



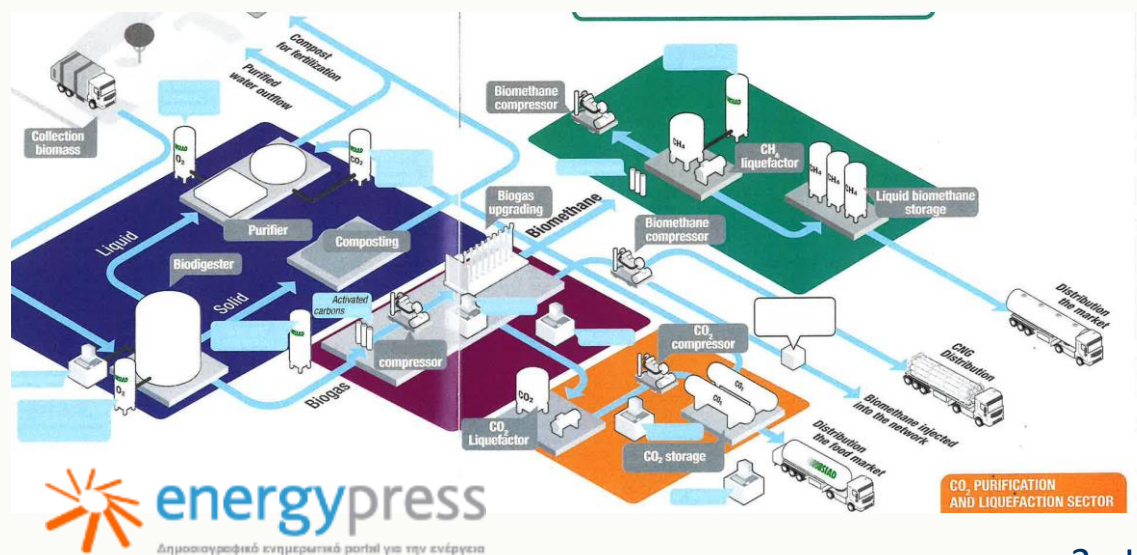
**ΚΑΠΕ  
CRÉS**

CENTRE FOR RENEWABLE  
ENERGY SOURCES AND SAVING



MINISTRY OF  
ENVIRONMENT  
ENERGY &  
CLIMATE  
CHANGE

# Το Βιομεθάνιο δεν είναι Επιλογή είναι Αναγκαιότητα



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Τμήμα Βιομάζας

Όσο πιο μακριά κοιτάζεις στο παρελθόν, τόσο πιο μακριά μπορείς να δεις στο μέλλον



1998-2000 'Greek Biogas'

Τεχνολογικές εξελίξεις για  
την επεξεργασία οργανικών  
αποβλήτων



# Όσο πιο μακριά κοιτάζεις στο παρελθόν, τόσο πιο μακριά μπορείς να δεις στο μέλλον



1998-2000 'Greek Biogas'

