Ref. Ares(2023)5932412 - 31/08/2023

PACE

Pathway to a Competitive European Fuel Cell micro-CHP Market

REPORT

New and updated communication materials RP5-RP6

Deliverable 3.14

Status: F 28 / 04 / 2023
(D-Draft, FD-Final Draft, F-Final)

PU
(PU – Public, CO – Confidential)

Executive summary

The PACE Consortium has created and updated several communications tools. We use them to explain the technology, highlight its benefits and gain visibility. Communication tools keep the wider audience up to date about the latest development in the project. We design them to be visually appealing and bear a clear message.

We have created a whole range of communications tools, each for a different purpose to be used in different contexts. We have an interactive map on the PACE website tracking the progress of the project. The website also contains a news section which we constantly feed with the latest news from the fuel cell micro-cogeneration sector. We have produced several videos, a brochure, infographics, a standard presentation and a roll-up banner to strengthen our presence online and at events.

Thanks to all the PACE communications tools, the project has gained visibility towards policymakers, the energy supply chain and stakeholders from the energy community.

Clean Hydrogen Partnership

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking (now Clean Hydrogen Partnership) under Grant Agreement No 700339.

This Joint Undertaking receives support from the European Union's Horizon 2020 Research and Innovation program, Hydrogen Europe and Hydrogen Europe Research.

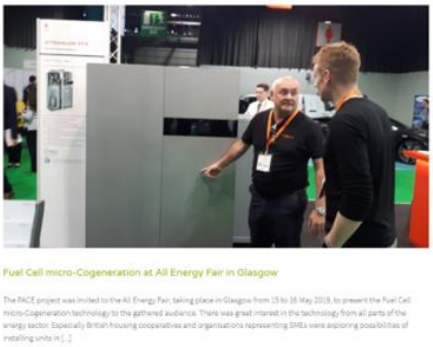
1. Updating Existing Communication Tools

Summary box of the chapter

The PACE project regularly publishes articles on its website to demonstrate progress in the project. These articles are also distributed to relevant stakeholders via email (using Mailchimp).

The PACE consortium partners have also created communication tools including brochures and videos to be used online and also at events.

In the period from 1 October 2019 until 30 April 2023, a total of 35 news articles were published on the PACE project website



Fuel Cell micro-Cogeneration at All Energy Fair in Glasgow

- Articles announcing key milestones in the project
- Articles announcing and summarising PACE events
- Articles publishing our press releases

03-10-2019	Local Businesses Choosing Hydrogen and Fuel Cells for their Energy Needs
14-11-2019	PACE at POWERGEN Europe
30-01-2020	Sunfire Launches the Sunfire-Home, the First Fuel Cell Unit Based on Liquefied Gas
06-02-2020	European Citizens Leading the Energy Transition
06-02-2020	European Research Institutes Positive about the Potential and Future of Fuel Cell micro-Cogeneration
06-02-2020	European Green Deal: Putting Europe's Building Stock on a Green Path?
06-02-2020	Interview with Member of German Bundestag on Climate Policy and Solutions to reduce CO2 Emissions
09-04-2020	New Generation of Fuel Cell micro-Cogeneration Units on the Market with Higher Performance for Greater Customer Benefit
26-05-2020	WEBINAR: Fuel cells and hydrogen – the missing link to decarbonise Europe's building stock?
16-06-2020	WEBINAR: Fuel cells in buildings – an easy plug-and-play solution to reduce energy costs and emissions

09-07-2020	WEBINAR: Wie können in Deutschland Gebäude mit hilfe von Wasserstoff und Brennstoffzellen dekarbonisiert werden?
28-10-2020	WEBINAR: Reducing energy costs and emissions in your building with fuel cells
16-12-2020	WEBINAR: Hoe verlaag ik mijn energiekosten en uitstoot met een brandstofcel thuis of in mijn bedrijf?
18-02-2021	The European building stock: too diverse for a one-fits-all decarbonisation solution
18-02-2021	182.000 kWh Generated in 7 Years at one Third of the Normal Energy Costs
18-02-2021	Switching from Heating Oil to Fuel Cells
18-02-2021	Flexible Fuel Cell Systems Can Generate Revenue by Supporting the Grid
18-02-2021	British Retired Engineer Discovers Perfect Solution for his Energy Needs
18-02-2021	Fuel Cell micro-Cogeneration: Easy to Install, Easy to Operate
31-06-2021	WEBINAR : Ridurre emissioni e costi energetici negli edifici utilizzando le celle a combustibile
15-06-2021	Virtual Workshop: Fuel Cell micro-Cogeneration in the Czech Republic
19-07-2021	Belgian family goes fuel cells!
27-09-2021	Fuel cells making houses more efficient
27-10-2021	PACE participates in the EMPower Fair in Munich
09-12-2021	PACE Project presented at European Hydrogen Week
31-03-2022	PACE contributes to discussion on Energy Solutions for Residential Buildings
07-06-2022	SenerTec launches improved H2-ready micro-CHP unit
04-07-2022	HEXIS becomes 6th manufacturer to join PACE partnership
16-12-2022	'Putting buildings at the centre of integrated local energy systems' – event organised by the PACE project with COGEN Europe
16-12-2022	How can Fuel Cell micro-CHP contribute to the European Union's 'Renovation Wave'?
16-12-2022	PACE highlights potential for connected Fuel Cell micro-CHP units to help manage peaks in electricity demand
14-03-2023	What Role for Fuel Cell micro-CHP in Europe's Future Energy System? (Announcing the PACE Project's Final Dissemination Event in Brussels on 26 April 2023)
17-03-2023	European Commission recognises Fuel Cells as a strategic net-zero technology
27-04-2023	PACE project showcases Fuel Cell micro-CHP as a key Net Zero technology for the future (Outcomes of the PACE Project and Conclusions of the Final Dissemination Event in Brussels on 26 April 2023)
25-05-2023	Photos from the Final Conference of the PACE Project (26 April 2023)

