



FlexSNG

Deliverable D9.6

Report and a short dissemination video of the first Industrial Topical Workshop

Dissemination level: Public

Date: 14/11/2022

Grant Agreement (GA) No. 101022432

Research and Innovation Actions (RIA) project

Granted by: Climate, Infrastructure and Environment Executive Agency (CINEA)



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 101022432 and the Government of Canada's New Frontiers in Research Fund (NFRF) and the Fonds de recherche du Québec (FRQ).



Document Control Sheet

Project	FlexSNG - Flexible Production of Synthetic Natural Gas and Biochar via Gasification of Biomass and Waste Feedstocks		
Call/Topic	International cooperation with Canada on advanced biofuels and bioenergy		
Type of action	Research and Innovation Action (RIA)		
Grant Agreement No	101022432		
Start date	01/06/2021	Duration	36 Months
Project Coordinator	VTT Technical Research Centre of Finland Ltd		

Work Package No	WP9	Task No	Task 9.6
Due date (in months)	M18		
Actual submission date	14/11/2022		

Lead Beneficiary	ETA-Florence Renewable Energies - ETA		
Contributor(s)	All		
Dissemination level	Public	X	
	Confidential, only for members of the consortium (including the Commission services)		

Revision history

Version	Date	Modification	Author
0.1	08/11/22	First	Emma Fromant (ETA)
0.2	14/11/22	Quality check	Minna Kurkela (VTT)
1.0	14/11/22	Final approval	Sanna Tuomi (VTT)

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1 Executive summary

This Deliverable D9.6 reports on the successful production and dissemination of a short, animated video, produced to promote FlexSNG project, by showing the general project process and project goals. The full video can be viewed here: <https://youtu.be/ZdSmkX3yhOs>

This report goes on to document the process from conception to execution of the First Topical Workshop FlexSNG: Turning low-cost bio-feedstocks into valuable products. It started by describing the organisation, then the promotion, then a full summary of each workshop section, finally reporting the post event follow-up and conclusions.

2 Introduction

This report describes the FlexSNG First Topical Workshop and short dissemination video, including the preparation phases for both aspects. In particular, this document reports activities concerning to D9.6: Report and a short dissemination video of the first Industrial Topical Workshop due in M18 of the project (November 2022).

Due to timelines and availability of results the consortium agreed to produce an animated video describing the overall project, that was used to promote the event. The method for the production of the animation is summarised in Section 3 of this report.

The workshop titled: FlexSNG: Turning low-cost bio-feedstocks into valuable products, was hosted by EIFER, as a hybrid event, online via Zoom and at the project partners offices in Karlsruhe, Germany. The event planning and execution was carried out by ETA-Florence with the input of all project partners throughout the process. Details on the event planning, promotion, and content are provided from Section 4 onwards.

3 Video Production and Summary

The process for creating the video started by identifying the key points or messages from the project that we wanted to promote, after which a script was written by ETA Florence with the

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input of the project coordinators, VTT, with a strict limit of 250 words. The script and concept were shared with the graphic designer, who created a storyboard for the video.

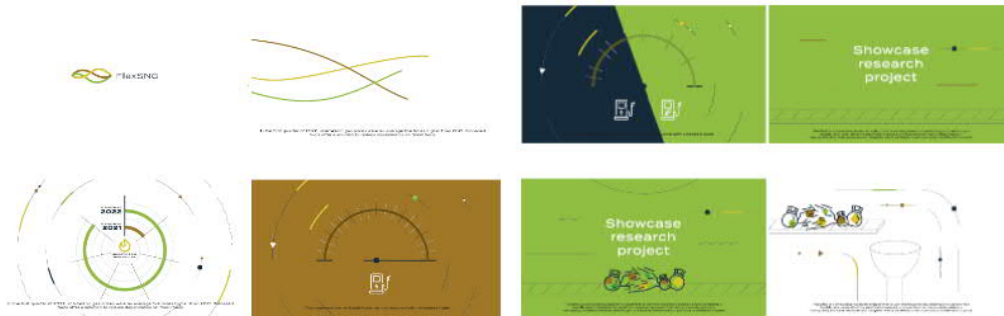


Figure 1 Example of the FlexSNG storyboard

The storyboard underwent a few revisions, taking on comments from ETA and VTT, until it was agreed upon, after which the voiceover artist was carefully selected and commissioned and recorded the script. It is important to have the recording of the script before making the moving animation, as it is required for the timing.

