



# Biogas potential and cost outlook

EBA Annual Conference 2020

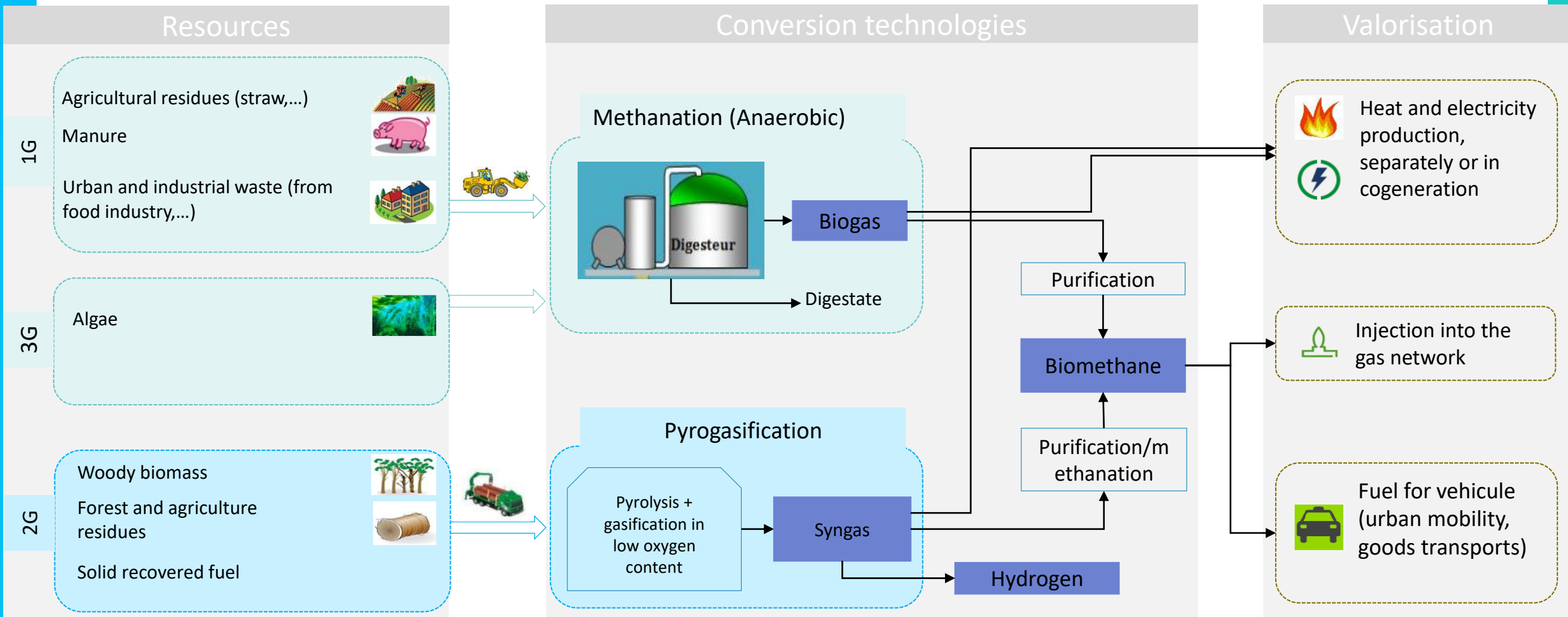
Marta Kamola-Martines

RESTREINT

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# Biogas value chain



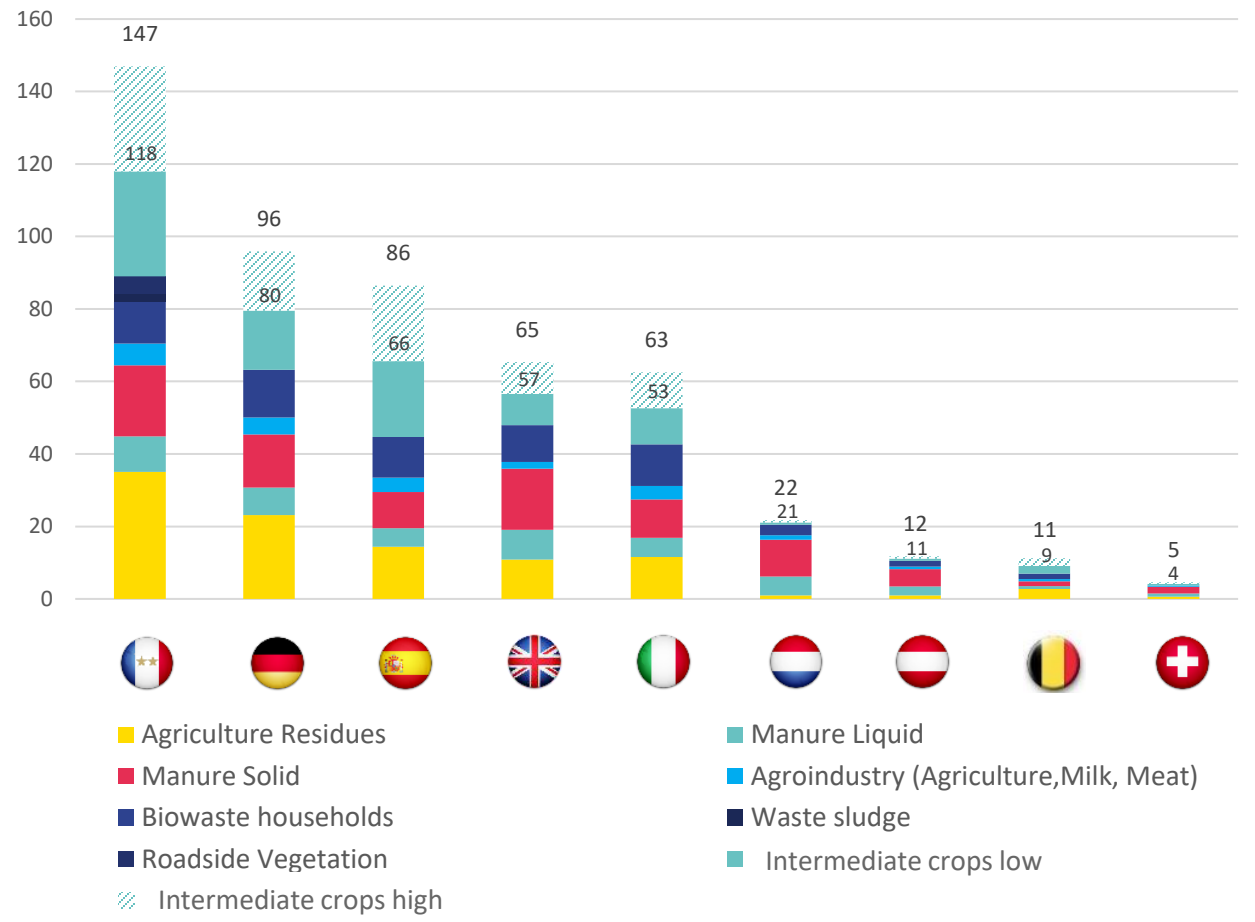
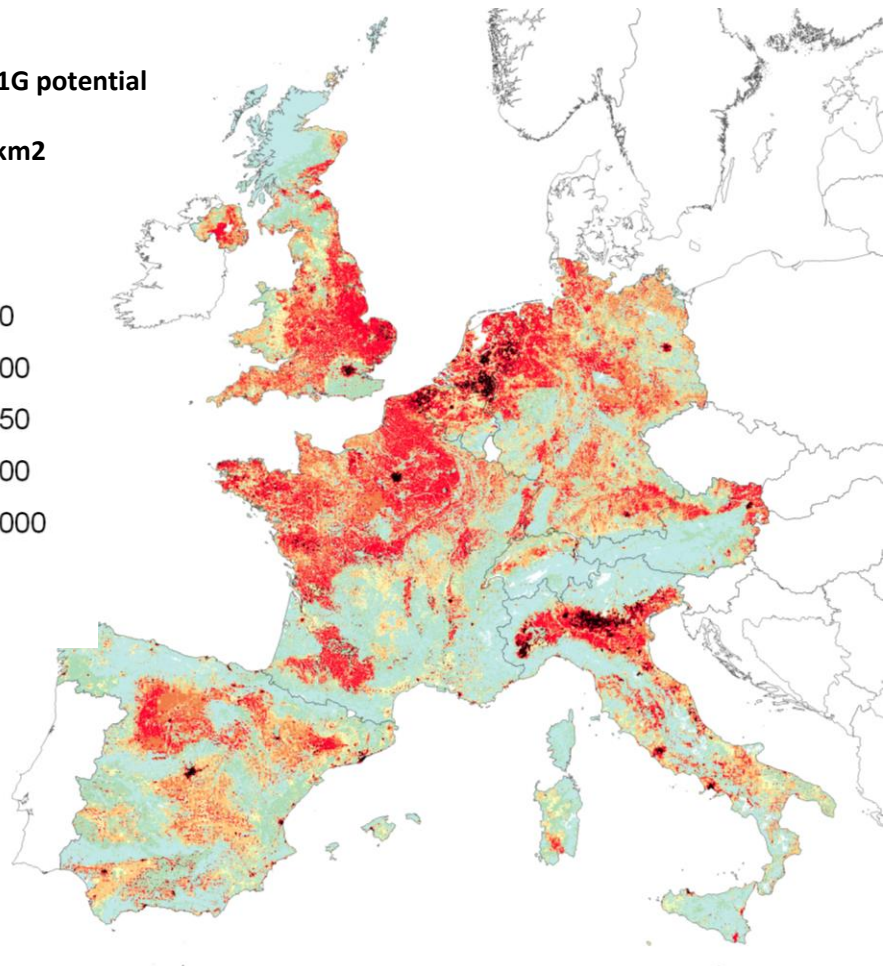
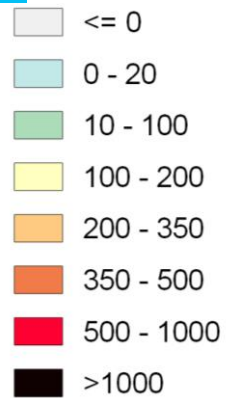
The background of the slide is an aerial photograph of a city. In the upper portion, several tall, modern skyscrapers with glass facades are visible against a bright sky. The lower portion of the image shows a dense, green park area with various trees and manicured bushes. In the bottom right corner of the park, there is a wooden deck area with some outdoor furniture and a trash bin.

