

Développement en Europe de la cogénération basse tension

Conditions et perspectives

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ATEE, Journée micro / mini cogénération
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COGEN

EUROPE The European Association
for the Promotion of Cogeneration

Agenda

- Quelques mots sur COGEN Europe
- Une énergie propre pour tous les Européens - Cadre législatif communautaire impactant la micro/mini-cogénération
- Le marché de la micro/mini cogé dans une sélection de pays
- Feuille de Route CODE2 pour la micro-cogén
- Conditions pour l'avancement du secteur
- Conclusions

COGEN Europe

Who we are

Structure

- European trade association for the promotion of cogeneration
- COGEN Europe was established in 1993 and is headquartered in Brussels
- The secretariat employs currently 6 people

We have a vision

- Through the promotion of cogeneration, to grow an industry which changes the way Europe provides heat and electricity for a sustainable future

Our approach is

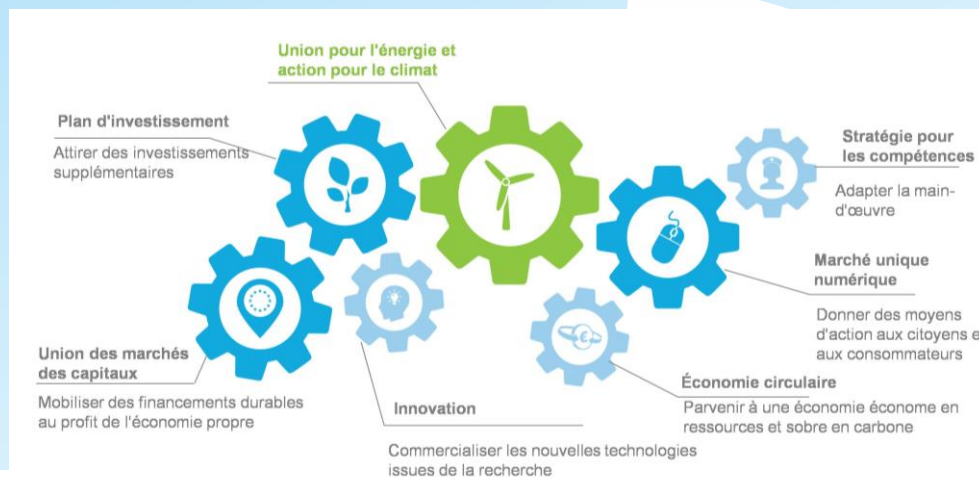
- On behalf of our members we promote the wider use of cogeneration as part of Europe's sustainable energy strategy
- For this purpose we participate in the EU legislative process and meet with key actors in the European Commission and European Parliament
- We work closely together with other stakeholders (see next slide)
- We further our visibility through good working relations with Brussels-based and sector media/press (EurActiv, European Voice, COSPP)

What we do

- Regular liaison and bilateral discussions with the relevant Commission Directorates-General and staff, including DG Energy, DG Climate Action, DG Environment, DG Research and DG Enterprise;
- A network of links with key Members of European Parliament (MEPs) and by following the work of relevant EP Committees, such as ITRE and ENVI;
- Cooperation and close liaison with other key industry associations (CEPI, CEFIC, FoodDrinkEurope, CEWEP, FuelsEurope, Cerame-Unie, EuroHeat & Power, EHI), renewable associations (EREC, AEBIOM, EREF, EUBIA, EGEC) and city representations (Energy Cities, Covenant of Mayors);
- A set of active internal working groups which formulate and propose COGEN Europe's policy on key topics (e.g. on Energy Efficiency Directive, electricity Network Codes, micro-CHP, bio-energy CHP and on Industrial Emissions Directive);
- European co-funded projects (CODE2 and Ene.field);
- Regular events such as our Annual Conference, EP dinner debates and others.

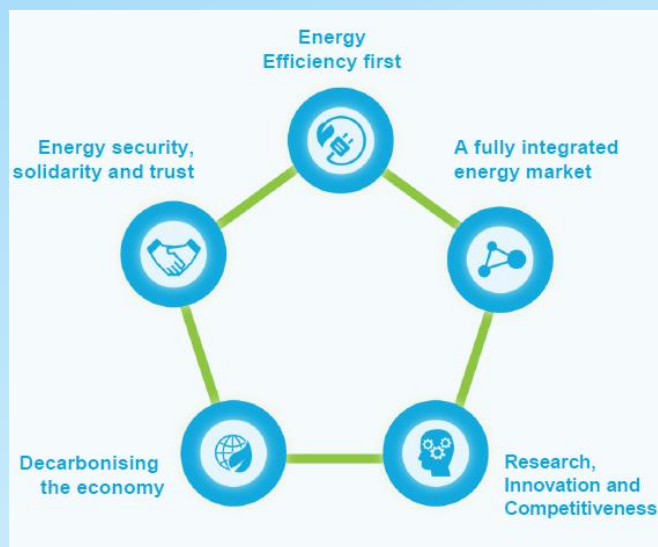
Une énergie propre pour tous les Européens

Politiques de soutien



Une énergie propre pour tous les Européens

- Présentée par la Commission Européenne le 30 Novembre, 2016
- Propose un cadre d'action de l'UE en matière de climat et d'énergie à l'horizon 2030



Source: [Commission Européenne](#), 2016

Les propositions législatives concernent:

- l'efficacité énergétique
- les énergies renouvelables
- l'organisation du marché de l'électricité
- la sécurité de l'approvisionnement
- les règles de gouvernance de l'union de l'énergie

Application: 2020 - 2030



Privilégier l'efficacité énergétique

- objectif contraignant à l'échelle de l'UE de 30 % d'ici 2030
- prolongation au-delà de 2020 les obligations en matière d'économies d'énergie

Énergies renouvelables

- objectif > 27 % énergies renouvelables dans la consommation énergétique de l'UE à l'horizon 2030
- Augmentation de 1% par an pour énergies renouvelables dans la filière chaleur
- Support pour biomasse avec cogén

