

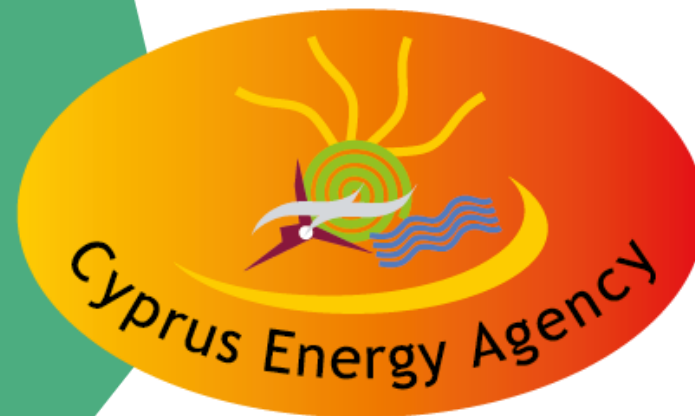


# RESOR

Interreg Europe



European Union  
European Regional  
Development Fund



ΕΝΕΡΓΕΙΑΚΟ ΓΡΑΦΕΙΟ  
ΚΥΠΡΙΩΝ ΠΟΛΙΤΩΝ

**Savvas Vlachos / Director**  
RESOR Kick-off meeting  
11<sup>th</sup> July 2018  
Las Palmas de Gran Canaria

# The Cyprus Energy Agency

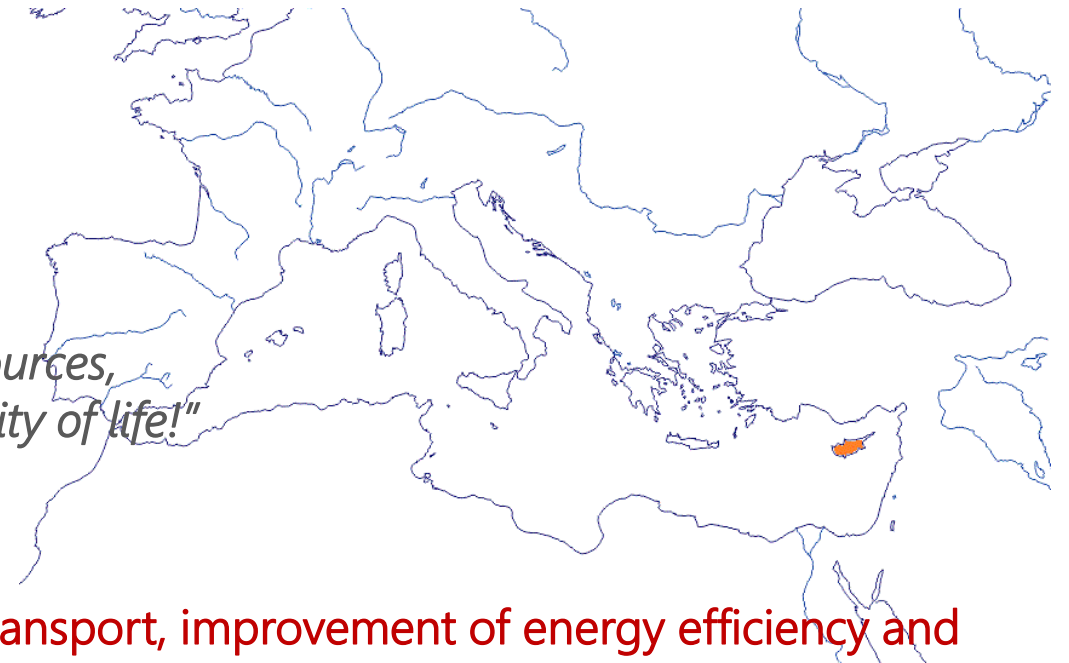
Non Governmental Non profit organization  
Officially established 9/2/2009

## *Vision*

*"to contribute actively to the conservation of energy resources,  
protecting the environment and contributing to the quality of life!"*

## Specific objectives

**"Promotion of renewable energy sources, sustainable transport, improvement of energy efficiency and contribution to the mitigation and adaptation to climate change"**



# Member of European networks

Member of FEDARENE, EnergyCities and Climate KIC

"We support the Covenant of Mayors for Climate & Energy initiative, Smart Islands initiative and we share a vision of decarbonised and resilient cities where citizens have access to secure, sustainable and affordable energy"



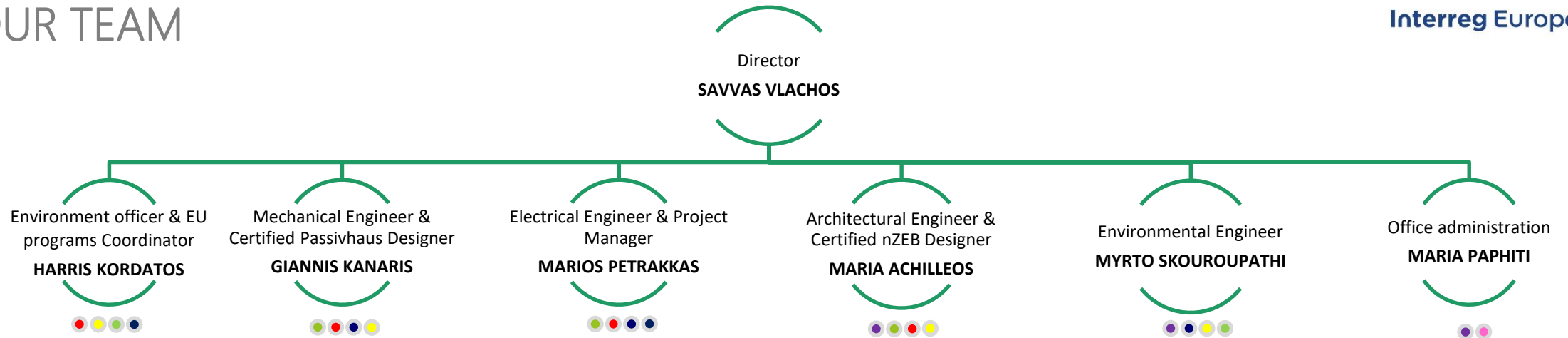
**Covenant of Mayors**  
for Climate & Energy



