FlexSNG

# Press Review

Date: 20/12/2024

Grant Agreement (GA) No. 101022432

Research and Innovation Actions (RIA) project

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

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## Disclaimer

The content of this report reflects only the authors' view. The European Climate, Infrastructure and Environment Executive Agency (CINEA) and European Commission are not responsible for any use that may be made of the information it contains.

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## Introduction

The following press review provides an overview of the media coverage surrounding the FlexSNG project throughout its duration. FlexSNG aimed to aims at fostering international collaboration between the European Union and Canada in the strategic sectors of bioenergy and biofuels, and this report highlights how various outlets have engaged with and covered the project. The goal of this review is to assess the media's role in promoting the project and to summarize key moments of coverage.

## 1. Media Coverage Overview

Throughout the life of FlexSNG, outlets have reported on its developments, findings and events. Below is a list of publications and media outlets that have mentioned or published articles about the project.

## 2. Articles and Proceedings Overview (June 2021 - December 2024):

1. **Journal of Materials and Chemistry A**
    - **Title**: A review on dual-phase oxygen transport membranes: from fundamentals to commercial deployment Authors: Kiebach, R., et al. DTU.
    - **Date**: November 2021
2. **Chemical Engineering Transactions**
    - **Title**: Development of a bubbling circulating fluidized-bed reactor for biomass and waste gasification Authors: Kurkela, E., et al. VTT.
    - **Date**: May 2022
3. **Open Ceramics**
    - **Title**: Stable, asymmetric, tubular oxygen transport membranes of $(Sc_2O_3)_{0.10}(Y_2O_3)_{0.01}(ZrO_2)_{0.89} – LaCr_{0.85}Cu_{0.10}Ni_{0.05}O_{3-\delta}$ Authors: Aguilera, L., et al. DTU.
    - **Date**: July 2022
4. **Journal of Membrane Science**
    - **Title**: Partial oxidation of biomass gasification tars with oxygen transport membranes Authors: Aguilera, L., et al. DTU.

- **Date**: May 2023

5. **Chemical Engineering Transactions**

   - **Title**: Development of flexible fluidised-bed gasification process for co-production of synthesis gas and biochar Authors: Kurkela, E., et al. VTT.

   - **Date**: June 2024

6. **tcbiomass 2024 Conference Proceedings**

   - **Title**: Hybrid Gasification-Synthesis Process with CO2 Recycling to Improve Synthetic Fuels Yield and Carbon Efficiency – Techno-economic Assessment Authors: Tuomi, S., et al. VTT.

   - **Date**: September 2024

7. **ICEESEN 2024-Proceedings**

   - **Title**: Process analysis of a flexible gasification based thermochemical conversion concepts of biogenic residues and wastes into biomethane and biochar Authors: Atsonios, K., et al. CERTH & VTT.

   - **Date**: September 2024

## 3. Media Outlets Discussing FlexSNG

Several notable media outlets and websites have discussed the FlexSNG project, showcasing its innovative approach to sustainable energy networks and its impact on the industry. These sites have provided extensive coverage, with some focusing on specific aspects such as technological innovations, the project's partnerships and its role in shaping the future of energy systems.

etaflorence renewableenergies SERVICES POR

# FlexSNG Project Concludes with Breakthroughs in Clean Energy Innovation

The European FlexSNG project, in collaboration with the Canada's Government, is concluding on December 31st, 2024, after 43 months of dedicated research and development. The project has successfully validated an innovative gasification process (TRL5[1]) capable of converting low-grade biomass residues and biogenic waste into biomethane, biochar and renewable heat. These technologies represent a significant step forward in global efforts toward decarbonization and the transition to a circular economy. FlexSNG's achievements were showcased during a virtual Final Event on December 2nd, attended by over 230 participants from across the globe. The event highlighted the project's flexibility in handling diverse feedstocks and its ability to adapt to different operational modes, paving the way for more sustainable energy systems. FlexSNG demonstrated its versatility by handling diverse feedstocks and supporting various operational modes, making it a promising solution for sustainable energy systems.

