

WORKSHOP

ZVOLEN 8.11.2022

DanuP-2-Gas

miestnosť B8

PROGRAM

08:30-09:00 Registrácia účastníkov

09:00-10:45 Koncept Power-2-Gas Hub:

- Dunajská energetická platforma
- Katalóg dotácií

10:45-11:00 Prestávka na občerstvenie

11:00-12:45 Prezentácia a využitie:

- Nadnárodného Atlasu obnoviteľnej energie
- Optimalizačného nástroja P2G

12:45-13:45 Obed

13:45-15:30 Štúdia uskutočniteľnosti:

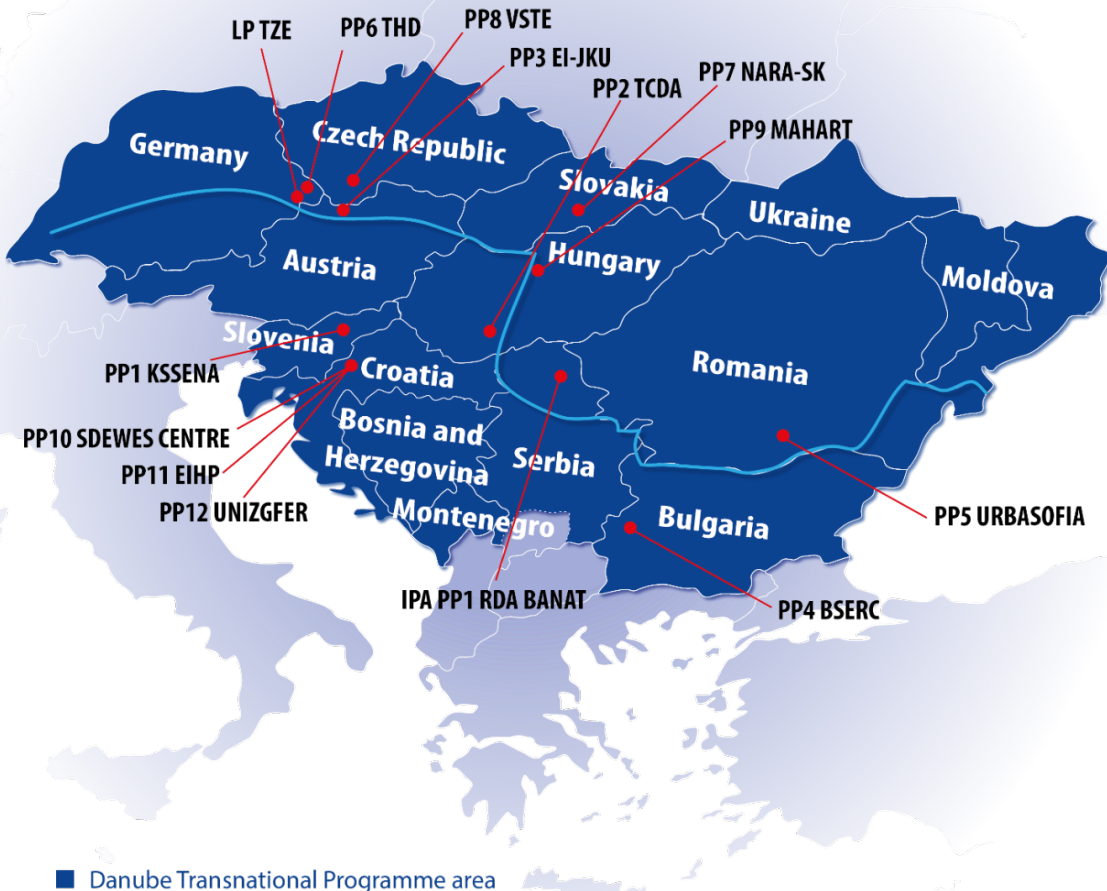
- Prezentácia a analýza modelových príkladov
- Vypracovanie konkrétneho investičného nápadu P2G hubu prostredníctvom Optimalizačného nástroja a Nadnárodného atlasu obnoviteľnej energie

