



**KAPÉ
CRES**

CENTRE FOR RENEWABLE
ENERGY SOURCES AND SAVING



MINISTRY OF
ENVIRONMENT
ENERGY &
CLIMATE
CHANGE

CRES – Centre for Renewable Energy Sources and Saving



Dimitrios Mendrinos, senior geothermal expert;
Dr. Constantine Karytsas, director of RES division.

Background



- The Centre for Renewable Energy Sources and Saving (CREC) is the Greek national centre for Renewable Energy Sources (RES), Rational Use of Energy (RUE) and Energy Saving (ES)
- CREC was founded in September 1987, it is supervised by the Greek Ministry for the Environment, Energy and Climate Change, and has financial and administrative independence.
- Its main goal is the research and promotion of RES/RUE/ES technology at national, European and international level, as well as the support of related activities taking into consideration the environmental impacts in the energy supply and use.



Mission



Identity of CRES: Two directions

National Energy Centre

In support of :

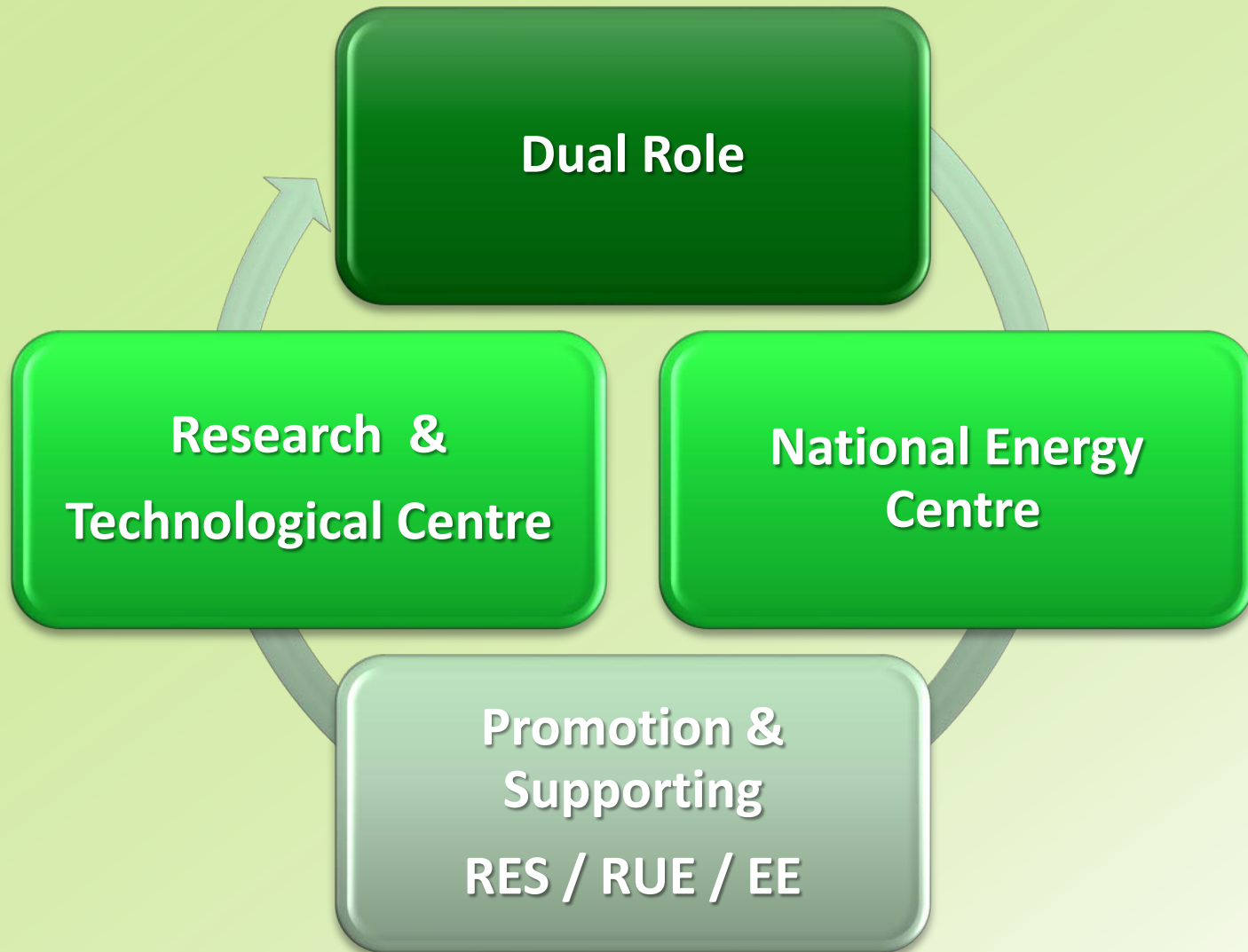
- Policies Formulation
- Investment programmes management
- Energy planning
- Dissemination