The finished video is 2.09 minutes long, and gives an overview of the FlexSNG project; its objectives, the technical aspect, the project consortium, and duration. As of 10th November 2022, the video has been viewed over 500 times on the projects LinkedIn page.

The full video can be viewed here: <https://youtu.be/ZdSmkX3yhOs>



Figure 2 Scene from the project introduction animated video

4 Event Preparation

Preparations for this event started in March 2022, with an initial meeting involving the deliverable Lead – ETA, the event host – EIFER, and the project coordinator, VTT. Initial plans started with setting the date (3rd November 2022), location (Karlsruhe), and event duration (1 day). After which a smaller dedicated task team was allocated to refine the event aim, description, and agenda, with organization meetings held roughly every six weeks online.

The aim of the workshop was to discuss the future possibilities of biomethane and biochar from gasification, and how FlexSNG is determining the “winning conditions” that make its implementation attractive. The agenda was subdivided into four main sections, as follows:

- FlexSNG Project Introduction
- FlexSNG Process Innovation
- FlexSNG Products and markets
- Industrial symbiosis and the case studies

The first part was presented by VTT and EIFER, whilst the process innovation included presentations from the industrial project partners and advisory board. The products and markets section consisted of external speakers, and the then the project was rounded off with an overview of the projects anticipated case studies, a small discussion on the “winning conditions” and networking after.

The full event agenda is provided in Annex A.

5 Event Promotion

To promote the event an invitation and registration form were created on ‘Eventbite’, in this online invitation the attendees could register to attend online or in-person. This platform allows the number of registered attendees to be tracked, and automatically sent reminders of the event. To disseminate this invitation an email was sent to the ETA-Florence mailing list of contacts that had opted in to receive information about relevant events, this included 12160 subscribers, and was sent the first time on 21st September 2022.

