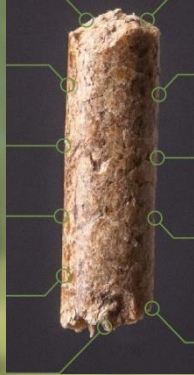




"GREEN TRANSFORMATION - OPPORTUNITIES IN THE EMERGING INDUSTRIAL BIOECONOMY."

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## ENVIVA INC.

Enviva Inc. is a leading global energy company founded in the U.S. in 2004 that specializes in sustainable residual woody biomass, initially to displace coal, hard coal and lignite, and gas from the energy system and now increasingly to kick-start the industrial bioeconomy.



## Hendrik Steinort

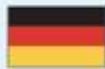
Senior Associate, Industry Solutions and PR

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Tel.: 015223144723

**HAPPY TO CONNECT!**

# INDUSTRIAL BIOECONOMY MEANS - DEEP DEFOSSILIZATION OF A CARBON-RICH SOCIETY.



## GERMANY – *Deutschland*

Germany has set the course for the bioeconomy at an early stage and is among the world bioeconomy leaders. The success of research centres and universities to attract BBI JU funding shows Germany's central role in European research and innovation. SMEs have also successfully obtained funds, setting the foundations for competitive and sustainable bio-based industries.



