

ENRD's Thematic Group on Bioeconomy

Brussels, 17th of January 2019

Cluster of Bioenergy & Environment of
Western Macedonia

Premises of the Region of Western Macedonia
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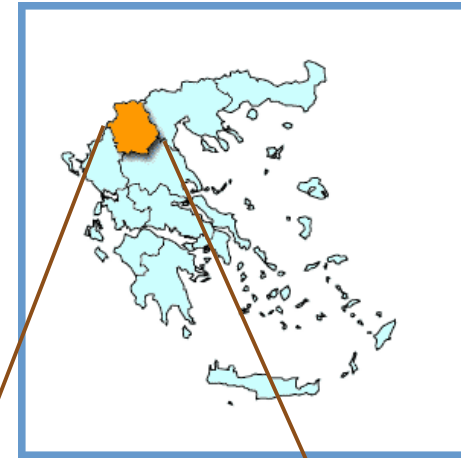
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Western Macedonia, Greece

- ~284.000 inh., 2,6% GR, 12 Municipalities
- GDP: 80% of EU-27 average
- Unemployment 29%, 70,9% youth (2015)
- Strong energy sector (4 lignite mines-PPC):
>50% of GR total MWe!
- 3 District Heating Networks (lignite)
- Agriculture and animal breeding
- Forest coverage
- Relatively heavy & long winter period



CluBE Formally established as a Not-for-profit company (Bottom-up approach)



Areas of activity

Energetic exploitation of biomass for District Heating and industrial, commercial and domestic use

Co-firing of biomass with lignite

Optimization of heating systems

Biomass development (energy plantations, certification schemes, etc)

Energy efficiency in business and commercial use, as well as households

Cooperation models (ESCO's, energy cooperatives, ...)

31 Triple Helix members

1. Public sector: Regional Authority of Western Macedonia, Regional Development Fund of W.M., Regional Association of Municipalities of W.M.

2. Academia: University of W.M./Dpt of Mechanical Engineers, Chemical Processes and Energy Resources Institute / Centre for research and Technology Hellas (CPERI / CERTH), Technical University of Western Macedonia, Centre for Technological research of W.M., Centre for Environment of W.M., Technological University of Thessaly/Dpt of Wood and Furniture

3. Business sector

Wood companies: Alfa Wood S.A., Giotas S.A., Ziogas Ltd, Chliapas S.A.

Cooperatives: Forest Cooperative “Pentalofos”, Agricultural Cooperative “Dimitra”, Forest cooperative “Smixi”, Agricultural – Cattle breeding cooperative “Aigopro”, Fur producing animals breeder’s Association

Waste Management company: DIADYMA S.A.

District Heating companies: DETEPA S.A., DEYAK S.A., DETIP S.A.

Biomass production and logistics: AZ Bioenergeia, BIOZONE

Biogas producer : Matesion Ltd.

Boiler manufacturers: Combi Thermodynamiki S.A., Camino Design S.A., Afentoulides Ltd

Biomass / bioenergy consulting companies: Greek Forests Ltd, Ligeas Energy, Energon, Cosc S.A.

Other supporting structures: Regional Development Agency - ANKO S.A.

An Ongoing Process for the Region

- Western Macedonia is being transformed to a Post Coal Region
- Bioeconomy is raising (but not fast enough)
- Economic Growth of Regional Producers and SME's is the main target
- Western Macedonia Region is one of the 3 Regions that pilot projects are underway under the Just Transition Fund
- CluBE supports this transition and contributes to the regeneration of the Regional Economy

Coal Regions in Transition Platform

The Platform for Coal Regions in Transition provides a forum for:

- Stakeholder Dialogue: strategies and projects are discussed with a wider stakeholder community.
- Collective Brainstorming: best practices and experiences from other sectors and project ideas.
- Guidance on available EU funds: Commission services provide information on funds and programmes to support transition in coal regions
- High – level political dialogue: policy makers provide recommendations on how to ensure an enabling policy framework
- Monitoring progress made by Pilot Regions

1. Due to the continuous economic crisis private Investments are Limited in Greece
2. Mainly co-funded investments by the EU and the Greek State through European Programmes took place in the Region
3. CluBE supports its members to R&D activities through EU, National and Regional funded Programmes (Horizon, LIFE, Interreg, SME Instrument etc.)

CluBE Projects so far...

SecureChain (H2020 Biomass Logistic Chains)

Cluster support programme (Hellenic Confederation of Professionals, Craftsmen & Merchants – National Funding)

GABE (Interreg Greece-Albania, Biomass Exploitation)

M3P (Life 2015 Environment, Industrial Symbiosis)

FORCIP+ (DG ECHO, Forest Protection)

aGROWchain (Interreg GR-FYROM, Biomass Logistic Chain)

BENEFIT (Interreg GR-FYROM, Energy Efficiency)

STARDUST (H2020, Smart Cities)

RUBIZMO (H2020, Rural development)

SCALIBUR (H2020, Bio-waste)

More to come!

CluBE Challenges

- Improvement of regional economy
- Development of entrepreneurship and employment, namely in less populated agricultural / forest areas
- CO₂ emissions reduction and environmental protection
- Potential for export and internationalization (wood and boiler sector, pellets)
- Increase of green energy share

Barriers to Overcome

- Bureaucracy
- Mobilization of Private Funding
- SMEs collaboration



*Bioenergy & Environment Cluster
Western Macedonia*

Thank you!