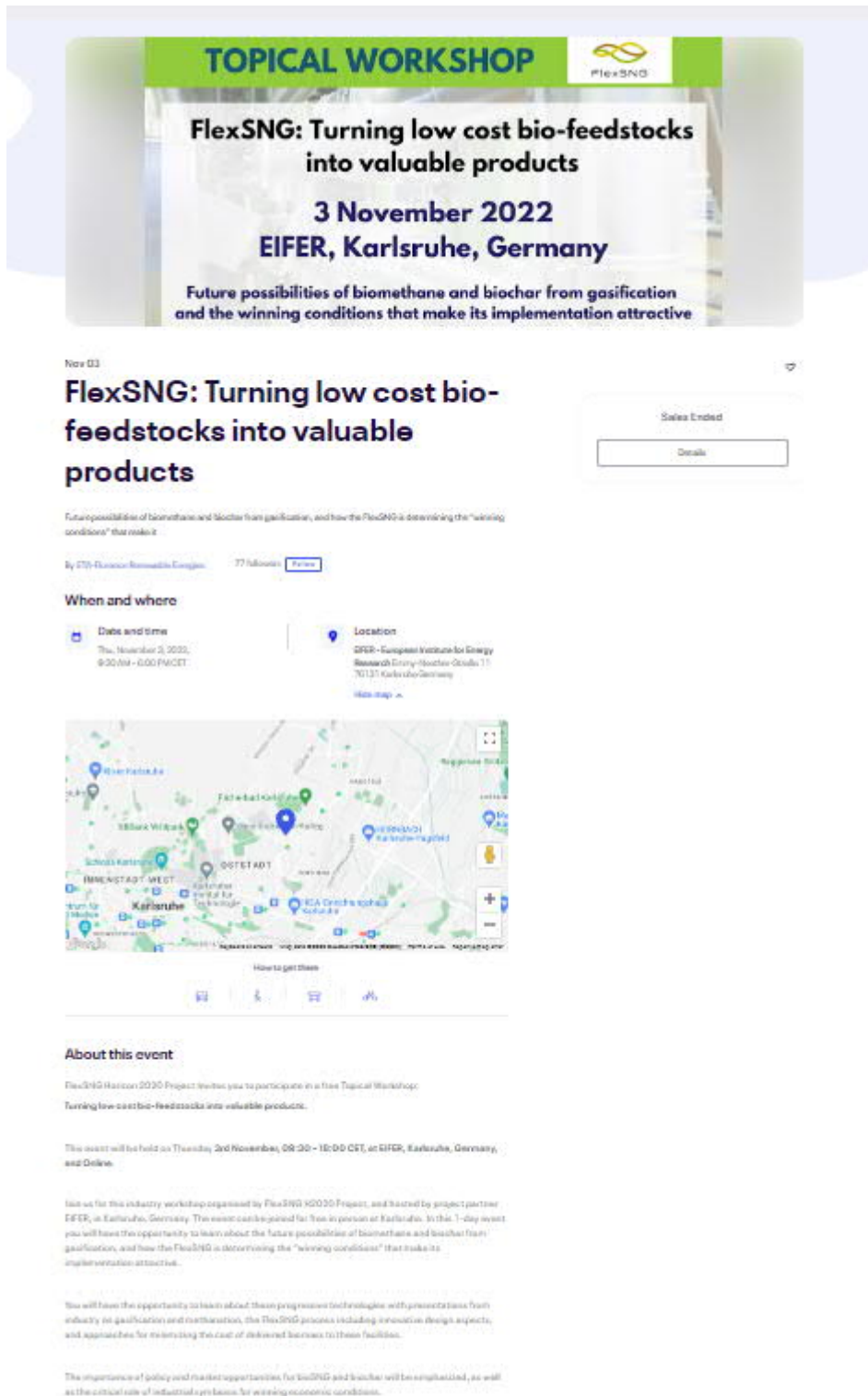


Figure 3 Eventbrite event registration page

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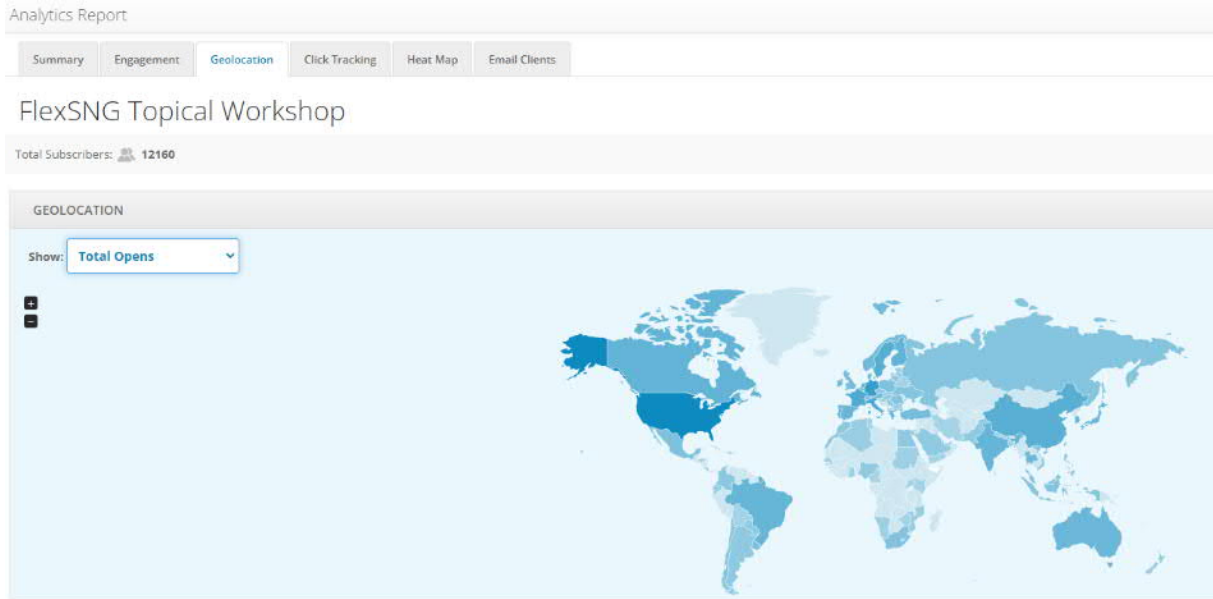


Figure 4 Heatmap of where and how many times the invitation email was opened

In addition, the event was publicised online and the project website and the project LinkedIn page, with various reminder posts.