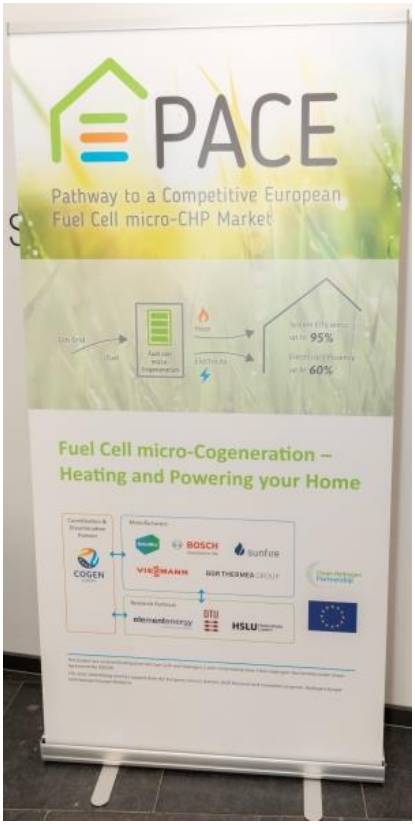
PACE project communication tools

Several *PACE key communication tools* are online on the PACE website, which is regularly updated. These include:

- PACE brochure (ENG)
- 3 PACE videos
- PACE Prezi presentation
- PACE standard PowerPoint presentation

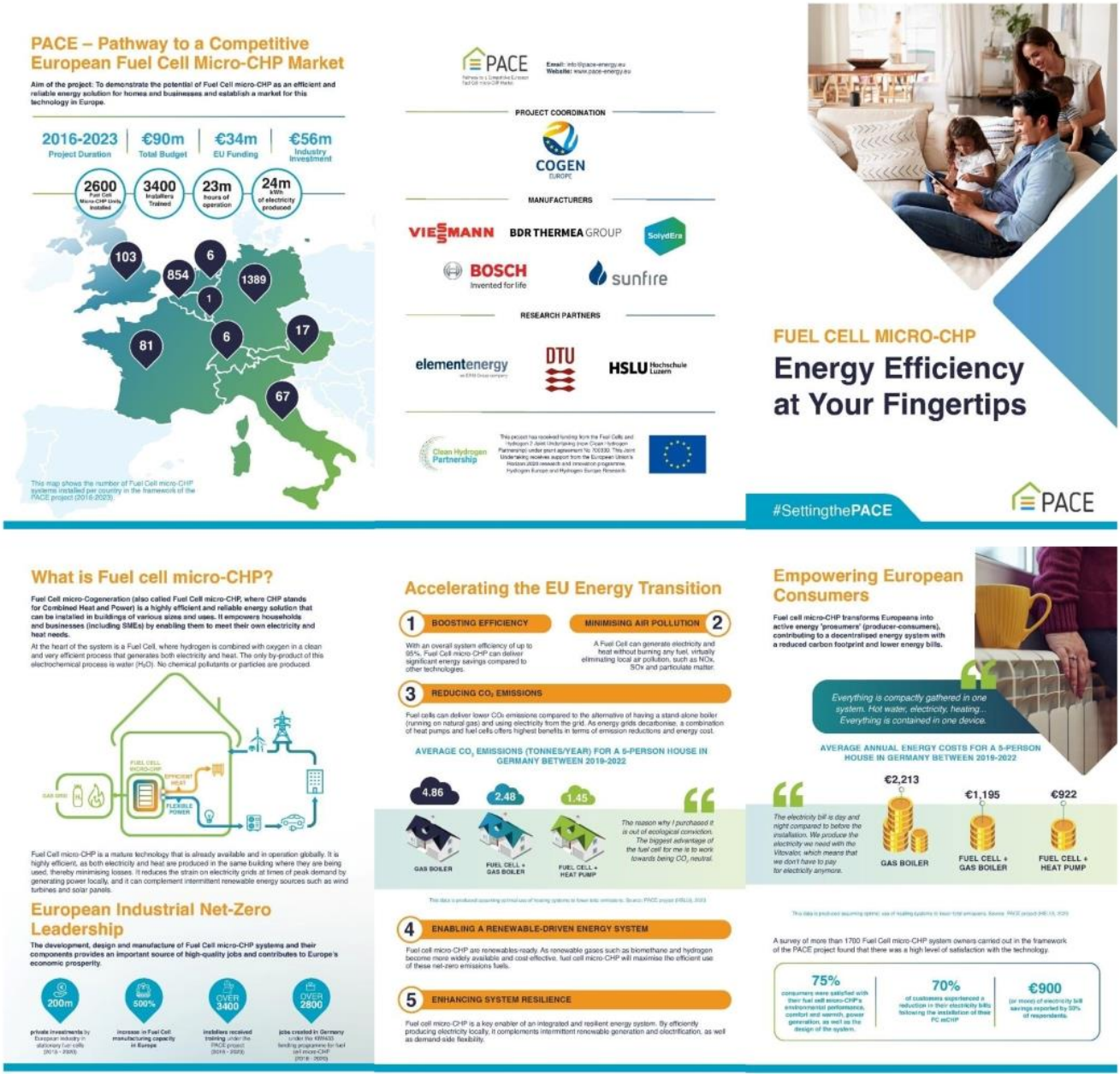
The PACE brochure was updated in 2022 to include the latest logos of the project partners and of the Clean Hydrogen Partnership C2HP.

