

25th world gas conference
“Gas: Sustaining Future Global Growth”

Micro CHP

A valuable technology option to achieve climate protection targets

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Malaysia, Kuala Lumpur Convention Centre
CS5_2 WOC5 Domestic and Commercial Gas Utilisation



Patron



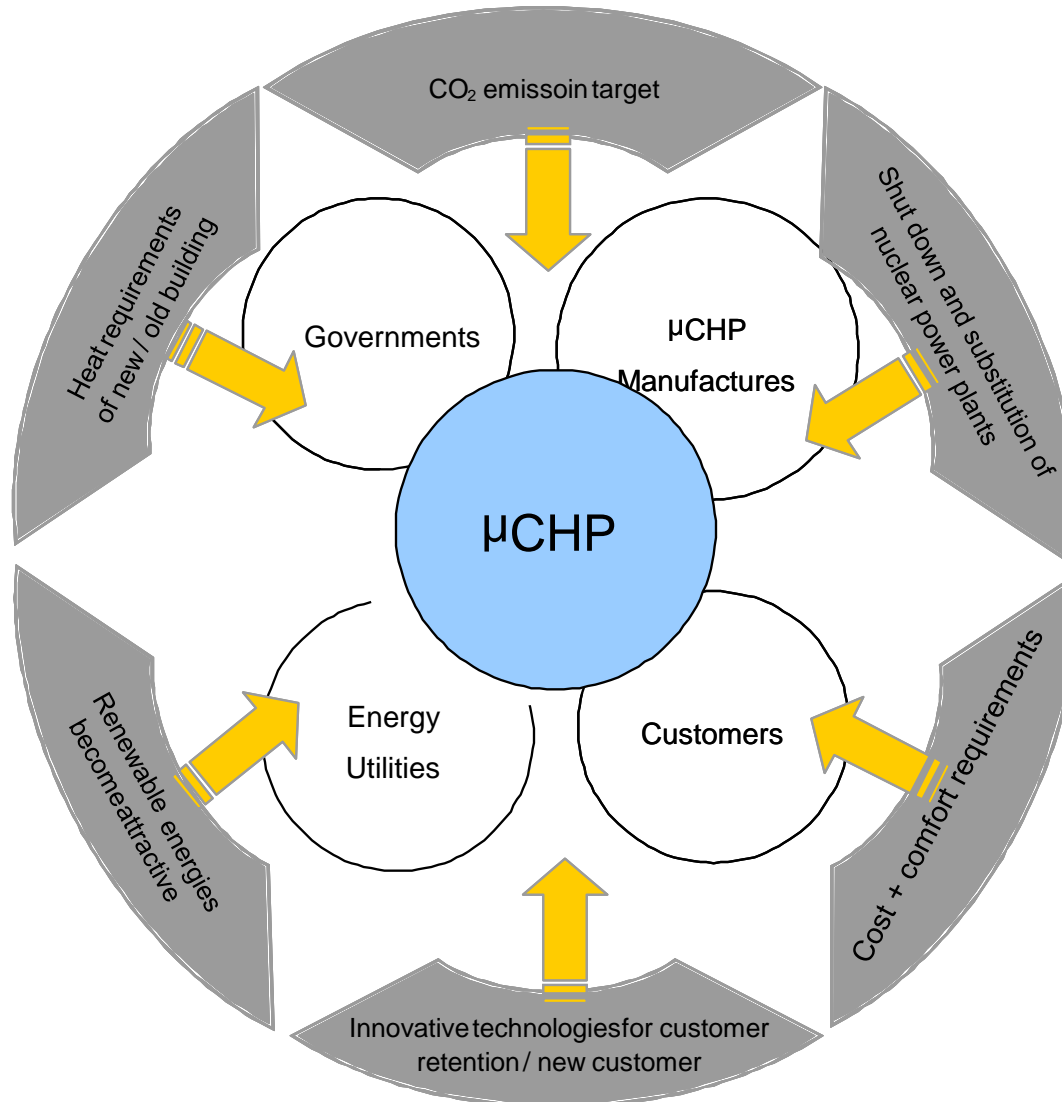
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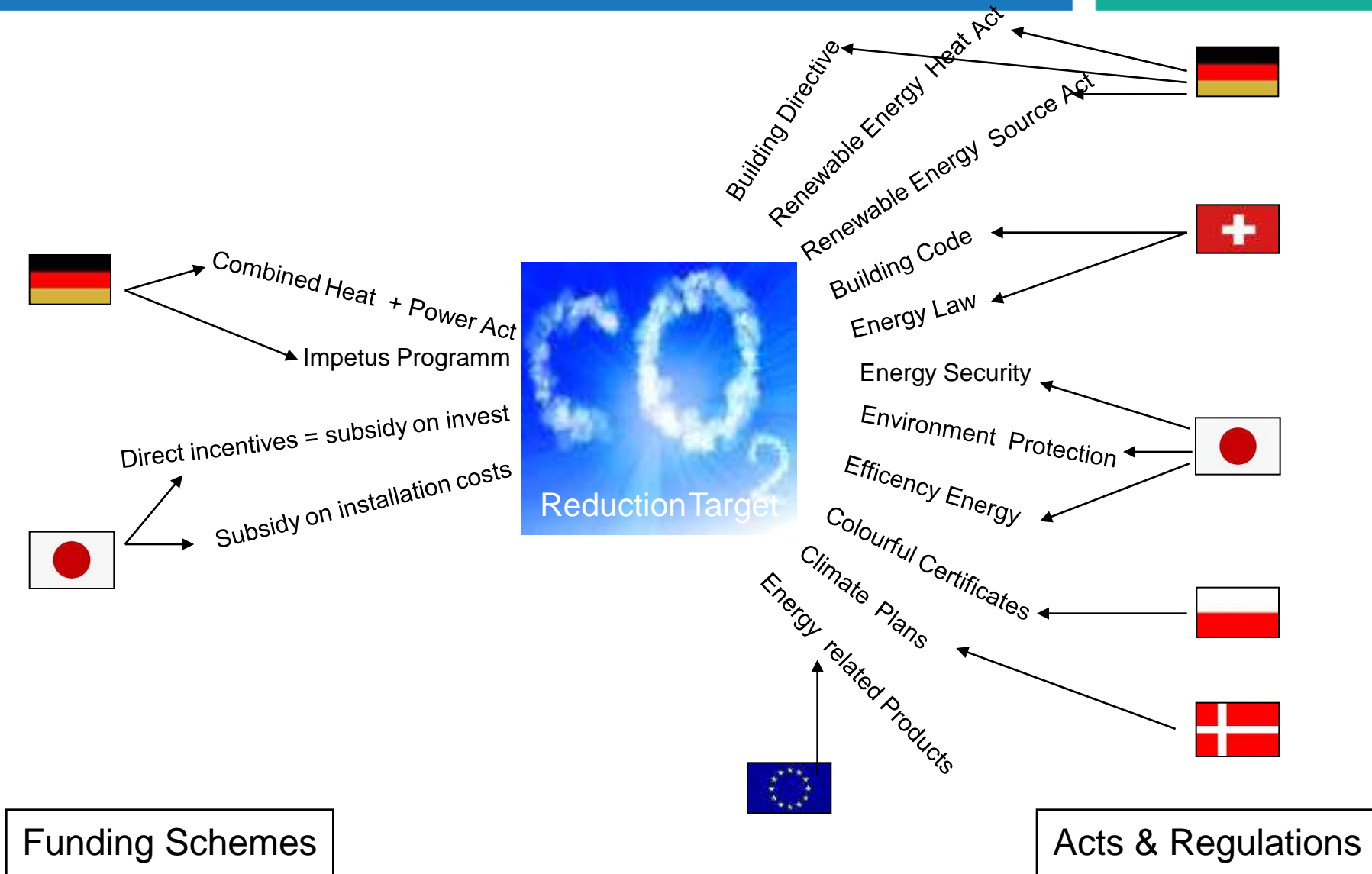
Host Sponsor