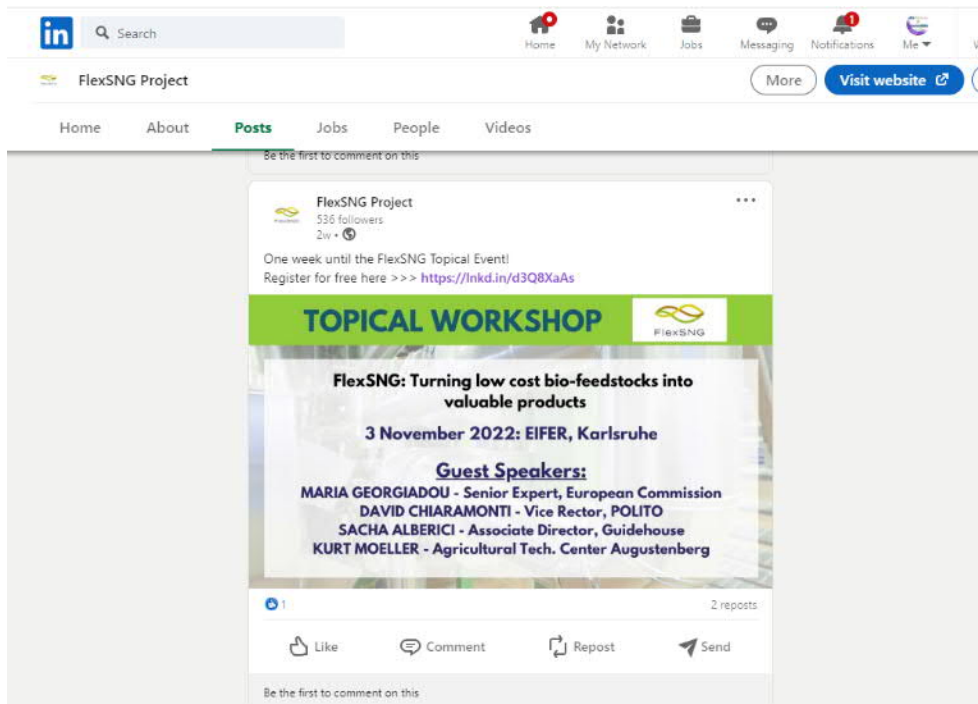


Figure 5 Event promotions on LinkedIn

6 Summary of Event

The 1 day FlexSNG topical workshop: Turning low cost bio-feedstocks into valuable products, was held on 3rd November 2022. The day started with welcome tea and coffee at 9:30am, with the event presentations starting at 10:15.

The first presentation was given online by Project Coordinator, Sanna Tuomi, VTT, in which she introduced the project and the key enabling FlexSNG technologies validated during the project. She was followed by Stephan Seidelt, EIFER, in-person, who introduced biochar as a product from FlexSNG, what is it, and its applications.



Figure 6 Stephan Seidelt presenting

The second section of the event: FlexSNG Process Innovation, included presentations from industrial project partners and the project advisory board. It started with a presentation from Erik Rönqvist, Creative Optimization, in-person who summarized supply chain optimization, understanding the complexity, and the boundaries faced from a supply chain perspective. After which Frank Ligthart, from the projects advisory board member Sumitomo SHI FW (SFW), gave a presentation online introducing SFW and its involvement in gasification for carbon-neutral and carbon-negative products, as well as its link to the FlexSNG project. This session

was rounded off by a presentation from Fabio Ruggeri, Wood Group, talking about VESTA methanation technology for pipeline-quality SNG production, a proven technology, and its link to FlexSNG.



Figure 7 Erik Rönqvist presenting

The third session after the lunch break, FlexSNG Products and Markets, was the opportunity for external speakers to participate in the event, starting off with an introduction from Ilkka Hiltunen, VTT, who gave an overview of the topic theme. First, we heard from Maria Georgiadou about the EU policies for renewable fuels and upcoming funding opportunities. Following on nicely, Sacha Alberici, Guidehouse, spoke online on the behalf of the working group Gas For Climate: a path to 2050; about gasification from biomass: market potential and national strategies. After this Dr. Kurt Möller, Center of Agricultural Technology, presented in-person on Biochar effects in agriculture, its effects on soil productivity, P availability, and its comparison on costs. This session was rounded off with an online presentation from David Chiamonti, POLITO, who gave an overview of many possible applications of biochar, the limitations, and opportunities.

The day concluded with presentations from Paul Stuart, Polytech Montréal, and Kostis Atsonios & Christina Antonopoulou, CERTH, in which they considered industrial symbiosis and its critical role in the economic viability of biofuel processes, as well as summaries of the anticipated case studies of the project, including an introduction to Greenfield Global and their business strategy to the world of biofuels. There was also an opportunity for a short discussion session in which questions and comments were taken from the physical and online participants.