**Link:** https://new.etaflorence.it/news/flexsng-project-concludes-with-breakthroughs-in-clean-energy-innovation/

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## Flexible Production of Synthetic Natural Gas and Biochar via Gasification of Biomass and Waste Feedstocks

Kurkela, Minna (Manager), Tuomi, Sanna (Manager), Hiltunen, Ilkka (Owner), Kurkela, Esa (Participant)

BA5206 Gasification and synthesis gas processing

*Project: Research*

Overview Research output (3)

### Project Details

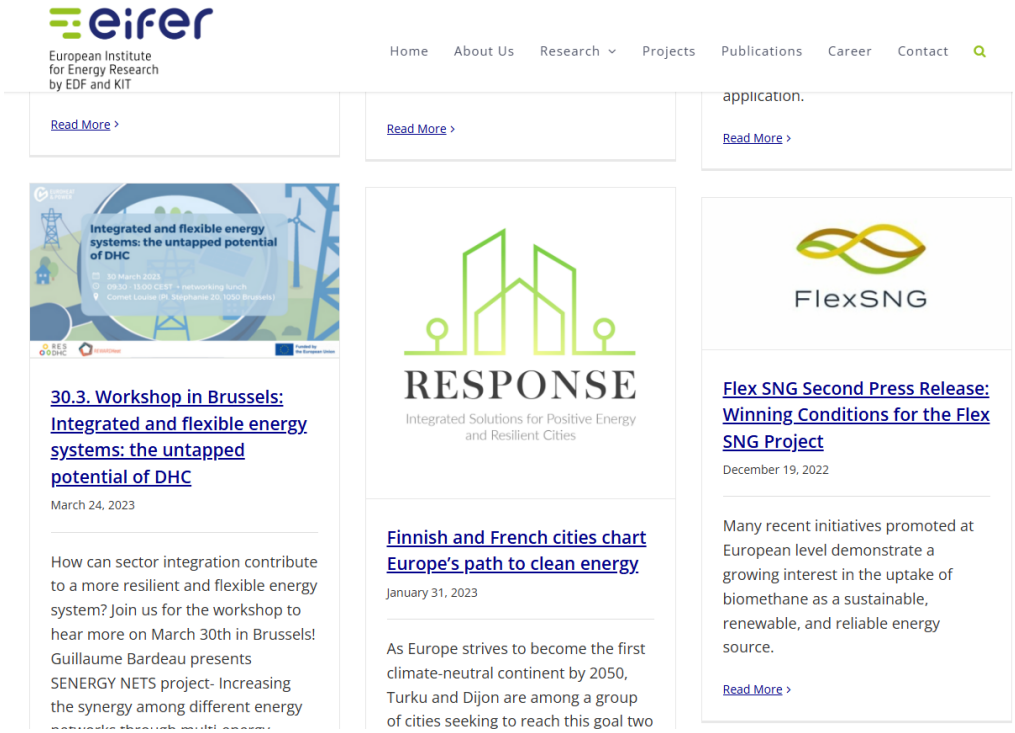
#### Description

Our vision is to develop a flexible and cost-effective gasification-based process for the production of pipeline-quality biomethane, high-value biochar and renewable heat from a wide variety of low-quality biomass residues and biogenic waste feedstocks. The combination of gasification process development and feedstock supply chain optimization will lead to significant cost reductions that allow lowering biomethane production costs by more than 30% compared to state-of-the-art biomass-to-SNG technologies. The target is at medium-scale conversion plants, which allows the use of local biomass residues and biogenic wastes without heavy transport logistics. The key innovative technology of FlexSNG is the flexible gasification process that can switch between two operation modes according to price signals and market demand: 1) co-production of biomethane, biochar and heat, and 2) maximised production of biomethane and heat. The produced biomethane can be readily injected into the existing gas infrastructure for distribution in the transport sector, heat/power production, industries and households. The co-produced biochar can be used to displace fossil fuels in energy production and industry or in material applications. The FlexSNG concept is based on the European partners' advanced technologies in the field of oxygen production, gasification and gas clean-up and methanation. The innovative key enabling technologies will be developed and validated to TRL5. The Canadian partners bring their expertise in feedstock supply chain management, modelling and optimization of integrated biorefinery concepts, and the Canadian perspective into the project. FlexSNG will demonstrate the targeted 30% cost

Access Project

- Project in Cordis
- FlexSNG project website
- FlexSNG Twitter:
- FlexSNG LinkedIn
- FlexSNG YouTube
- FlexSNG Community in Zenodo

**Link:** https://cris.vtt.fi/en/projects/flexible-production-of-synthetic-natural-gas-and-biochar-via-gasi




**Link:** https://www.eifer.kit.edu/news/


Flexible Production of Synthetic Natural Gas and Biochar via Gasification of Biomass and Waste Feedstocks