15:30-15:45 Prestávka na občerstvenie

15:45-17:30 Existujúce regulačné a administratívne bariéry, prezentácia a diskusia, spätná väzba, nadnárodné prepojenie účastníkov



Projektové konzorcium



Technology Centre for Energy (Lead Partner)

- Deggendorf Institute of Technology (PP6)



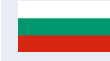
- Energy Agency of Savinjska, Šaleško and Koroško Region (PP1)



- Tolna County Development Agency (PP2)
- MAHART Freeport Co. Ltd. (PP9)



- Energie Institut an der Johannes Kepler Universität Linz (PP3)



- Black Sea Energy Research Centre (PP4)



- URBASOFIA (PP5)



- National Recycling Agency Slovakia (PP7)



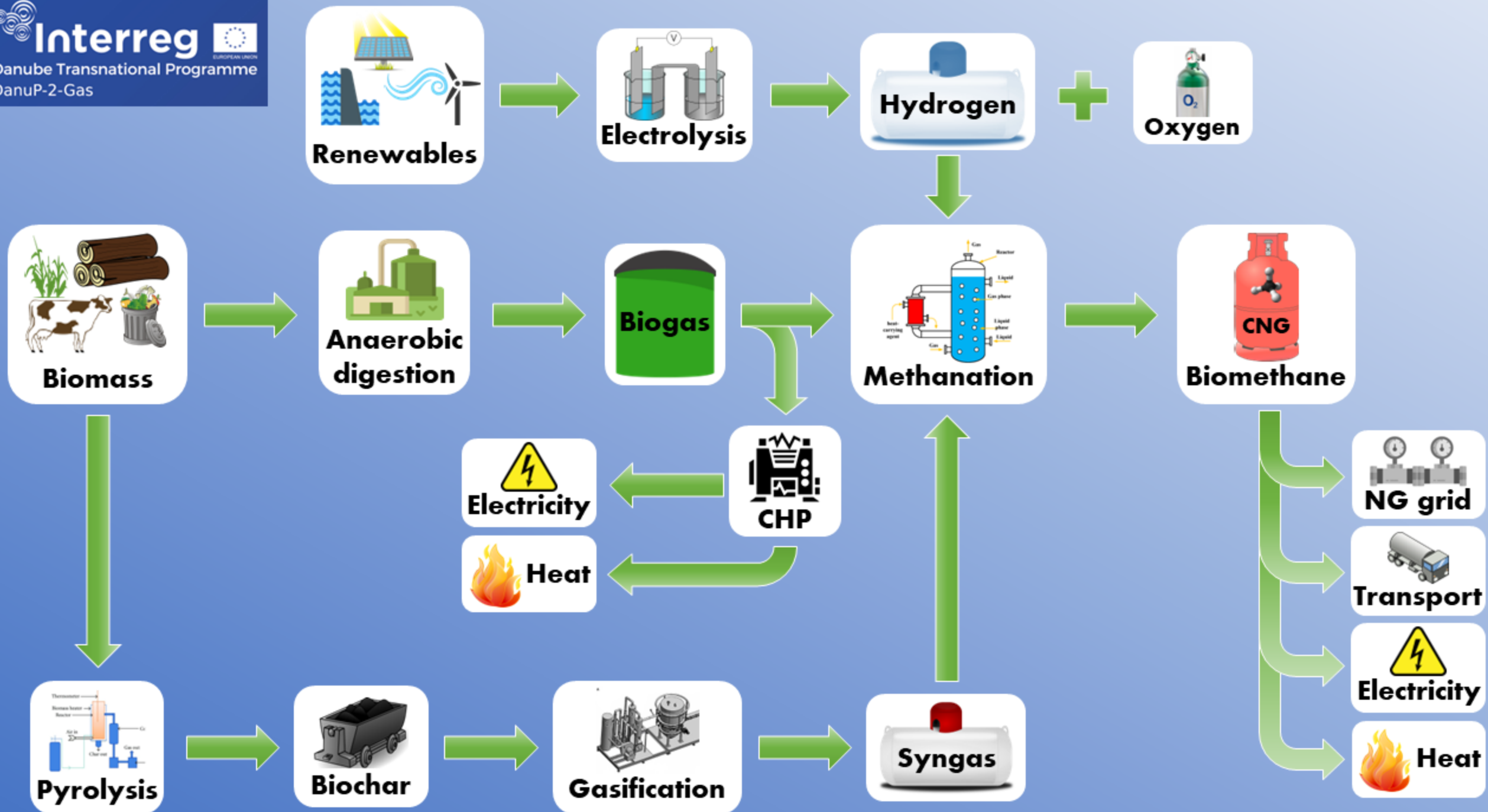
- Institute of Technology and Business in České Budějovice (PP8)