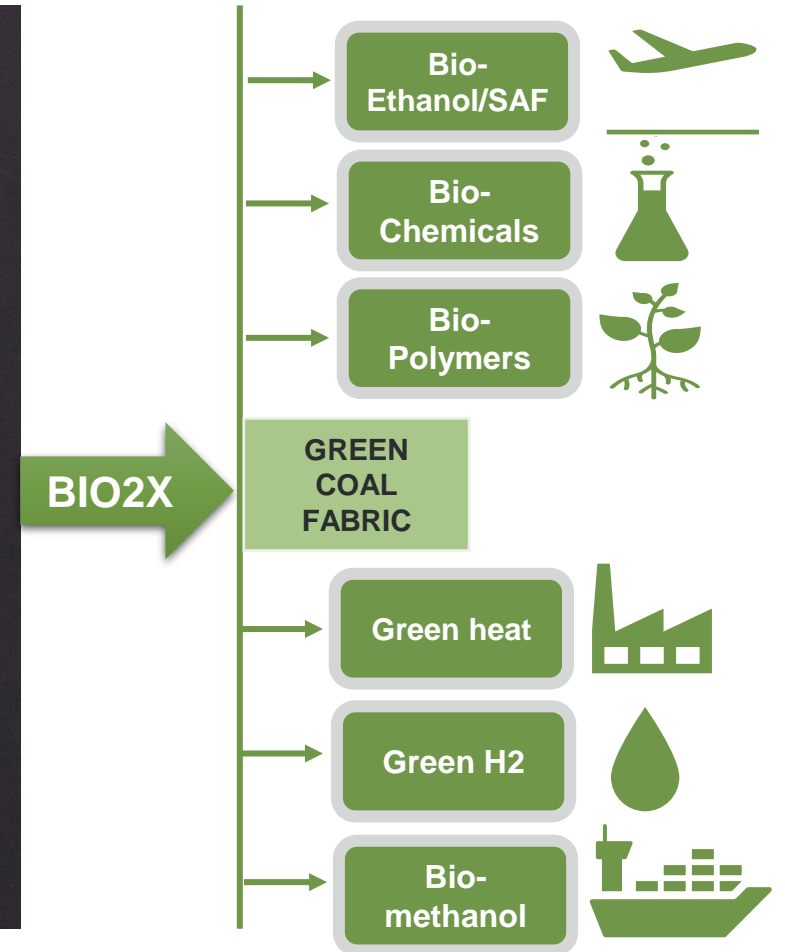
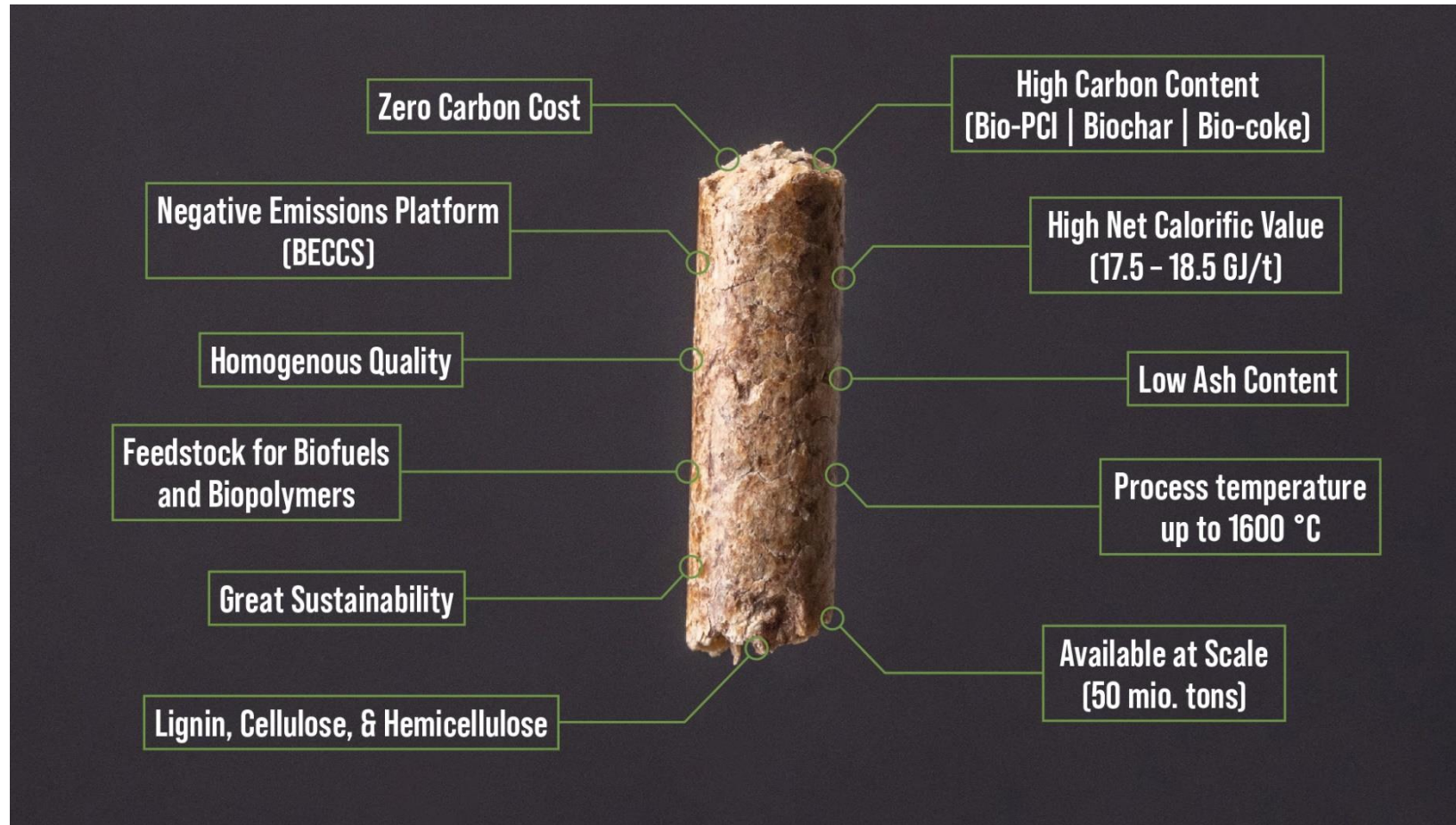
**€160.1 billion**  
turnover in the  
bio-based industries (2017)



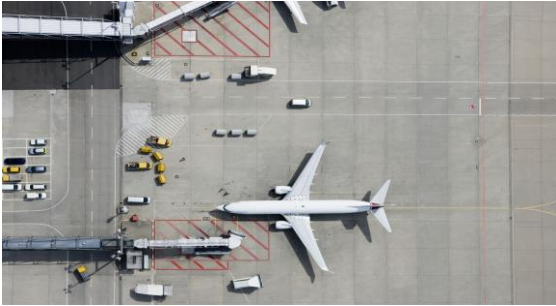
**± 495 000**  
people working in the  
bio-based industries (2017)



# PRODUCT: DEFOSSILIZATION PLATFORM WOOD PELLETS: BIO2X



# STATUS QUO: INDUSTRIAL DEFOSSILISATION



**Mobility** – container ships, aircraft, passenger cars, long-haul transport, etc.



**Fertilizer** - Support of the production process of fertilizers: ammonia and biochar



**Industrial Chemistry** – From the production of green naphtha to the production of phenols, Lactid acid, polymers or plastics.