# **Geographical analysis of biomethane potential**

# AD potential: development of intermediate crops could provide a large share of the potential

## Biomethane 1G potential

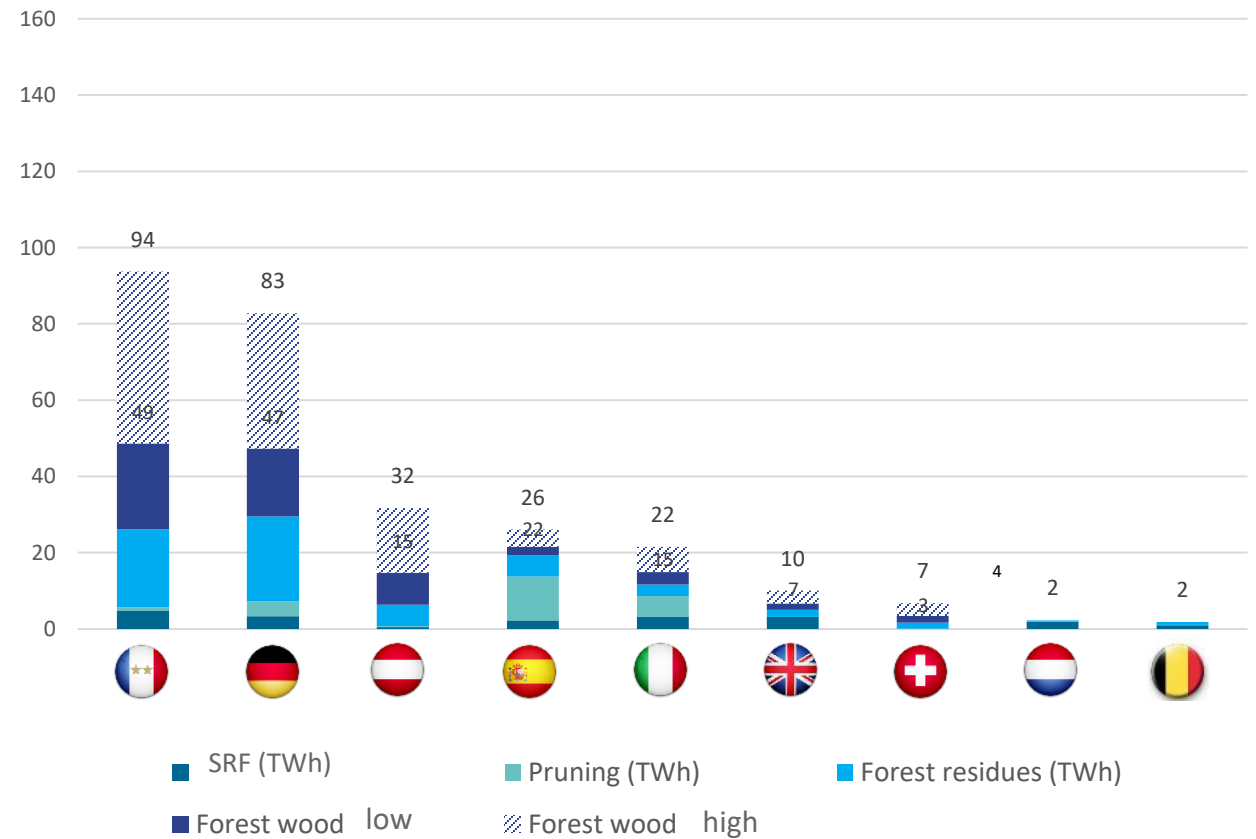
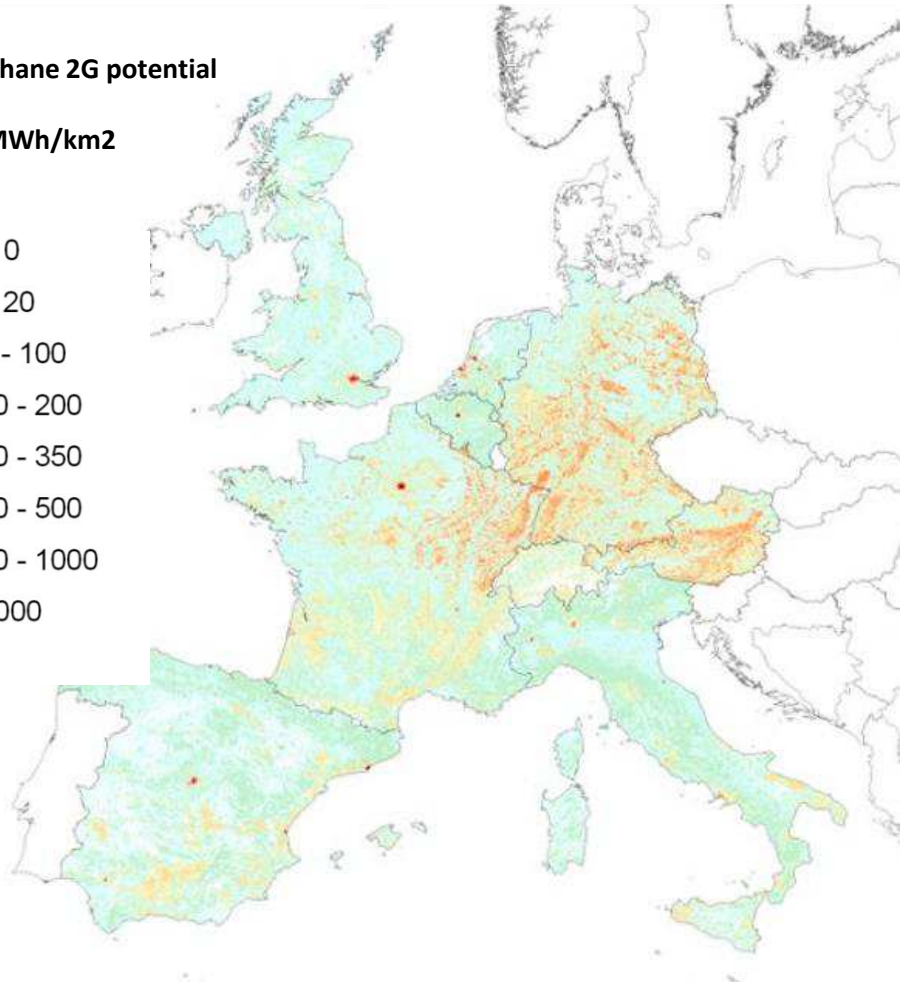
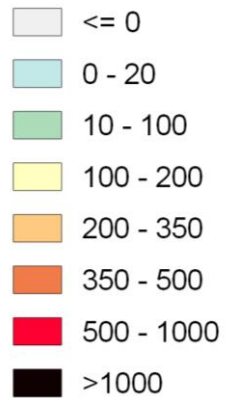
Unit : MWh/km2



