

MOVE2 LOWC



BIOREF
Laboratório Colaborativo para as Biorrefinarias



Move2LowC Bio-based fuels

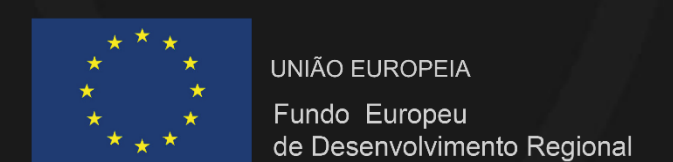
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Cofinanciado por:



BACKGROUND



TRANSPORTATION SECTOR



The transportation sector has been rapidly growing since 1990. It is currently the sector that consumes the most energy.

1/3

FINAL ENERGY CONSUMPTION
OF EEA COUNTRIES
(EUROPEAN ENVIRONMENT
ASSOCIATION)

20%

GREENHOUSE GAS
EMISSION EFFECT



TOWARDS THE FUTURE

The EU proposed the adoption of a plan:



40% GREENHOUSE EFFECT GAS
REDUCTION

2030

MOVE2LOWC:



ALIGN WITH THE GOAL OF DECARBONIZING THE PLANET.



MAKE USE OF BIOREFINERY PROCESSES TO CONVERT BIOMASS INTO BIOFUELS AND HIGH-VALUE PRODUCTS.



TO GENERATE COMPETITIVE TECHNOLOGIES FOR THE PRODUCTION OF RENEWABLE GASES

MOVE2LOWC: SUBPROJECTS



PPS1

Leader:



Refining autotrophic microalgae in biojetfuel using HEFA technology

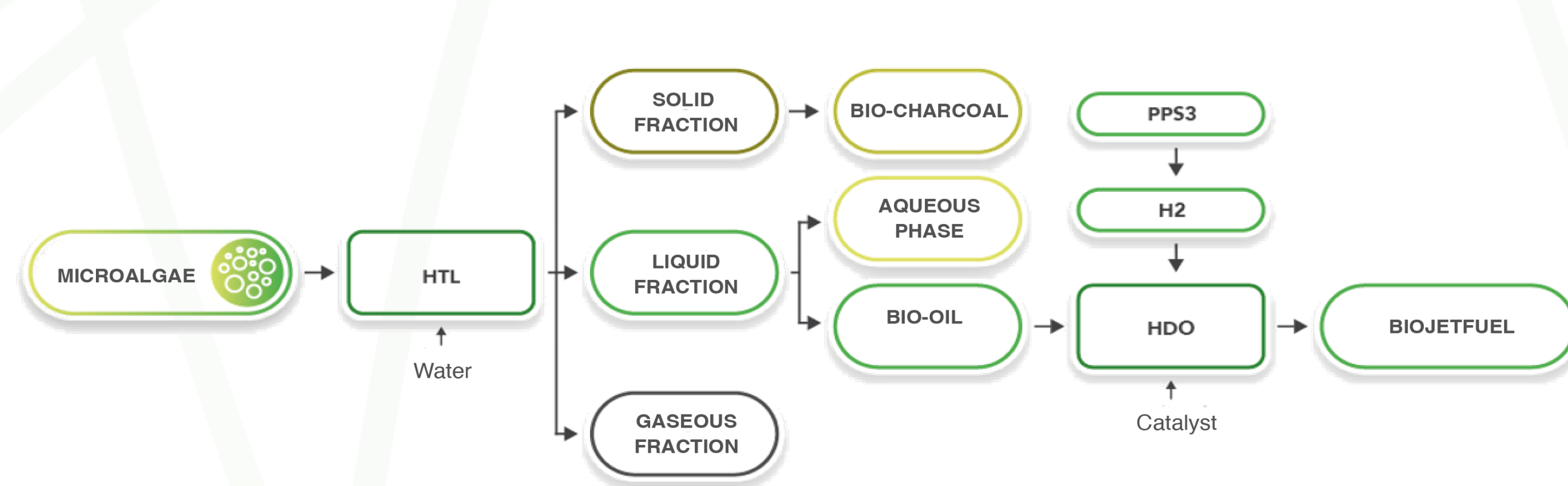


PPS2

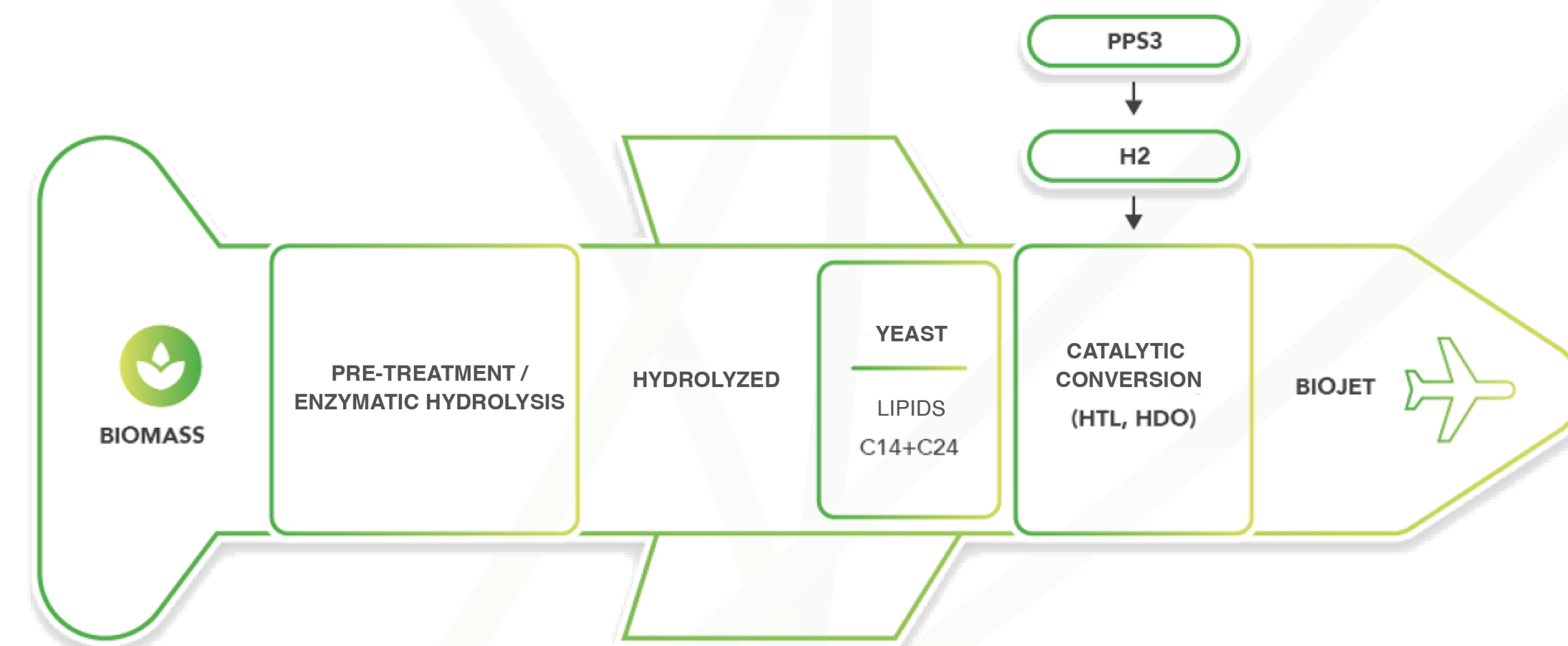
Leader:



Biomass production by fermentation for refining in biojetfuel with HEFA technology



Implementation of an aviation biofuel production process from microalgae, using thermochemical conversions.



Implementation of a production process for aviation biofuels by heterotrophic fermentations, using residual lignocellulosic biomass.