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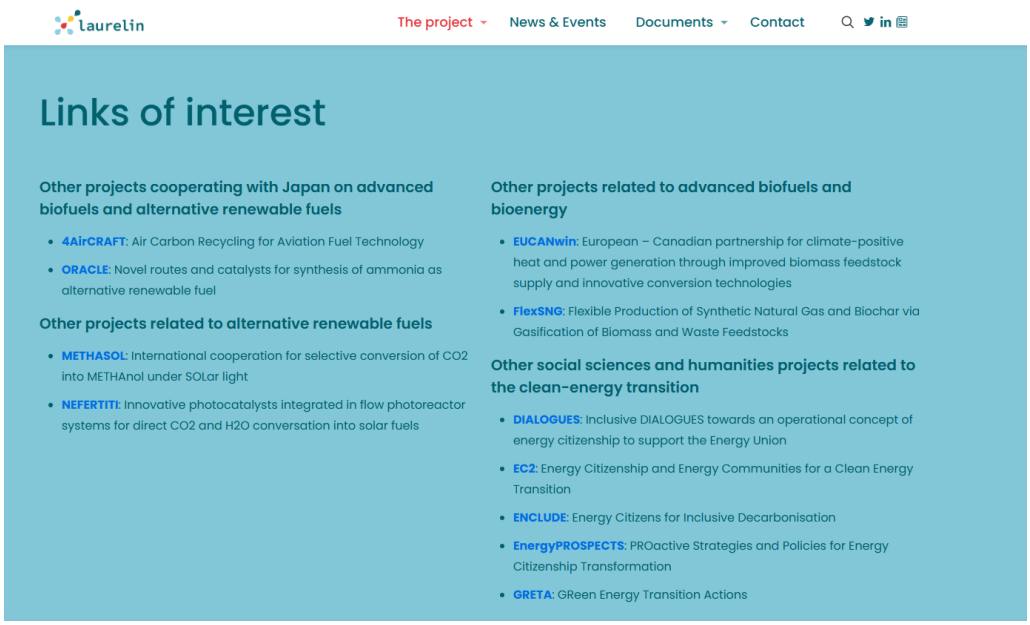
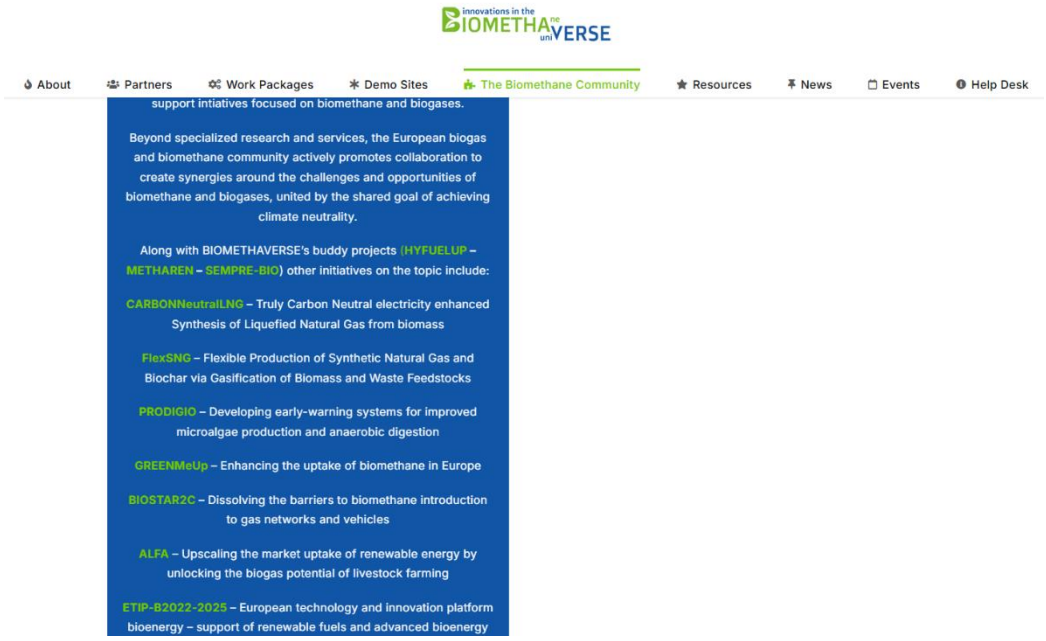
Project Objectives

The objective of the FlexSNG project is to develop and validate (to TRL5) a highly efficient, cost-effective and feedstock-flexible

