

Welcome to the 3rd Combined Energy Conference 2020 29th January 2020, Arnhem

Workshop moderators

Dr. Karin Arnold (Wuppertal Institute)

Louk Severens (Netherlands Enterprise Agency)

Introduction workshop 3, CO2-Reduction in Industry

Innovative ways towards low carbon industries

- IN4Climate.NRW-Platform

Dr. Michael Walther, Project manager at IN4Climate GmbH

- LANXESS, practical expertise: focus on cross-border co-operation

Sebastian Röhrig, Head of Corporate Responsibility, LANXESS

Chemelot Industry Cluster: Multi-stakeholder and cross-border co-operation with NRW and Flanders

Loek Radix, Executive Director Chemelot



Discussion workshop 3, CO₂-Reduction in Industry

Innovative ways towards low carbon industries (IN4Climate and LANXESS)

- Table 1** What are the 3 most important innovations/approaches needed to achieve low CO₂ emissions from a company's own chimney and which parties should be involved?
- Table 2** What should the NRW and NL government do to facilitate the transition (e.g. national/ international policy framework?) and which other parties should be involved?
- Table 3** Green energy demands: which sources, transport modes and energy storage are needed, will there be a “green electricity gap” and in which way could we best profit from cross-border-cooperation between NL and NRW?

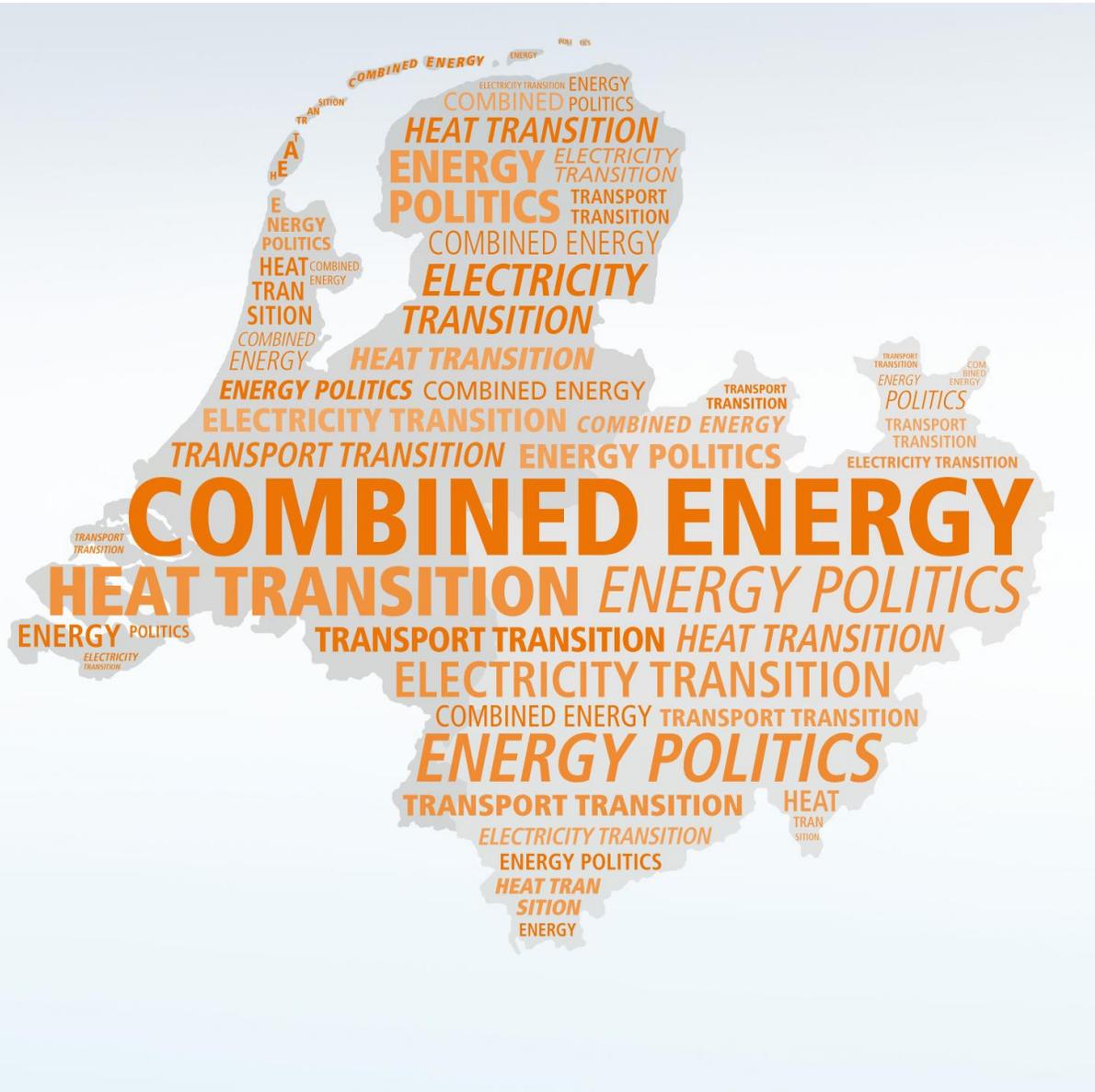
Chemelot Industry Cluster

- Table 4** Chemelot and the German chemical industry are in a similar geographical position.
What options do we have for cooperation in CO₂ (CCS), hydrogen and electricity (availability)?
- Table 5** The feedstock supply for the chemical industry will shift from fossil oil and natural gas to waste and biomass.
Who do you believe will fill this gap and how can we cooperate to organize availability and logistics?
- Table 6** Currently there is a strong focus on resolving the 2030 issues (minus 50%), which can for a major part be done within the existing assets/technologies.
What can we do together to get more focus on the innovations needed for achieving the 2050 target (100% carbon neutral)?

