

# GREEN GENIUS



Creating the Clean  
Hydrogen Valley

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Green Genius

2022



## MODUS GROUP AT A GLANCE



### **AUTOMOTIVE**

14 world-renowned brands including Porsche, Maserati, Bentley, Jeep, Fiat and others.



### **RENEWABLE ENERGY**

Developing biogas, solar, wind and hydrogen energy projects in 8 European countries.



### **MOBILITY**

The first car-sharing company in the Baltics.

**GREEN  
GENIUS**

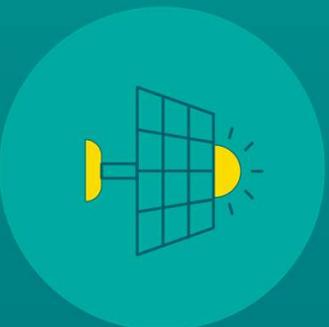
**citybee**

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## GREEN GENIUS

- 1.5 GW
- 8 countries
- € 445 M invested over 5 years



Solar energy projects



Biogas energy projects



Wind energy projects



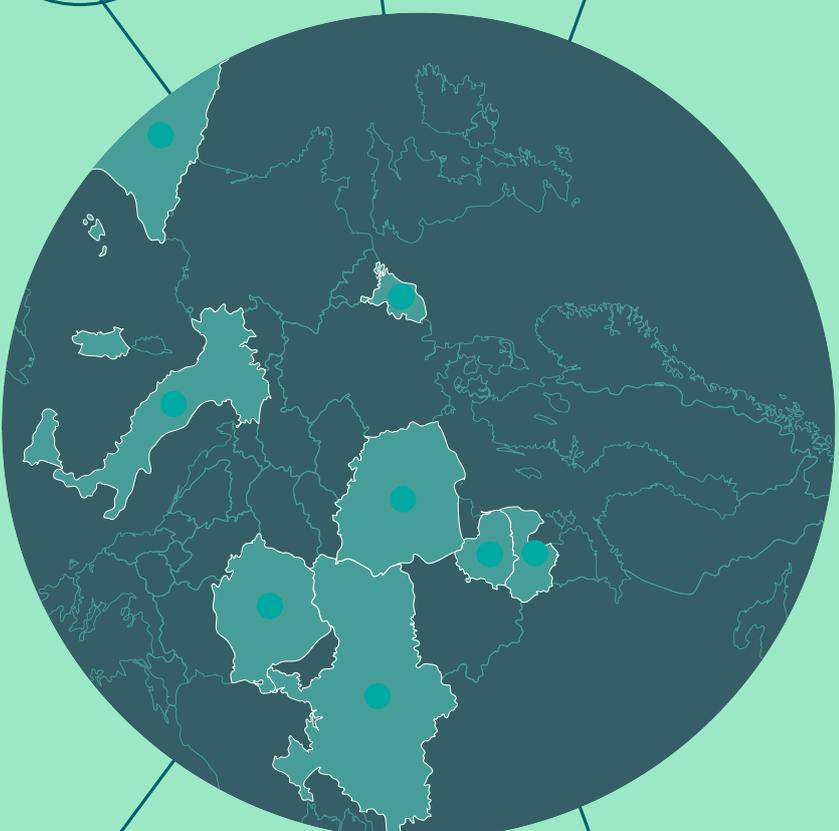
Hydrogen projects

## KEYSTONES

8  
Countries

€ 445 M  
invested over  
past 5 years

More than  
250  
people



1.5 GW  
Pipeline of projects

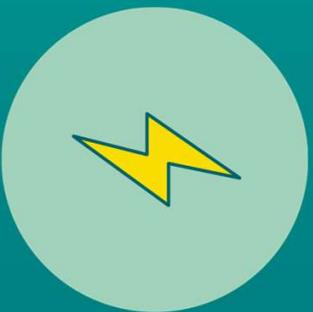
Biogas projects  
– over  
20 MW

Solar power  
projects – over  
205 MW

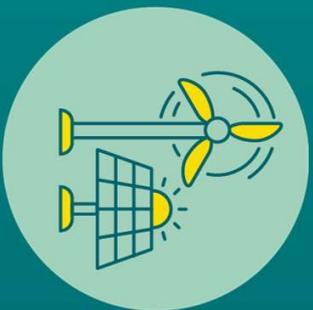
## Why green hydrogen topic became important for Green GENIUS