**energycities**  
WHERE ACTION & VISION MEET



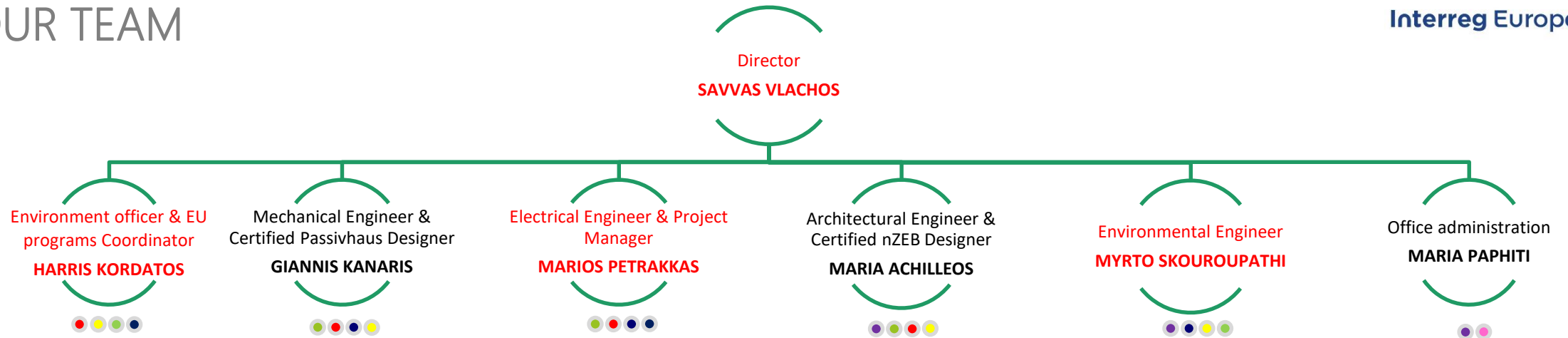
# OUR TEAM



- Education and Innovation
- Energy Efficiency
- Renewable Energy Sources
- Sustainable Mobility
- Sustainable Energy and Climate Planning
- Environment Protection
- Green Public Procurement
- Office Administration



# OUR TEAM



- Education and Innovation
- Energy Efficiency
- Renewable Energy Sources
- Sustainable Mobility
- Sustainable Energy and Climate Planning
- Environment Protection
- Green Public Procurement
- Office Administration

# The Management Board

---

## Local or regional elected representatives : 2 members

- Cyprus Union of Communities (CUC)

## Representatives of enterprises or professional associations : 4 members

- Cyprus Association of Enterprises for the promotion of Renewable Energy Sources (SEAPEK)
- Cyprus Scientific and Technical Chamber (ETEK)
- Federation of Employers and Industrialists of Cyprus (OEB)

## Representatives of consumers : 1 member

- Cyprus Consumers Association (CCA)

## Representatives of environmental and educational organizations: 1 member

- Federation of Environmental and Ecological Organizations of Cyprus

## Others (producers / distributors, university, research centers etc.): 1 member

- University of Cyprus

## Government/Public Administration representatives: 2 members

- Commissioner for the Environment
- Environment Service- Ministry of Agriculture, Natural Resources and Environment

# Cyprus Energy Agency

**CEA educational activities has been selected in the 20 best examples according to the Local Energy Awards 2011 and shortlisted in the 10 best examples according to the Local energy awards 2012**



Supporting local authorities on Sustainable Planning since 2010

Assigned to be the CoM technical supporter from Union of Cyprus Municipalities and Communities  
Official Covenant of Mayors Supporter

Brussels 25 June 2014

Currently is supporting more than 30 local authorities in Cyprus with ambitious targets for 2020 and 2030



**Covenant of Mayors**  
for Climate & Energy

# What we do

## Training Seminars

Energy Auditors

Energy Performance of Buildings  
Certification

European Energy Managers

Boilers Inspection

Workshops

## Exams and certification

- Energy Auditors
- Qualified Experts for EPC
- European Energy Managers
- Boilers Inspectors





# What we do

## Raising Awareness

energy efficiency

Renewable energy sources

Sustainable transport

Educational activities for schools

## GPP Supporter

- Information
- Technical support
- Training
- Templates
- Annual GPP awards



# What we do

## Technical studies

Energy audits

Measurements

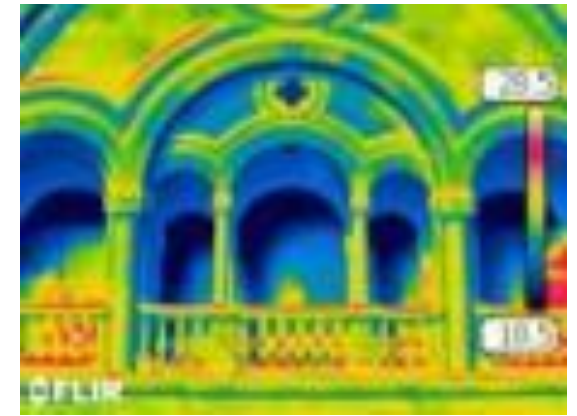
Environmental impact assessment

Lighting

Feasibility studies

## Covenant of Mayors

- Promotion
- Technical support
- Training
- SE(C)AP development
- SE(C)AP implementation
- Energy projects facilitation