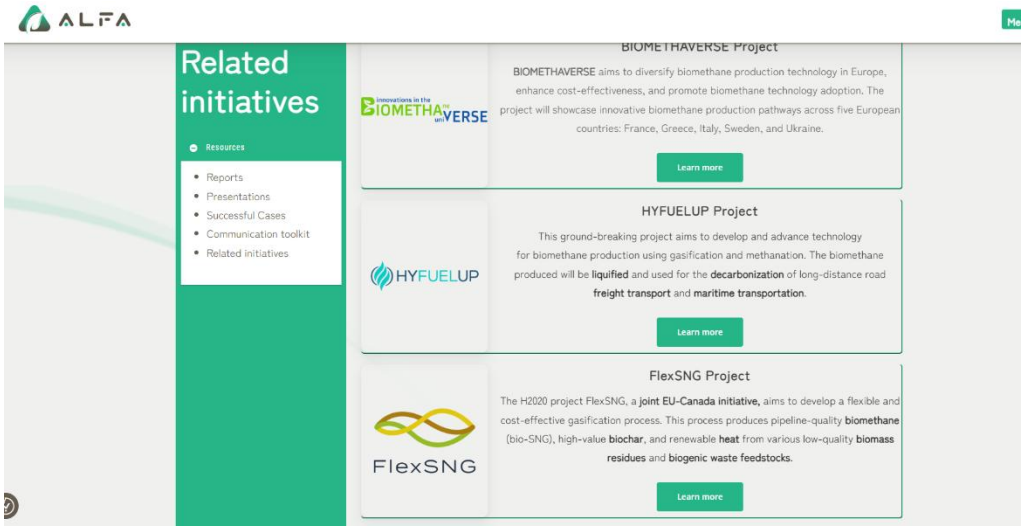
**Link:** https://www.eifer.kit.edu/flexsng/