Τεχνολογικές εξελίξεις για την επεξεργασία οργανικών αποβλήτων



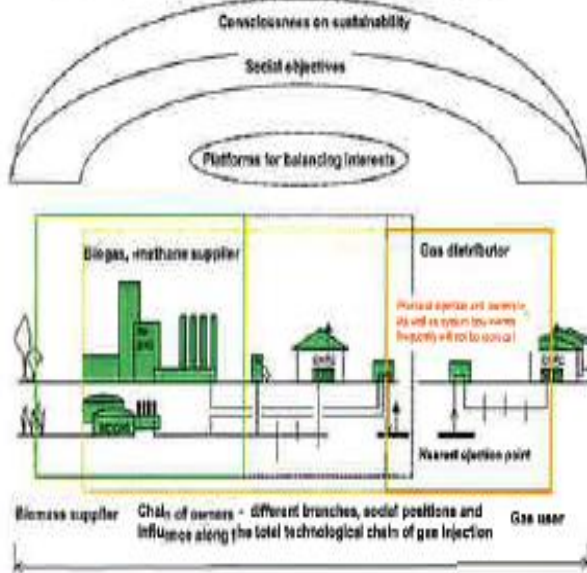
2006-2009



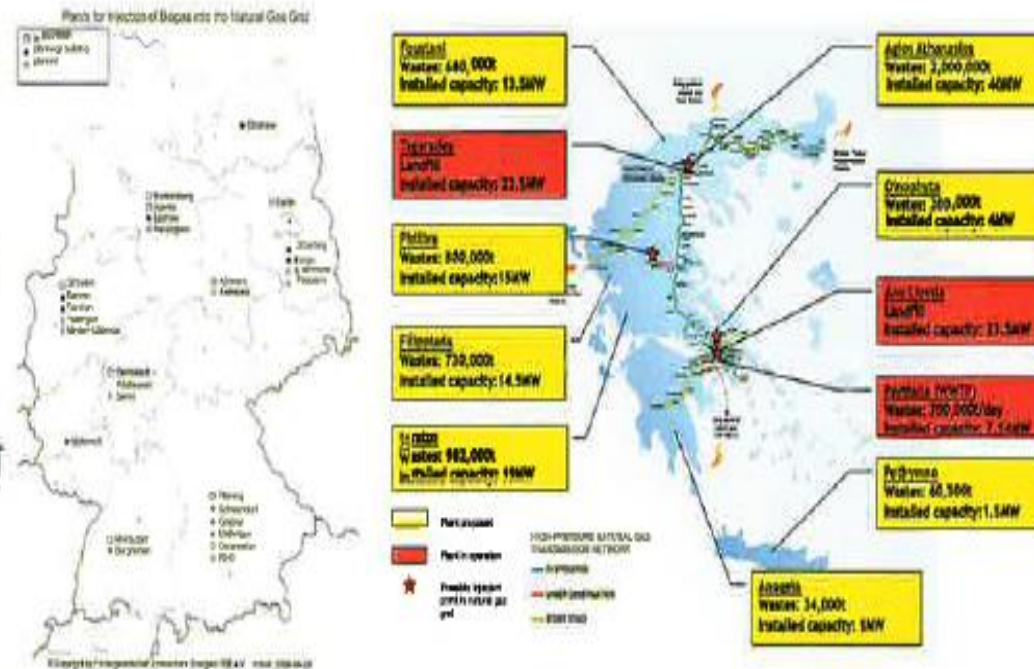
Αναβάθμιση βιοαερίου σε βιομεθάνιο και αναγνώριση τεχνικών εμποδίων

## General balance boundaries of the added-value chain

System boundaries based on the added-value chain and ownership (for defining the boundaries of the system several options might be applied)



## State-of-the-art of biomethane injection into the grid in Germany and Greece



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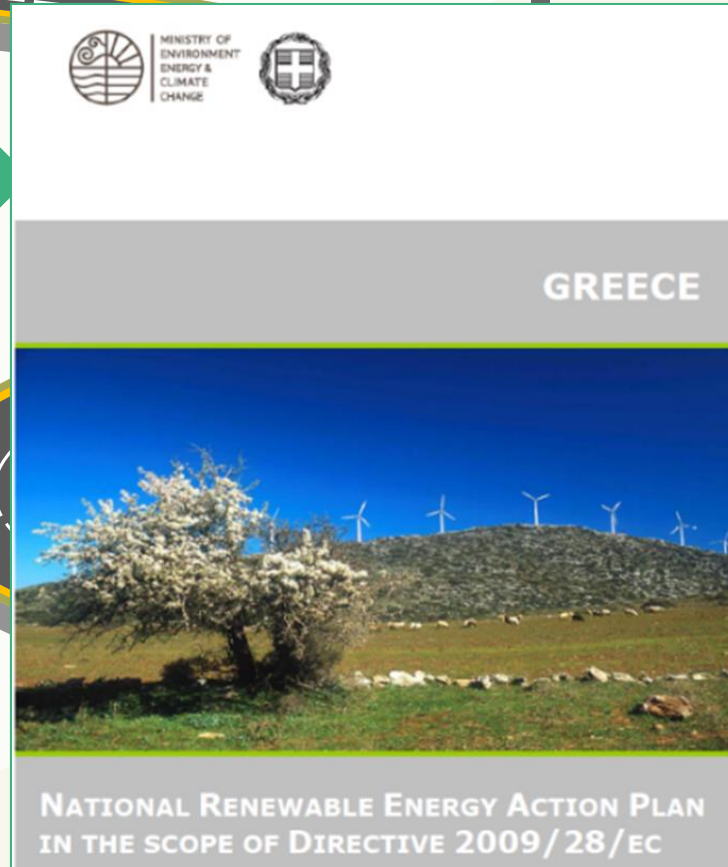
2006-2009