# What we do

---

## European projects

Intelligent Energy for Europe

Horizon2020

Interreg EU

Interreg MED

ENI MED

EIT CLIMATE KIC

EEA and Norway Grants

## Subject of projects the Energy Agency deals with:

- Sustainable Energy Action Plans
- Sustainability of Islands
- Building Capacity for public and private sector
- Biofuel production from sea micro algae
- Training and certification of installers and energy managers
- Renewable Energy Sources
- Energy retrofit residential buildings
- Energy efficiency of residential and public buildings and sport facilities
- Training and active involvement of students and local society
- Technical support for the implementation of energy projects
- Ideation events, support climate innovators and much more
- Youth employment – Green jobs
- Sustainable Tourism



# Cyprus Energy Agency in Numbers

37 European Projects	> 2.500 Educated Individuals	> 6 M€ in projects	> 250 Conferences	>20.000 individuals attended our conferences	Education > 35.000 students
> 180 schools participated in educational activities	>200.000 brochures disseminated	> 200.000 visits per year on our website	>2.000 educational games	13 radio spots	> 30 Local Authorities are supported (SEAPs)
> 350 installed LED street lights	25 low income households have been renovated	> 16.000 light measurements	> 70 educational seminars	> 5 exams	> 90 environmental studies
> 10 energy audits	> 20 technical studies	> 250 technical visits for energy consultation in households	> 1.700 followers on facebook	7 employees	9 years in action

