



**FUEL CELLS AND HYDROGEN**  
JOINT UNDERTAKING

**PACE**

Pathway to a Competitive  
European Fuel Cell micro-CHP  
Market



Pathway to a Competitive European  
Fuel Cell micro-CHP Market

# Webinar

Fuel cells in buildings:  
an easy plug-and-play  
solution to reduce energy  
costs and emissions

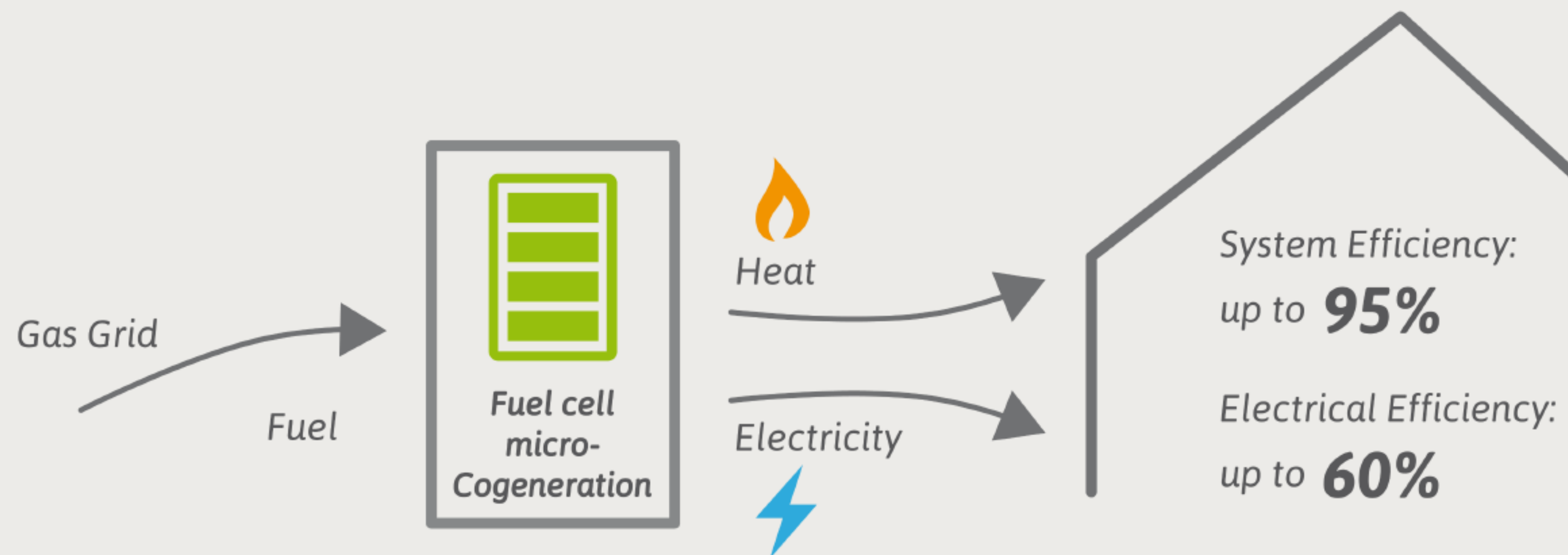
16 June 2020



# What and why fuel cell micro-Cogeneration?

Heating and Powering your home

Fuel Cell micro Cogeneration is a highly efficient home energy system that simultaneously produces heat and electricity and supports the European energy transition by:



Reducing CO<sub>2</sub> emissions

Saving primary energy

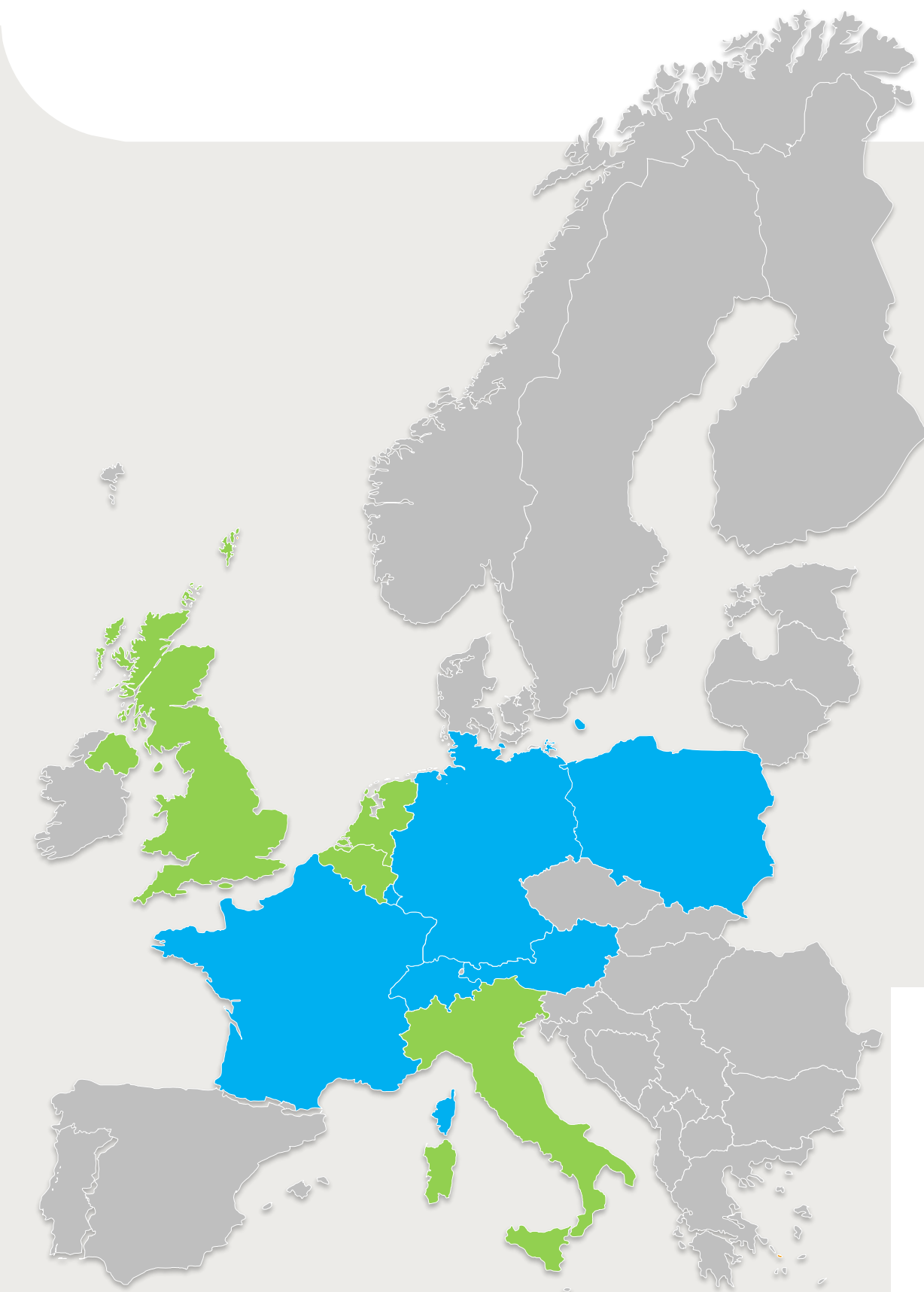
Operating with NG and pure H<sub>2</sub>

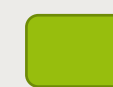
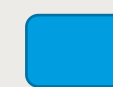
Producing and delivering  
energy on-site