**Health** – Biopolymers as raw materials for pharmaceutical production



**Biorefineries** – replacement of the refining of all existing gas & petroleum-based fuels (petrol, diesel, jet, heavy fuel oil, renewable diesel, sustainable aviation fuel)



**Green steel & aggregates** - Biogenic substitutes in bio-PCI, recarbonization, bio-coke, sintered fuel, etc., but also in the field of lignin-based textiles, carbon fibers, cement and lime.



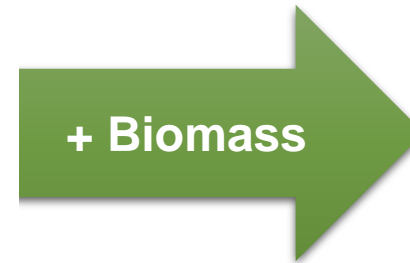
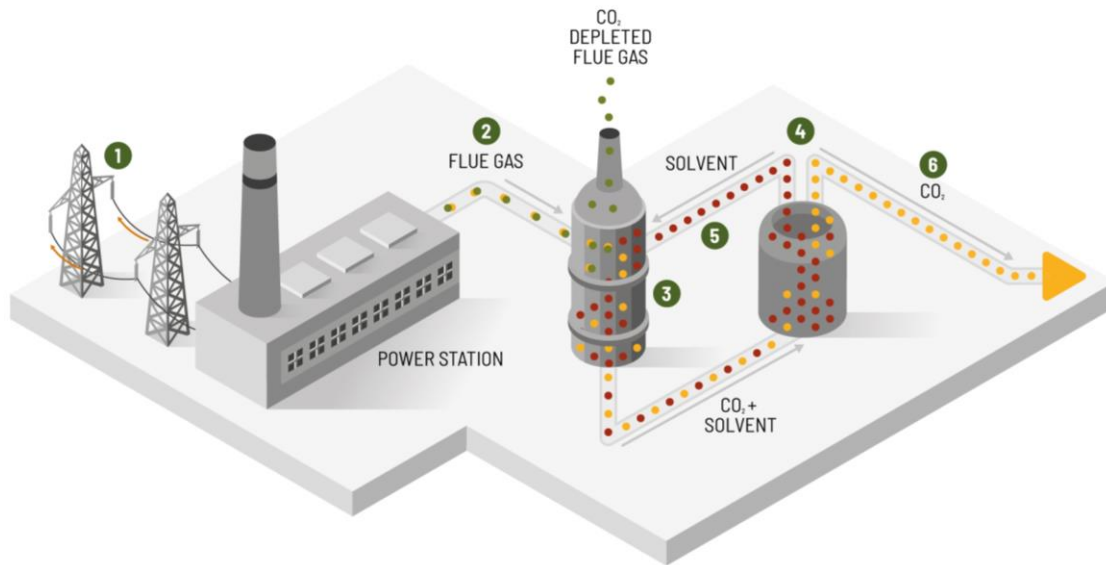
**Green process heat** - for the defossilization of energy-intensive processes in the cement-, lime-, glass-, ceramics-, pulp-, tile-, sugar- and asphalt industry.



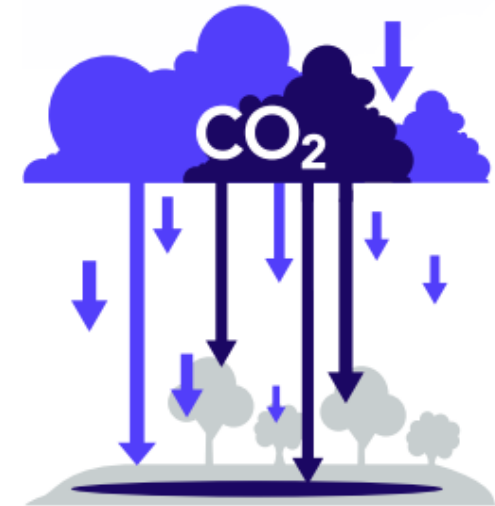
**Bio- /Synthetic Fuels** – Biomass-based green hydrogen, biomethanol, bioethanol, etc.