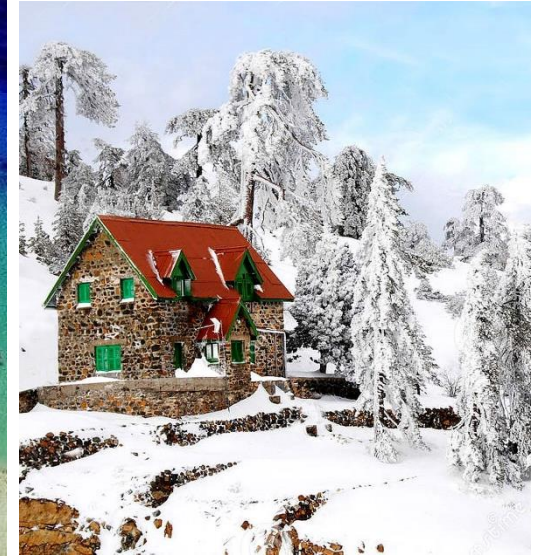




# OVERVIEW: CYPRUS



# Our territory



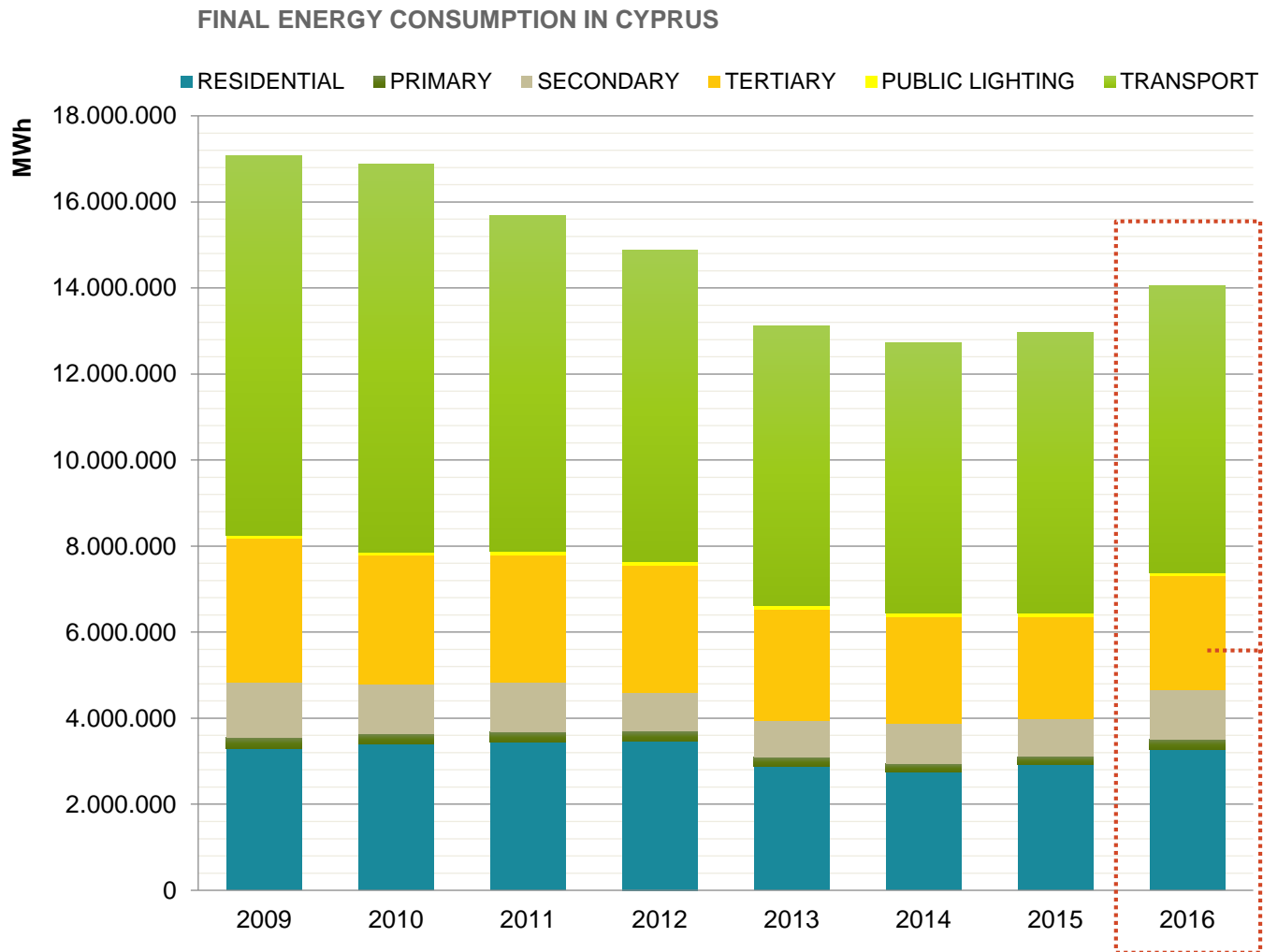


# Our territory

The most important sectors of Cyprus's economy in 2016 were **wholesale and retail trade, transport, accommodation and food services** (26.0 %), public administration, defence, education, human health and social work activities (20.3 %) and financial and insurance activities (10.8 %).



# Analysis of Cyprus' energy sector



Population of Cyprus is about  
**930,000**

Tertiary sector energy  
consumption: **2,643 MWh (19%)**

**85% are SMEs**

TERTIARY SECTOR

Opportunity for energy savings



# Analysis of Cyprus' energy sector

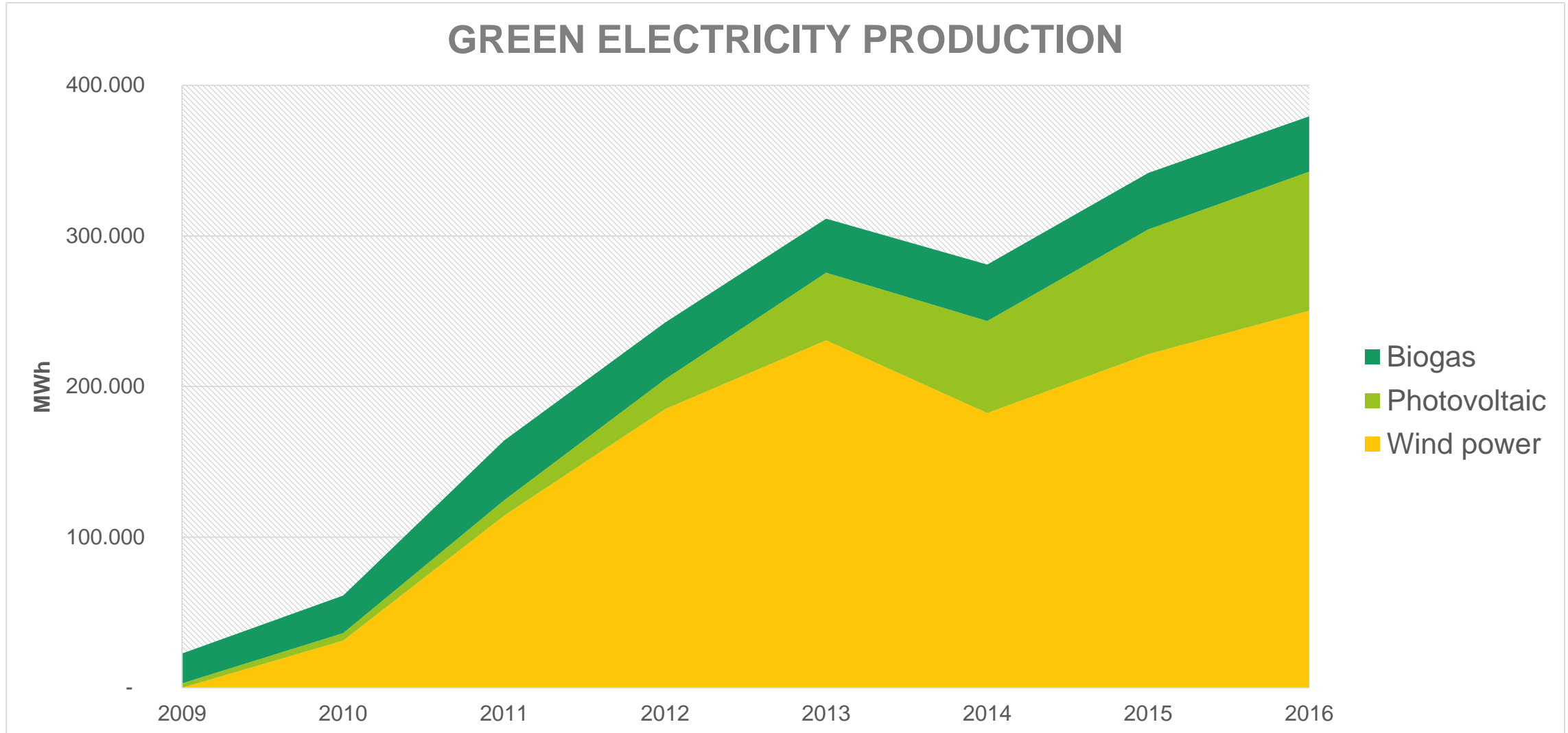
**RES objective for 2020: 13%**

**RES share in 2016: 9% (148 Ktoe)**

1. Solar thermal: 47%
2. Biomass (heat): 21%
3. Wind: 13%
4. Solar PV: 9%
5. Biomass (electricity): 3%
6. Biofuels: 6%
7. Geothermal (heating and cooling): 1%