Figure 8 Paul Stuart chairing the project discussion

7 Post Event Follow-Up

The event was considered successful, not only in achieving the deliverable objective, but also in the huge number of registered and actual participants, as well as the interaction throughout the day and following. A summary of the participation statistics is as follows:

Online

Registrations: 263

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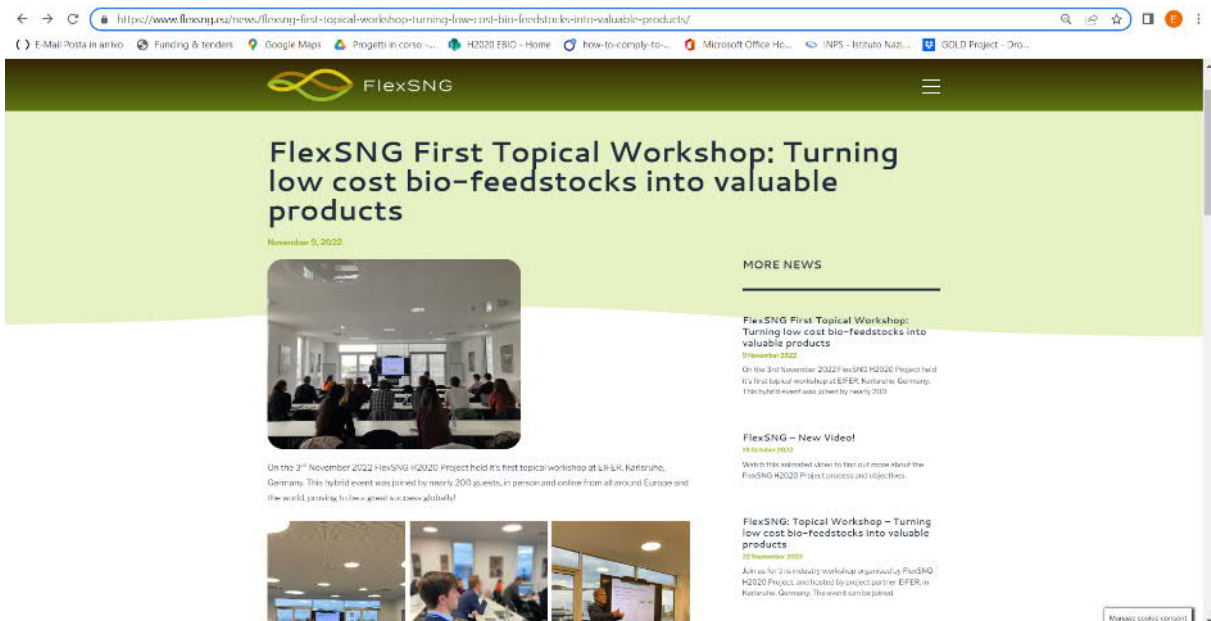
Unique Viewers: 142
Total Users: 344
Max Concurrent Views: 94

In person

Registrations: 40

Attended: 20

In addition, a dedicated page on the project website (<https://www.flexsng.eu/news/flexsng-first-topical-workshop-turning-low-cost-bio-feedstocks-into-valuable-products/>) includes links to download each presentation given, and a link the full event recording available on YouTube (<https://youtu.be/luwB1v8YF4s>) This access to information was also shared by email to the mailing list of registered participants, and advertised on the FlexSNG LinkedIn page.



 FlexSNG

To rewatch the whole event follow this link: <https://youtu.be/luwB1v8YF4s>

The event followed the running order list as presented below, and to download the **presentation slides** please **click on the relevant title**:

1. **Introduction to the FlexSNG process, including gasification** – Sanna Tuomi, VTT
2. **Biochar as an output of FlexSNG process** – Stephan Seidelt, EIFER
3. **Creative Optimization – Feedstock supply chain optimization** – Erik Rönqvist, Creative
4. **Sumitomo SHI-FW – industrial gasification and link to FlexSNG: Sumitomo Foster Wheeler’s fluidised-bed gasification technology for converting biomass residues and wastes into syngas** – Frank Ligthart, Sumitomo
5. **Wood: the proven technology and link to FlexSNG: VESTA methanation technology for pipeline-quality SNG production** – Fabio Ruggeri, Wood
6. **Session overview and introduction** – Ilkka Hiltunen, VTT
7. **The EU policies for renewable fuels** – Maria Georgiadou, EC DG RTD
8. **Gasification from biomass: market potential and national strategies** – Sacha Alberici, Guidehouse
9. **Effects of biochar on crops under different climatic conditions** – Kurt Möller, LTZ
10. **Biochar: a world of possible applications** – David Chiaramonti, POLITO
11. **BioSNG: product specifications and market value intro to case studies** – Stephan Seidelt, EIFER
12. **Industrial symbiosis and its critical role in the economic viability of biofuel processes, with an introduction to Greenfield Global and their business strategy to the world of biofuels** – Paul Stuart, Polytech Montréal
13. **A tale of 4 case studies being considered in the FlexSNG H2020 Project** – Kostis Atsonios & Christina Antonopoulou, CERTH
14. **Discussion of “winning conditions” for the FlexSNG Process** – Chair: Paul Stuart, Polytech Montréal
15. **Workshop round up with closing remarks** – Ilkka Hiltunen, VTT

