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Research Coordination for a Low-Cost Biomethane Production at Small and Medium Scale Applications

Deliverable No. D1.7

Update II of profiles of industry stakeholders along the value chain of biomethane production and supply

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1 Summary

This report is an update of Deliverable 1.5 which has been published in January 2017. The main task of Work Package 1 “Clustering”, Task 1.1. “Industry/SME Mapping” is to obtain information about companies (SMEs) and other institutions who work and investigate in innovative technology solutions for substrate pre-treatment, digestion processes and biogas up-grading systems to achieve a cost and energy efficient production of biomethane in small to medium scale applications.

According to the **D 1.1 – Methodology to implement stakeholder mapping** the company profile database was obtained by direct and indirect methods.

The direct method means the use of contacts and knowledge of the participants. The institutions involved in the project have years of experience in the development and implementation of new technologies for biomethane production and supply.

The second way to directly identify potential technologies and companies was the active search of companies (SMEs). This had been done by seeking information on the internet and participating in selected, most significant trade fairs, conferences and industry meetings.

Indirect searching was be done through the project website and new contacts were established by the project website.

Each partner of the consortium participated in the data collection with the following focus:

- UWM: Poland and countries from Central/Eastern Europe
- RISE: Sweden and countries from northern/western Europe
- DBFZ: Countries from western/southern Europe

Each partner of the Record Biomap project consortium has collected the following number of profiles of industry stakeholders from the last deliverable until this stage:

- University of Warmia and Mazury in Olsztyn (UWM) - 26 profiles (attachments 2.1 - 2.26)
- DBFZ Deutsches Biomasseforschungszentrum gemeinnützige GmbH – 14 profiles (attachments 2.27 – 2.40)
- RISE – Research Institute of Sweden – 2 profiles (attachments 2.41 - 2.42)
- profiles – through the project website (attachments 2.43 - 2.44)

The 44 profiles of industry stakeholders were obtained from 17 different European countries. Most of them (11) are from Poland, 6 from Germany, 4 from Spain, France and Italy, 2 from Hungary, Lithuania and Slovakia, 1 each from Netherlands, Czech Republic, Sweden, Latvia, Estonia, Romania, Ukraine, Portugal.

Most of the collected company profiles were obtained from industry (52 %) and research institutes (43%). End-users contributed to 5 % of the company profiles.

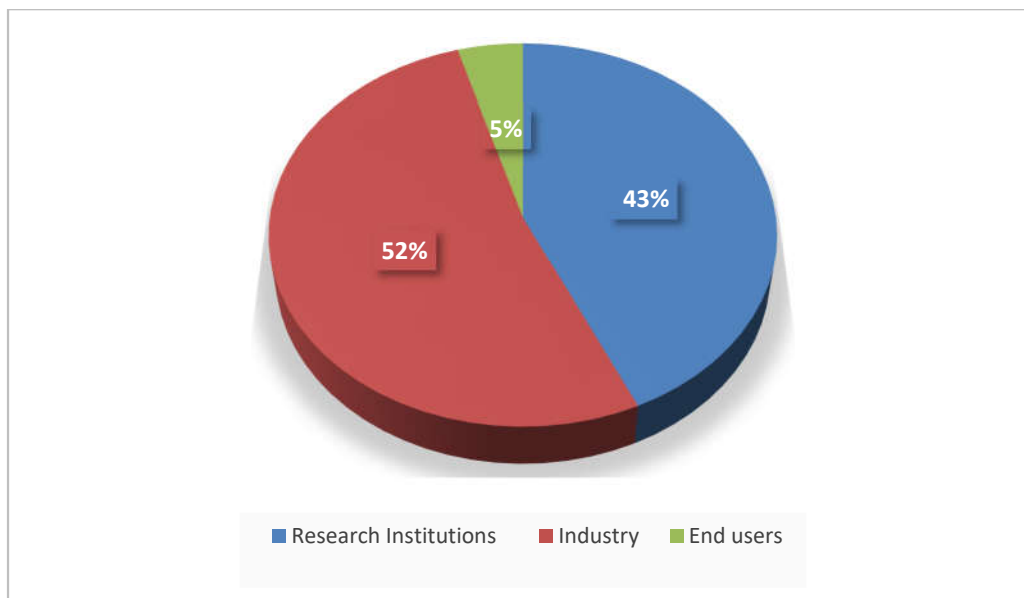


Figure 1. Division of collected company profiles depending on the formal company status (data collected from D1.5)