**RES objective for 2030: 24%**

# Analysis of Cyprus' energy sector





### Strengths

- Member State
- Existing Policy Framework
- Active NGOs
- Networks of Enterprises and Industries
- RES strategy
- EE strategy
- nZEB
- High % educated people (tertiary)
- Attractive investment environment (taxations, incentives)



### Weaknesses

- Implementation and monitoring of policies and strategies
- Limited capacities/authorities of local authorities to contribute to Energy Policies
- Centralized governance
- Insularity (no energy connections)
- Transport sector
- Bureaucracy (conflicts among different gov. departments)
- Hard to meet 2020 RES objectives (currently 9% and need to reach 13%)



### Opportunities

- ERDF operational programme
- EU Directives
- EU 2030 Policies
- Climate Change
- RES potential (solar)
- Energy Savings potential
- Nature based solutions
- New technologies
- Best practices (solar thermal and PVs)
- Covenant of Mayors
- RESOR
- Sustainable Tourism
- NET BILLING
- NET METERING



### Threats

- Climate change (Extreme heat, Draughts, Floods, Fires, Energy poverty, Social impacts, Water scarcity)
- Financial Crisis (Banking Sector)
- Cyprus problem (half of the island is under Turkish occupation since 1974)
- Tourism
- Irrational development
- Pressure to the environment
- Absence of competitive energy market

# Energy Performance of Buildings

	Minimum Energy Efficiency Requirements					nZEB
	21.12.2007 - 31.12.2010	01.01.2010 - 10.12.2013	11.12.2013 - 29.10.2015	30.10.2015 - 31.12.2016	01.01.2017 - 31.12.2020	01.01.2019 (P.B.) 01.01.2021 and afterwards
	ΚΔΠ 568/2007	ΚΔΠ 446/2009	ΚΔΠ 432/2013	ΚΔΠ 359/2015	ΚΔΠ 119/2016	ΚΔΠ 366/2014
Ranking - Class	-	≥ B	≥ B	≥ B	≥ B	A
U value - Walls	≤ 0.85 W/m <sup>2</sup> .K	≤ 0.85 W/m <sup>2</sup> .K	≤ 0.72 W/m <sup>2</sup> .K	≤ 0.72 W/m <sup>2</sup> .K	≤ 0.40 W/m <sup>2</sup> .K	≤ 0.4W/m <sup>2</sup> .K
U value – Horizontal structural elements	≤ 0.75 W/m <sup>2</sup> .K	≤ 0.75 W/m <sup>2</sup> .K	≤ 0.63 W/m <sup>2</sup> .K	≤ 0.63 W/m <sup>2</sup> .K	≤ 0.40 W/m <sup>2</sup> .K	≤ 0.4W/m <sup>2</sup> .K
U value of a ground (over non - heated spaces)	≤ 2.0 W/m <sup>2</sup> .K	≤ 2.0 W/m <sup>2</sup> .K	≤ 2.0 W/m <sup>2</sup> .K	≤ 2.0 W/m <sup>2</sup> .K	-	-
U value of the windows	≤ 3.8 W/m <sup>2</sup> .K	≤ 3.8 W/m <sup>2</sup> .K	≤ 3.23 W/m <sup>2</sup> .K	≤ 3.23 W/m <sup>2</sup> .K	≤ 2.90 W/m <sup>2</sup> .K	≤ 2.25 W/m <sup>2</sup> .K
U value – Mean (Walls & Windows)	-	1.3 W/m <sup>2</sup> .K	≤ 1.3 W/m <sup>2</sup> .K	≤ 1.3 W/m <sup>2</sup> .K	≤ 1.3 W/m <sup>2</sup> .K	-
Maximum consumption of primary energy	-	-	-	-	-	100 kWh/m <sup>2</sup> .year 125 kWh/m <sup>2</sup> .year
Maximum energy demand for heating	-	-	-	-	-	15 kWh/m <sup>2</sup> .year
Maximum window shading coefficient	-	-	0.63	0.63	0.63	0.63
Maximum power of lighting installations at office buildings					10 W / m <sup>2</sup>	10 W / m <sup>2</sup>
Share of RES in primary energy consumption	-	Solar Thermal & PVs Providence	Solar Thermal & PVs Providence	Solar Thermal & PVs Providence	25% (Detached) 3% (Apartments) 7% (Non Residential)	25%