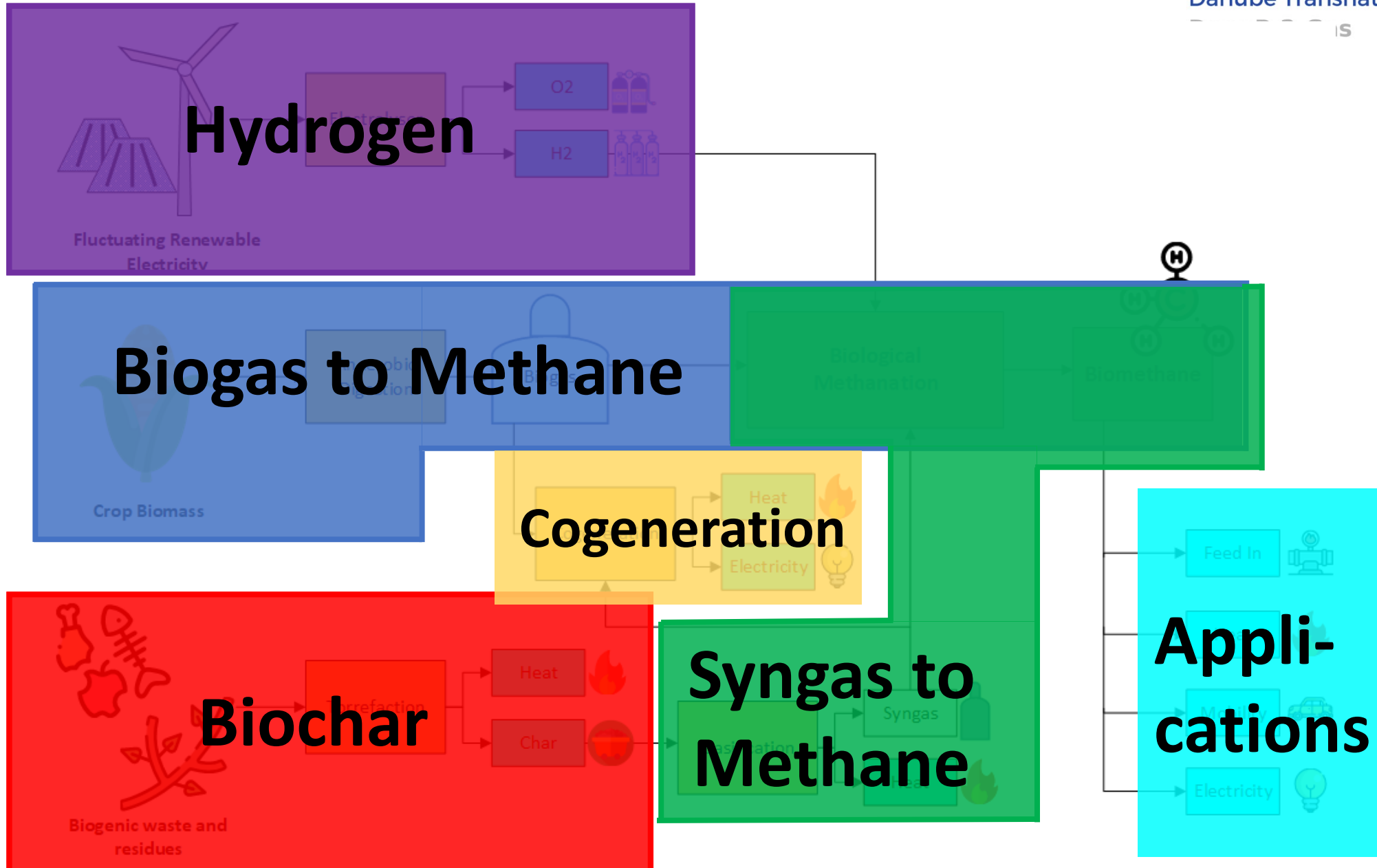


- International Centre for Sustainable Development of Energy, Water and Environment Systems (PP10)
- Energy Institute Hrvoje Pozar (PP11)
- University of Zagreb, Faculty of Electrical Engineering and Computing (PP12)



