

HORIZON
2020

Smart and flexible heat and power from biomass derived liquids for small-scale CHP application

Fact Sheet

Project Information

SmartCHP

Grant agreement ID: 815259

[Project website](#) 

DOI

[10.3030/815259](https://doi.org/10.3030/815259) 

Project closed

EC signature date

15 May 2019

Start date

1 June 2019

End date

30 November 2023

Funded under

SOCIETAL CHALLENGES - Secure, clean and efficient energy

Total cost

€ 4 042 455,00

EU contribution

€ 4 042 455,00

Coordinated by

B.T.G. BIOMASS TECHNOLOGY
GROUP BV



Netherlands

Project description

Efficient micro cogeneration engine powered by biomass

Micro combined heat and power systems are an energy-efficient technology that simultaneously provides heat and electricity to households and businesses. The vast majority of these cogeneration plants use natural gas and fossil fuels as their primary source. The EU-funded SmartCHP project will design a novel small-scale cogeneration engine using biomass to produce heat and electricity. The main novelty

is the use of fast pyrolysis bio-oil from different biomass types in a converted diesel engine, which has been chosen for its high electrical efficiency. Integrated with variable renewables such as wind and solar, the new system will generate power from biomass when the electricity provided by wind and sun is unavailable, thereby, securing the supply of renewables.

Fields of science (EuroSciVoc)

[engineering and technology](#) > [electrical engineering](#), [electronic engineering](#), [information engineering](#) > [electrical engineering](#) > [power engineering](#) > [electric power generation](#) > **[combined heat and power](#)**
[engineering and technology](#) > [environmental engineering](#) > **[energy and fuels](#)**
[agricultural sciences](#) > [agricultural biotechnology](#) > **[biomass](#)**



Keywords

CHP

[renewable electricity and heating](#)

[biomass intermediates](#)

Programme(s)

[H2020-EU.3.3. - SOCIETAL CHALLENGES - Secure, clean and efficient energy](#)

MAIN PROGRAMME

[H2020-EU.3.3.2. - Low-cost, low-carbon energy supply](#)

Topic(s)

[LC-SC3-RES-11-2018 - Developing solutions to reduce the cost and increase performance of renewable technologies](#)

Call for proposal

[H2020-LC-SC3-2018-2019-2020](#)

[See other projects for this call](#)

Sub call

Funding Scheme

[RIA - Research and Innovation action](#)

Coordinator



B.T.G. BIOMASS TECHNOLOGY GROUP BV

Net EU contribution

€ 1 203 562,50

Total cost

€ 1 203 562,50

Address

JOSINK ESWEG 34

7545 PN Enschede

 **Netherlands** 

SME 

Yes

Region

Oost-Nederland > Overijssel > Twente

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Participants (10)



OWI SCIENCE FOR FUELS GMBH

 **Germany**

Net EU contribution

€ 503 925,00

Address

KAISERSTRASSE 100

52134 Herzogenrath 

Region

Nordrhein-Westfalen > Köln > Städteregion Aachen

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 503 925,00



ABATO MOTOREN BV

 Netherlands

Net EU contribution

€ 366 250,00

Address

PLATINALAAN 10

5234 GH 'S-Hertogenbosch 

SME 

Yes

Region

Zuid-Nederland > Noord-Brabant > Noordoost-Noord-Brabant

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 366 250,00



EXERGIA ENERGY AND ENVIRONMENT CONSULTANTS AE

 Greece

Net EU contribution

€ 167 500,00

Address

15 VOUKOURESTIOU STR

106 71 Athina 

SME 

Yes

Region

Αττική > Αττική > Κεντρικός Τομέας Αθηνών

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 167 500,00



CAPAX ENVIRONMENTAL SERVICES BVBA

 Belgium

Net EU contribution

€ 186 250,00

Address

PAPENBOSKANT 57

1861 Meise Wolvertem 

SME 

Yes

Region

Vlaams Gewest > Prov. Vlaams-Brabant > Arr. Halle-Vilvoorde

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

Total cost

€ 186 250,00



GREENOVATE ! EUROPE

 Belgium

Net EU contribution

€ 199 875,00

Address

RUE D ARLON 63-65

1040 Bruxelles / Brussel 

Region

Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest > Région de Bruxelles-Capitale/ Brussels Hoofdstedelijk Gewest > Arr. de Bruxelles-Capitale/Arr. Brussel-Hoofdstad

Activity type

Other

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 199 875,00



TECHNISCHE UNIVERSITEIT EINDHOVEN

 Netherlands

Net EU contribution

€ 422 405,00

Address

GROENE LOPER 3

5612 AE Eindhoven 

Region

Zuid-Nederland > Noord-Brabant > Zuidoost-Noord-Brabant

Activity type

Higher or Secondary Education Establishments

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

€ 422 405,00



TEHAG DEUTSCHLAND GMBH

Germany

Net EU contribution

€ 265 125,00

Address

GUTENBERGSTRASSE 42
47443 Moers

Region

Nordrhein-Westfalen > Düsseldorf > Wesel

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- [Contact the organisation](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

€ 265 125,00



DANMARKS TEKNISKE UNIVERSITET

Denmark

Net EU contribution

€ 395 625,00

Address

ANKER ENGELUNDS VEJ 101
2800 Kongens Lyngby

Region

Activity type

Higher or Secondary Education Establishments

Links

- Contact the organisation Website
- Participation in EU R&I programmes
- HORIZON collaboration network

Total cost

€ 395 625,00



DOWEL MANAGEMENT

France

Net EU contribution

€ 85 163,78

Address

25 ALLEE PIERRE ZILLER NAXOS
06560 Valbonne

SME

Yes

Region

Provence-Alpes-Côte d’Azur > Provence-Alpes-Côte d’Azur > Alpes-Maritimes

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- Contact the organisation Website
- Participation in EU R&I programmes
- HORIZON collaboration network

Total cost

€ 85 163,78



DOWEL INNOVATION

France

Net EU contribution

€ 246 773,72

Address

2405 route des dolines Immeuble DRAKKAR CS10065

06560 Valbonne 

SME 

Yes

Region

Provence-Alpes-Côte d’Azur > Provence-Alpes-Côte d’Azur > Alpes-Maritimes

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 246 773,72

Last update: 24 June 2024

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European Union, 2025