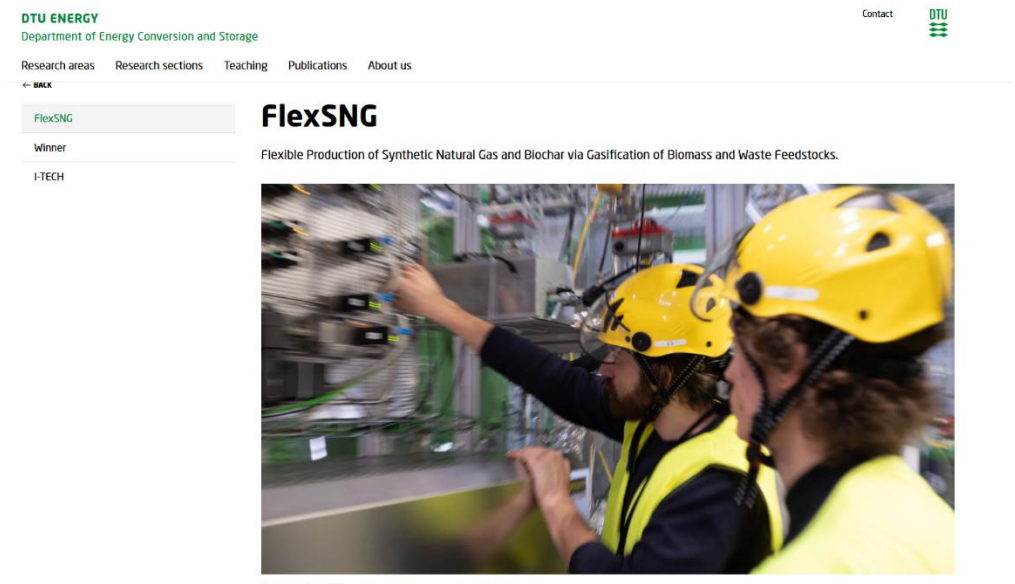

**Link:** https://laurelin.eu/about-the-project/



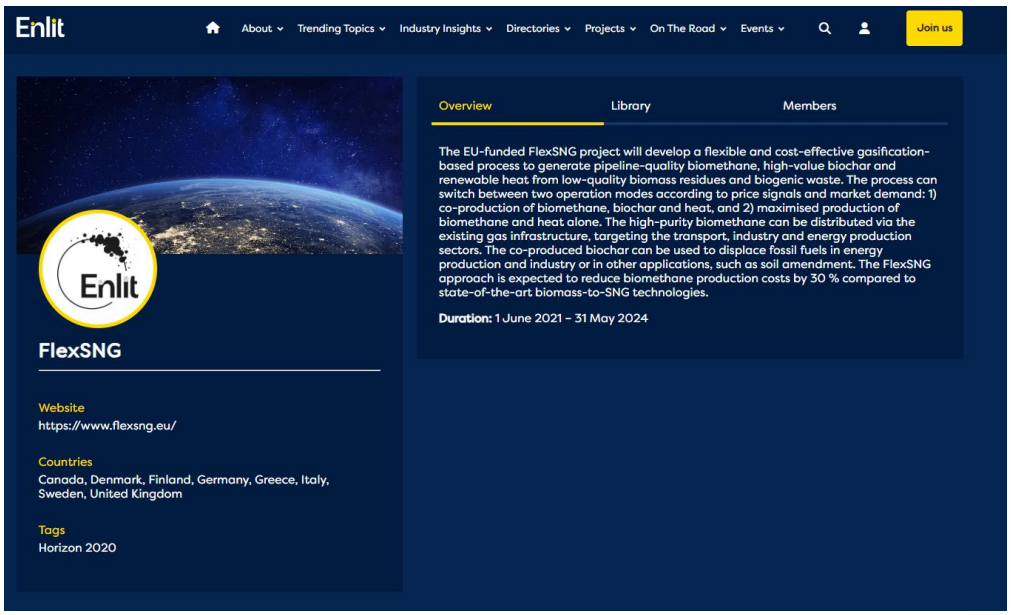

**Link:** https://www.biomethaverse.eu/the-biomethane-community/



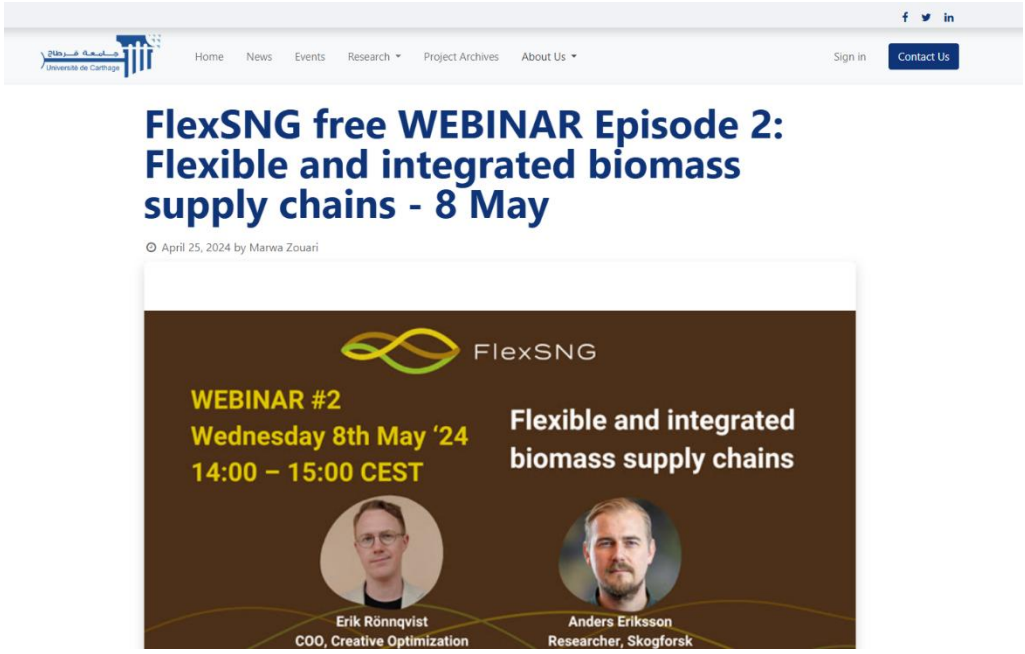

**Link:** https://alfa-res.eu/related-initiatives/



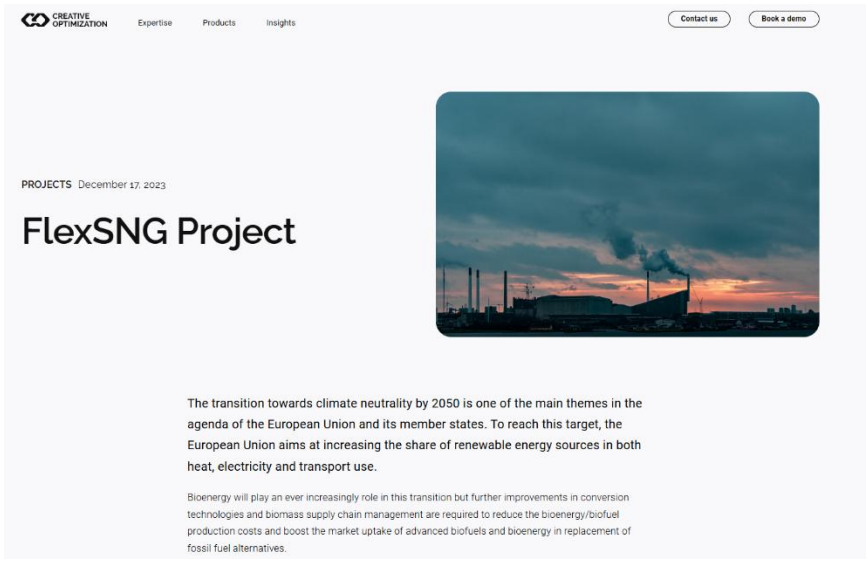

**Link:** https://www.energy.dtu.dk/research-sections/new-section-for-applied-ceramics-and-processing/research-projects/flexsng