- PPS1 and PPS2 have biojetfuel for aviation as a final output, albeit using diversified endogenous feedstocks

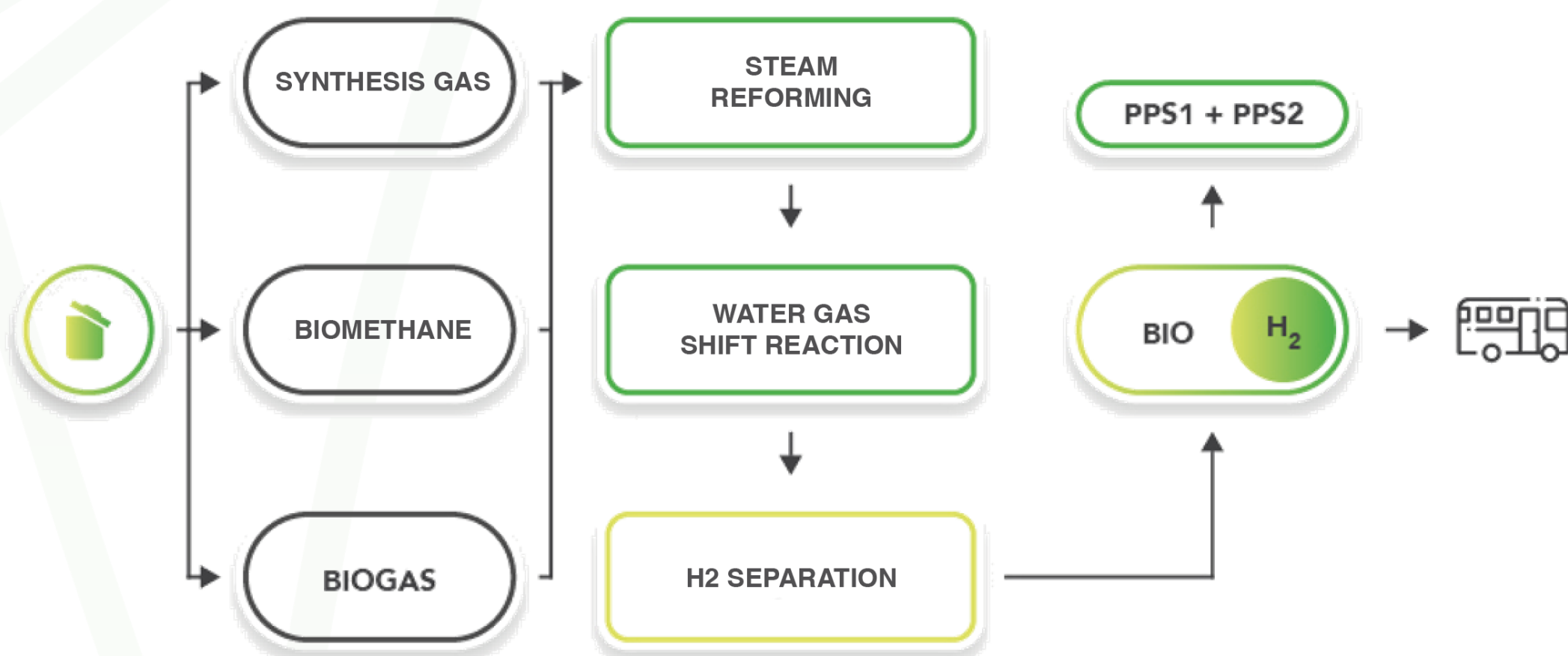
MOVE2LOWC: SUBPROJECTS



PPS3

Leader: **HYChem**

H₂ production from biomethane for public transport urban vehicles



Hydrogen production from **steam reforming** of **biogas** or **syngas**, with cost reduction, through incremental innovations and use in **heavy vehicles**.