Αναβάθμιση βιοαερίου σε βιομεθάνιο και αναγνώριση τεχνικών εμποδίων

2009-2010

❖ 'Εθνικό Σχέδιο Δράσης για τις ΑΠΕ'



#### 4.2.8 Biogas integration into the natural gas network (Article 16(7) and Article 16(9) and (10) of Directive 2009/28/EC)

(a) *How is it ensured that the charging of transmission and distribution tariffs does not discriminate against gas from renewable energy sources?*

There is no discrimination in the transmission and distribution of biogas. According to article 39 of L3428/2006 regarding the liberalization of the market of natural gas, "the use of natural gas systems according to the provisions of the Law is allowed for the distribution of biogas, a gas produced from biomass and other types of gasses, if this distribution is technically possible and the safety measures are met, taking into account the quality requirements and the chemical characteristics of these gases".

(b) *Has any assessment been carried out on the need to extend the gas network infrastructure to facilitate the integration of gas from renewable sources? What is the result? If not, will there be such an assessment?*

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2006-2009

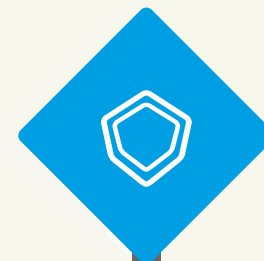


Αναβάθμιση βιοαερίου σε βιομεθάνιο και αναγνώριση τεχνικών εμποδίων



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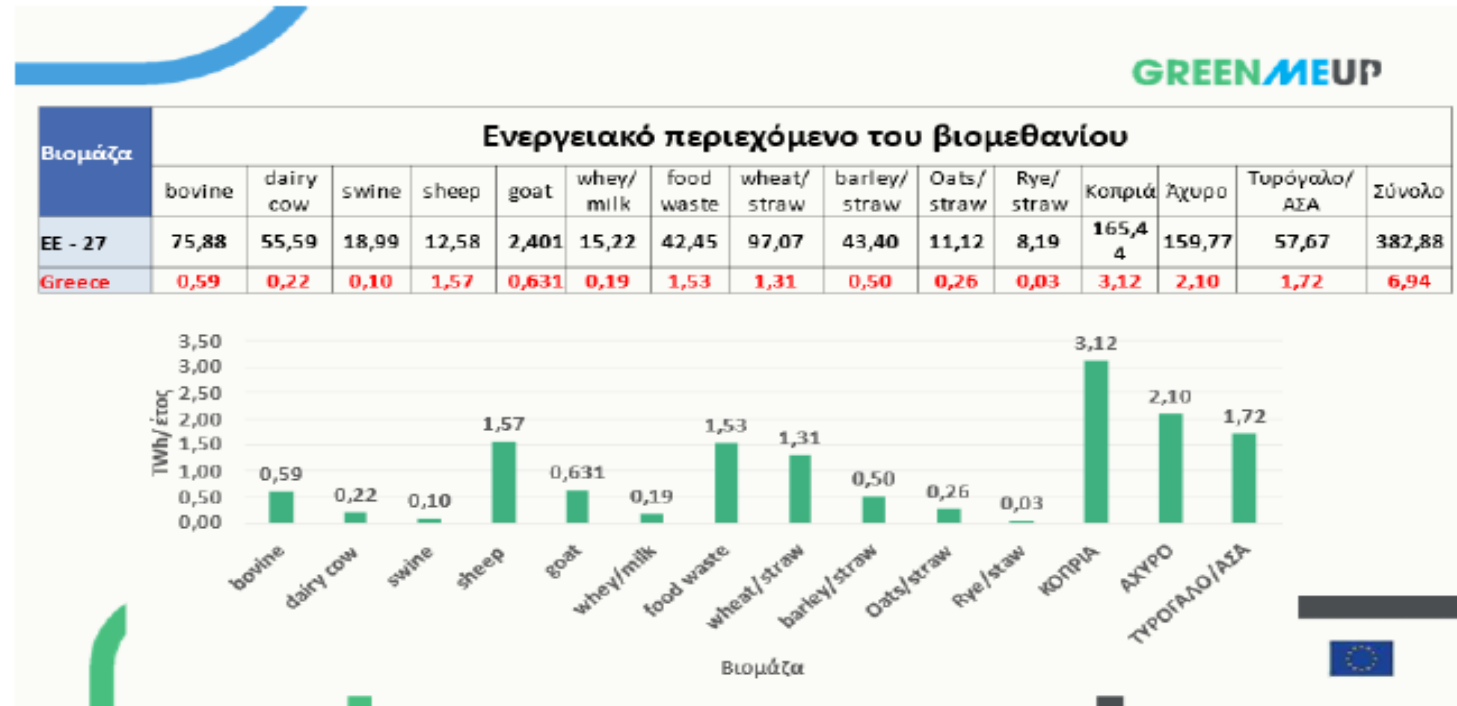