New roll-up banners were printed in 2021 and again in 2023, including the latest logos of the project partners and of the Clean Hydrogen Partnership.



PACE project – Final brochure

The main achievements and outcomes of the PACE project are presented in a brochure – **Energy Efficiency at Your Fingertips** – published in April 2023, which can be downloaded from the PACE website in 5 different languages *(*Dutch, English, French, German, Italian*).*



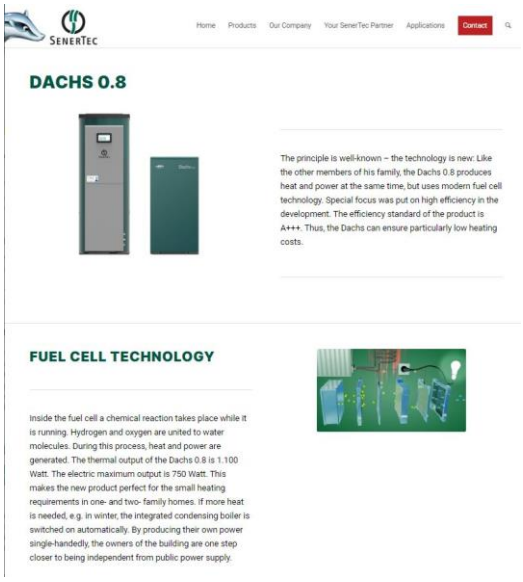
BDR Thermea Group (SenerTec)

Selected examples of relevant marketing materials.

Marketing brochure – DACHS 0.8 (Latest version: February 2022)

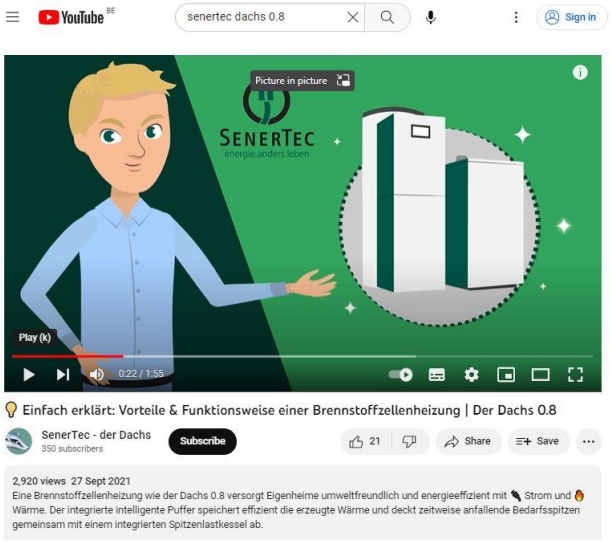
SenerTec website

https://senertec.com/dachs-08/



SenerTec – der Dachs YouTube channel

Video published on 27 September 2021



BDR Thermea Group (Remeha)

Selected examples of relevant marketing materials.

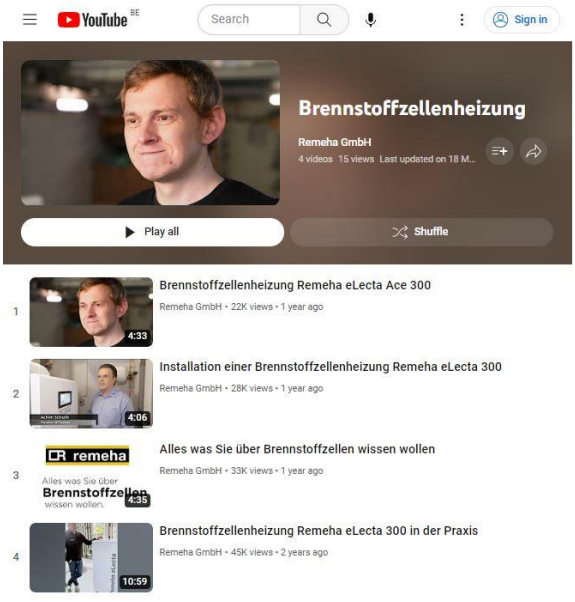
Marketing brochure – eLecta Ace 300 (Latest version: January 2023)

Remeha website

https://www.remeha.de/produkte

Remeha GmbH YouTube channel

Videos on fuel cell heating systems (2021-2022)