Energy Research Centre

Research and Applications regarding :

- New and Renewable Energy Technologies
- Energy Efficiency Technologies

Mission



Sectors



WIND ENERGY

BIOMASS

GEO THERMAL ENERGY

SOLAR ENERGY

PV SYSTEMS

SMALL HYDRO & OCEAN ENERGY

RES & HYDROGEN TECHNOLOGIES

RATIONAL USE OF ENERGY & ENERGY EFFICIENCY

ANALYSIS OF ENERGY POLICY & SYSTEMS

BUILDING CELL & INDOOR CLIMATE

ENVIRONMENT

TRANSPORT

Premises



The laboratories



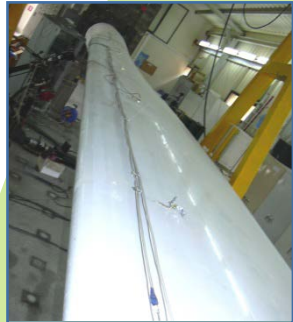
Nearly Zero Energy Office Building



The Park of Energy Awareness, situated near Lavrio Attiki, where RES systems are demonstrated:

- 3.01 MW wind park
- biomass boiler
- hydrogen production
- DEC solar cooling
- hybrid desalination
- geothermal heat pump
- PV

Labs



Technology	Facilities
Wind	<ul style="list-style-type: none"> W/T Testing Test Station, Demo Wind Farm Wind-diesel
Biomass	<ul style="list-style-type: none"> Biomass Fuel Analysis Lab Biomass Boilers Test rig
Geothermal	<ul style="list-style-type: none"> Portable equipment & software
Solar Thermal	<ul style="list-style-type: none"> Portable equipment
Water Tech	<ul style="list-style-type: none"> Portable equipment
Hydrogen & RES	<ul style="list-style-type: none"> Wind-Hydrogen installation, Hydrogen Tech. Lab, link to DER Lab
PV Systems & DER	<ul style="list-style-type: none"> PV Modules Lab. & Battery Lab. Power Electronics Lab. Hybrid System - DER
Building Cell & Indoor Climate	<ul style="list-style-type: none"> Air flow Lab. (wind tunnel) Day-lighting Lab. (artificial sky) Thermal comfort Lab. Test cells Building Env. & Indoor Climate Lab. Building components & materials thermal testing lab.

Activities

- Is the official Greek government consultant on matters of RES/RUE/ES national policy, strategy and planning
- Carries out applied research and develops innovative technologies which are both technically and economically viable and environmental friendly
- Organises, supervises and carries out demonstration and pilot projects, to promote the above technologies
- Develops and distributes specialised software programmes (GIS tools) on the RES/RUE/ES area



Projects



CRES has participated in more than 800 European, national and international projects.

These include research & technology development demonstration & pilot projects, development of energy information systems and energy modelling, energy policy studies, investment feasibility studies, techno-economic studies, market research, environmental impact assessments, as well as training and promotional activities on the RES/RUE/ES related issues.

CRES also provides important services to **third parties** (private investors, companies) and to local authorities, concerning the exploitation of the technical and techno-economic possibilities for the application of RES/RUE/ES.

Personnel & Networks



CRES employs **110** highly qualified engineers and other scientists (the total personnel amounts at 173 people).

CRES has an annual **turnover** of **8 million** Euro.

CRES co-operates with other institutes, organisations, universities, consultants, international organisations (such as the IEA, UNESCO, ISES, PLEA, IEC, CEN, etc)

CRES is an active member of various European and international networks, such as the EⁿR, MEDENER, EUFORES, EWEA, DYNASTEE, MEASNET, EUREC Agency, etc.

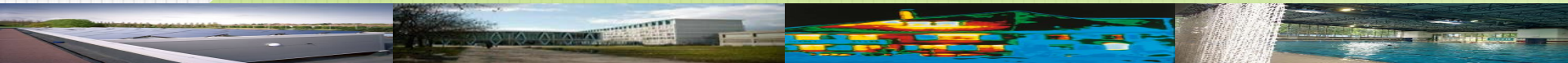


New Energy Technologies responding to the needs of business

Supporting entrepreneurship

Enhancing competitiveness

Protecting the environment



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19th km Marathonos Avenue,
19009 Pikermi, Greece
T: +30 210 6603300, F: +30 210 6603301-2
<http://www.cres.gr/>, cres@cres.gr



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