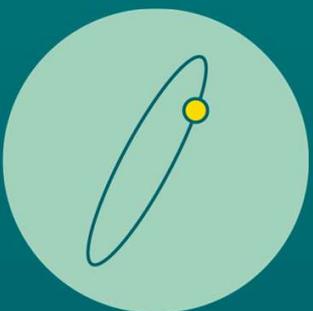
GG put sustainability at core of its bussines strategy



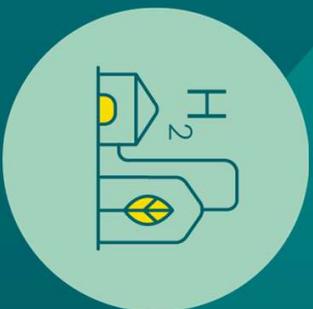
GG is an international renewable energy developer



Renewable electricity production is our main activity



Green molecule is a way out of connection deficit



Green Hydrogen production as an interim in biomethane production

## GREEN HYDROGEN PERSPECTIVES

### GLOBALY

- Offshore wind development with integrated PtX
- Supporting green hydrogen corridors initiative
- Supporting Baltic Wind Connector initiative

### LOCALLY

- Green hydrogen production and supply to:
- Blending;
- Synthetic methane production (biogenic CO<sub>2</sub>)
- E-methanol production (biogenic CO<sub>2</sub>)

# GREEN GENIUS ENERGY HUB



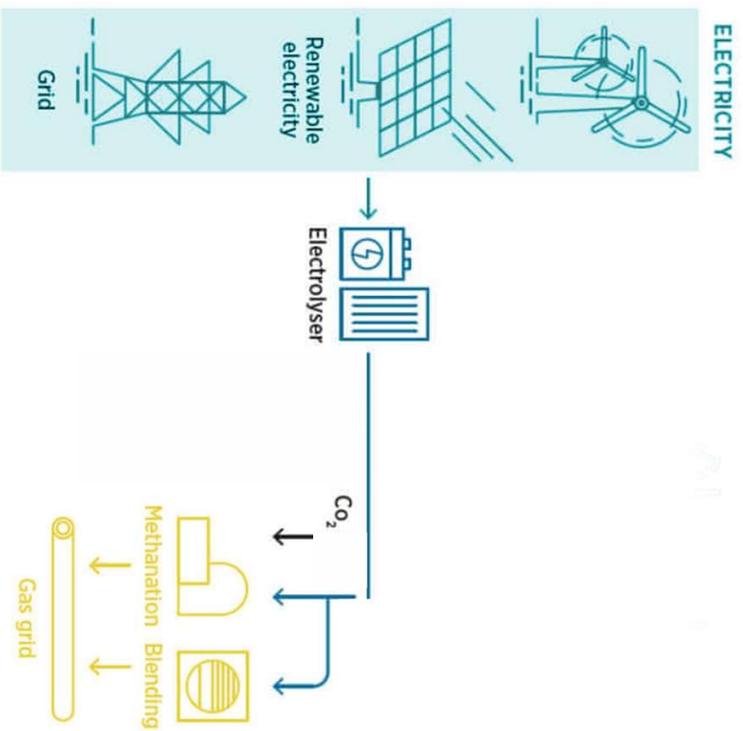


## WHAT IS NEEDED FOR GREEN HYDROGEN ECONOMY ROLLOUT

- We have proven technology for H<sub>2</sub> production (Alkaline, PEM, AEM, Solid Oxide)?
- Do we have sufficient resources (wind, solar, connections, water)?
- Is there a market where products can be traded (offtakers, long term contract, price signals)?
- Is regulatory environment sufficient (certificates, standards, definitions)?



# GREEN GENIUS H<sub>2</sub> PILOT





## GREEN GENIUS H<sub>2</sub> PILOT PROJECT

- GG operates 10 MW<sub>e</sub> of biogas plants;
- It is planned that in 2024 electricity production will be switched to biomethane production (25 MW capacity)
- While producing biomethane approx. 50 % of gas flow consist of CO<sub>2</sub>
- CO<sub>2</sub> stream methanation with green hydrogen:



Green H<sub>2</sub> production via electrolyzer utilizing electricity from wind and solar hybrid power plant.

- Electrolyzer load optimization. Additional green electricity procurement from the grid (additionality condition)
- Planned revenue structure: molecules and certificates

# GREEN GENIUS



[www.greengenius.com](http://www.greengenius.com)