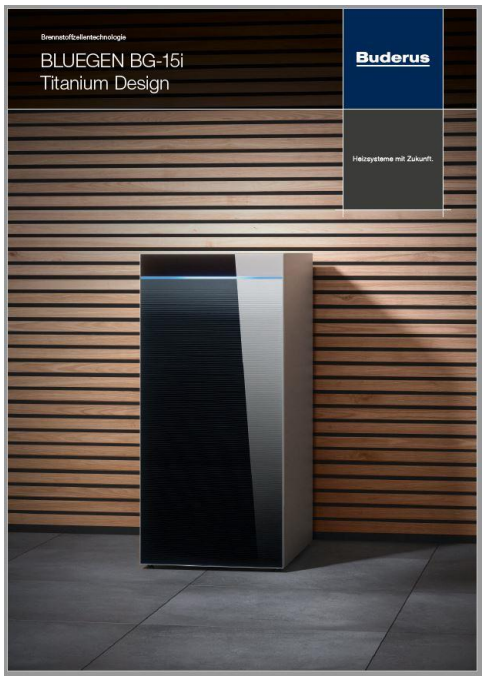


Bosch Group (Buderus)

Selected examples of relevant marketing materials.

Marketing brochure – BLUEGEN BG-15i

(Latest version: June 2022)

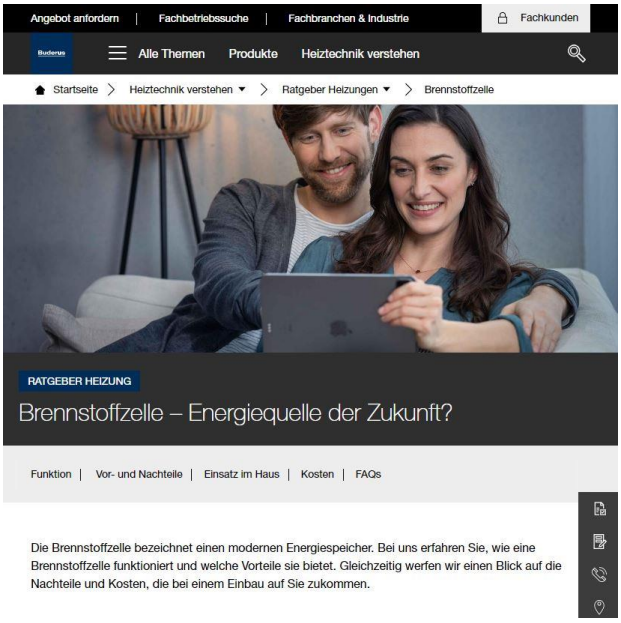


Interactive product information

https://www.buderus-interactive.com/bluegen/

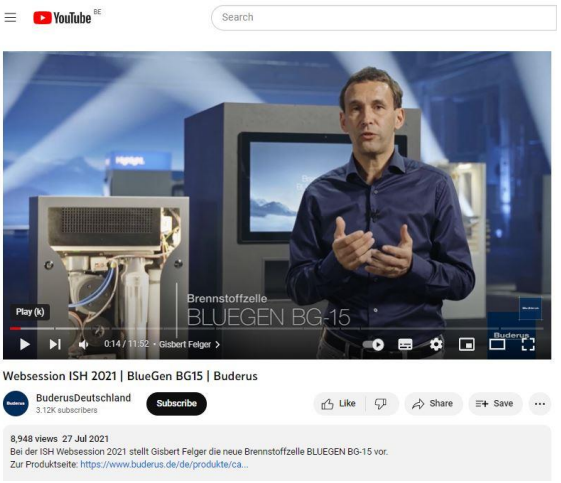
Buderus website

https://www.buderus.de/de/brennstoffzellen



Buderus YouTube channel

Video published on 27 July 2021



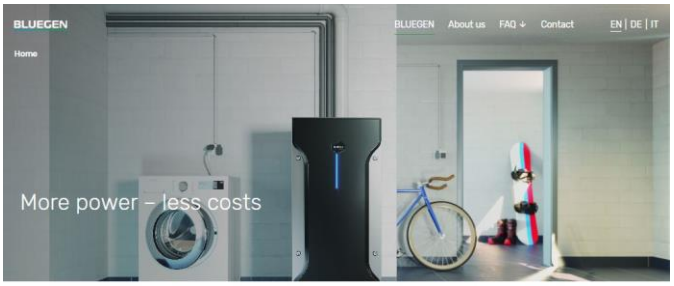
SolydEra (formerly known as SOLIDpower)

Marketing brochure – BLUEGEN BG-15

(Latest version: September 2022)

Bluegen website

https://bluegen.eu (EN/DE/IT)



Highly efficient and affordable low carbon energy

With Bluegen, you generate highly efficient electricity and heat right at the point of consumption, helping you to reduce your **energy costs** as well as your **carbon emissions**. The **micro CHP unit** from **SolydEra**, based on cutting-edge fuel cell technology, is without equal in the world and is ideally suited for application in **residential** and **commercial** buildings.