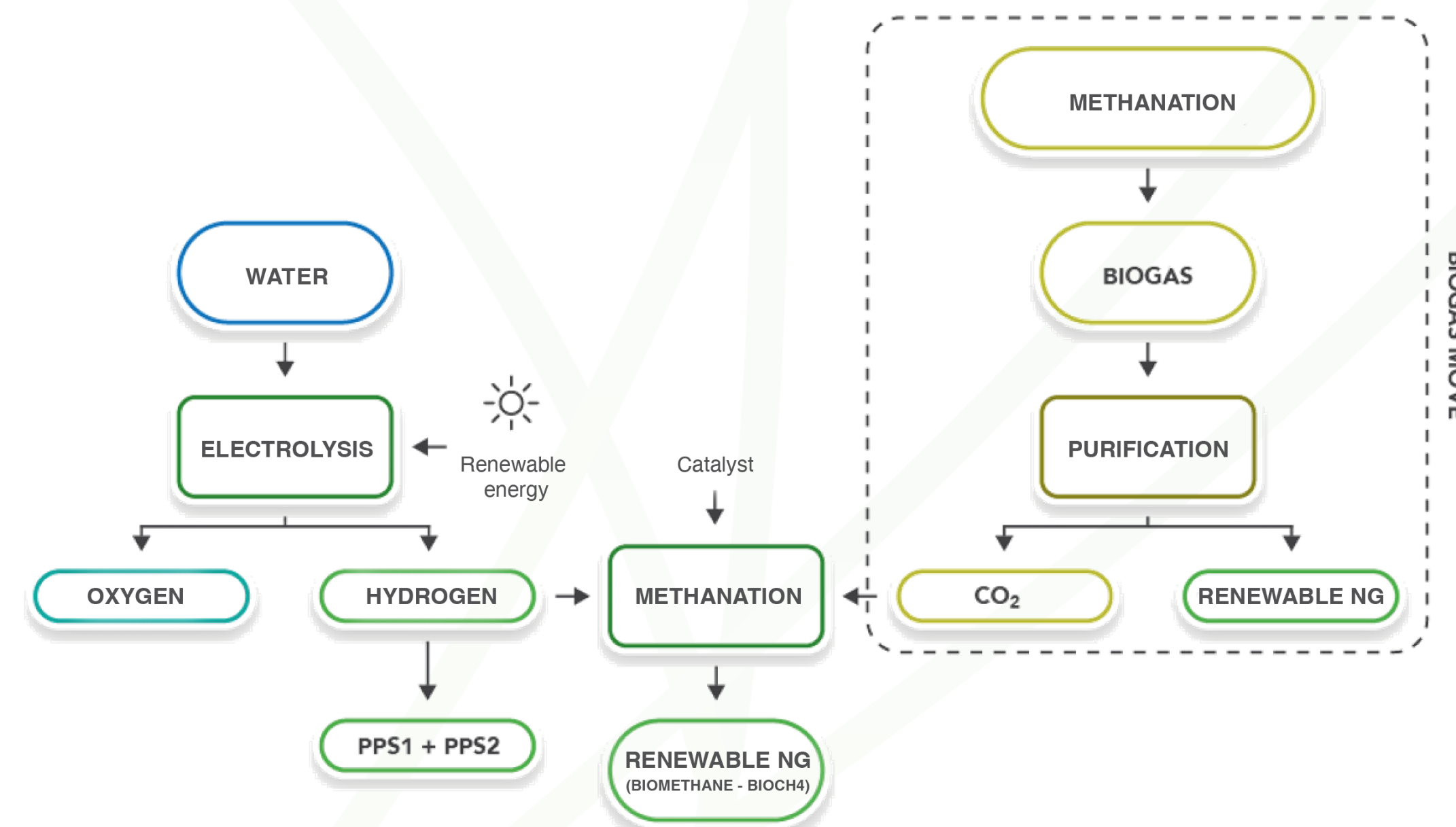
- PPS3 and PPS4 have the goal of producing renewable gases for land transport.



PPS4

Leader: **dourogás renovável**

Biomethane production from biogenic CO₂ and renewable hydrogen by electrolysis from water



Production of 100% **renewable natural gas** in the form of biomethane



PPS5

Leader: **BIOREF**
Laboratório Colaborativo para as Biorrefinarias

Project Management and Dissemination

OUTCOMES AND BENEFITS

- Increased endogenous biomass utilization
- Technologies for converting biomass into biofuels
- Replicable biofuel refining technologies
- Reducing the impact and increasing the sustainability of transportation sector



**MOVE2
LOWC**
THE FUTURE OF MOBILITY

THANK YOU FOR YOUR ATTENTION!

VISIT US

<https://www.move2lowc.com/>

 @MOVE2LOWC

Financiado por:

BIOREF – Collaborative Laboratory for the Biorefineries

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