Covering higher  
demand of electricity

# PACE at a glance

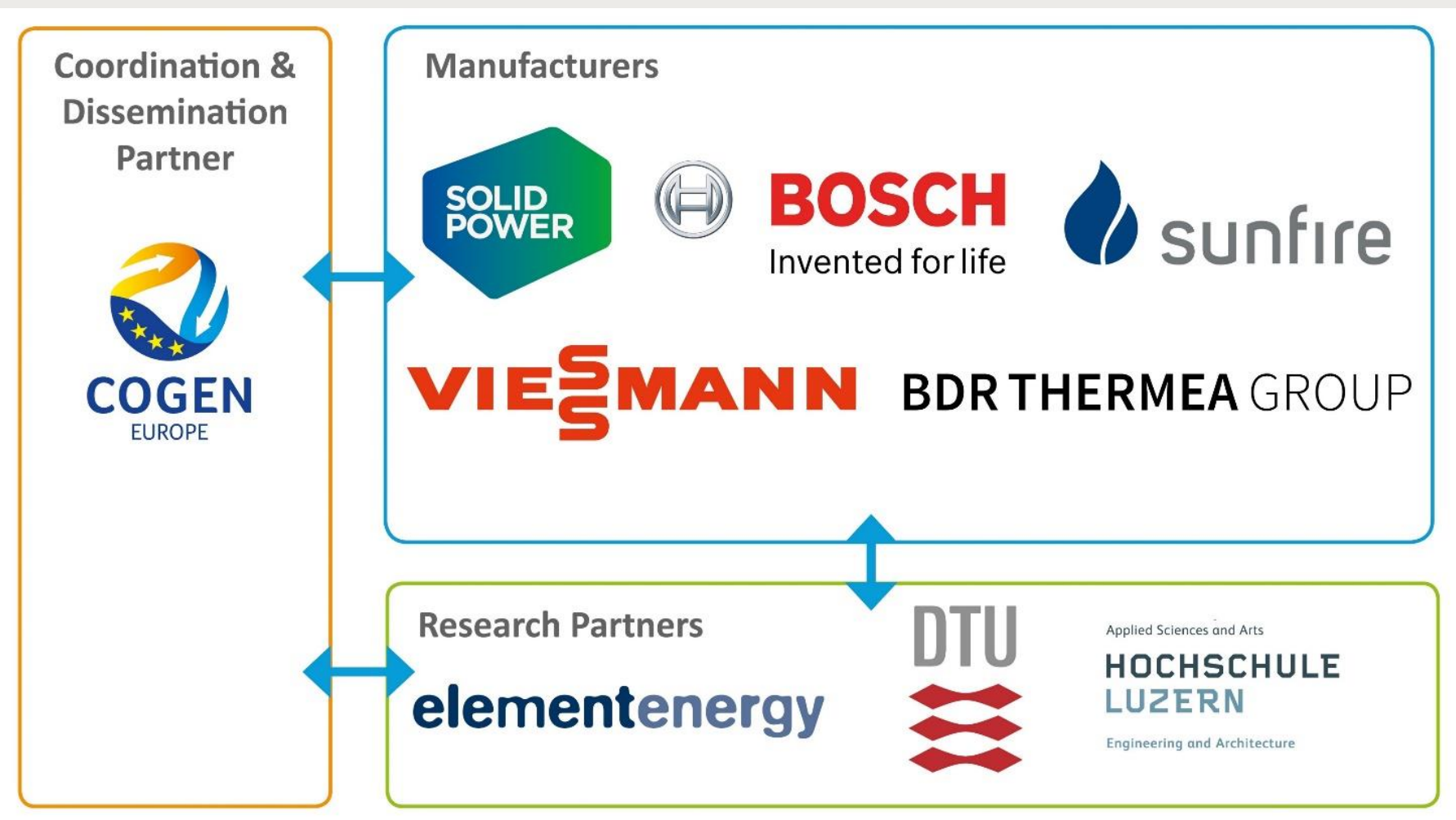
Promoting a successful transition to the large-scale uptake of Fuel Cell micro-Cogeneration across Europe



-  Units deployment + installer training + targeted market & policy development activities
-  Units deployment + installer training



<b>9</b>	<b>&gt; 2,800</b>	<b>&gt;500</b>	<b>10</b>	<b>4</b>	<b>€90m</b>	<b>5</b>
Partners	Fuel Cell micro-Cogeneration units	Systems per manufacturer	Countries	Countries	Total budget	Years
Representing manufacturers, utilities & research community	To be deployed across Europe between 2016-2021	Established production capacity per manufacturer	Where the units will be installed	Selected for policy & market development (Belgium, Italy, Netherlands and UK)	Including €33.9m Horizon 2020 funding via FCH JU	Project duration of 63 months (June 2016 – August 2021)