**Link:** https://www.enlit.world/projects/flexsng-2/



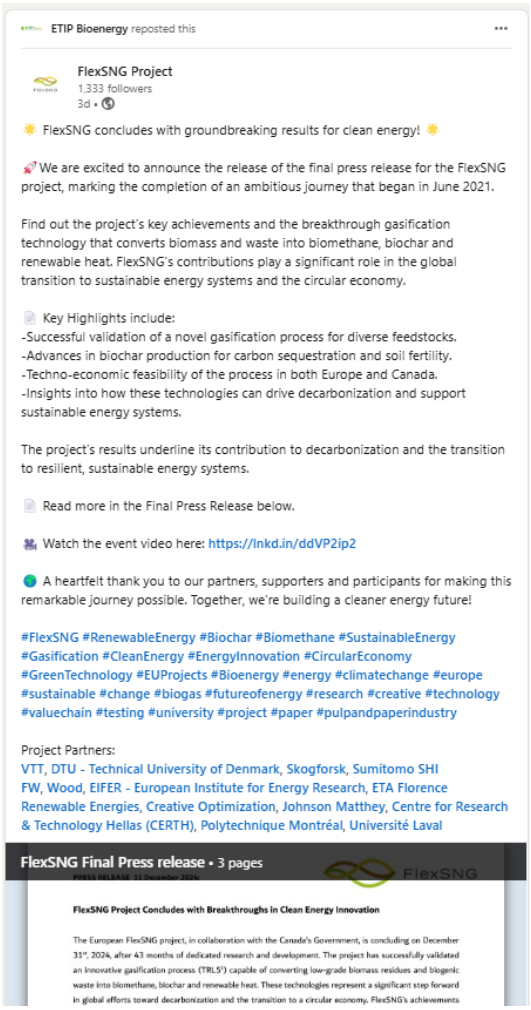

**Link:** https://pmo.ucar.rnu.tn/blog/news-7/flexsng-free-webinar-episode-2-flexible-and-integrated-biomass-supply-chains-8-may-305




**Link:** https://creativeoptimization.se/2023/12/17/flexsng/

These sites, among others, have played a significant role in amplifying the visibility of FlexSNG and reaching a wide range of professionals, policymakers, and stakeholders interested in the future of sustainable energy.

Repost of the Press Release on LinkedIn



ETIP Bioenergy reposted this

FlexSNG Project
1,333 followers
3d •

☀️ FlexSNG concludes with groundbreaking results for clean energy! ☀️

🚀 We are excited to announce the release of the final press release for the FlexSNG project, marking the completion of an ambitious journey that began in June 2021.

Find out the project's key achievements and the breakthrough gasification technology that converts biomass and waste into biomethane, biochar and renewable heat. FlexSNG's contributions play a significant role in the global transition to sustainable energy systems and the circular economy.

📄 Key Highlights include:
-Successful validation of a novel gasification process for diverse feedstocks.
-Advances in biochar production for carbon sequestration and soil fertility.
-Techno-economic feasibility of the process in both Europe and Canada.
-Insights into how these technologies can drive decarbonization and support sustainable energy systems.

The project's results underline its contribution to decarbonization and the transition to resilient, sustainable energy systems.

📄 Read more in the Final Press Release below.

🎥 Watch the event video here: https://lnkd.in/ddVP2ip2

🌍 A heartfelt thank you to our partners, supporters and participants for making this remarkable journey possible. Together, we're building a cleaner energy future!

#FlexSNG #RenewableEnergy #Biochar #Biomethane #SustainableEnergy #Gasification #CleanEnergy #EnergyInnovation #CircularEconomy #GreenTechnology #EUProjects #Bioenergy #energy #climatechange #europe #sustainable #change #biogas #futureofenergy #research #creative #technology #valuechain #testing #university #project #paper #pulpandpaperindustry

Project Partners:
VTT, DTU - Technical University of Denmark, Skogforsk, Sumitomo SHI FW, Wood, EIFER - European Institute for Energy Research, ETA Florence Renewable Energies, Creative Optimization, Johnson Matthey, Centre for Research & Technology Hellas (CERTH), Polytechnique Montréal, Université Laval

FlexSNG Final Press release • 3 pages

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**FlexSNG Project Concludes with Breakthroughs in Clean Energy Innovation**

The European FlexSNG project, in collaboration with the Canada's Government, is concluding on December 31st, 2024, after 43 months of dedicated research and development. The project has successfully validated an innovative gasification process (TRL5') capable of converting low-grade biomass residues and biogenic waste into biomethane, biochar and renewable heat. These technologies represent a significant step forward in global efforts toward decarbonization and the transition to a circular economy. FlexSNG's achievements