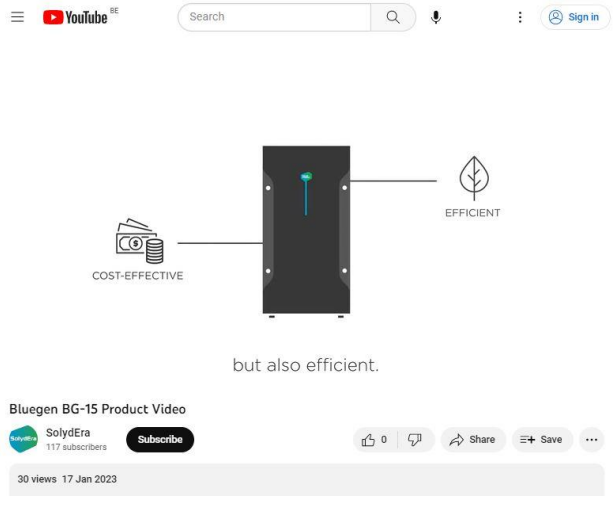
The BLUEGEN BG-15: Reliable energy production 24/7

The micro-cogenerator BLUEGEN extracts hydrogen from natural gas and converts it directly into electricity and heat, using fuel cell technology. BLUEGEN continuously supplies cleaner and more efficient energy. It can run on a variety of fuels, including natural gas, natural gas with up to 20% hydrogen, bio-methane and synthetic methane. With an overall efficiency up to 89%, a single BLUEGEN can produce up to 13,000 kWh of electricity and 7,400 kWh of heat per year. Providing the ideal base-load supply for residential and commercial buildings, the single units can also be interconnected in a cascade.

BLUEGEN reduces the carbon footprint by up to 50% in natural gas operation and up to 100% in H2 operation. No nitrogen or Sulphur oxides are produced and no harmful particulates are released into the atmosphere. The quiet operation makes it perfect for any environment.

SolydEra YouTube channel

Video published in January 2023



Sunfire

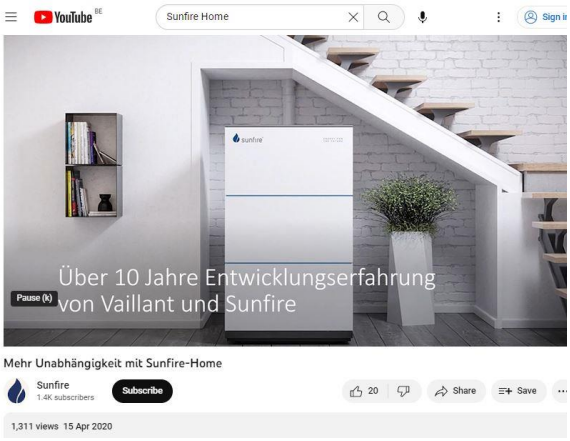
Selected examples of relevant marketing materials.

Marketing brochure – Sunfire-Home

(Latest version: 2021)

Sunfire YouTube channel

Video published in April 2020



Sunfire-Home website

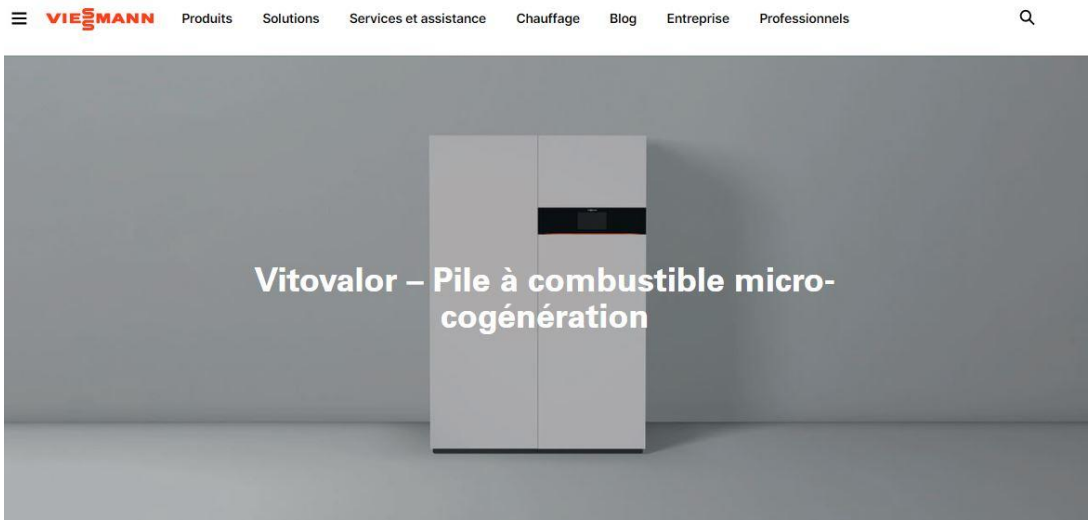
https://home.sunfire.de/de/anwendungen/wohngebaeude