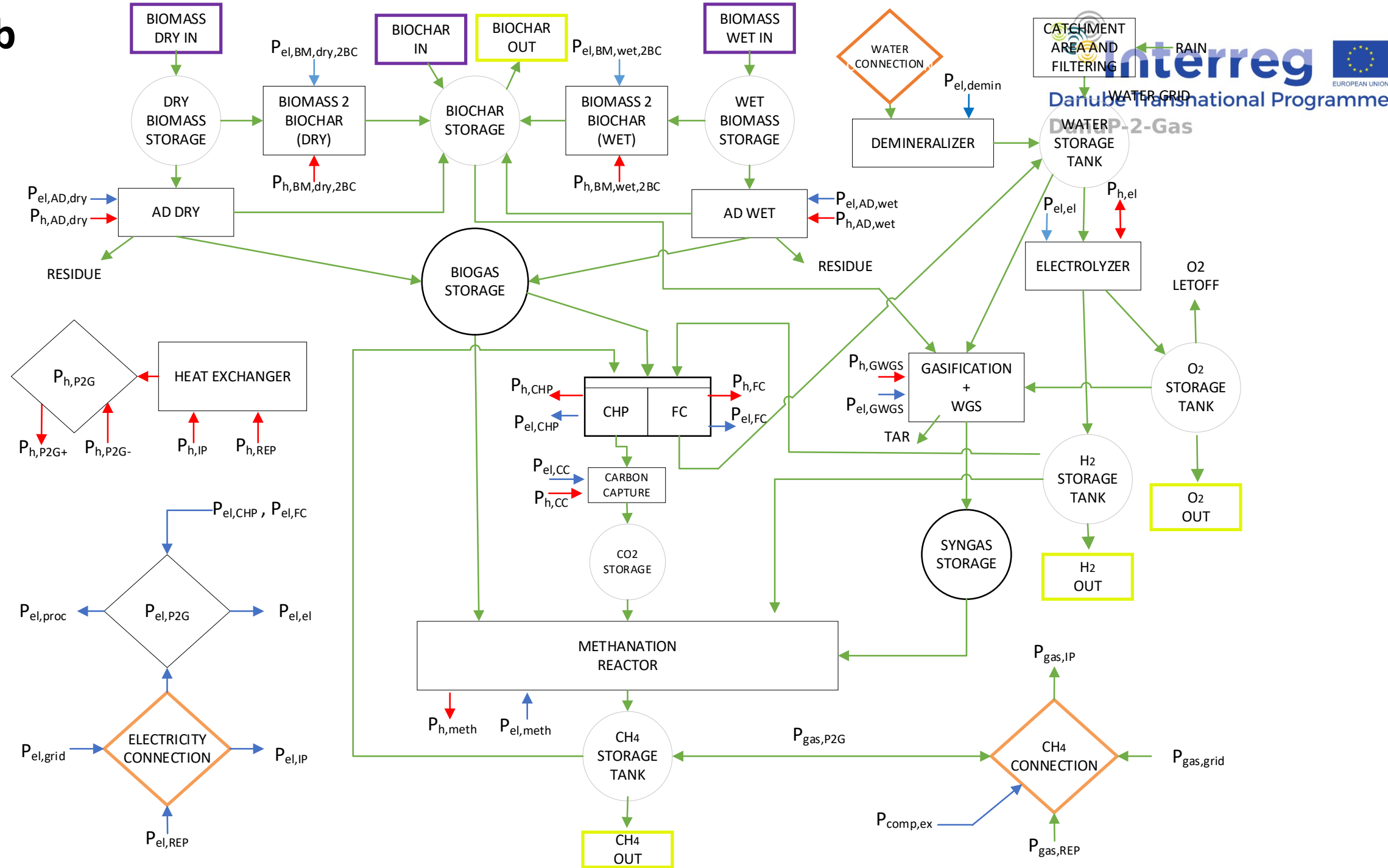
- Regional Agency for Socio Economic Development - RDA Banat (IPA PP1)