Figure 2 gives an overview of the currently collected profiles from SME’s, end-users and research institutions who work and investigate in innovative technology solutions for substrate pre-treatment, digestion processes and biogas up-grading systems. Most companies work with digestion processes (37%) and biogas up-grading (36%), not much less with substrate pre-treatment (27%).

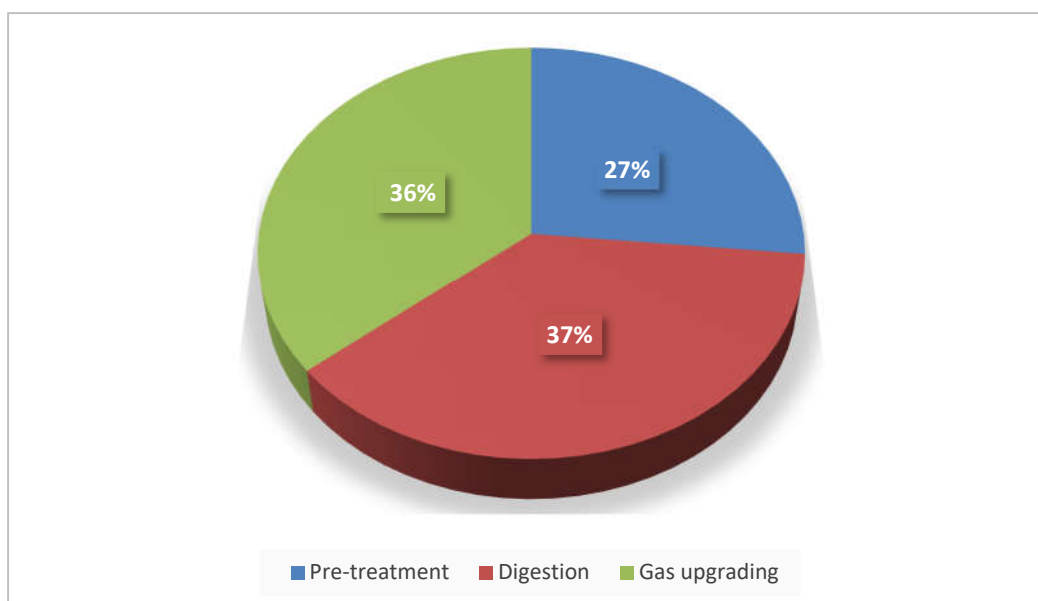


Figure 2. Percentage share of industry stakeholders in terms of substrate pre-treatment, digestion processes and biogas up-grading activity area

The following table gives an overview of the currently collected profiles of SMEs and institutions.

Table 1 Profiles of industry stakeholders who investigate in innovative technology solutions for substrate pre-treatment, digestion processes and biogas up-grading systems

NO	COMPANY / INSTITUTION	COUNTRY	PRE-TREATMENT	DIGESTION	GAS UP-GRADING	CURRENT TRL*	END USER	PROFILE PROVIDED BY
1	Instytut Energii Sp z o.o.	Poland	x					UWM
2	Intersonic S.C.	Poland	x					UWM
3	MINEX-INVEST Sp. z o.o.	Poland					x	UWM
4	PRV Planungsbüro Rossow Gesellschaft für Versorgungstechnik mbH	Germany	x	x				DBFZ
5	JTI	Sweden			x			JTI
6	Biogas Systems nordic AB	Sweden					x	JTI
7	Erda S.C.	Poland		x				UWM
8	Biogazownia Rypin Sp. z o.o.	Poland					x	UWM
9	Bioelektrownie Świętokrzyskie Sp. z o.o.	Poland		x				UWM
10	Zakład usług projektowych i wykonawczych ochrony środowiska Marek Barys	Poland	x	x				UWM
11	Ekspert-Sitr Sp. z o.o.	Poland	x	x				UWM
12	Karczmar. CK Ziemnianin Czesław	Poland					x	UWM
13	MVA Green Energy S.A.	Poland	x					UWM
14	Vitkovice a.s.	Czech Republic		x				UWM
15	Ekolog Sp. z o.o.	Poland		x				UWM
16	Eco-konsulting Sp. z o.o.	Poland		x				UWM