Viessmann

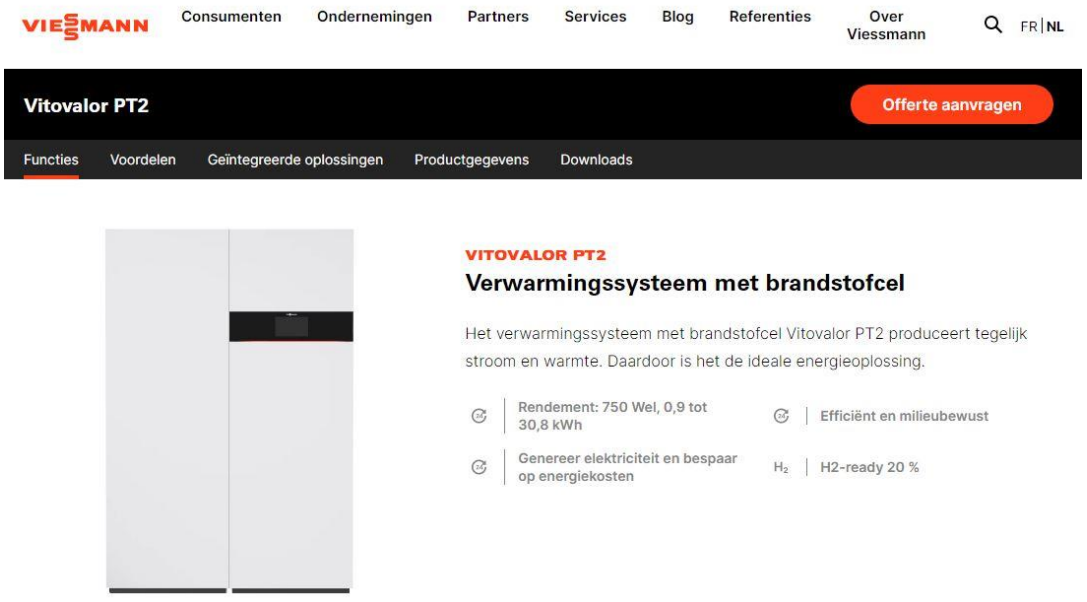
Selected examples of relevant marketing materials.

Viessmann websites targeting different national markets

https://www.viessmann.fr/fr/produits/pile-combustible/vitovalor.html



https://www.viessmann.be/nl/producten/brandstofcel/vitovalor-pt2.html

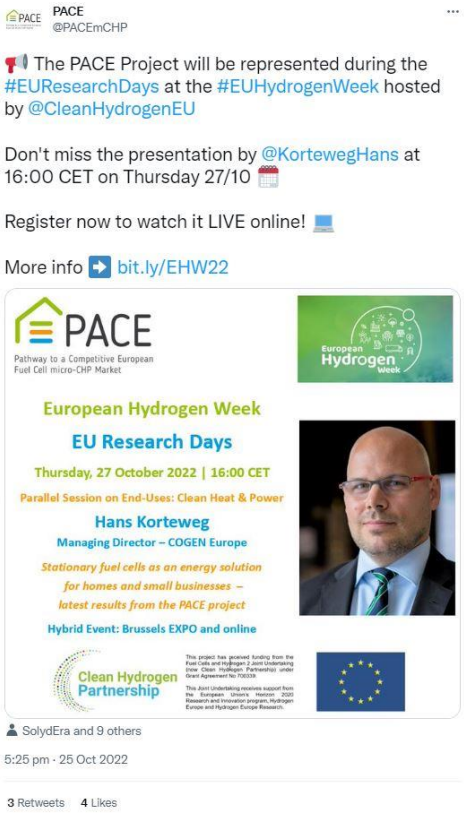


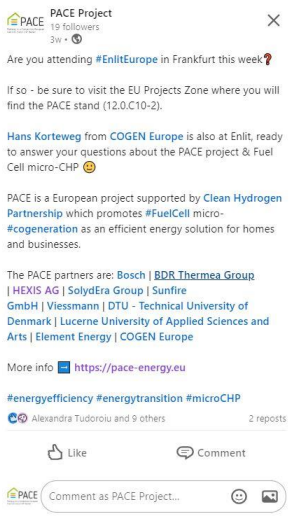
2. Maintaining Social Media accounts

Summary box of the chapter

The PACE project regularly shares relevant information on social media – using dedicated accounts on Twitter and LinkedIn. Videos relating the PACE project are published on COGEN Europe's YouTube channel as well as on the PACE social media accounts.

- The PACE Twitter account (*link to page*) was created in 2017 and has more than 500 followers in total. In 2022, the consortium posted 11 new tweets, with each tweet being seen by up to 1600 people (as measured by number of impressions).
- The PACE Project's LinkedIn page (*link to page*) was created in September 2022 and has more than 130 followers. It is mostly being used to announce upcoming events, with each post being seen by up to 100 people (as measured by number of impressions).





Promotion of Final Dissemination Event on social media

In the lead-up to the Final Dissemination Event in Brussels on 26 April 2023, the PACE consortium invested €500 in advertising the event on Twitter. The promoted tweet had more than 60,000 impressions during the course of one week.

Interviews with owners of Fuel Cell micro-CHP systems

In the final weeks of the PACE project, the project consorium engaged a communications agency to produce a series of short videos based on interviews with owners of Fuel Cell micro-CHP systems. The interviewees were identified by the manufacturers participating the PACE Project. These videos were shared on the PACE social media accounts and are also published on COGEN Europe's YouTube channel.

IVAN - Making chocolate with fuel cell energy

COGEN Europe 101 subscribers Subscribe 0 Share Save

RAINER & KAI - Heat and power for a health resort

COGEN Europe 101 subscribers Subscribe 0 Share Save

MYRIAM & ERIC - Satisfied with their Fuel Cell system

COGEN Europe 101 subscribers Subscribe 0 Share Save

JOSHUA - Fuel cell combined with solar panels

COGEN Europe 101 subscribers Subscribe 0 Share Save

CHRISTOPHE - Yoga Retreat / Kids Camp co-owner

COGEN Europe 101 subscribers Subscribe 0 Share Save

PETER - Fuel cell combined with heat pump

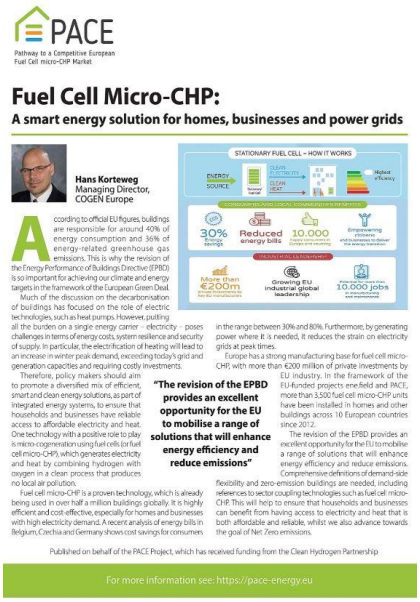
COGEN Europe 101 subscribers Subscribe 2 Share Save