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P2G hub



PROJECT



ATLAS TOOL

ATLAS MANUAL

SUBSIDIES

PARTNERS

BIOMASS REPORT

INFRA-STRUCTURE REPORTS

OPTIMIZATION TOOL

TRANS-NATIONAL STRATEGY

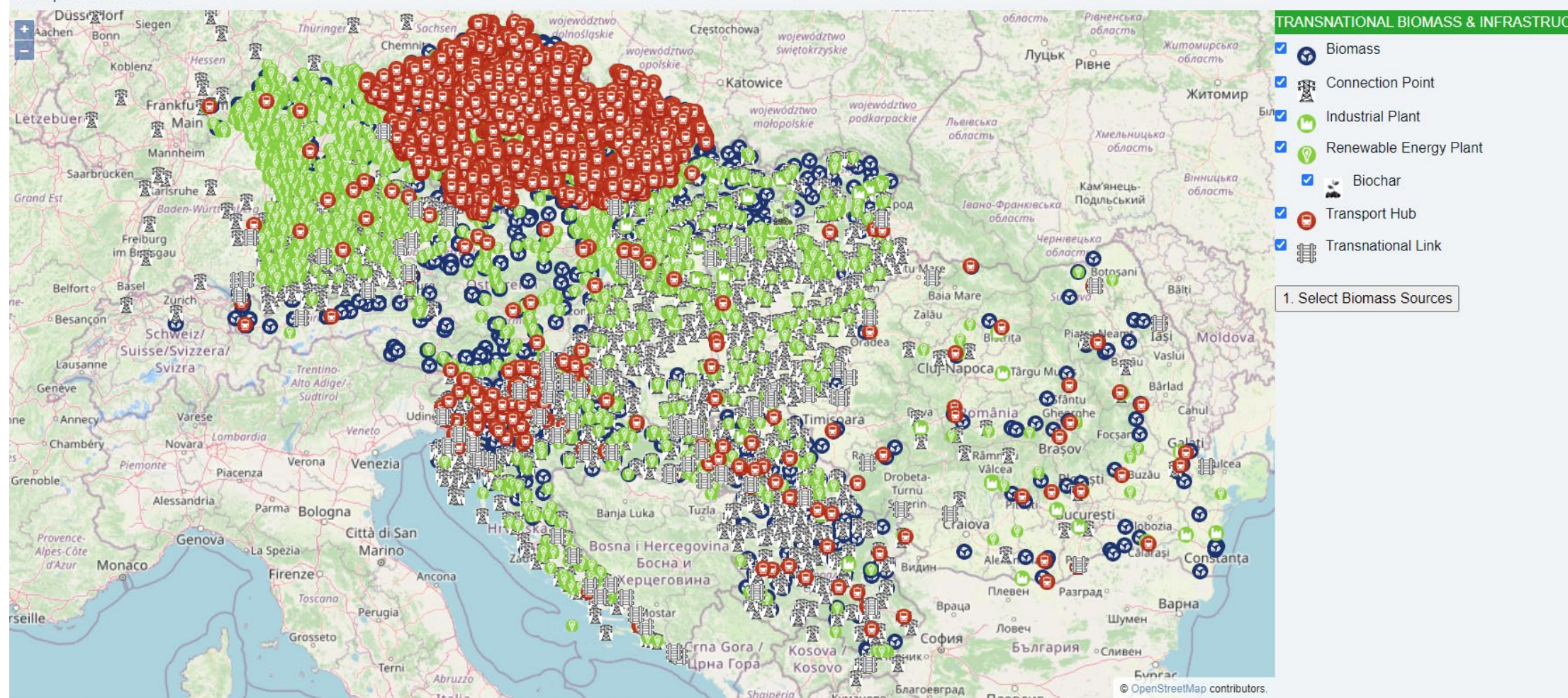
PRE-FEASABILITY STUDY



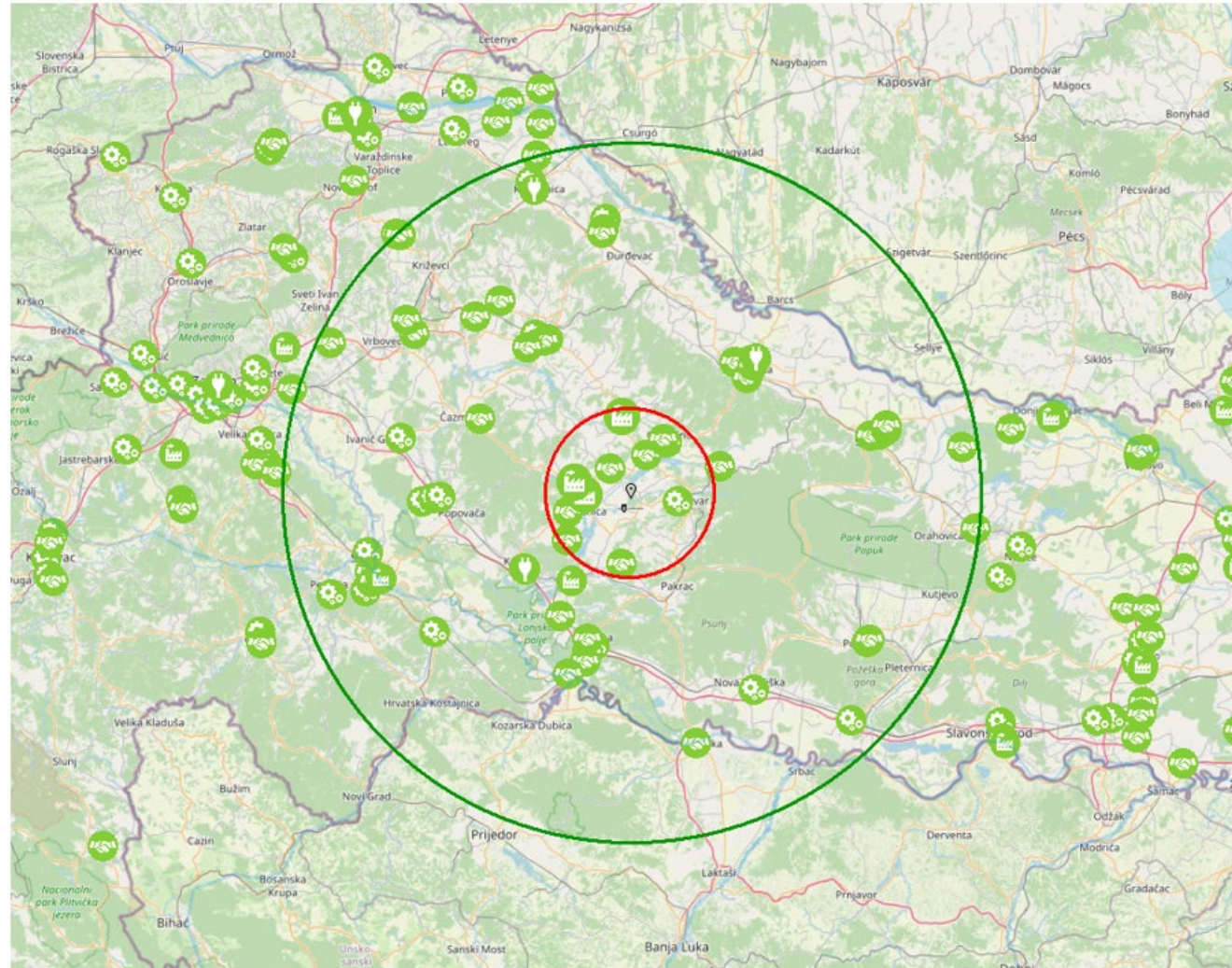
Medzinárodný atlas obnoviteľnej energie



Danup-2-Gas Atlas



Optimalizačný nástroj



Optimalizačný nástroj

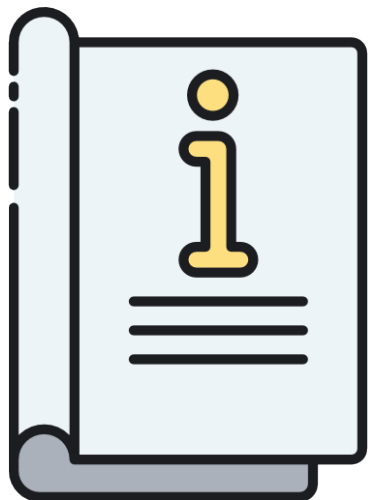
Výsledky

- Ideálna parametrizácia power-to-gas a harmonogram prevádzky
- Ideálne vstupy a výstupy
- Investičné a prevádzkové náklady
- Dĺžka návratnosti investícií