# Survey and interviews with businesses

Cyprus Energy Agency 2018

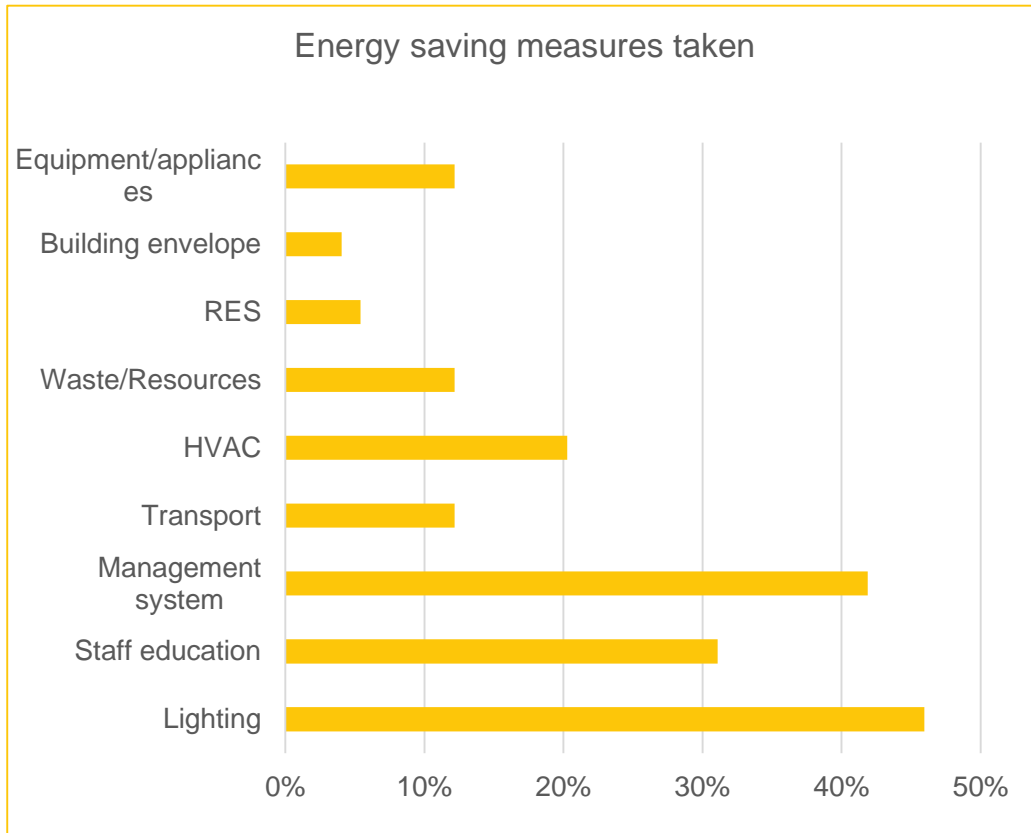


Figure : Reported energy saving measures

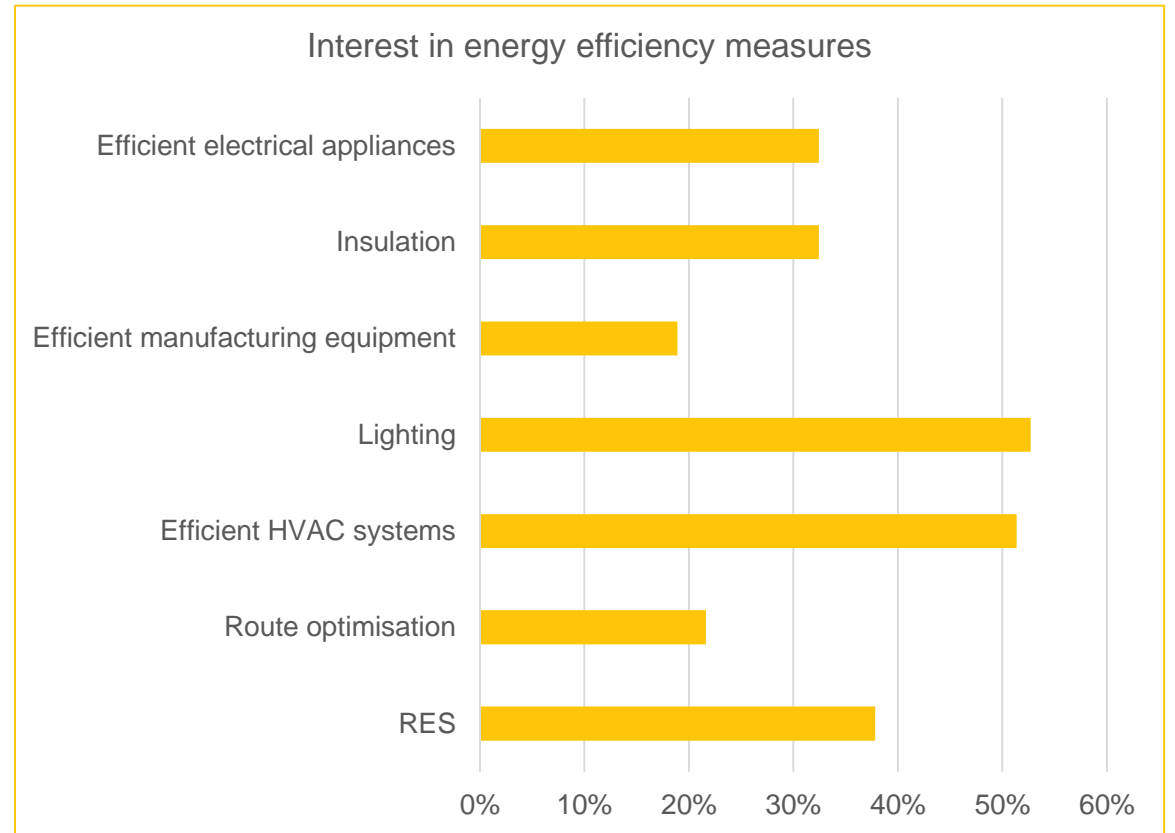


Figure: Energy efficiency measures which businesses are interested in

# Survey and interviews with businesses

Cyprus Energy Agency 2018

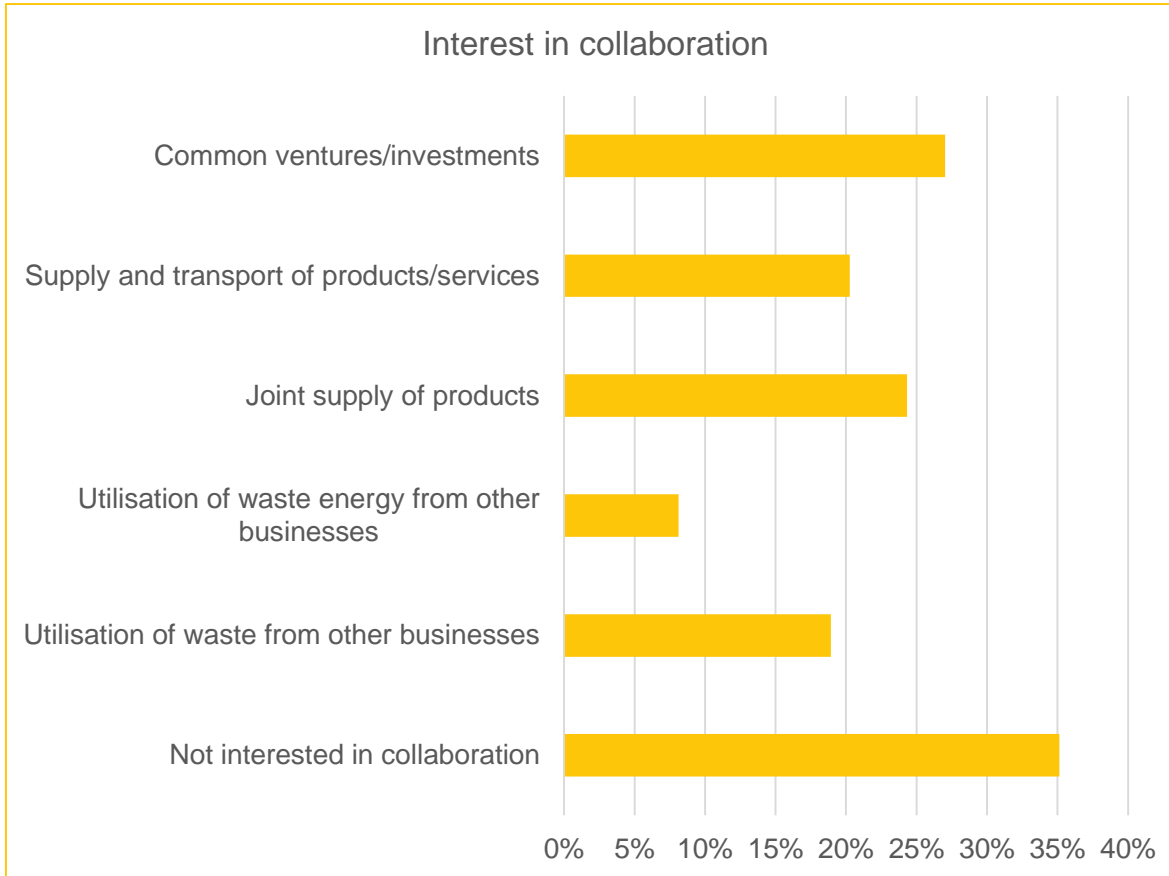


Figure: Areas in which businesses are interested to collaborate to save energy

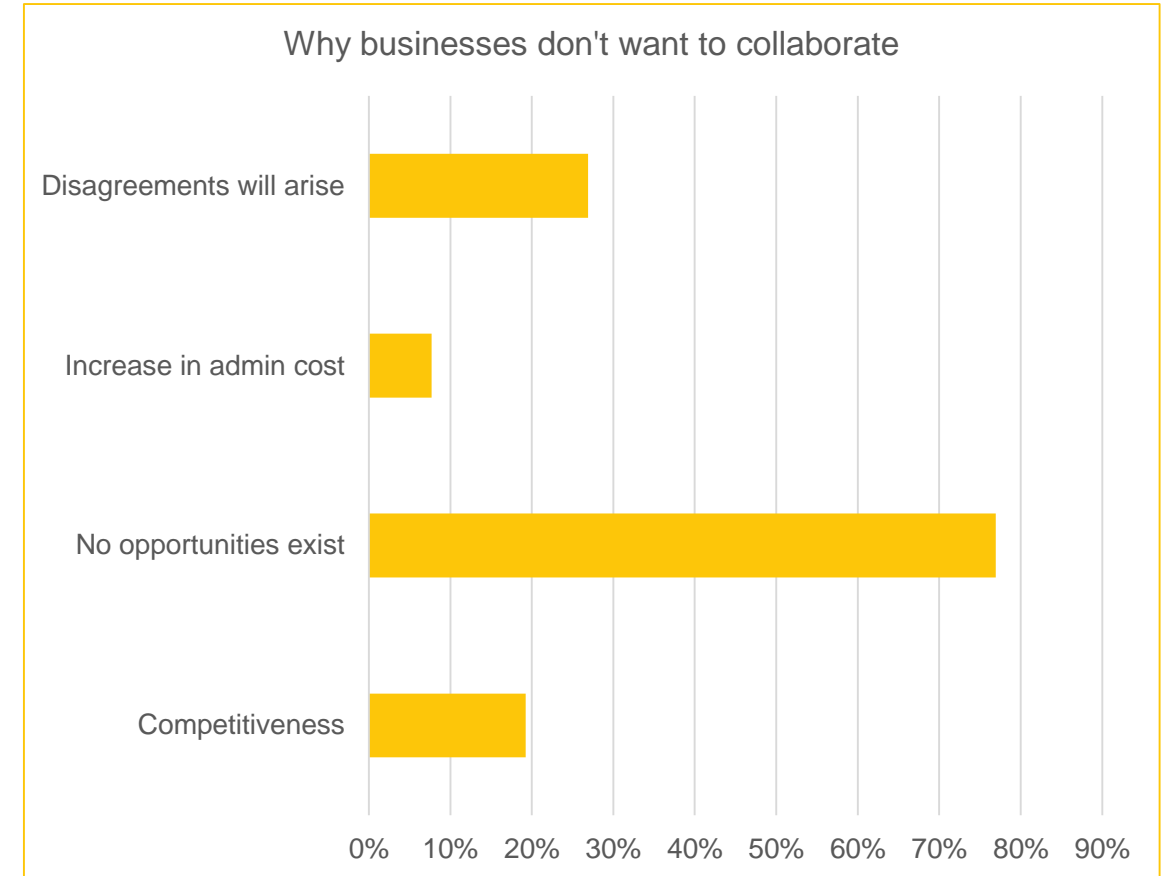
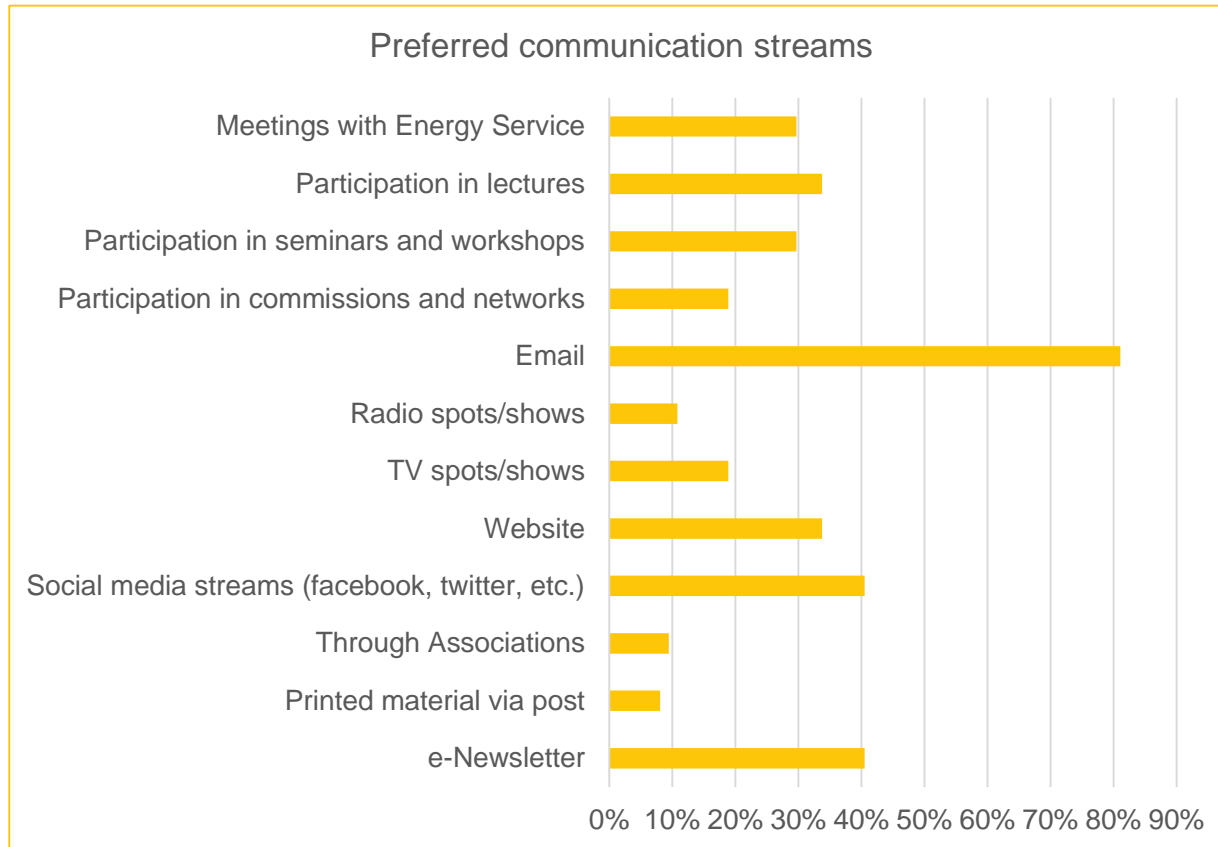


Figure: Reasons businesses give for not wanting to collaborate to save energy