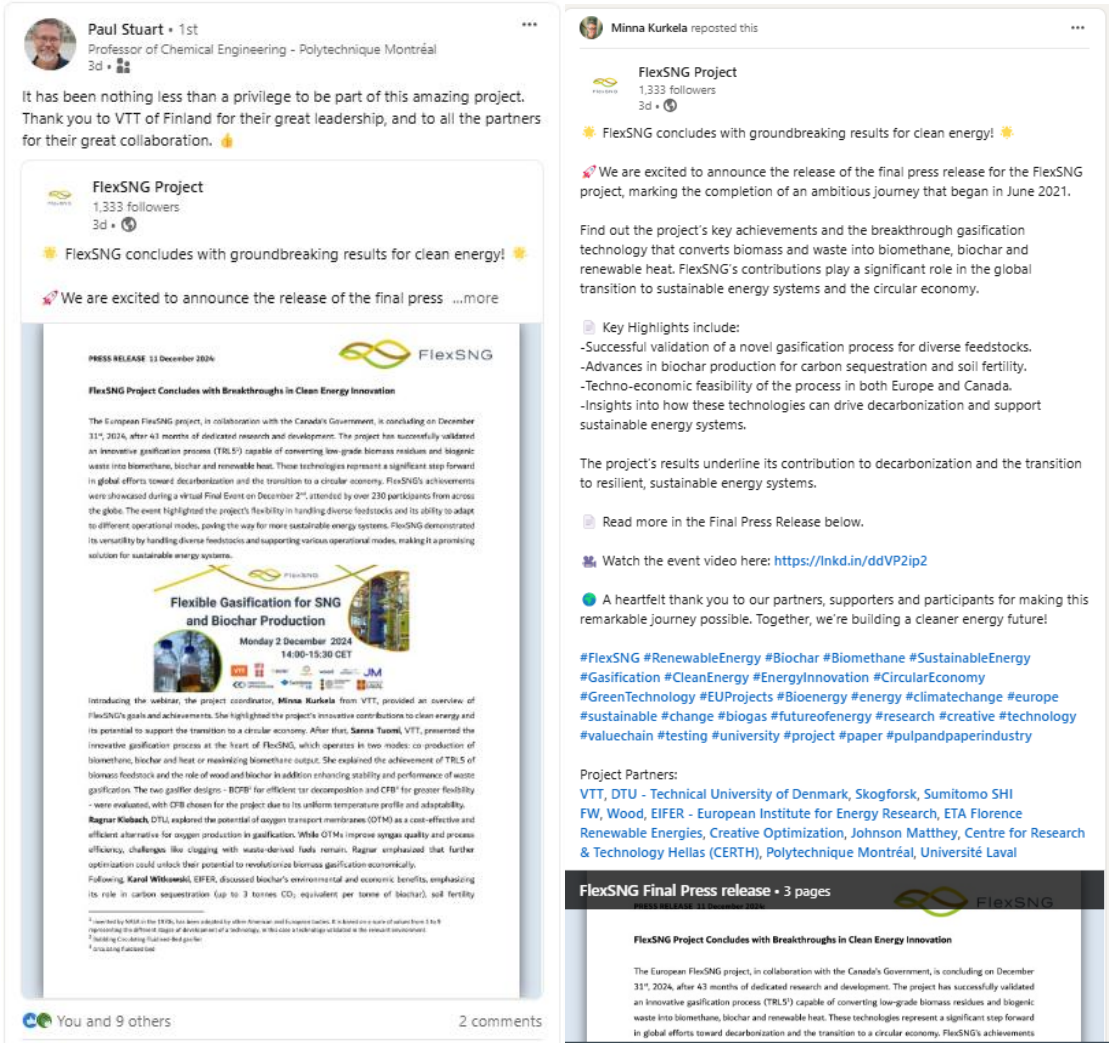


*Figure 1: LinkedIn post*

## 4. Analysis of Media Coverage

The media coverage of FlexSNG has been diverse, spanning a range of themes, from the technological advancements presented by the project to its societal impact. Key trends in the coverage include:

- **Innovation and Technology**: Many articles highlighted the project's role in advancing sustainable energy solutions, emphasizing its innovative approach and potential for wide-scale implementation.
- **Collaboration and Networking**: Several outlets focused on the collaborative nature of FlexSNG, underscoring its partnerships with key stakeholders in the energy sector and the broader community.
- **Project Impact**: Coverage also touched on the long-term implications of FlexSNG's findings and how they might influence policy or industry practices in the future.