Mesures équitables pour le consommateur

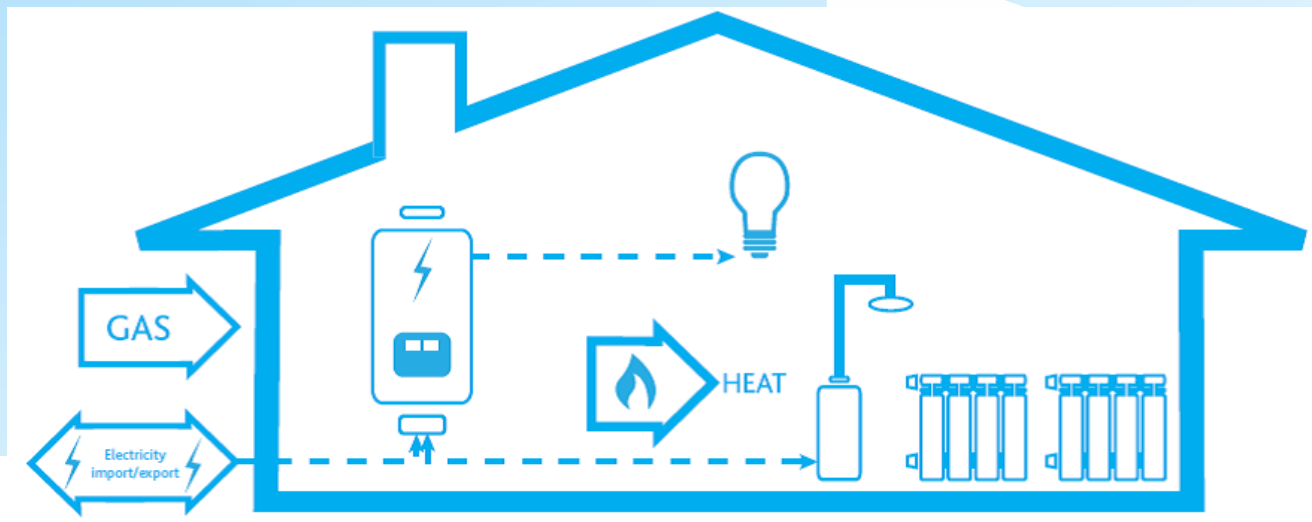
- Supprimer les obstacles qui empêchent les consommateurs d'autoproduire

Le marché de la micro-cogé dans une sélection de pays

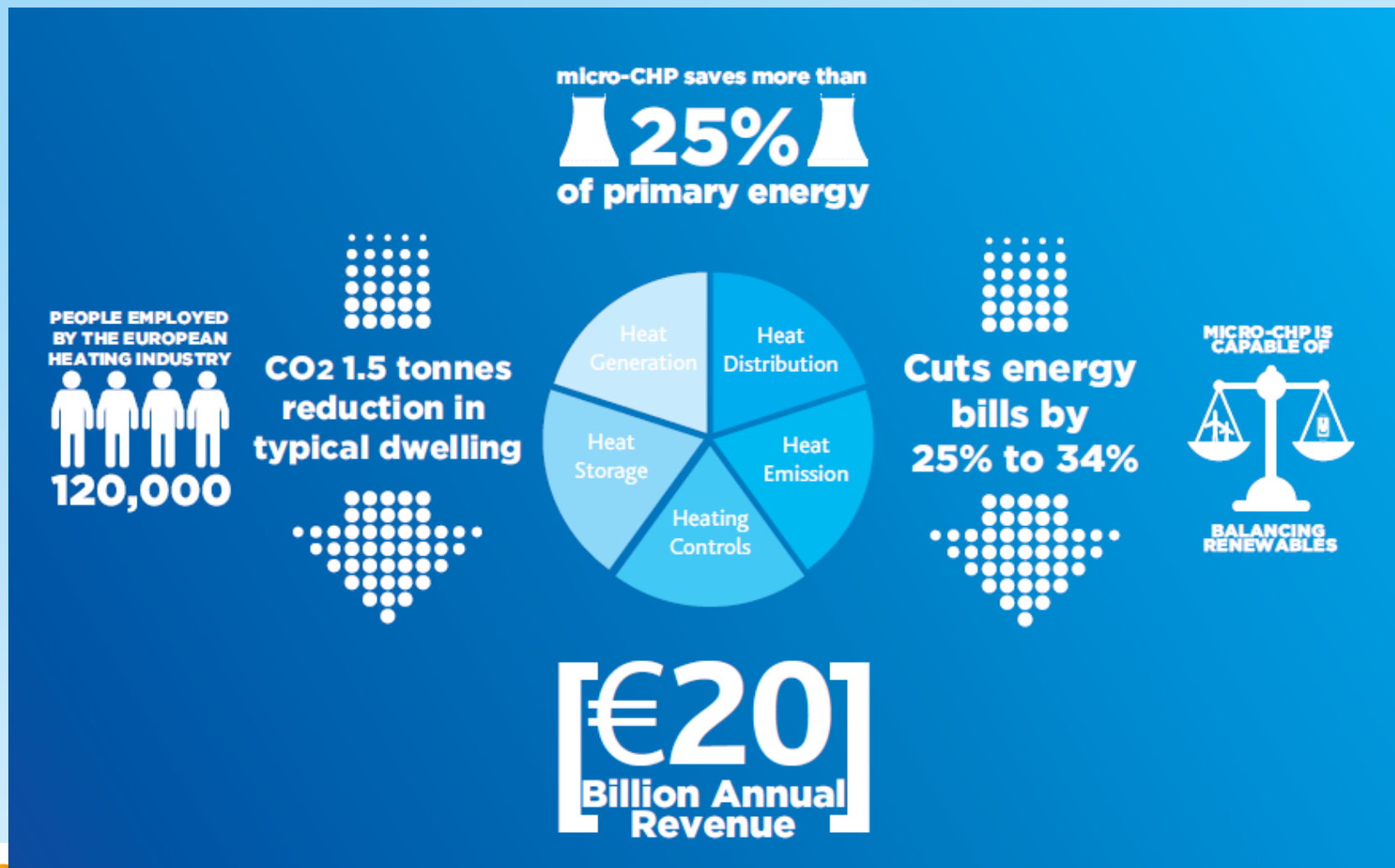
Pourquoi la micro-cogé?