Disclaimer:
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Figure 9 FlexSNG Project website dedicated event page

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8 Conclusions

The event was organized with the aim to discuss the future possibilities of biomethane and biochar from gasification, and how FlexSNG is determining the “winning conditions” that make its implementation attractive. This aim was met and surpassed by the larger than expected participation online and in-person, with EU and global inputs from speakers and the audience.

Appendix A – Event Agenda

FlexSNG: Topical Workshop

Turning low cost bio-feedstocks into valuable
products

Topical Workshop

Karlsruhe, Germany

November 3, 2022

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Thursday 3rd November

Topical Workshop – FlexSNG: Turning low cost bio-feedstocks into valuable products

Venue: EIFER, Karlsruhe, Germany

Join us for this industry workshop organised by FlexSNG H2020 Project, and hosted by project partner EIFER, in Karlsruhe, Germany. The event can be joined for free in person at Karlsruhe. In this 1-day event you will have the opportunity to learn about the future possibilities of biomethane and biochar from gasification, and how the FlexSNG is determining the “winning conditions” that make its implementation attractive.

You will have the opportunity to learn about these progressive technologies with presentations from industry on gasification and methanation, the FlexSNG process including innovative design aspects, and approaches for minimizing the cost of delivered biomass to these facilities.

The importance of policy and market opportunities for bioSNG and biochar will be emphasized, as well as the critical role of industrial symbiosis for winning economic conditions.

Event topics will cover:

- process economies-of-scale with a de-risked process,
- low-cost lower-quality biomass,
- good policy support for biofuels and biochar, and
- the role of industrial symbiosis.

There will also be opportunities for discussions and networking.

Event Agenda				
Time	Topic	Partners	Presenter	Duration
09:30	Welcome tea & coffee Morning networking			
10:15	Workshop Opening & Agenda <u>FlexSNG Project Introduction</u> <ul style="list-style-type: none"> - Introduction to the FlexSNG process, including gasification - Biochar as an output of FlexSNG process 	VTT EIFER	Sanna Tuomi Stephan Seidelt	15 mins each
10:45	<u>FlexSNG Process Innovation</u> <ul style="list-style-type: none"> - Creative Optimization – Feedstock supply chain optimization - Sumitomo SHI-FW - industrial gasification and link to FlexSNG: Sumitomo Foster Wheeler’s fluidised-bed gasification technology for converting biomass residues and wastes into syngas. - Wood : the proven technology and link to FlexSNG: VESTA methanation technology for pipeline-quality SNG production. 	Creative Sumitomo (online) Wood (Online)	Erik Rönqvist Frank Ligthart (online) Fabio Ruggeri (Online)	20 mins each
12:30	Lunch			
14:00	<u>FlexSNG Products and markets</u> <ul style="list-style-type: none"> - Session overview and introduction - The EU policies for renewable fuels - Gasification from biomass: market potential and national strategies. - Effects of biochar on crops under different climatic conditions 	VTT EC DG RTD (Online) Guide-house (Online) LTZ	Ilkka Hiltunen Maria Georgiadou (Online) Sacha Alberici (Online) Kurt Möller	20 mins each

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15:30	<ul style="list-style-type: none"> - BioSNG: product specifications and market value Introduction. - Biochar: a world of possible applications. 	EIFER POLITO (Online)	Stephan Seidelt David Chiaramonti (Online)	
15:50	Break			
16:00	<p><u>Industrial symbiosis and the case studies</u></p> <ul style="list-style-type: none"> - Industrial symbiosis and its critical role in the economic viability of biofuel processes, with an introduction to Greenfield Global and their business strategy to the world of biofuels. - A tale of 4 case studies being considered in the FlexSNG H2020 Project. <p>Discussion of “winning conditions” for the FlexSNG Process. Workshop round up with closing remarks.</p>	Polytech Montréal CERTH (Online) All Partners	Paul Stuart Kostis Atsonios Christina Antonopoulou Discussion chair: Paul	1 hour
17:00	Networking			
18:00	Event close			