**GREENMEUP**

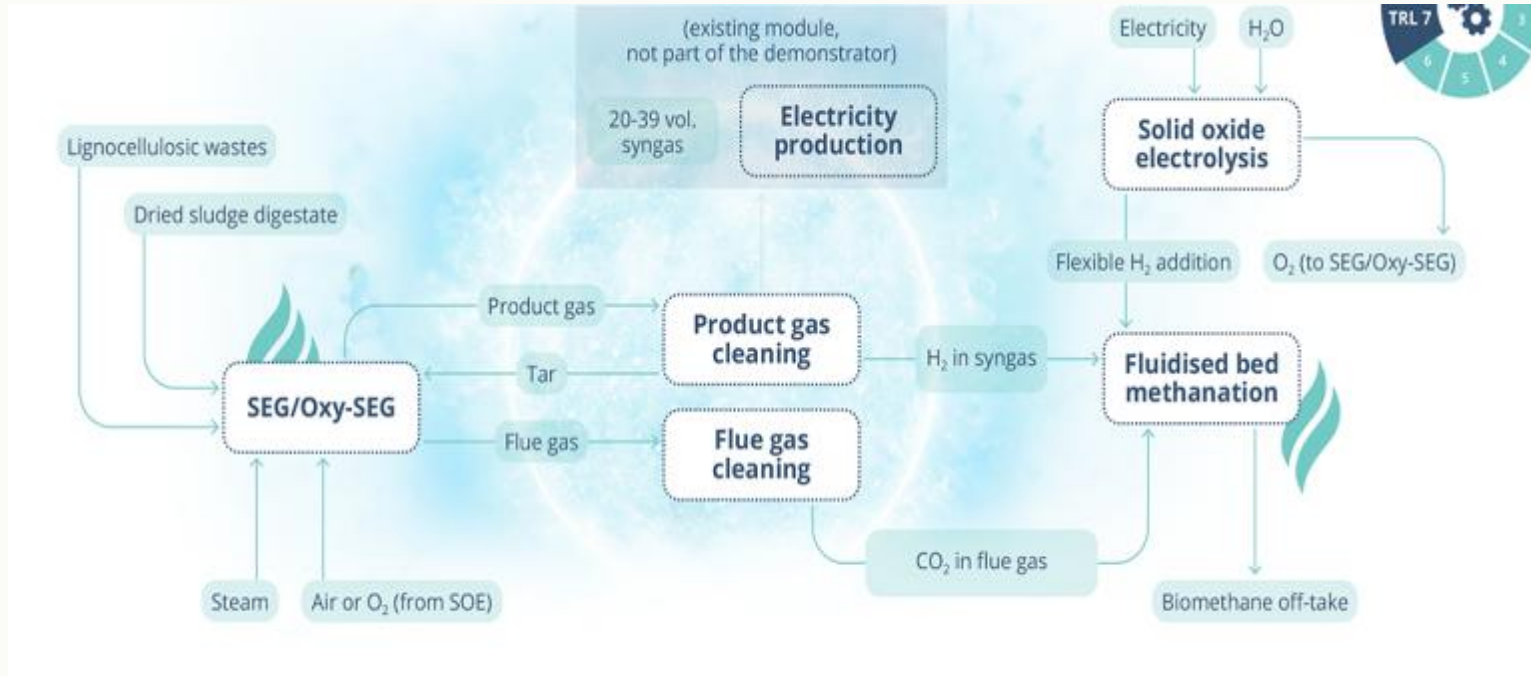
2022-2025

Διαμόρφωση μέτρων πολιτικής και νομοθετικών παρεμβάσεων για την ανάπτυξη της αγοράς βιομεθανίου

Σύμφωνα με το αναθεωρημένο ΕΣΕΚ η συνολική παραγωγή βιομεθανίου αναμένεται να ανέλθει στις 2,1 TWh το έτος 2030, στις 3,6 TWh το έτος 2040 και στις 4,6 TWh έτος 2050.



*Εικόνα 2 Θεωρητικό δυναμικό βιομάζας και ενεργειακό περιεχόμενο βιομεθανίου ανά πρώτη ύλη στην Ελλάδα.*



<https://hyfuelup.eu/>



## Green Biomethane Market Uptake

GreenMeUp enhances the uptake of biomethane in the European energy and transport sectors

- Bridging the gap between EU Member States within the biomethane Market sector
- Reducing reliance on natural gas imports and increasing renewable energy shares



Biomethane is a key renewable energy source for the decarbonisation of the EU  
Only a limited number of EU Member States have significant deployment rates of biomethane

### Approach

Evaluate **framework conditions and market dynamics** for EU countries with high production rates of biomethane and countries with low market development

Design a **country-tailored set of market uptake measures** that will refine existing policies on biomethane

Ensure active **stakeholder engagement** and high **societal acceptance** levels through science-based evidence

### Consortium



### Impacts

- Contribute to the REPowerEU and EU Green Deal goals
- Facilitate the uptake of renewable energy systems in the energy, industrial and residential sectors
- Foster biomethane production and integration in hard to electrify sectors

#### Follow us

Twitter: @GreenMeUp\_EU  
LinkedIn: GreenMeUpProject  
Website available soon

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme under Grant Agreement n. 101075676