Micro-CHP...

- ...is a highly efficient distributed energy solution, simultaneously producing heat and electricity near the point of consumption
- ...meets demand for heating, hot water and/or cooling in buildings while generating electricity to replace or complement the grid supply
- ...normally installed in residential and public buildings, as well as small businesses

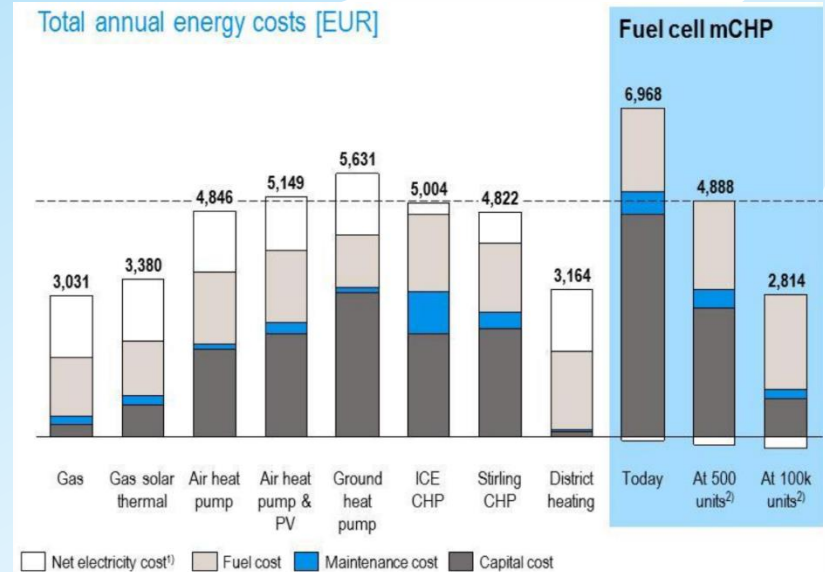
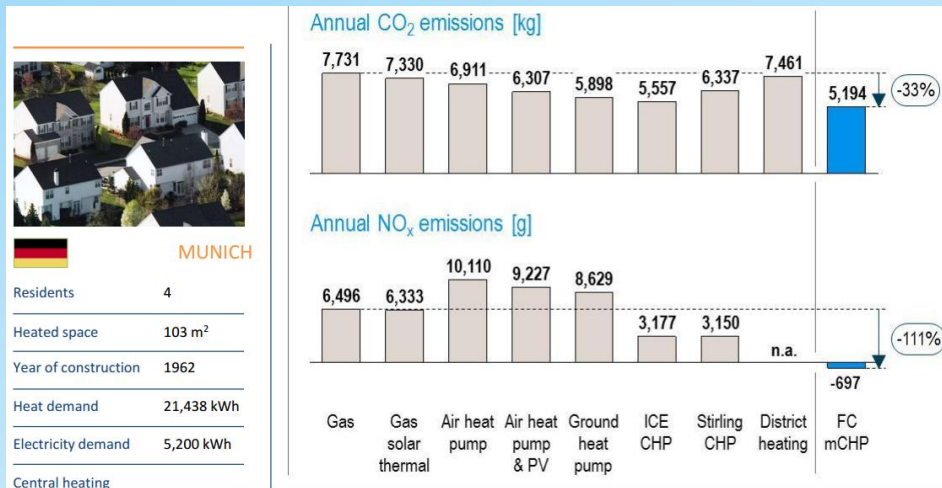


Pourquoi la micro-cogé?



FC mCHP generates fewer harmful emissions for the environment and for health (CO₂, PM, SO_x, etc.) and can contribute to achieving Europe's targets for emissions reductions

FC mCHP has a higher overall efficiency than a traditional boiler and grid electricity generation hence reducing overall primary energy consumption and potentially costs for the customer



A 2015 Study found that a FCmCHP could contribute to **primary energy savings equal to 24%** in a typical German household and total annual energy costs reduction (gas and electricity) by at least 10 %



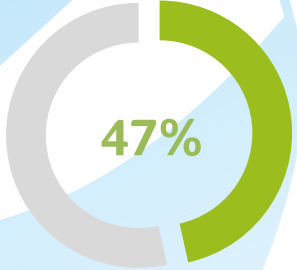
Micro/mini-cogén en Europe

- Mini-cogénération
 - **Tendance à la hausse** dans la majorité des marchés européens
 - Filières: PME, serres/agriculture, secteur hôtelier, établissements hospitaliers
 - Facteurs favorables: conditions propices dans le marché d'énergie (on-site spark spreads), cadre législatif favorable, forte sensibilisation parmi les PME
- Micro-cogénération
 - Croissance dans certains pays européens
 - Développement lié au support public

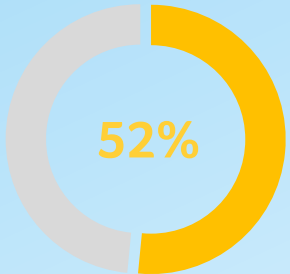
Micro/mini-cogén en Europe

La mini-cogén est en hausse dans la majorité des marchés européens

47%

A donut chart with a green segment representing 47% of the total, indicating growth in mini-cogeneration markets across most European markets.