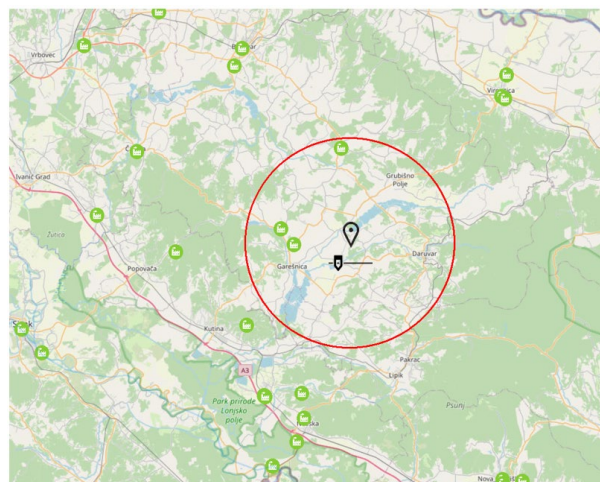
Investment specifications		
	Price	Size
Processes	Dry anaerobic digester	0.00 € 0.000000 kg/s
	Wet anaerobic digester	0.00 € 0.000000 kg/s
	Dry biomass to biochar plant	0.00 € 0.000000 kg/s
	Wet biomass to biochar plant	0.00 € 0.000000 kg/s
	Biogas separator	0.00 € 0.000000 kg/s
	Gasification + water gas shift plant	0.00 € 0.000000 kg/s
	Combined heat and power (CHP)	0.00 € 0.000000 kg/s
	Carbon capture plant	0.00 € 0.000000 mol/s
	Electrolyser	2,367,188.16 € 1,893.75 kW
	Demineralizer	39,751.32 € 4.184349 mol/s
	Precipitation collector	1,000.00 € 1,000.00 m ²
	Methanation reactor	0.00 € 0.000000 mol/s
	Heat exchanger	9,323.08 € 186.4616 kW
	Total for processes	2,417,262.56 €
Storages	Dry biomass storage	0.00 € 0.0000 kg
	Wet biomass storage	0.00 € 0.0000 kg
	Biochar storage	0.00 € 0.0000 kg
	Water storage tank	11.81 € 1,181.0940 mol
	Oxygen storage tank	0.00 € 0.0000 mol
	Hydrogen storage tank	142.90 € 168.1119 mol
	Carbon dioxide storage tank	0.00 € 0.0000 mol
	Methane storage tank	0.00 € 0.0000 mol
	Total for storages	154.71 €
Connections enlargement	Electrical connection	0.00 € 0.00 MW
	Gas connection	0.00 € 0.00 MW
	Water connection	0.27 € 0.27 m ³ /h
	Total for connections	0.27 €
Total investment		2,417,417.54 €
Payoff period		4.38 years