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking (now Clean Hydrogen Partnership) under Grant Agreement No 700339. This Joint Undertaking receives support from the European Union's Horizon 2020 Research and Innovation program, Hydrogen Europe and Hydrogen Europe Research.

3. Sponsored content in selected media

In the final months of the PACE Project, the PACE consortium paid for articles to be published in selected media outlets in order to disseminate the achievements and outcomes of the project.

The Parliament (March 2023) – Article in magazine and on website.


PACE
Pathway to a Competitive European Fuel Cell micro-CHP Market

Fuel Cell Micro-CHP:
A smart energy solution for homes, businesses and power grids

Hans Korteweg
Managing Director, COGEN Europe

According to official EU figures, buildings are responsible for around 40% of energy consumption and 36% of energy-related greenhouse gas emissions. This is why the revision of the Energy Performance of Buildings Directive (EPBD) is so important for achieving our climate and energy targets in the framework of the European Green Deal.

Much of the discussion on the decarbonisation of buildings has focused on the role of electric technologies, such as heat pumps. However, putting all the burden on a single energy carrier – electricity – poses challenges in terms of energy costs, system resilience and security of supply. In particular, the electrification of heating will lead to an increase in winter peak demand, exceeding today's grid and generation capacities and requiring costly investments.

Therefore, policy makers should aim to promote a diversified mix of efficient, smart and clean energy solutions, as part of integrated energy systems, to ensure that households and businesses have reliable access to affordable electricity and heat. One technology with a positive role to play is micro-cogeneration using fuel cells (or fuel cell micro-CHP), which generates electricity and heat by combining hydrogen with oxygen in a clean process that produces no local air pollution.

Fuel cell micro-CHP is a proven technology, which is already being used in over half a million buildings globally. It is highly efficient and cost-effective, especially for homes and businesses with high electricity demand. A recent analysis of energy bills in Belgium, Czechia and Germany shows cost savings for consumers in the range between 30% and 80%. Furthermore, by generating power where it is needed, it reduces the strain on electricity grids at peak times.

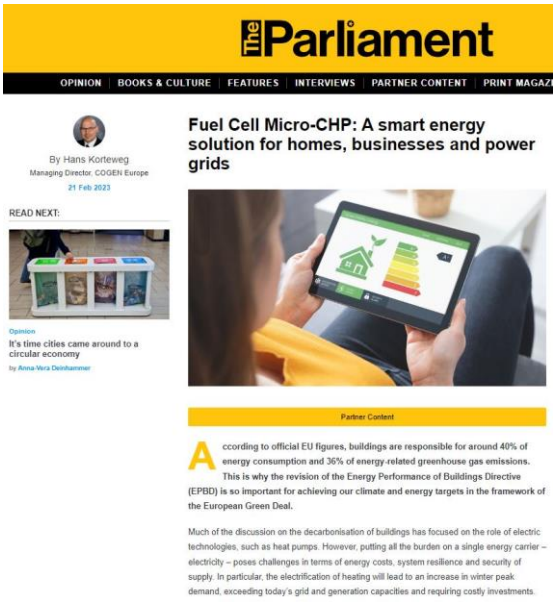
Europe has a strong manufacturing base for fuel cell micro-CHP, with more than €200 million of private investments by EU industry. In the framework of the EU-funded projects ene.field and PACE, more than 3,500 fuel cell micro-CHP units have been installed in homes and other buildings across 10 European countries since 2012.

"The revision of the EPBD provides an excellent opportunity for the EU to mobilise a range of solutions that will enhance energy efficiency and reduce emissions"

The revision of the EPBD provides an excellent opportunity for the EU to mobilise a range of solutions that will enhance energy efficiency and reduce emissions. Comprehensive definitions of demand-side flexibility and zero-emission buildings are needed, including references to sector coupling technologies such as fuel cell micro-CHP. This will help to ensure that households and businesses can benefit from having access to electricity and heat that is both affordable and reliable, whilst we also advance towards the goal of Net Zero emissions.

Published on behalf of the PACE Project, which has received funding from the Clean Hydrogen Partnership

For more information see: https://pace-energy.eu


the Parliament

OPINION | BOOKS & CULTURE | FEATURES | INTERVIEWS | PARTNER CONTENT | PRINT MAGAZ

By Hans Korteweg
Managing Director, COGEN Europe
21 Feb 2023

READ NEXT:

Opinion
It's time cities came around to a circular economy
by Anna-Vera Deinhammer

Fuel Cell Micro-CHP: A smart energy solution for homes, businesses and power grids

Partner Content

According to official EU figures, buildings are responsible for around 40% of energy consumption and 36% of energy-related greenhouse gas emissions. This is why the revision of the Energy Performance of Buildings Directive (EPBD) is so important for achieving our climate and energy targets in the framework of the European Green Deal.