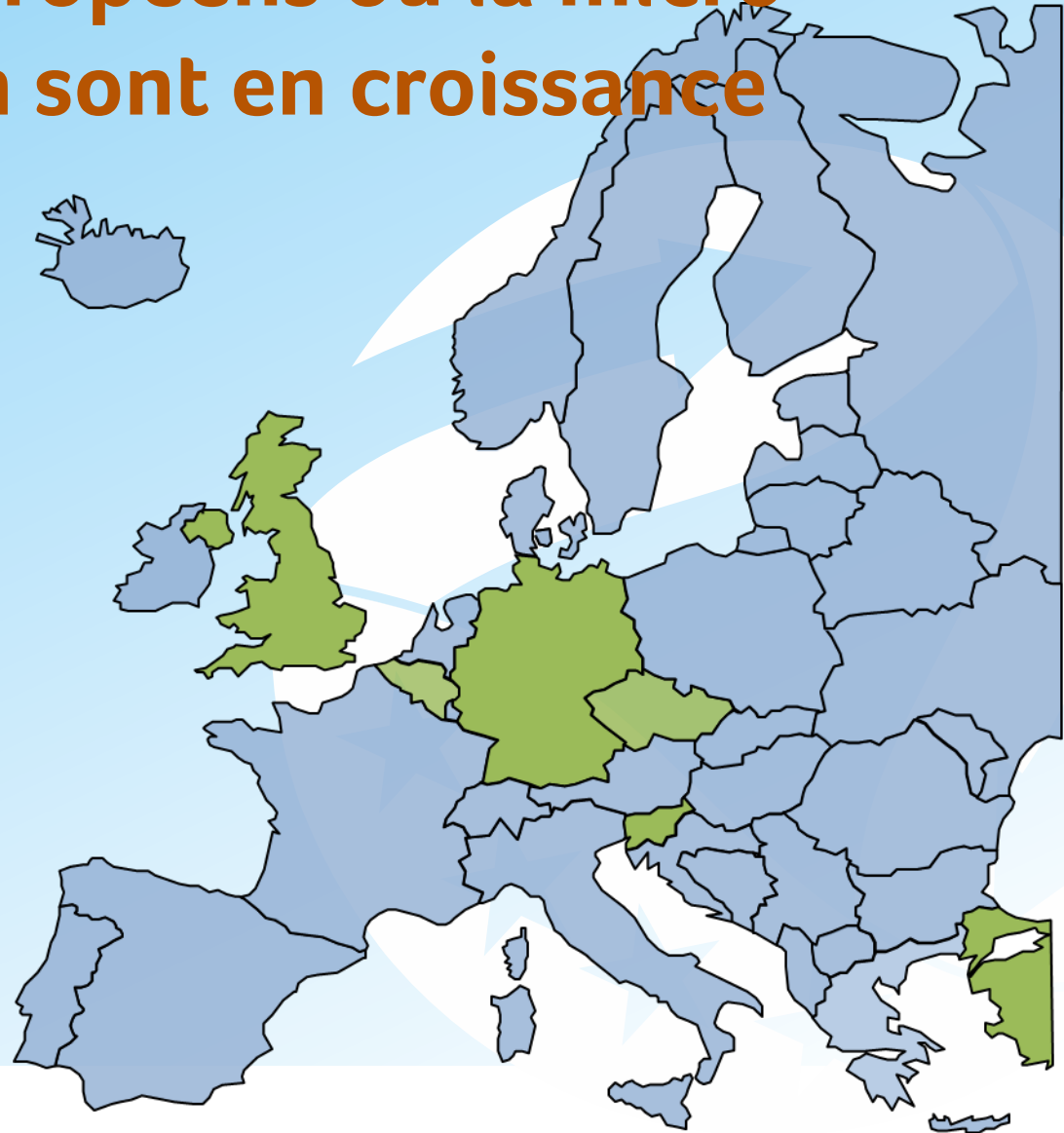
52%

A donut chart with a yellow segment representing 52% of the total, indicating slow growth in the micro-cogeneration and domestic sector.

Faible croissance dans la filière micro-cogén/domestique

Source: COGEN Europe Snapshot Survey, 2015

Les marchés européens où la micro- et mini-cogén sont en croissance



Source: COGEN Europe Snapshot Survey, 2016

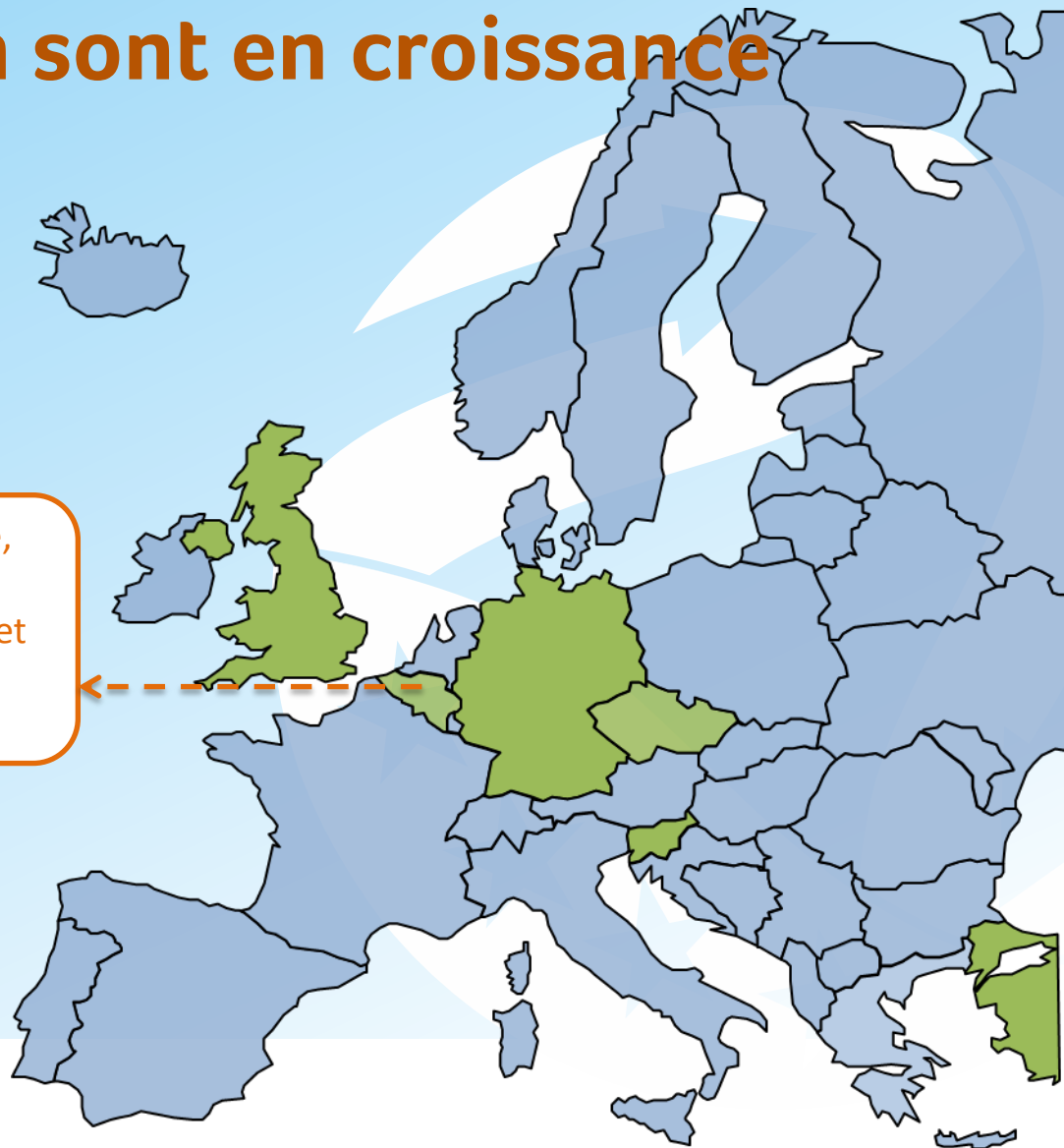
Les marchés européens où la micro- et mini-cogén sont en croissance