Operational costs for selected period		
	Price	Amount
Electrical energy	Produced by REP	-283.29 € 2.13 MWh
	Consumed by IP	0.00 € 0.00 MWh
	Net consumption without investment	-283.29 € -2.13 MWh
	Peak power without investment	0.00 € 0.00 kW
	Consumed by P2G	43,311.94 € 180.76 MWh
Heat	Net consumption with investment	42,778.42 € 178.62 MWh
	Peak power with investment	9,385.82 € 1,877.16 kW
	Produced by REP	0.00 € 0.00 MWh
Methane	Produced IP	0.00 € 0.00 MWh
	Net production without investment	0.00 € 0.00 MWh
	Consumed by P2G	0.00 € -17.78 MWh
	Net production with investment	0.00 € 17.78 MWh
Water	Produced by REP	0.00 € 0.00 MWh
	Consumed by IP	0.00 € 0.00 MWh
	Net consumption without investment	0.00 € 0.00 MWh
	Produced by P2G	0.00 € 0.00 MWh
Inputs	Net consumption with investment	0.00 € 0.00 MWh
	Water consumed by P2G	10.44 € 26.11 m ³
	Dry biomass bought	0.00 € 0.00 t
	Wet biomass bought	0.00 € 0.00 t
Outputs	Biochar bought	0.00 € 0.00 t
	Biochar sold	0.00 € 0.00 t
	Hydrogen sold	60,000.00 € 4.00 t
	CO2 emitted	0.00 € 0.00 kg
Total operational cost without investment		-283.29 €
Total operational cost with investment		-7,825.32 €
Savings with introduction of P2G		7,542.04 €

€ Podpora investícií



Katalóg dotácií



Optimalizačný nástroj



Workshopy pre
stakeholderov

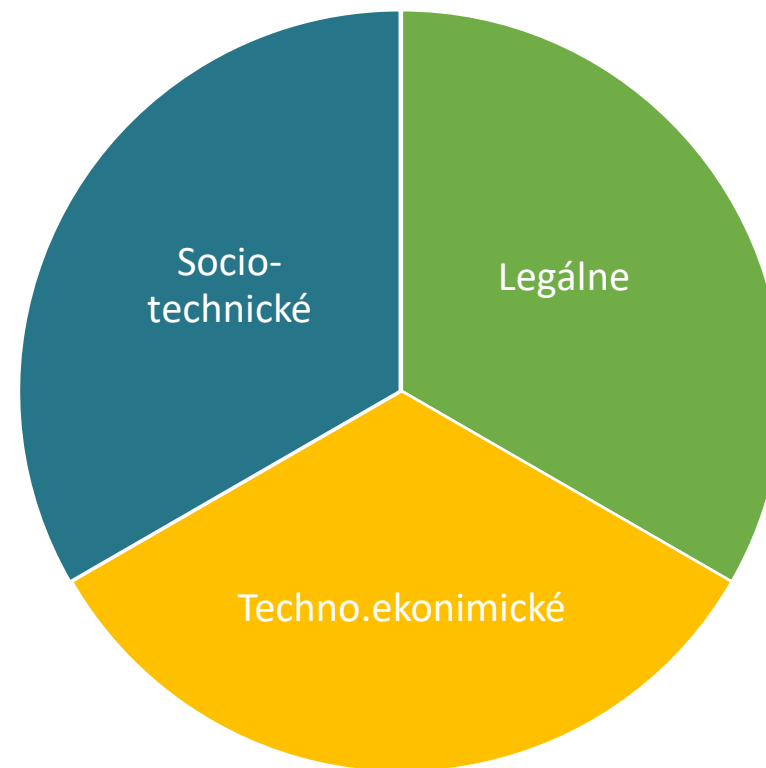
§§ Bariéry

Strategické cestovné mapy

Vypracovanie strategických plánov pre zúčastnené krajiny

Nadnárodná stratégia

Rozvoj nadnárodnej stratégie pre dunajský región



**DanuP-2-Gas
STAKEHOLDER
EVENT**

**17th
NOVEMBER
2022**

10:00 – 17:00 (CET)

Innovative model to drive energy security and diversity in
the Danube Region via combination of bioenergy with
surplus renewable energy

<https://www.interreg-danube.eu/approved-projects/danup-2-gas/news>

SAVE
THE
DATE



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NARA  **SK**
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www.danup2gas.eu

<http://www.interreg-danube.eu/danup-2-gas>