Much of the discussion on the decarbonisation of buildings has focused on the role of electric technologies, such as heat pumps. However, putting all the burden on a single energy carrier – electricity – poses challenges in terms of energy costs, system resilience and security of supply. In particular, the electrification of heating will lead to an increase in winter peak demand, exceeding today's grid and generation capacities and requiring costly investments.

EURACTIV (24 April 2023) – Opinion article on website.


EURACTIV The Capitals | The Brief | Ukraine | Intelligence

Agrifood | Economy | Energy & Environment | Global Europe | Health | Politics | Technology | Transport

Home / Opinions / Energy & Environment / How can Fuel Cell micro-CHP help us to decarbonize buildings?

How can Fuel Cell micro-CHP help us to decarbonize buildings?

DISCLAIMER: All opinions in this column reflect the views of the author(s), not of EURACTIV Media network.

By Hans Korteweg | COGEN Europe and PACE · Est. 6min
24 Apr 2023
Content-Type: Advertiser Content

[Viessmann]

EURACTIV is part of the Trust Project >>>

Print

According to official EU figures, buildings are responsible for around 40% of energy consumption and 36% of energy-related greenhouse gas emissions. At both EU and national levels, policies and regulations are increasingly intended to phase out fossil fuels from the building sector, while boosting the uptake of renewable energy sources and efficient solutions. Moreover, energy affordability, energy system resiliency and security of supply are now more than ever at the top of the political agenda and citizens' concerns.

Supporters

PACE
Pathway to a Competitive European Fuel Cell micro-CHP Market

From Twitter

PACE @PACEmCHP · May 17

Replying to @PACEmCHP

The PACE project has been co-funded by the EU and supported by @CleanHydrogenEU

PACE partners: @COGENEurope, @BoschGlobal, BDR Thermea Group (@SenerTec), @SolydEra, @sunfire_dresden, @Viessmann, @DTUEnergy, @HSLU & Element Energy.

PACE website

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking (now Clean Hydrogen Partnership) under Grant Agreement No 700339. This Joint Undertaking receives support from the European Union's Horizon 2020 Research and Innovation program, Hydrogen Europe and Hydrogen Europe Research.

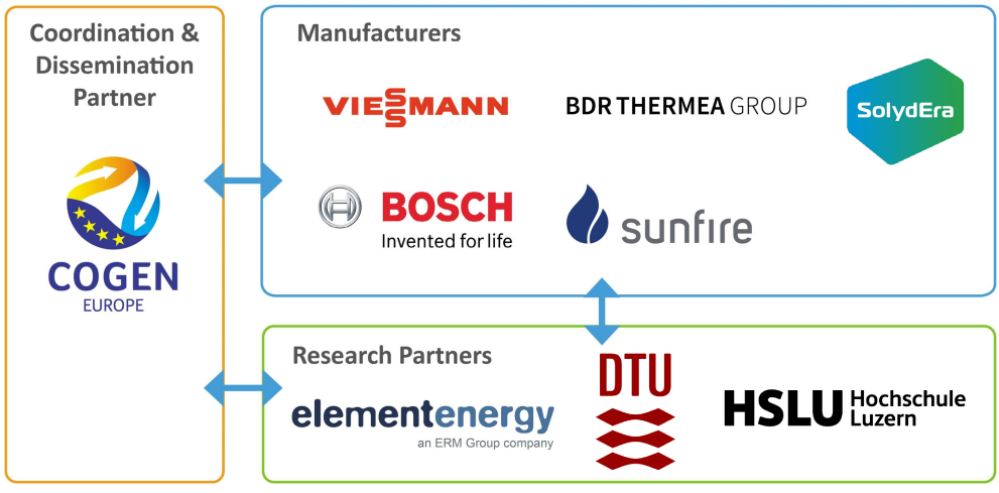
About PACE

PACE is a major EU project unlocking the large-scale European deployment of the state of the art smart energy solution for private homes, Fuel Cell micro-Cogeneration. PACE will see over 2,500 householders across Europe reaping the benefits of this home energy system. The project will enable manufacturers to move towards product industrialisation and will foster market development at the national level by working together with building professionals and the wider energy community. The project uses modern fuel cell technology to produce efficient heat and electricity at home, empowering consumers in their energy choices.

PACE project, which stands for "Pathway to a Competitive European Fuel Cell micro-Cogeneration market", is co-funded by the Clean Hydrogen Partnership (previously the 'Fuel Cells and Hydrogen Joint Undertaking' (FCH JU) and brings together European manufacturers, research institutes and other key energy stakeholders making the products available across 10 European countries.

For more information, visit www.pace-energy.eu

The PACE partners are



Contact:
COGEN Europe • The European Association for the Promotion of Cogeneration
Rue d'Arlon 80, 1040 Brussels, Belgium
T +32 (0)2 772 82 90
info@cogeneurope.eu • www.cogeneurope.eu

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking (now Clean Hydrogen Partnership) under Grant Agreement No 700339. This Joint Undertaking receives support from the European Union's Horizon 2020 Research and Innovation program, Hydrogen Europe and Hydrogen Europe Research.