# Pyrogasification potential: use of wood from forest growth could provide an important share of the potential

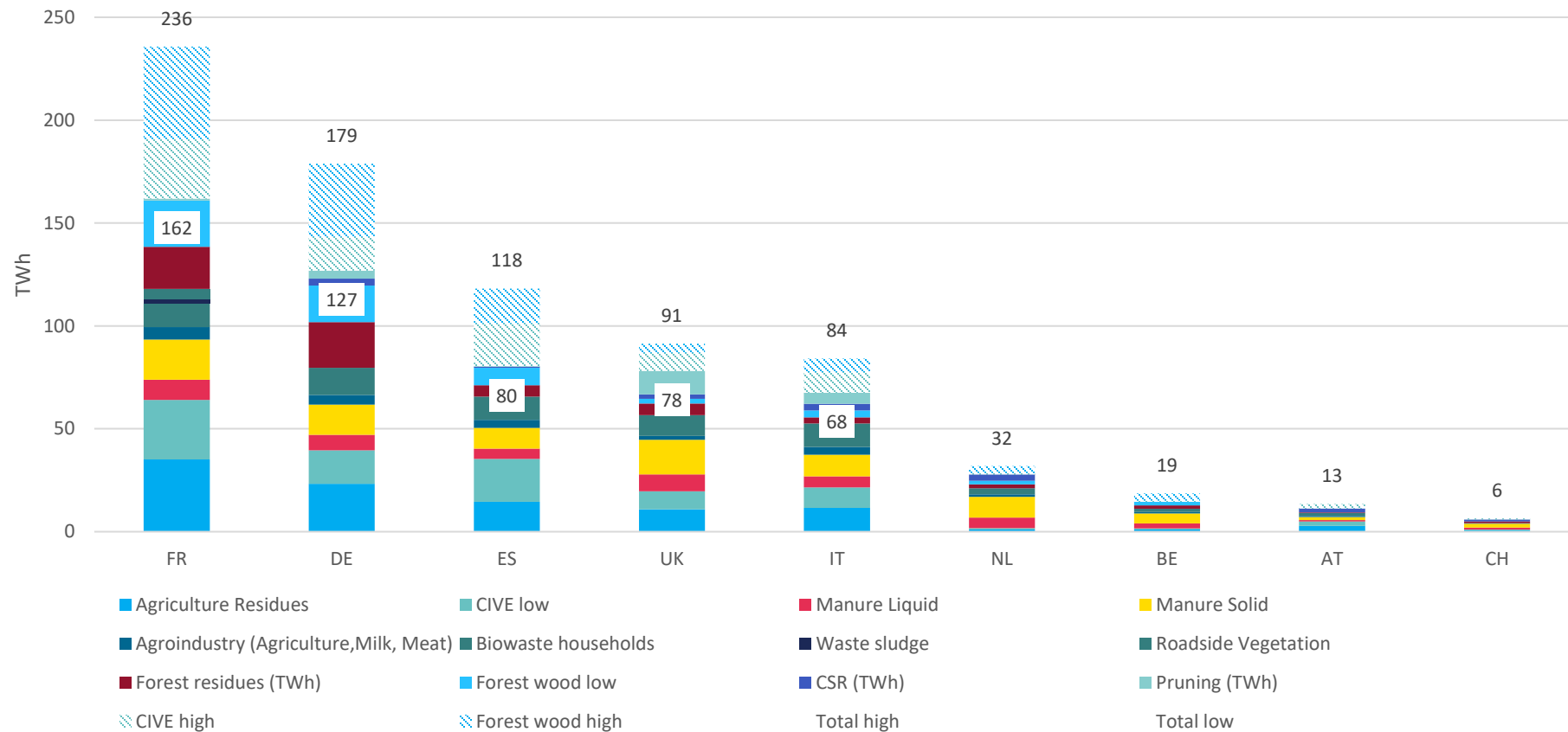
Biomethane 2G potential

Unit : MWh/km2



# France and Germany have the highest potential

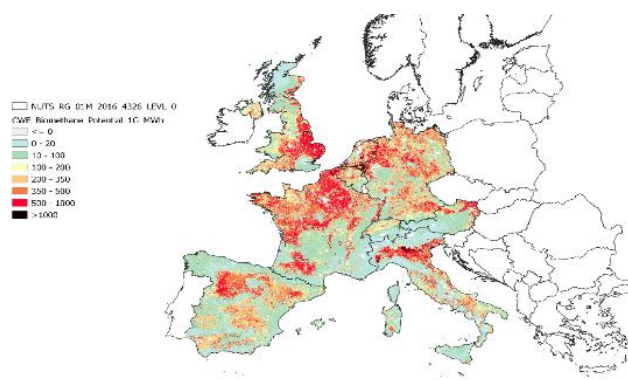
Biogas potential 1G + 2G - 2050



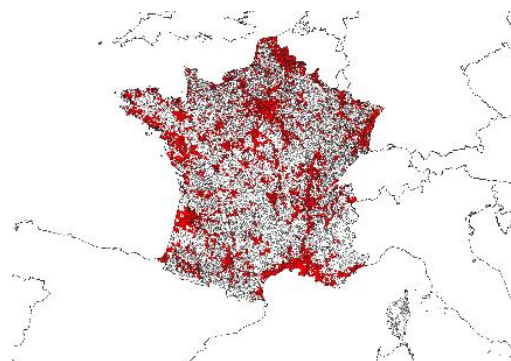
The background of the slide is an aerial photograph of a city. In the upper half, several tall, modern skyscrapers with glass facades are visible against a bright sky. The lower half of the image shows a lush green park area with various trees, including some rounded, manicured bushes, and a paved walkway or plaza area. The overall scene suggests a blend of urban development and green spaces.

# **Geographical analysis of biomethane costs**

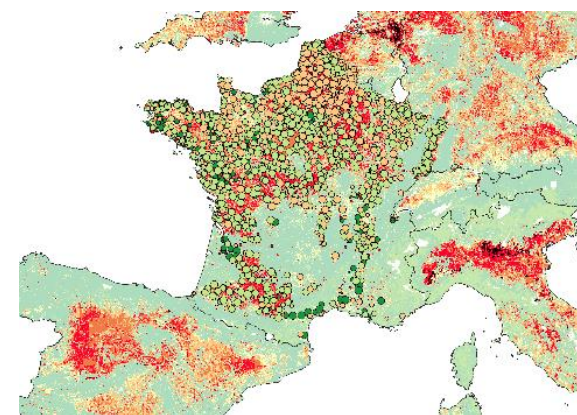
# Biomethane injection potential



Available biomass potential



Zones with gas network  
(France, UK)\*



Optimized location and sizing of units

Minimizing LCOE, taking into account:

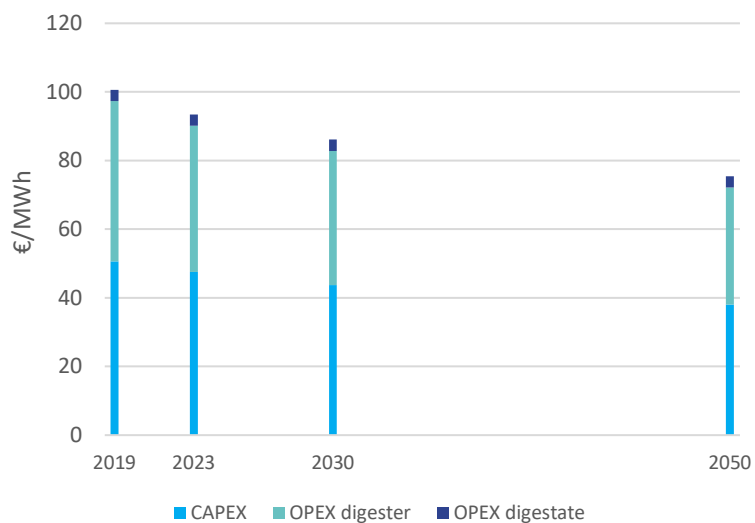
- competition for resources
- feedstock collection and transport costs