- Nouveau **Loi Cogén en 2016** → objectifs pour l' électricité provenant de cogén **110TWh (2020) ; 120 TWh (2025)**
- Bonus pour la micro-cogén de 4 – 5,41 c/kWh pour 10 ans/60.000 foh
- Bonus pour la mini-cogén de 1,5 – 3 c/kWh pour 10 ans
- Soutien à l'investissement pour micro-cogén (<20 kWe) compris entre 1.425 – 3.325 €/unité
- Programme de support pour le développement des **piles à combustible** via Callux/nouveau engagement de € 500 M pendent 8 ans (~ € 10.000 / 1 KWe)

Source: COGEN Europe, 2016

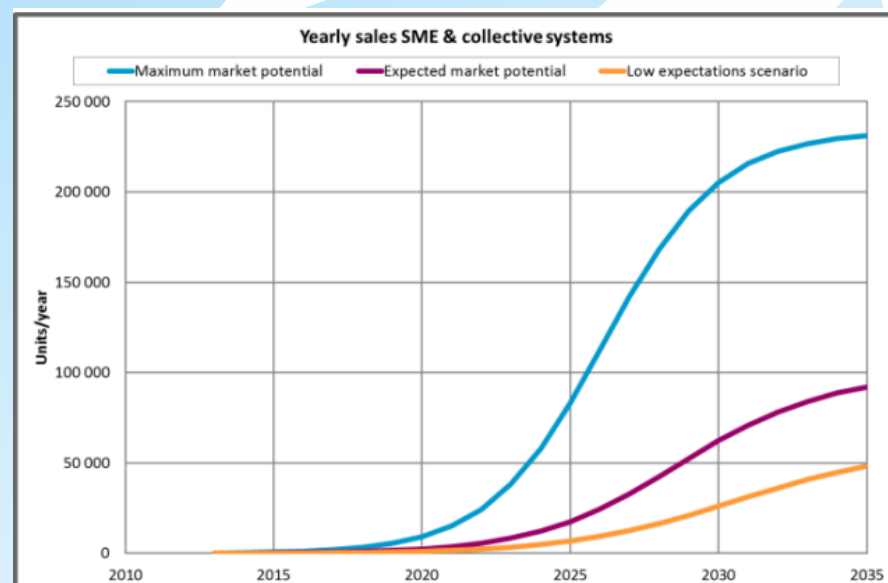
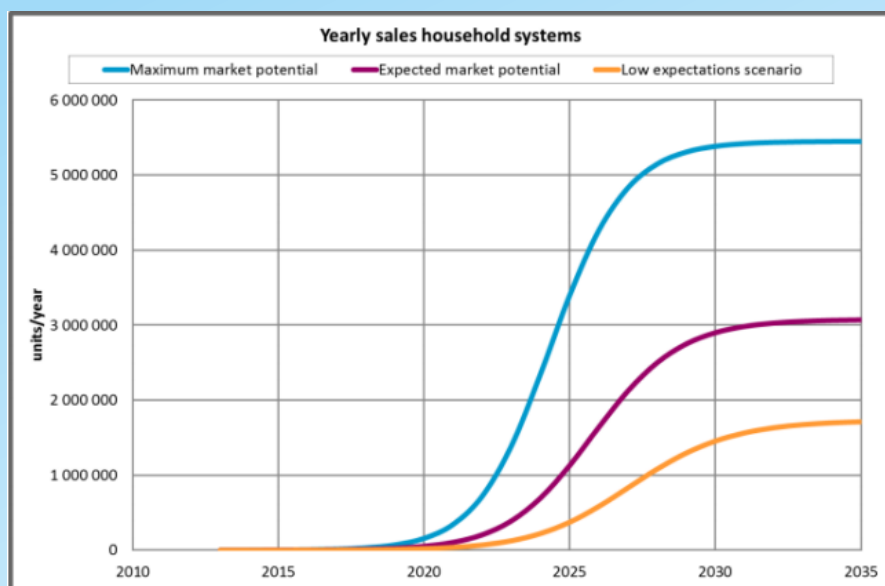
Les marchés européens où la micro-et mini-cogén sont en croissance

