

Hydrogen in Brazil Opportunities and Challenges, R&D and Finance

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Opportunities

- Industrial Sector – mainly oil&gas, fertilizers , steel and chemistry
 - - Today H2 production based on natural gas reform
 - Gray H2
 - - Transition to Blue H2 through CCUS

Opportunities

- Exportation - mainly to Europe
- - H2 production from water electrolysis through renewable energy (solar and wind) in the Northeast of the country
- Green Hydrogen
- - more than US\$ 30 billion investment announced

Opportunities

Increasing the local demand:

Mainly for automotive sector (heavy vehicles)

H₂ production from Ethanol using steam reform

7,6 liters of Ethanol can produce 1 kg of H₂

Opportunities

- Medium size Regional industrial Sector :
- - Local Production using SGH2
Technology to produce H2 from the waste
- - Green of Green H2

Challenges

- New Technologies to bring the process more eficiente and the cost down
- Better solutions for transportation and storage
- More R&D for Hydrogen cells for the automotive sector
- Standard for the use, transportation and storage

R&D

- National Energy Council approved in 2021 the R&D budget should be priority for H2.

Finance

- BNDES and Finep are ready to finance hydrogen projects



THANK YOU

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