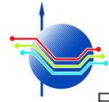


AI4B: A data-driven symbiotic network!

Project AI4B aims to develop a data-driven approach to establish bioenergy networks of biomass feedstock producers and collectors. The project's main target is to remove bottlenecks in the biomass supply pipeline and to develop accountable, economically and environmentally sustainable bioenergy practices.

COORDINATOR

Athena Research Center
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της Πληροφορίας, των Επικοινωνιών, της Γνώσης



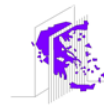
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ΕΡΑΤΟΣΘΕΝΗΣ Α.Ε.



A.E.NO.L. A.E.



Accountable IT Infrastructures for Optimizing Supply Chains in Bioenergy Symbiotic Networks



Ε. Π. Ανταγωνιστικότητα και Επιχειρηματικότητα (ΕΠΑΝ II), ΠΕΠ Μακεδονίας - Θράκης, ΠΕΠ Κρήτης και Νήσων Αιγαίου, ΠΕΠ Θεσσαλίας - Στερεάς Ελλάδας - Ηπείρου, ΠΕΠ Αττικής



Biomass & Symbiotic Networks

Biomass (biological material from living or recently living organisms) represents the largest renewable energy source and is the only renewable energy source that is based on carbon. Raw materials, such as wood, agricultural residues, food waste, industrial waste and co-products have captured the interest of markets and industries worldwide following the uncertainties in fossil fuel supply and the need to reduce greenhouse gas emissions. Involvement in the biomass business in Greece has several advantages, since Greece reports an agricultural share of the GDP that is three times higher than the EU average, and thus there are plenty of sources for raw biomass materials.

“Symbiotic networks” is an innovative environmental practice that brings together companies from all business sectors through material trading and sharing assets to add value, reduce costs and benefit the environment.

The AI4B Project

The AI4B project, co-financed by EU’s Regional Development Fund and by National Resources, mobilizes academic partners, IT SMEs and regional development agencies will develop innovative IT infrastructures as well as economically and environmentally sustainable bioenergy practices.

In AI4B, we focus on symbiotic networks with biomass supply chains involving Biomass Producers (regional players that provide storage points or production facilities) and Biomass Collectors (industrial players that collect biomass and employ valorization technologies for energy production). Our vision is twofold:

- To set up IT infrastructures to support “networking” between Producers and Collectors by providing intelligent matchmaking and retrieval services.
- To leverage societal interaction and participation as an intrinsic part of the network by giving every citizen or public administration access to supply chain data.



Main Targets

Creating a data-driven symbiotic network

We will adopt the Linked Open Data (LOD) paradigm to set up biomass data infrastructures (BDI) for BPs and BCs. The LOD paradigm involves practices to publish, share, and connect data on the Web.

Facilitating regional development and planning

AI4B will provide services to set up cost-effective biomass supply chains, and explore alternatives in biomass processing and supply chain configurations based on what-if analysis tools.

Strengthen accountability in biomass symbiotic networks

In AI4B, all stages of biomass supply chains will be transparent, while offering access to supply chain data to the public.

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