NO	COMPANY / INSTITUTION	COUNTRY	PRE-TREATMENT	DIGESTION	GAS UP-GRADING	CURRENT TRL*	END USER	PROFILE PROVIDED BY
17	Latvia University of Agriculture	Latvia	x	x	x			UWM
18	Czech Technical University in Prague	Czech Republic	x	x	x			UWM
19	Aleksandras Stulginskis University	Lithuania	x		x			UWM
20	MB Biogeba	Latvia		x	x			UWM
21	Ventury GmbH	Germany	x	x				DBFZ
22	Belo Groep	The Netherlands	x					DBFZ
23	Apex AG	Sweden			x			DBFZ
24	HoSt	The Netherlands	x	x	x			DBFZ
25	University College of Southeast Norway	Norway	x	x	x			JTI
26	Metener Oy	Finland		x	x			JTI
27	MMG Konsult AB.	Sweden	x	x				JTI
28	Biofrigas Sweden AB	Sweden			x			JTI
29	NeoZeo AB	Sweden			x			JTI
30	Biosling AB	Sweden			x			JTI
31	ZEOCEM , a.s.	Slovakia	x	x				UWM
32	Ekodoma Ltd.	Latvia		x				UWM
33	EKOENERGIA - OLA ŁUKASZEK	Poland		x				UWM
34	UNIMASZ	Poland		x				UWM
35	Balti Biometaan OÜ	Estonia			x			UWM
36	Laboratory of heat equipment research and testing, Lithuanian Energy Institute	Lithuania			x			UWM
37	IMPLASER	Poland	x	x				UWM
38	Poznan University of Technology	Poland	x	x				UWM
39	Czestochowa University of Technology	Poland		x				UWM
40	BLC Biogas	Poland	x	x	x			UWM

NO	COMPANY / INSTITUTION	COUNTRY	PRE-TREATMENT	DIGESTION	GAS UP-GRADING	CURRENT TRL*	END USER	PROFILE PROVIDED BY
41	NATIONAL INSTITUTE FOR RESEARCH AND DEVELOPMENT IN ELECTRICAL ENGINEERING ICPE-CA	Romania		x				UWM
42	SSU Department of Applied Ecology (Sumy University)	Ukraine	x	x	x			UWM
43	University of Szeged	Hungary	x					UWM
44	Slovak University of Technology in Bratislava	Slovakia	x	x				UWM
45	Universitat Autònoma de Barcelona - UAB Barcelona	Spain		x	x			UWM
46	AXIOM	Austria			x			UWM
47	UPC - TECHNICAL UNIVERSITY OF CATALONIA	Spain			x			UWM
48	UNIVERSITY OF PERUGIA - CIRIAF	Italy		x	x			UWM
49	ECOWAVE	Poland	x		x			UWM
50	Kaunas University of Technology	Lithuania	x					UWM
51	Instituto Superior de Agronomia - Universidade de Lisboa	Portugal	x	x				UWM
52	ArchEnergy Accredited Building Trade and Renewable Energy Innovation Cluster	Hungary	x	x	x			UWM
53	Bio Industries	Poland	x	x				UWM
54	Metal Expert Sp. z o.o. Sp.J.	Poland		x				UWM
55	Bialystok University of Technology	Poland	x	x				UWM
56	University of Warmia and Mazury in Olsztyn	Poland	x	x				UWM
57	HySyTech S.r.l.	Italy			x			DBFZ
58	Fondazione	Italy	x	x	x			DBFZ
59	Ing-Buse	Germany	x	x	x			DBFZ
60	University of Valladolid (UVa)	Spain			x			DBFZ
61	Rhein-Hunsrück Entsorgung	Germany					x	DBFZ
62	Cryo Pur	France			x			DBFZ
63	Prodeval	France			x			DBFZ

