



D.4.4 Online outcomes of the exchange sessions

Deliverable:	Online outcomes of the exchange sessions
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1. Introduction

The peer learning activities undertaken in WP4 were supported by 8 EU level stimulating exchange sessions among project partners focusing on key development topics proposed by project partners (see in par.2 the list of exchange sessions). The outcomes of each exchange session provided insights and recommendations of EU relevance and were published online on the internet web site.

2. Key development topics

The following development topics were discussed during the exchange sessions.

Key development topic	Coordination
Capacity building	DK/FFR
Public acceptance	LV/EKODOMA
Pocket Size AD	UK/SWEA
Arguments for biogas beyond economic factors	DE/IBBK
Biofuels	SE/ESS
Grid injection	FR/AURA-EE
Socio-economic analysis	HR/EIHP
Business models	NL/CSS

3. Exchange format

Each exchange session lasted about 2 hours and was organized in combination with project meetings. It was coordinated by one experienced project partner based on a common exchange format as indicated below:

- Proposing a short definition of the topic being discussed

What are we talking about?

- Providing his views about the topics (context, key challenges, key opportunities, key players,..) , illustrating it with examples within its own region/country

What is at stake?

- Proposing 1 or 2 questions to be debated with other PPs

What do you think?

- Summarizing the session by proposing 2-3 take away messages
- Potentially recommending 1 or 2 EU level publications about the topic.

4. Outcomes of the exchange sessions

The key findings and outcomes of the exchange sessions are summarized below. More information about the exchange sessions are available online at: <http://biogasaction.eu/downloads/topic-briefs/>

Capacity building:

- Know well your National and Regional educational systems and closely cooperate on the development of biogas integrated or dedicated courses
- Consult farmers and plant operators. Identify their training needs and best ways of implementing them
- In complement, propose courses they already know – e.g. ATEX (safety courses in DK) – that way they get to know you
- Develop adapted training solutions for “self-taught” plant operators
- Follow up one plant in particular and gain on-site knowledge and experience.

Public acceptance:

- The current situation should be analysed considering the following elements:
 - Attention for renewable energy: how well people understand and how well people are informed about biogas and its applications in general
 - Biogas interest: preferred applications of biogas and preferred resources for biogas production
 - Biogas project acceptance: pros and cons of biogas production in the neighborhood
 - Regional Climate: open mindedness of local actors and trust in local actors
 - Demands to the region: sustainability, support needed from local authority
 - Individual values and commitment: concrete actions the biogas promoter might take according to local public needs
- At least 2 major actions and their associated tools can facilitate public acceptance. Their selection and combination will be chosen in accordance with the above listed points.
 - Networking: In order to effectively improve relations with neighbours, it is necessary to combine forces in favour of goals that are to be reached by biogas applications. Networking can change alone plant owner's position from one of futile complaining to one of coordinated, concerted actions.
 - Public Relations: Good public relations are a precondition for the development of successful actions. The concept of public relations is the management of an enterprise's or individual's public perception. When an activity is planned, this should build on a solid base of well-established relationships between the actors and the public.

Pocket-Sized digesters

- Pocket digestion is a tool for agricultural companies to increase self-sufficiency in terms of energy demand and reduce the environmental impact (for example greenhouse gas emissions) of residual waste streams
- Technology solutions exist across Europe that have been deployed in the UK, BE, NL, France, etc.
- It is an opportunity in a "bright new world":
 - with less packaging – especially plastic packaging,
 - more public pressure for holistic solutions,
 - a greater emphasis on local produce
 - and AD regulated better (i.e not simply treated as a Waste Management system)



Arguments beyond economic factors

- The biogas situation is changing due to the new national legislations (less electricity support)
- Energy crops are becoming less economically feasible
- The focus will be on:
 - Different ways of marketing the AD products biogas and digestates
 - Flexible production of electricity: the AD system is the only renewable solution to the flexibility issue of renewable energies
 - Biomethane as a biofuel for transportation
 - AD technology as solution for manure and biowaste treatment

Biofuels

- Liquefied biomethane – the future in South East Sweden
- Drivers for biomethane in transport in Sweden:
 - It is a locally produced and clean vehicle fuel
 - Instead of burning our household and other waste, we reuse it.
 - When produced from manure we get two products: biogas/biomethane as well as biological fertilizer that is returned to the soil.
 - It reduces the emission twice first from the heaps of manure and secondly from the traffic
 - By producing biogas from manure, we reduce the overfertilization of the Baltic Sea
 - It is crucial for our farmers if they wish to increase their production
- Success factors in Sweden:
 - Public procurements
 - Co-operation between private and public actors
 - Exemption from energy tax
 - Exemption from CO₂ tax
 - Tough climate targets on national, regional and local level
 - A common vision and target of a fossil independent transport sector in 2030

Grid injection

- Key stakeholders for grid injection: biomethane producer, NG supplier, Gas grid Operator, NG final customer
- Gas suppliers buying biomethane from AD plants
- Injecting locally or transporting biomethane by trucks to site of reception
- Support mechanisms: feed in tariffs, guarantee of origin.



Socio-economic impacts analysis

- “Impacts are potential changes caused – directly or indirectly, in whole or in part, for better or for worse – by industrial development activities”
- “Sustainable Development should become the central objective of all sectors and policies. This means that policy makers must identify likely spillovers – good and bad – onto other policy areas and take them into account. Careful assessment of the full effects of a policy proposal must include estimates of its economic, environmental and social impacts”
- Use of impact value chain
- Methodologies to assess the impacts:
 - Social Return on Investment Analysis (SROI)
 - Cost-Benefit Analysis (CBA)
 - Logical framework

Business models

- The business plan should include:
 - Non-technical aspects:
 - General information: legal status, location , livestock and land
 - Reasons to invest
 - Subsidies
 - Social and ecological aspects
 - Sizing and technical aspects
 - Technical description of the plant: storage, digester, gas utilisation
 - Logistics of substrates, cosubstrates, digestate
 - Manpower needs
- Tips and tricks:
 - Check real dry matter content of substrates
 - Available substrates vs plant size
 - Efficiencies CHP given by manufacturers in perfect conditions (e.g. 60% CH₄)
 - Size does matter
 - Biomethane: check availability and costs early in project development
 - Maintenance of pumps and feeders