\*based on population density for other countries

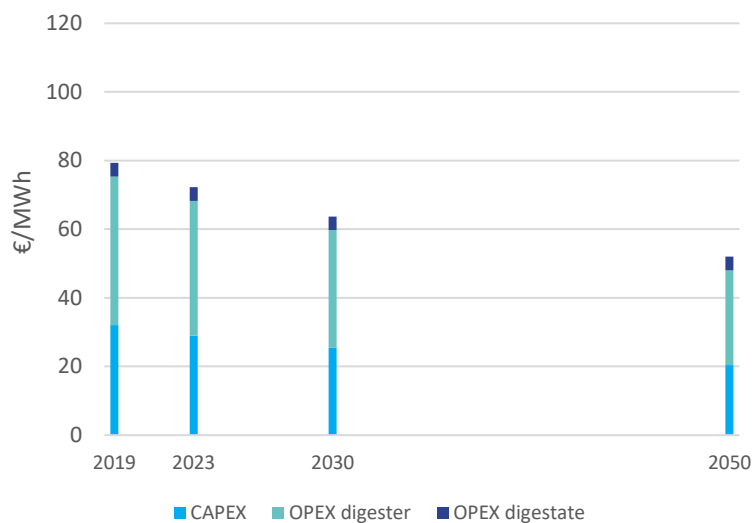


# Learning curve for AD

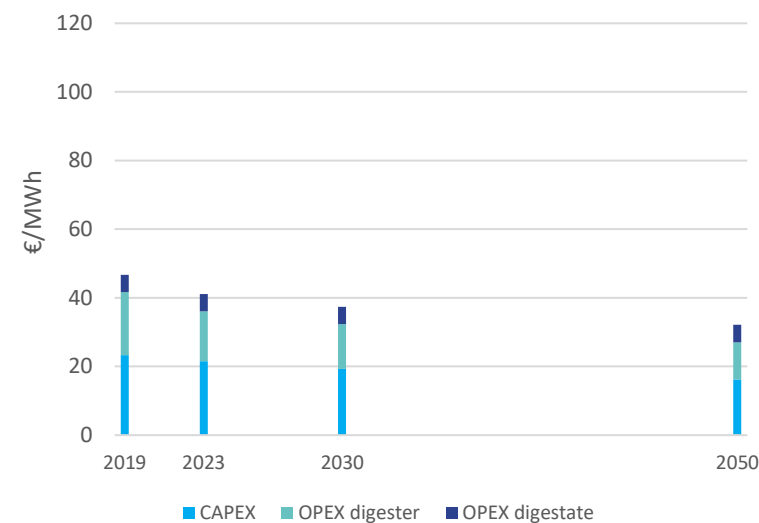
LCOE - 100 Nm3/h unit



LCOE - 300 Nm3/h unit

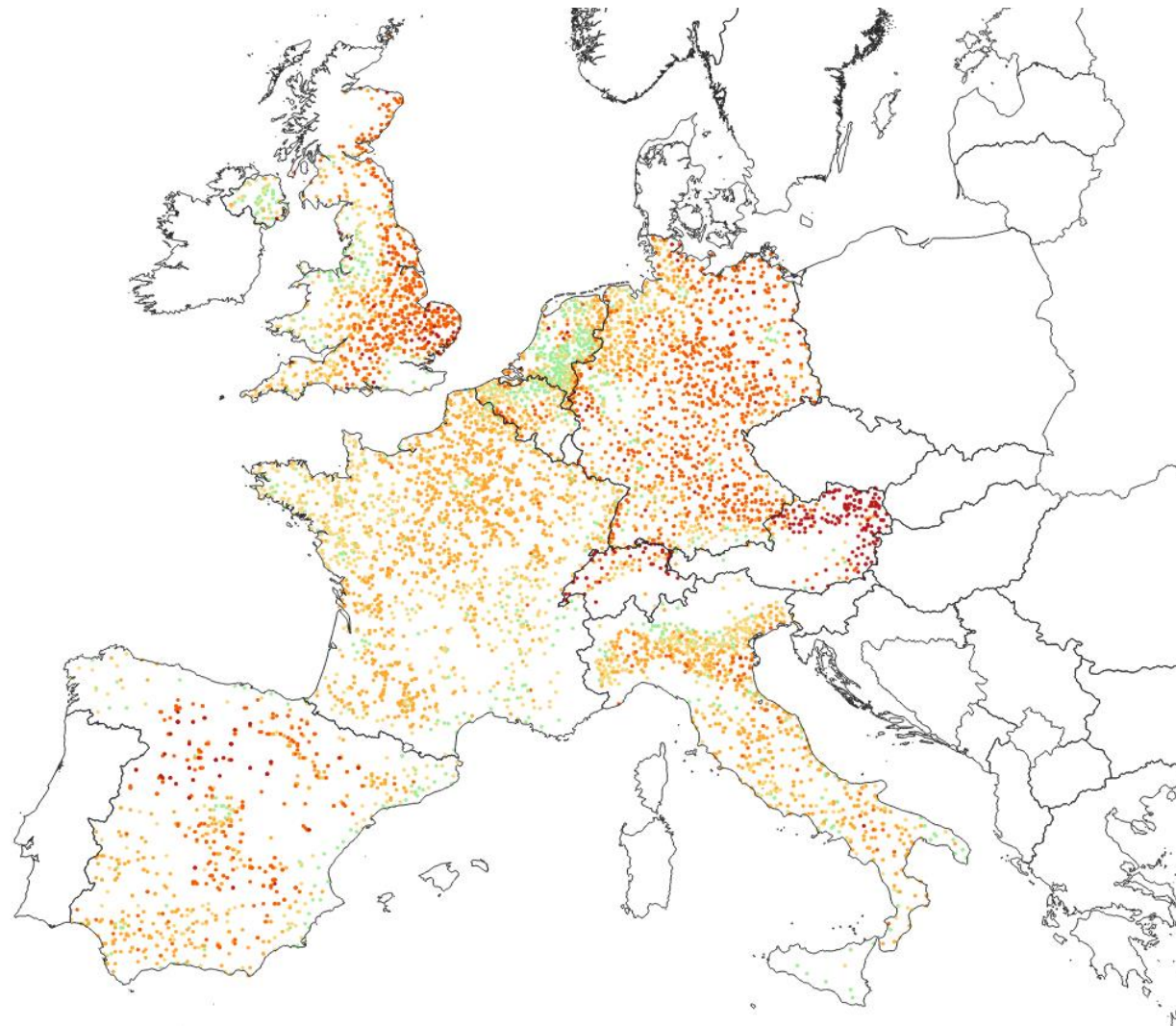
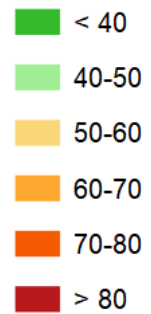


LCOE - 750 Nm3/h unit



# AD production costs in Western Europe in 2050

LCOE – Project (€/MWh)



The image features a central white rectangular area with a blue border, containing the word "Conclusions" in a bold, blue, sans-serif font. The background is an aerial photograph of a modern residential development. In the foreground, there is a well-maintained green courtyard with several rounded, manicured bushes and a wooden deck area with some outdoor furniture. In the background, several tall, modern apartment buildings with glass facades and balconies are visible under a bright sky.

# Conclusions

- Further industrialization will provide a competitiveness leverage for biomethane.
- Development of intermediate cultures can boost the AD potential.
- To make this happen, a proper regulatory and legislative framework is a must.



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