# Survey and interviews with businesses

Cyprus Energy Agency 2018



*Figure: Communication streams on energy efficiency issues for businesses*

## **Thematic Objective 4: Support transition to low carbon economy in all sectors**

Investment priority 4B. Promotion of Energy Efficiency and use of Renewable Energy Sources from enterprises

Specific Objective 4.B1 Increase energy savings from enterprises

SO indicator: Primary energy savings from enterprises (NON ETS) – 61 Ktoe

Indicative actions: Energy Audits, Energy Renovations, Solar RES, Energy Storage, CHP, Energy Management, Utilization of biomass, Energy recovery

# Keep in touch with us

---

**Savvas Vlachos**

Director

[savvas.vlachos@cea.org.cy](mailto:savvas.vlachos@cea.org.cy)

**Harris Kordatos**

Environment officer and EU programmes Coordinator

[harris.kordatos@cea.org.cy](mailto:harris.kordatos@cea.org.cy)

**Marios Petrakkas**

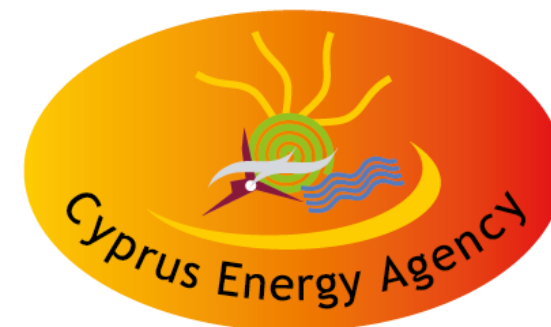
Electrical Engineer and Project Manager

[marios.petrakkas@cea.org.cy](mailto:marios.petrakkas@cea.org.cy)

**Myrto Skouroupathi**

Environmental Engineer

[myrto.skouroupathi@cea.org.cy](mailto:myrto.skouroupathi@cea.org.cy)



ΕΝΕΡΓΕΙΑΚΟ ΓΡΑΦΕΙΟ  
— ΚΥΠΡΙΩΝ ΠΟΛΙΤΩΝ —