## 5. Geographical and Target Audience Reach

FlexSNG's media coverage reached audiences primarily in Europe, with a focus on countries involved in the energy sector. The project's visibility also extended to professionals in the fields of sustainable energy, environmental policy, and technological innovation, helping to create awareness and spark conversations around flexible energy solutions.

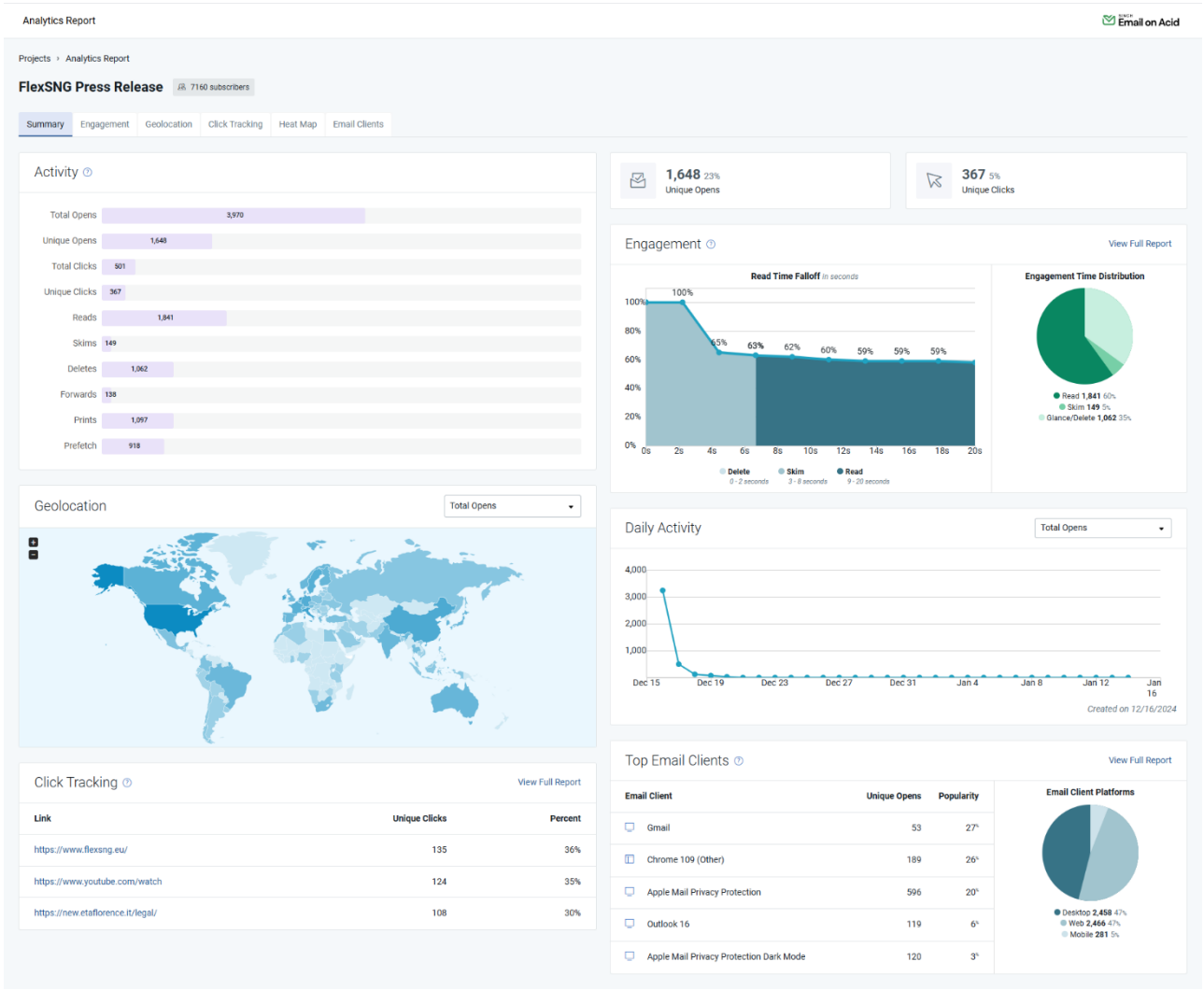


*Figure 2: Analytics Data*

## 6. Conclusion

The media coverage of FlexSNG has been instrumental in raising awareness of the project's goals, achievements and contributions to the field of sustainable energy. This press review demonstrates that the project has successfully garnered attention across various media outlets, contributing to its broader impact and visibility. As FlexSNG reaches its conclusion on December 31st, 2024, the media's role in shaping the conversation around the project will continue to resonate and inspire future advancements in sustainable energy networks.