- Système des certificats verts en Flandre, Wallonie et Bruxelles
- Soutien à l'investissement en Wallonie et Bruxelles



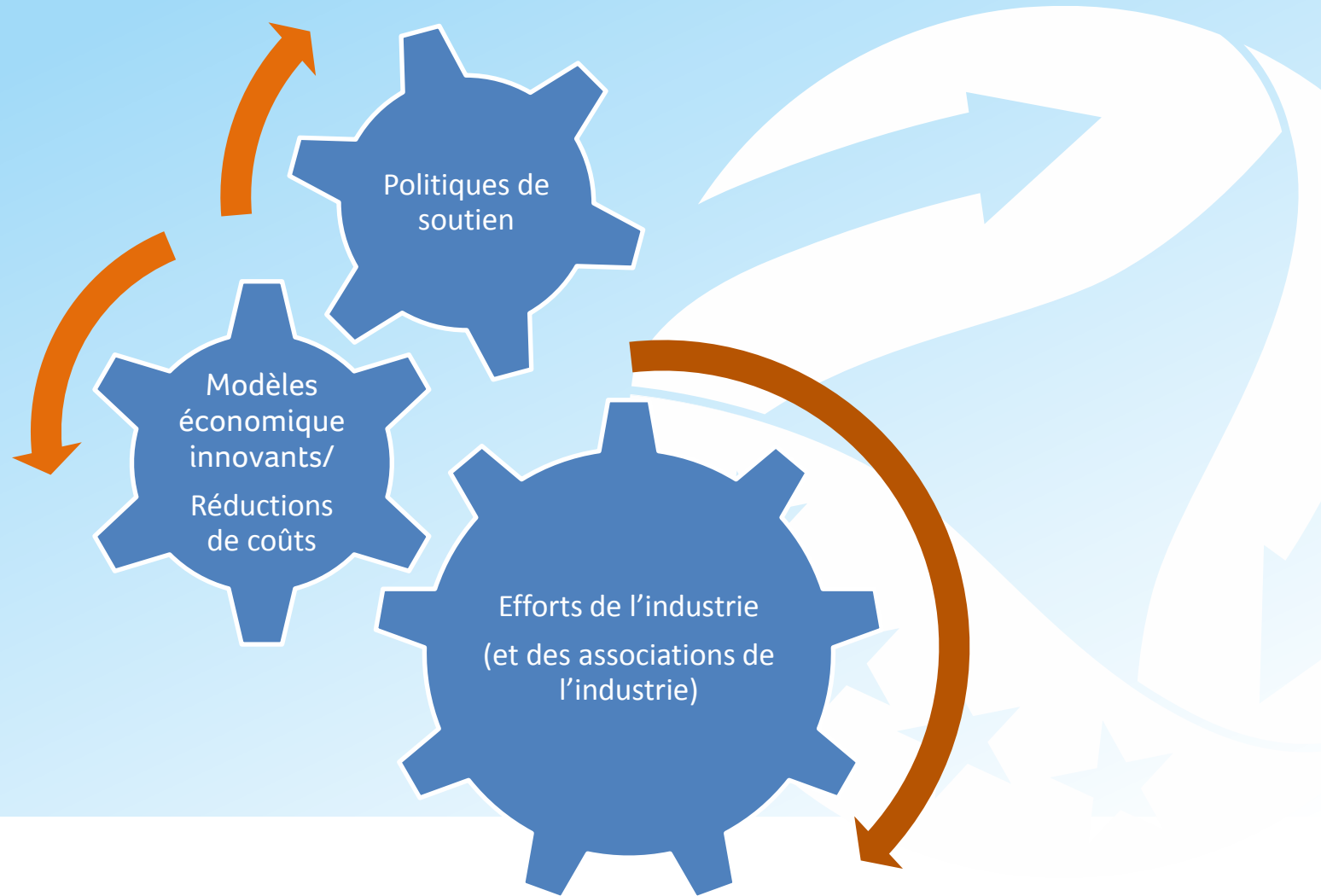
Source: COGEN Europe, 2014

Feuille de Route CODE2 pour la micro/mini-cogén



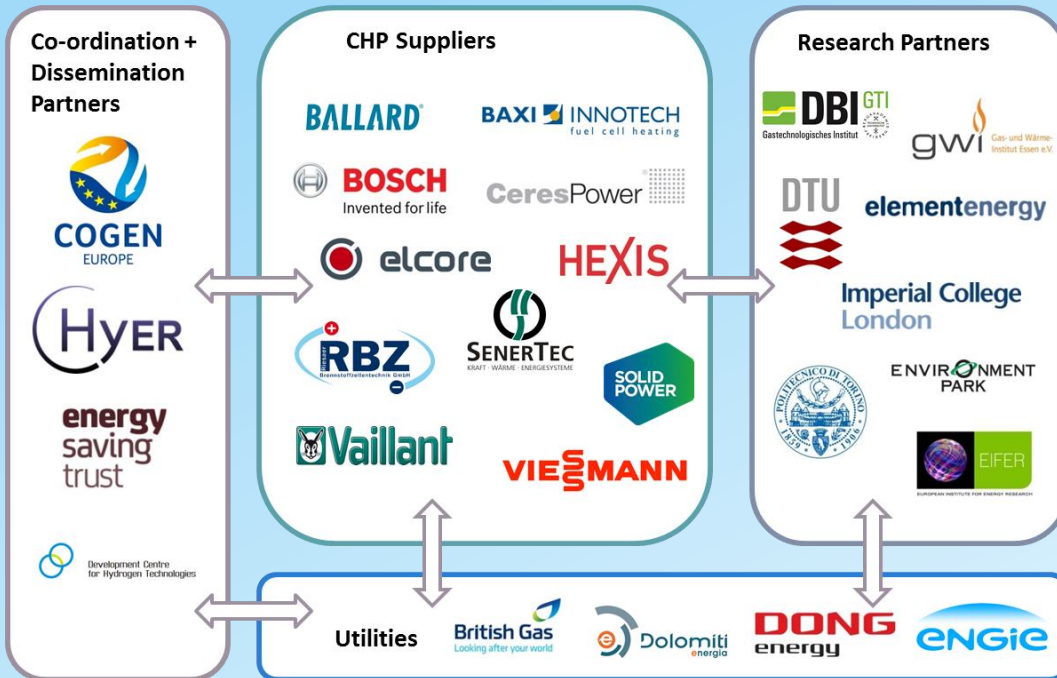
Source: [CODE2](#), 2014

Conditions pour l'avancement du secteur



ene.field[★]