# UNLOCKING CLIMATE POSITIVE INDUSTRIES

## Climate neutrality pathway: CCS



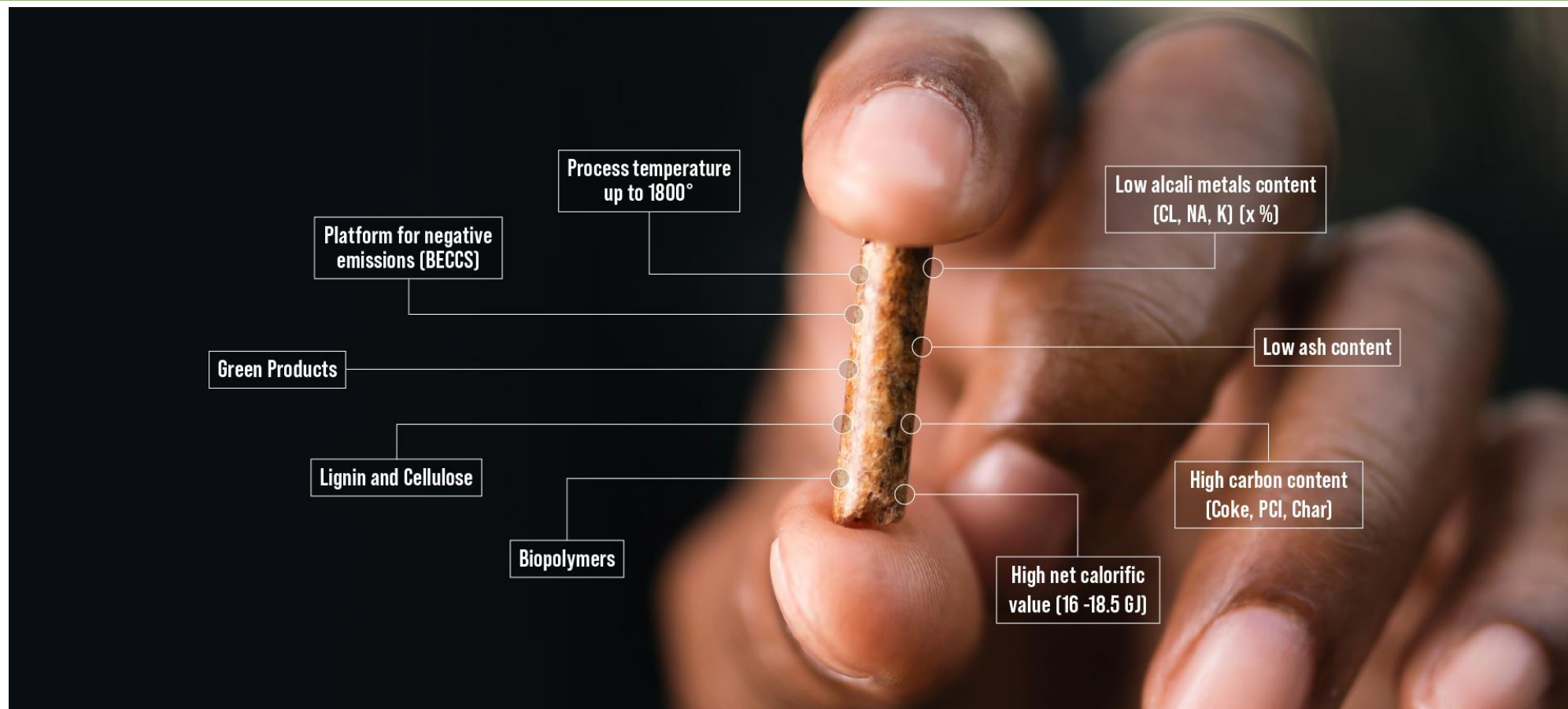
## Climate positive pathway: BECCS



- **BECCS** can deliver large amounts of **negative emissions** with geological storage, without land use change and at **moderate cost**.
- Accumulating **negative emissions-certificates** can become a solid source of **income** for the soon-to-become **climate positive industry**.



# NEW THINKING FOR THE BIOECONOMY JOURNEY – Green Premium Products and Bio-based value chains



# IMAGINE