Slide 2 Framework conditions



Slide 3 Governments – Compliance with CO₂ reduction targets



Slide 4 Activities / Initiatives / Support of Gas Industry



μ CHP user Group
> 100 units field trial &
Callux Lighthouse
Fuel Cell Project

action plans



Shift to & advanced use
of natural gas



low carbon society
study group



deployment of
distributed energy
systems

Smart Power
Foundation

Smart with Gas
Foundation

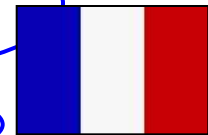
μ CHP in a
higher year

Field trials



UNICLIMA
association

Field trials



No activities:
 μ CHP utilisation is seen
as doubtful



Slide 5 Status Quo of μ CHP Technology Development

on market

Eco Power
1.0



Eco Will

Evita (Remeha)

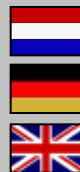


Eco Gen (Baxi, Brötje)

Dachs Stirling
(SenerTec)



Vitowin (Viessmann)



Whisper Gen

Yanmar



still in R&D / RD&D Phase

Vaillant Stirling




Kirsch ICE



Slide 6 E.ON Ruhrgas' engagement


Largest mCHP & fuel cell heating appliance field tests throughout Germany



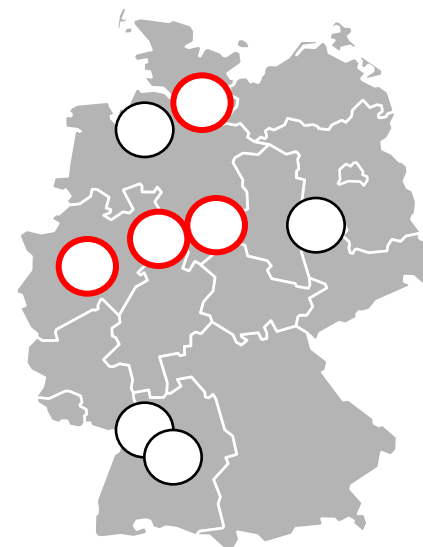
mCHP User Group
(stirling and ICE)



Callux Lighthouse Project
(fuel cells)



callux (np)
The German Energy Research Network
for the development of energy-efficient buildings



Slide 7 mCHP user group at a glance

mCHP user group

- **user group mCHP:**
broad based field and demonstration tests of mCHPs
- **objectives:**
exchange of experience e.g. current status of development and operation of mCHP`s
- Upfront to the „user group“ a decade of different lab- and field tests put the basis for experienced assessments

Cooperation with local utilities und manufacturer

- 62 customers of ERG (local utilities and E.ON distribution companies) are participating



DEW21

Stadtwerke Essen AG



STADTWERKE
RINTELN



- All major heating appliance manufacturers are participating

Buderus



VIESMANN
climate of innovation

De Dietrich Remeha



Within 3 years > 100 mCHP`s installed in real single family houses shall be tested by E.ON and its partners

Slide 8 Conclusion

Natural Gas

- and mCHP application
 - are indispensable for global climate protection
 - offers new business opportunities for the gas industry
- is a fuel for the future