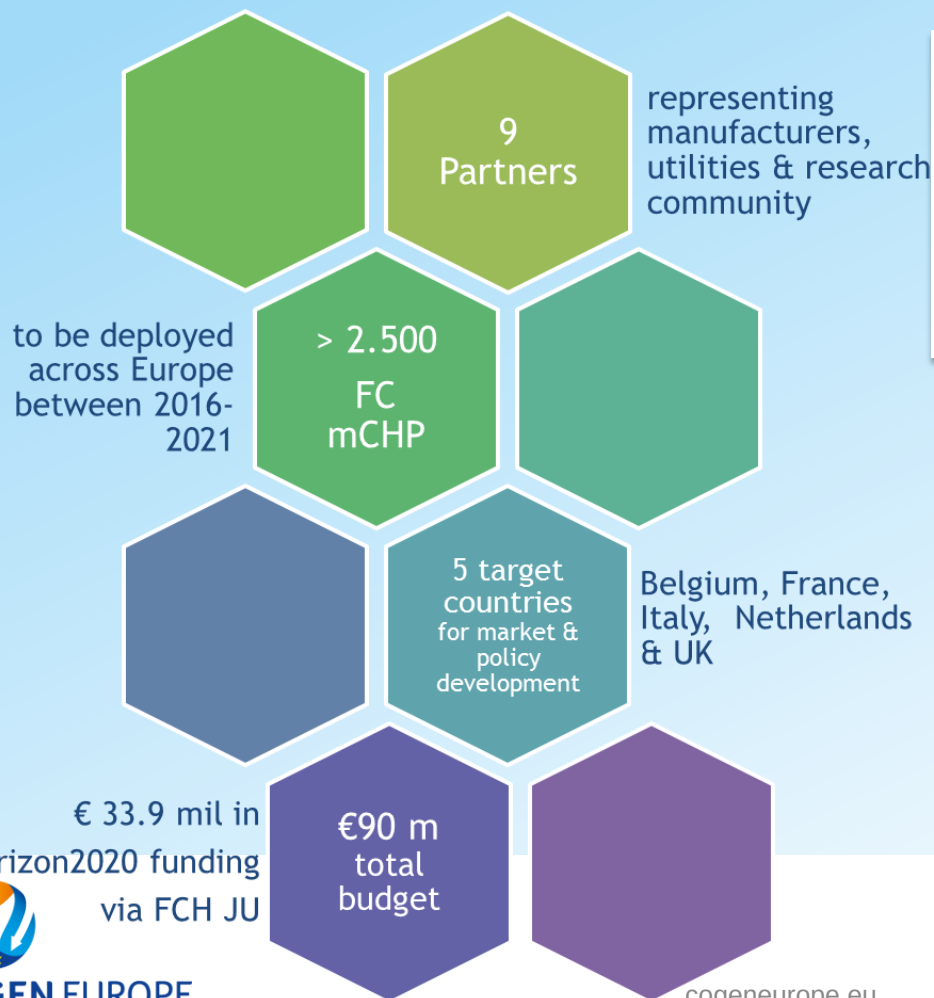
Fuel Cells x Combined Heat and Power



- Project co-financed by the Fuel Cell & Hydrogen Joint Undertaking (EU level PPP)
- Industry-wide involvement
- Aims to deploy and monitor up to 1000 fuel cell micro-CHP units across Europe by 2017
- Lifecycle cost assessment, barriers report, commercialisation framework

The Fuel Cells and Hydrogen Joint Undertaking (FCH JU) is committing c. €26 million to ene.field under the EU's 7th Framework Programme for funding research and development

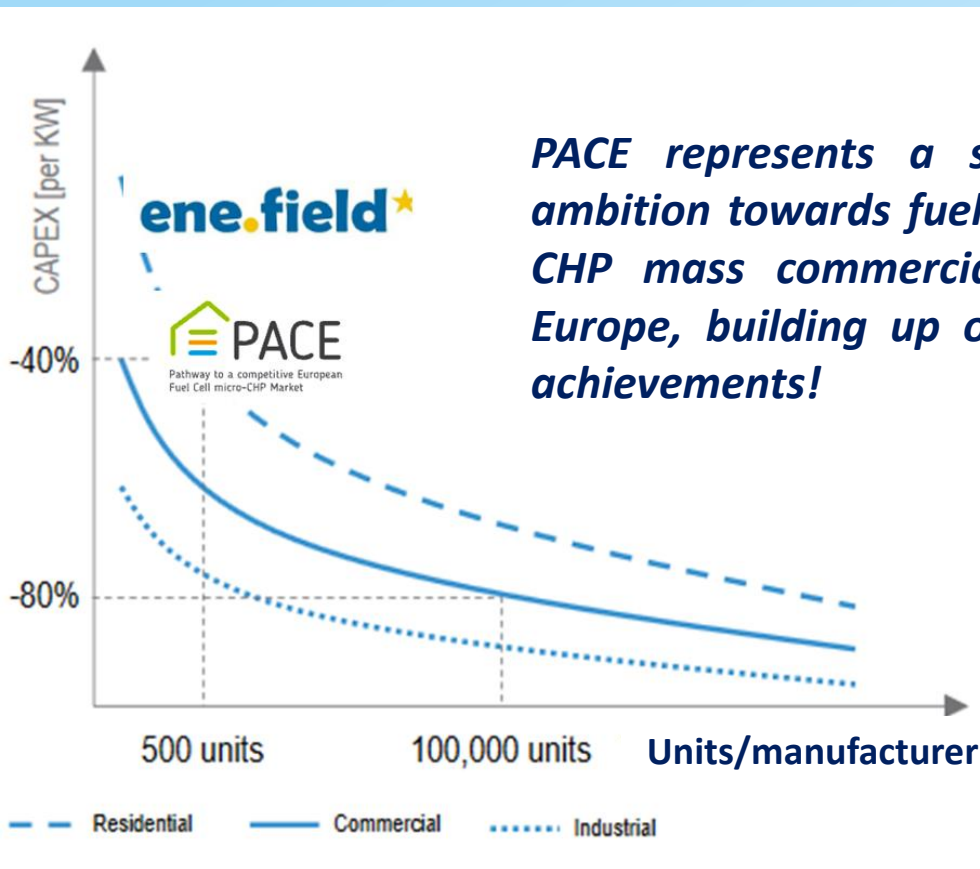
PACE - Pathway to a Competitive European Fuel Cell micro-CHP Market 2016-2021