NO	COMPANY / INSTITUTION	COUNTRY	PRE-TREATMENT	DIGESTION	GAS UP-GRADING	CURRENT TRL*	END USER	PROFILE PROVIDED BY
64	AzzeroCO2 SRL	Italy			x			DBFZ
65	Applied Nanoparticles SL	Spain		x				DBFZ
66	Hochschule Landshut	Germany			x			DBFZ
67	Electrochaea GmbH	Germany			x			DBFZ
68	CEBB CentraleSupélec	France			x			DBFZ
69	DBFZ	Germany		x				DBFZ
70	Bilfinger EMS GmbH	Germany			x			DBFZ
71	HÄLSINGESTINTAN	Sweden					x	RISE
72	Air Liquide	France			x			RISE
73	Greenmac	The Netherlands			x			Website
74	Czech University of Life Sciences Prague	The Czech Republic	x	x				Website

*TRL = Technology Readiness Level

All company profiles are available on the Biomethane Map on the project website for download: <https://biomethane-map.eu/Biomethane-Map.70.0.html>.



Figure 3 The Biomethane Map* - developed in the EU Horizon 2020 project Record Biomap (*status: 26.04.2018)

2 Attachments with company profiles

The following profiles are available for download at the [Biomethane Map](#):

- 2.1. ZEOCEM , a.s.
- 2.2. Ekodoma Ltd.
- 2.3. EKOENERGIA - OLA ŁUKASZEK
- 2.4. UNIMASZ
- 2.5. Balti Biometaan OÜ
- 2.6. Laboratory of heat equipment research and testing, Lithuanian Energy Institute
- 2.7. IMPLASER
- 2.8. Poznan University of Technology
- 2.9. Czestochowa University of Technology

- 2.10. BLC Biogas
- 2.11. National Institute for research and development Electrical Engineering IPCE-CA
- 2.12. SSU Department of Applied Ecology (Sumy University)
- 2.13. University of Szeged
- 2.14. Slovak University of Technology in Bratislava
- 2.15. Universitat Autònoma de Barcelona - UAB Barcelona
- 2.16. AXIOM
- 2.17. UPC - TECHNICAL UNIVERSITY OF CATALONIA
- 2.18. UNIVERSITY OF PERUGIA - CIRIAF
- 2.19. ECOWAVE
- 2.20. Kaunas University of Technology
- 2.21. Instituto Superior de Agronomia - Universidade de Lisboa
- 2.22. ArchEnergy Accredited Building Trade and Renewable Energy Innovation Cluster
- 2.23. Bio Industries
- 2.24. Metal Expert Sp. z 0.0. Sp.J.
- 2.25. Bialystok University of Technology
- 2.26. University of Warmia and Mazury in Olsztyn
- 2.27. HySyTech S.r.l.
- 2.28. Fondazione
- 2.29. Ing-Buse
- 2.30. University of Valladolid (UVa)
- 2.31. Rhein-Hunsrück Entsorgung
- 2.32. Cryo Pur
- 2.33. Prodeval
- 2.34. AzeroCO2 SRL
- 2.35. Applied Nanoparticles SL
- 2.36. Hochschule Landshut
- 2.37. Electrochaea GmbH
- 2.38. CEBB CentraleSupélec
- 2.39. DBFZ
- 2.40. Bilfinger EMS GmbH
- 2.41. HÄLSINGESTINTAN
- 2.42. Air Liquide
- 2.43. Greenmac
- 2.44. Czech University of Life Sciences Prague