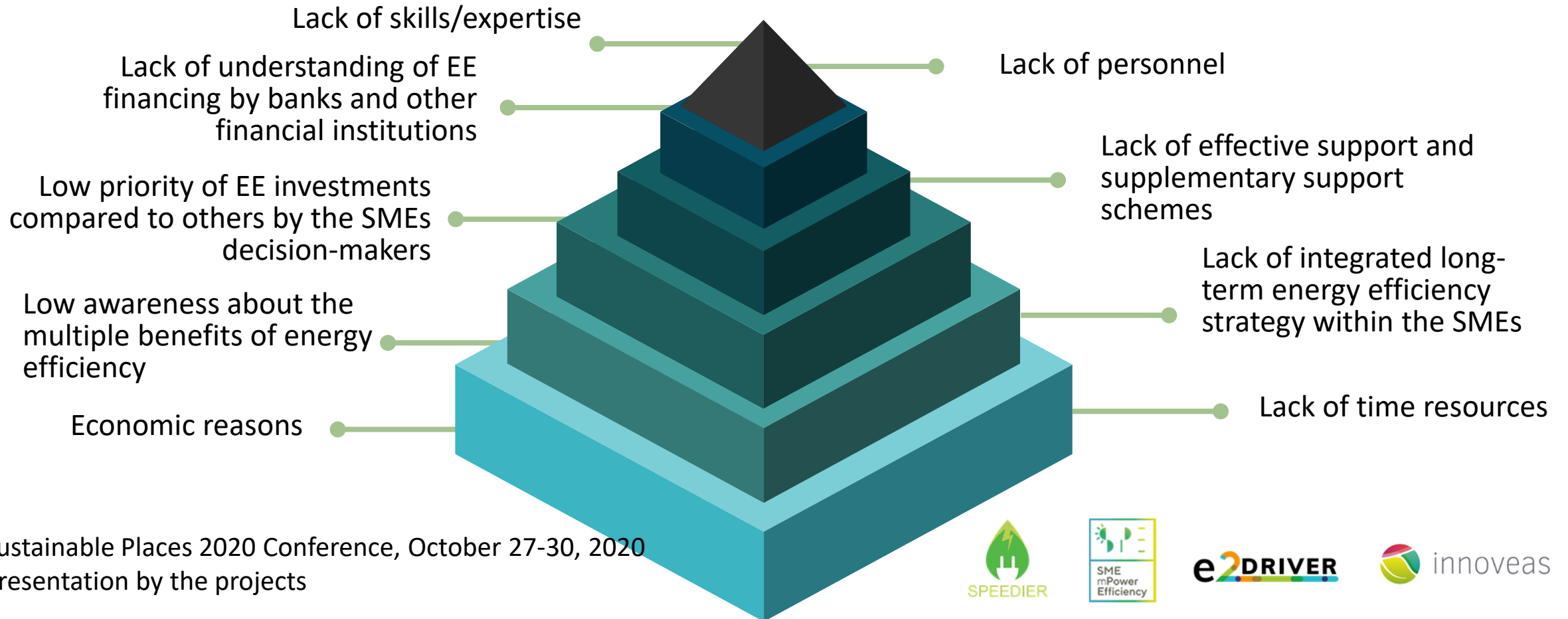
Energy management plan

Do they find outcomes useful ? YES  
Can they incentivise implementation? POSSIBLY  
Share results with national authorities? NO  
(not foreseen, highly sensible on confidentiality)



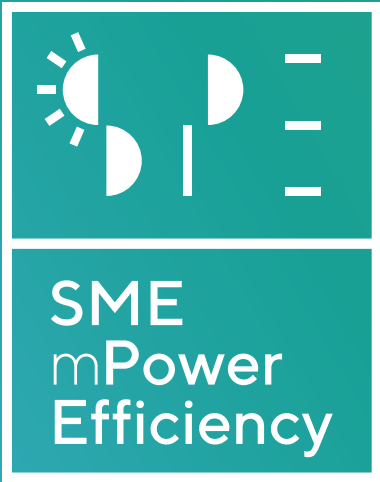
# SMEmpower – Concluding

## Common barriers prohibit energy efficiency investments in SMEs






Sustainable Places 2020 Conference, October 27-30, 2020  
presentation by the projects





**Thank you for your attention**

**FOLLOW US ON**

-  SMEmpower H2020
-  @SmeH2020
-  SMEmpOWER Energy Efficiency

**[www.smempower.com](http://www.smempower.com)**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847132