Objectives:

- **Product innovation and cost reduction** – constructing and demonstrating next generation FC mCHP units, designed for cost reduction, increased performance and mass manufacture.
- **Supply chain development** – working to build a more competitive EU component supply chain.
- **Policy collaboration** – working collaboratively with member states to develop policy to enable the transition to wider roll-out.
- **Demonstrating and verifying primary energy savings, and testing grid benefits** – for innovative business model application.

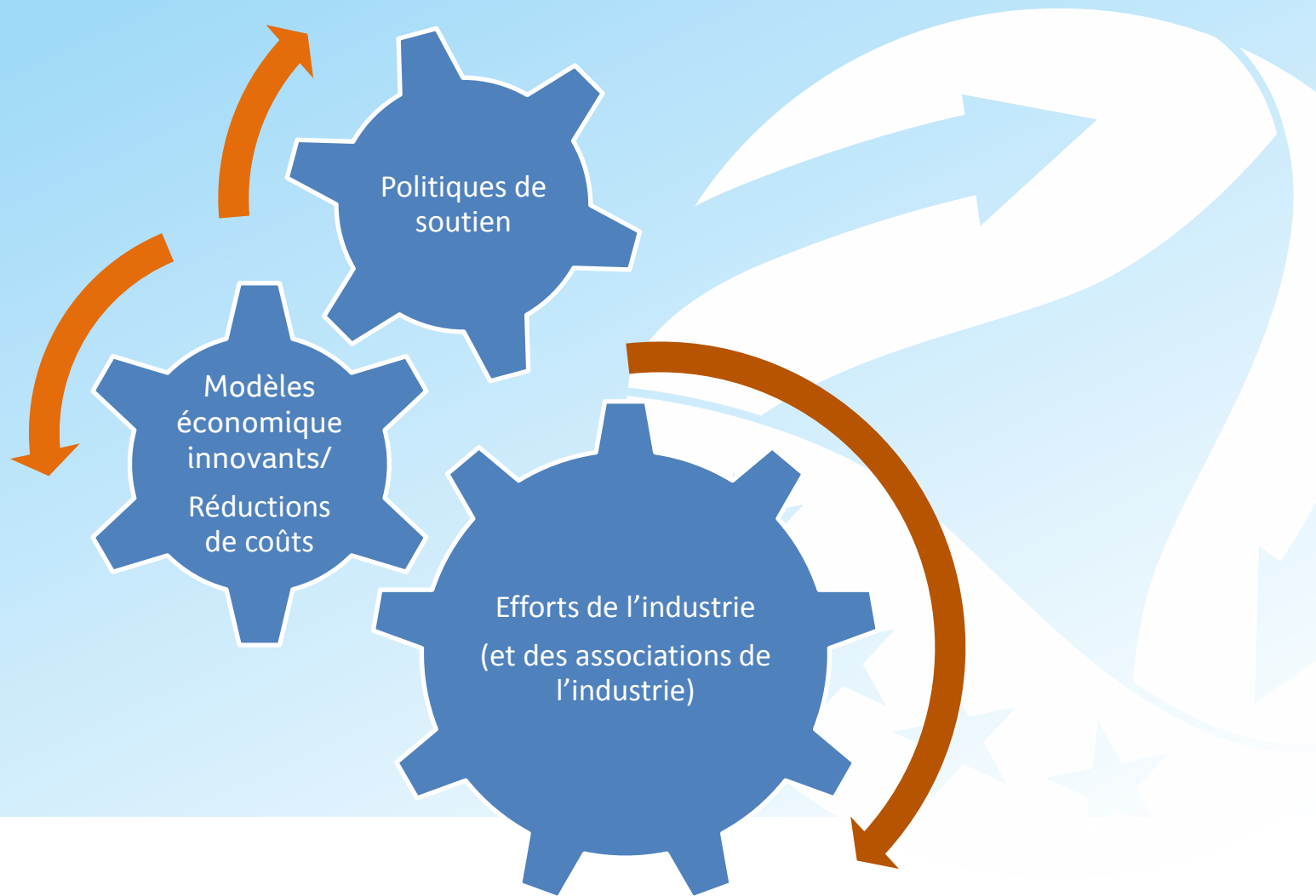
PACE - Pathway to a Competitive European Fuel Cell micro-CHP Market 2016-2021



Mass-market pathway for fuel cell micro-CHP



Conclusions



Réservez cette date!

2017

The Power of Heat

COGEN Europe Annual
Conference & Gala Dinner



COGEN
EUROPE

#thepowerofheat

Save the date: 7-9 June
Venue: Budapest, Hungary



More info @ www.cogeneurope.eu soon!

Merci pour votre attention!

Des questions?

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