Closure discussion workshop 3, CO2-Reduction in Industry

- Please give us some of your most important impressions, findings, actions...
- We will send you the results of the discussions
- You'll be invited to participate in follow-up activities

Thank you !



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Introduction workshop 6, CO2 Reduction in Industry

H2 based Steel Production: decarbonisation of the steel production, Climate strategy of Thyssenkrupp

Dr. Claudia Conrads, Thyssenkrupp Steel Europe AG

Innovation for CO2 reduction in industries: Examples and opportunities for SME's and cross-border co-operation.

Luc Kikkert, Director KIEMT

Discussion workshop 6, CO₂-Reduction in Industry

H₂ based Steel Production (Thyssenkrupp Steel Europe AG)

- **Table 1** How to transform the industry into carbon-neutrality without effecting its competitiveness? (Funding/regulatory framework)
- **Table 2** How likely is a rapid creation of hydrogen strategy for Europe?
- **Table 3** How to combine the different needs and timing of the sectors for hydrogen?

Innovation for CO₂ reduction in industries (Kiemt)

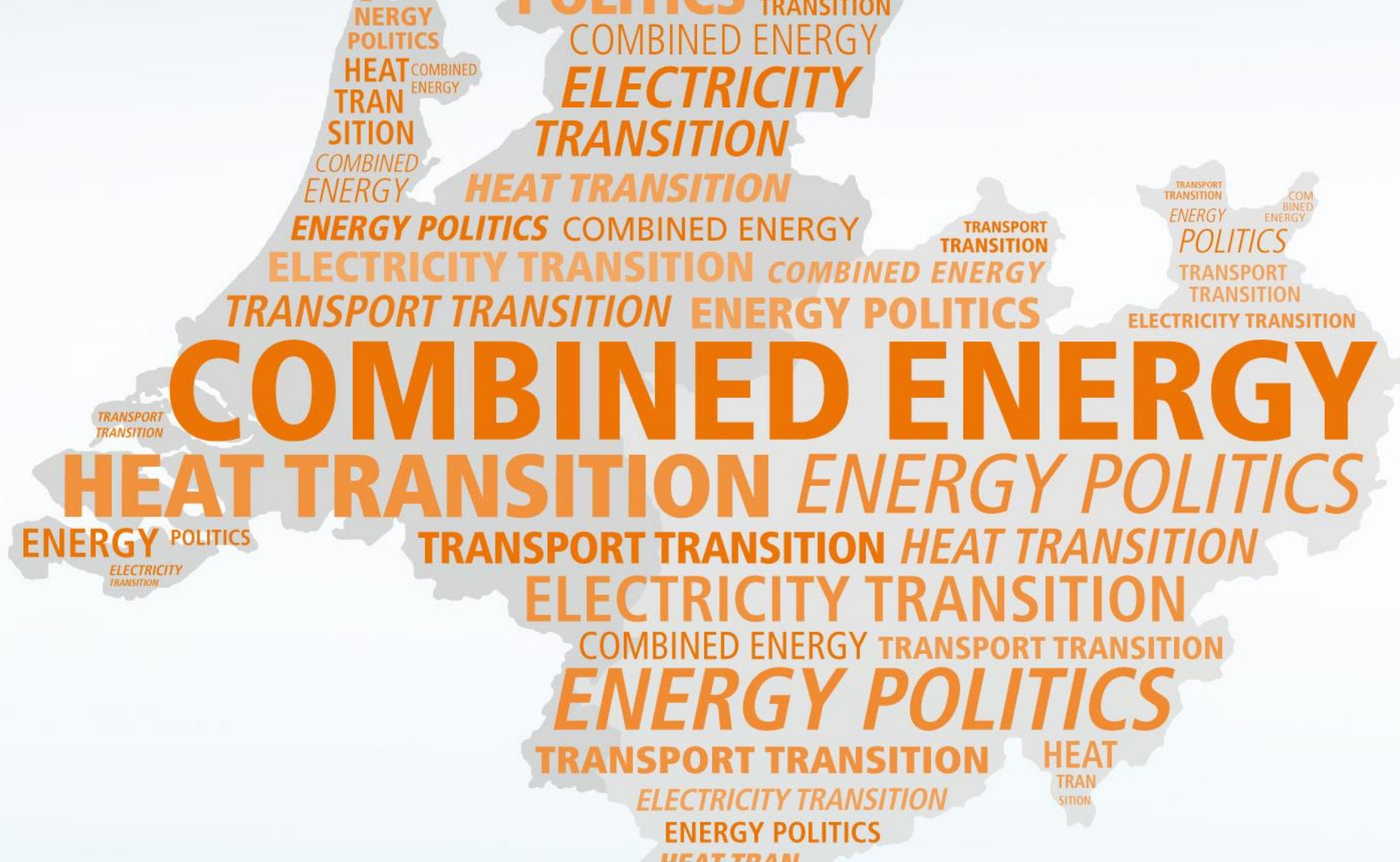
- **Table 4** How does your organization contribute to low carbon industries?
- **Table 5** What could triple helix organization do (more) to facilitate?
- **Table 6** What SME solutions are missing and/or should get more attention?



Closure discussion workshop 6, CO2-Reduction in Industry

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