**>10,000**  
FC micro-cogeneration  
units/year post 2020



# Overview of systems in PACE

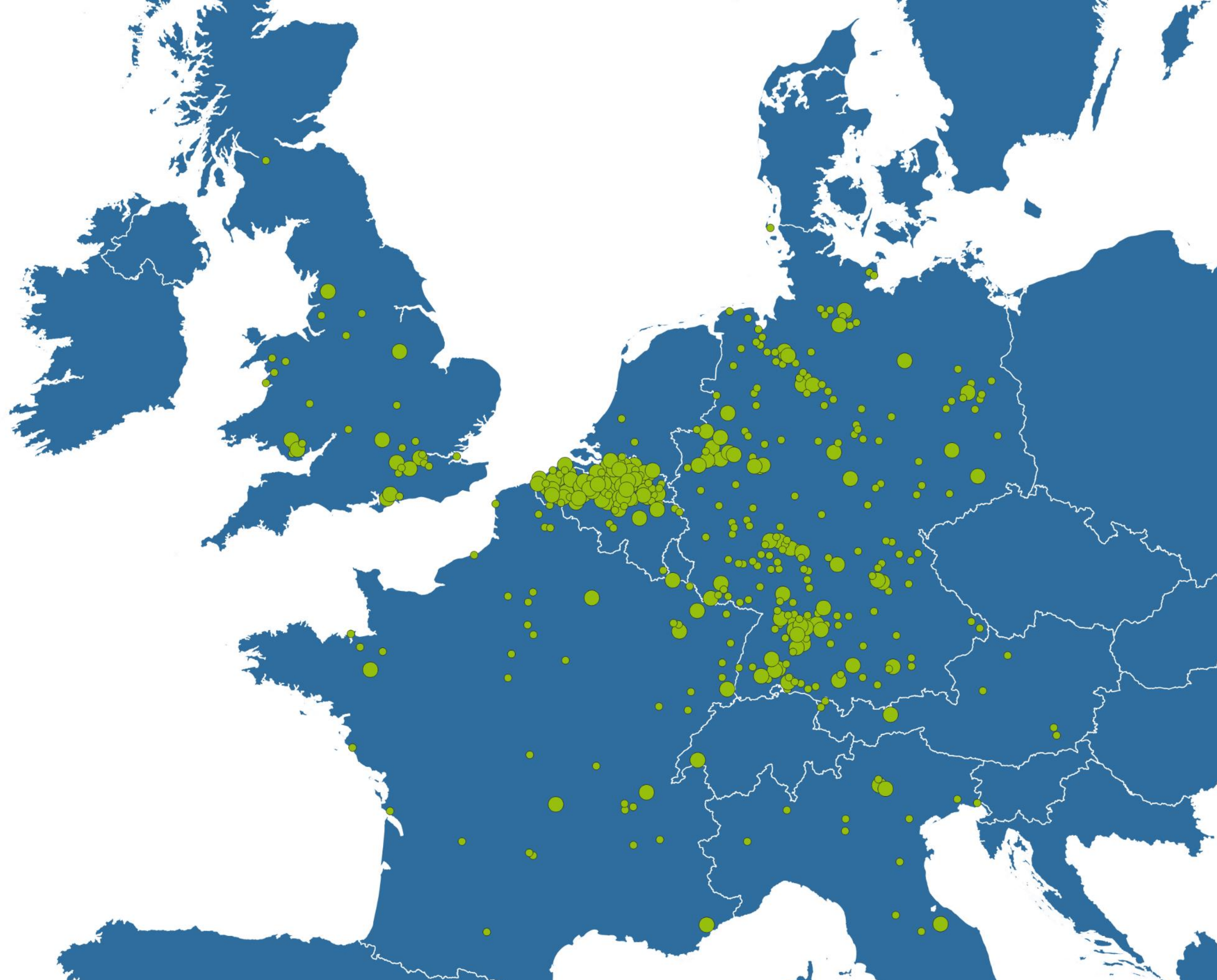
Buderus: Logapower FC10.2	Buderus: System Logaplus	BlueGEN	BlueGEN BG15	Dachs 0.8	eLecta	Vitavalor 300- P, PA2 and SA2	Sunfire-Home 750
							
100	200	750		200	300	>750	500
SOFC	SOFC	SOFC	SOFC	PEM	PEM	PEM & SOFC	SOFC
0.7kW	1.5kW	1.5kW	1.5kW	0.75kW	0.75kW	0.75kW	0.75kW
				 	 		
1-2 family homes (up to end 2018)	1-2 family homes, residential buildings and SMEs with high electricity demand	SMEs, apartment buildings and multifamily homes		1-2 family houses (for new and existing buildings)		Domestic and small commercial	Residential building (with LPG supply)





Pathway to a competitive European  
Fuel Cell micro-CHP Market

- **108 PACE units installed before April 2018**
- **239 PACE units installed before October 2018**
- **528 PACE units installed before April 2019**
- **1139 PACE units installed by end of March 2020**





# Conclusions and recommendations

Fuel Cell micro-Cogeneration