## EU-Project REDUBAR: Upgrading of Biogas to Biomethane and its Injection into the Grid. Experiences and Proposals to Surmount Non-technical Obstacles

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### Strategic vision, obstacles and first proposals

#### Vision

"We should leave the oil, before the oil leaves us." Fatih Birol, Chief Economist of IEA [1] At the beginning of 2008 uncovered demand exceeded already 12.5 million barrels of oil per day of total worldwide daily production of about 84 million barrels of crude! [1] The European Union (EU) is committed to a long term vision to combat climate mitigation and improve energy security by binding targets of 20 % improvement of energy efficiency, 20 % higher application of renewable energy sources and 10 % share of biofuels by 2020. [2] Under idealized conditions would it be theoretically possible to substitute almost the complete amount of now imported natural gas to the EU by establishing biomethane and bio-SNG (substitute natural gas) plants in 25 km and 150 km corridors along the pipelines on both sides from Russia to Western Europe.[3]

#### Main barriers and obstacles (BaO)

Up to now, REDUBAR partners have identified as most important for the EU and most of the MS non-technical BaO groups:

- \* Strategic, social and political aspects at regional, national and international level

#### First proposals for solutions

- \* First, most important step is to elaborate comprehensive biogas, biomethane and bio-SNG strategies
- \* Create conditions for profitable operation and investment security (Density of access, feed-in tariffs, etc.)



## Hybrid Biomethane Production from Integrated Biomass Conversion



Ευχαριστώ πολύ για την προσοχή σας!



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