5th ENEPLAN Workshop:
Innovation, applied research in renewable energy and relationships with SMEs

Andalusia Innovation ecosystem in renewable energy

Daniel Ayala Serrano
dayaser@upo.es

Faro
15th-19th January 2018
ANDALUSIA’S ENERGY STRATEGY 2014-2020

OBJECTIVES

• To promote an energy system in which the renewable energy sources are the core of the Andalusia’s energy mix

• To adjust the regulatory framework to promote R+D+i entities and SME’s focus on renewable energy
QUADRUPLE HELIX MODEL AS BASIS FOR KNOWLEDGE SOCIETY
ANDALUSIA INNOVATION ECOSYSTEM

Policy

QUADRAPE HELIX

CITIZENS

Participation: Energy for/with Citizens

SME's, INNOVATION AND APPLIED RESEARCH IN AREA IN ANDALUSIA

ANDALUSIA EFFICIENCY ENERGY STRATEGY

Regional Gov

Promote by

Research by

Innovation

SME's Innovation & Development

ANDALUSIAN ENERGY AGENCY

Renewable Energies

FUND

CLUSTERS

ANDALUSIAN INNOVATION ECO SYSTEM

Lead by

SME's (1,515)

ASSOCIATIONS

ANDALUSIAN INNOVATION & DEVELOPMENT AGENCY (IDEA)

Research & Innovation

Funds

Support

TECHNOLOGY CENTRES (11)

ANDALUSIAN INNOVATION ENTITIES (31)

PSA - Almeria Solar Platform

CSIC - Scientific Research National Centre

RESEARCH GROUPS

470 patents developed by

Characterization of solar thermal systems and components.

Renewable Energies.

Use passive solar energy.

Solar Waterheating.

MAIN RESEARCH TOPICS

RESEARCH INNOVATION ENTITIES (31)

- Habitec Technology Centre of Sustainable Construction (Malaga)
- Andalusian Technology Park (Malaga)
- Renewable Energy Advanced Technology Centre (Sevilla)
- Solar Energy Research Centre (Almeria)

R&D Sustainable Construction

Promotion of R-D Transfer of technology

R&D renewable energy

R&D Solar Energy

CSIC - Scientific Research National Centre

University & Research Institutions (16)

Malaga, Seville and Almeria Universities

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• There are 40 research groups focus on renewable energies from 7 universities

• Research groups have developed 470 patent in last 10 years (3th region in Spain)

• Main topics is related with thermo-solar and photovoltaic systems. Make sense because Andalusia is the first region in solar energy production
The above infrastructure and services meet in the Technological Centres are promoted by the public administration (regional government and developed by research groups and SMEs).

Two main public agencies that support and fund the innovation ecosystem are:

- IDEA and Andalusian Energy Agency
Regarding Clusters and Associations, we count on:

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- Main topics is related with thermo-solar and photovoltaic systems. Make sense because Andalusia is the first region in solar energy production
RESULTS

The Andalusian energy sector is able to produce energy to supply 3M homes

Andalusia is the leading region in installed electric power (biomass, thermosolar and biofuels)

In photovoltaic energy production Andalusia is the 2nd region of Spain

It is also the region with the most solar thermal power plants in Europe (23) capable of supplying 465,000 homes
**Strengths**
- Global leadership in renewable energy sectors such as solar thermal
- Qualified and experienced workforce
- Practical experience acquired in the development of renewable energy projects and energy efficiency

**Weaknesses**
- Small size of SMEs
- Only 43% of SMEs and 56% research groups have some relationship with the industry
- Lack of knowledge of the legal framework of foreign countries

**Opportunities**
- Sectors with technological opportunities: ICT support in combined projects EE + ER
- Development of renewable technologies in emerging economies.
- Collaboration with large companies

**Threats**
- Unstable legal framework
- Pressure groups of conventional energy companies
- Volatility of alliances
THANK YOU

Daniel Ayala Serrano
dayaser@upo.es