

 **UWC** ADRIATIC





# HYDROGEN AS ENERGY

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*A look into the present for  
improving our futures*



# A look into

-  **Europe**
-  **Asia**
-  **America**
-  **Africa**





# Italy



## Helios Project:

- Provincia di Frosinone
- 5MW electrolysis system
- 7MW photovoltaic system
- 400 tons/y
- €9,500,000 from PNRR

## SouthH2 Corridor:

- 3,300 kilometers of pipelines across Italy and Europe
- reusing over 70% of existing infrastructure
- 4 million tonnes per year of imported hydrogen
- 40% of the EU's REPowerEU import target

## NRRP:

- €191.5b in grants
- €68.6b in renewable energy
- By 2050, hydrogen could supply nearly 23% of Italy's total energy
- Green hydrogen" is projected to become cost-competitive with "grey hydrogen" by 2030,
- Importing hydrogen from North Africa via existing pipelines could lower costs





# Poland

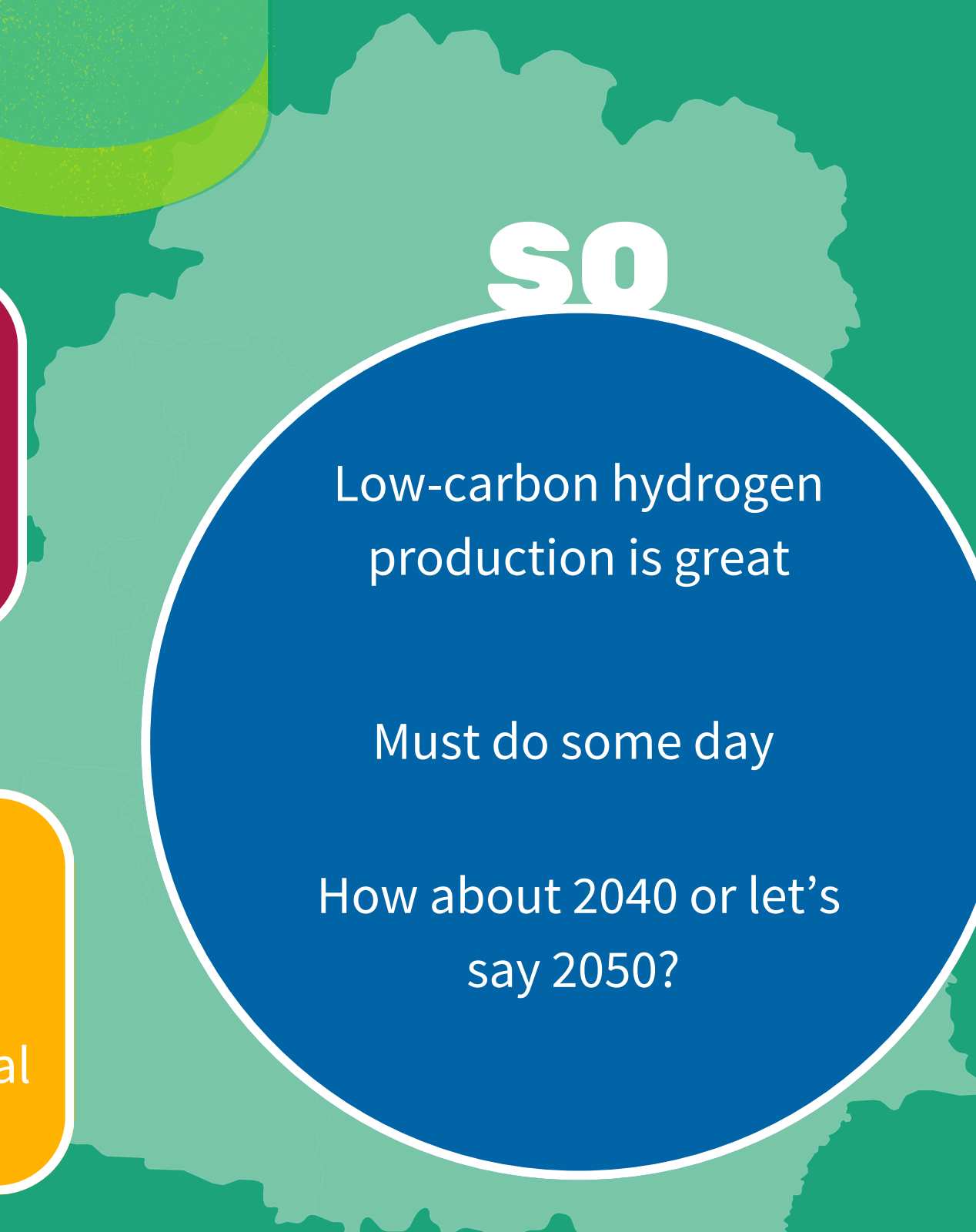
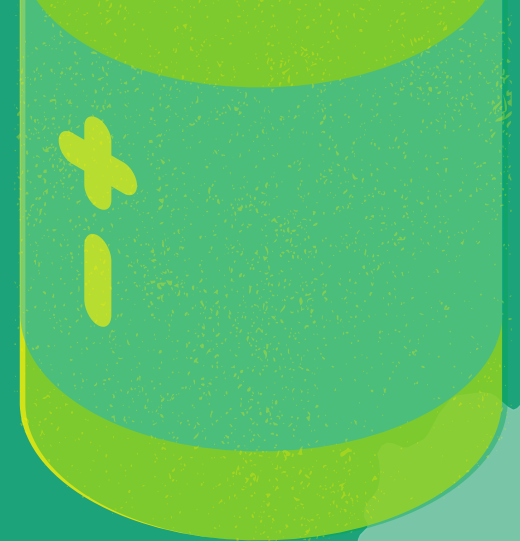


- **3rd hydrogen producer in Europe**  
*(unfortunately not much from renewable sources)*
- Polish Hydrogen Strategy and main objectives
- Hydrogen valleys
- Interesting innovations in 2023





# Belarus



## YES

Committed to COP 28 targets

LCHP part of national and regional (CIS) strategies documents

Method: electrolysis via NPP

Own NPP

## BUT

Cheap energy imports

Low CO<sub>2</sub> emissions

## SO

Low-carbon hydrogen production is great

Must do some day

How about 2040 or let's say 2050?

## Also

NPP runs on low capacity

Untapped renewables potential

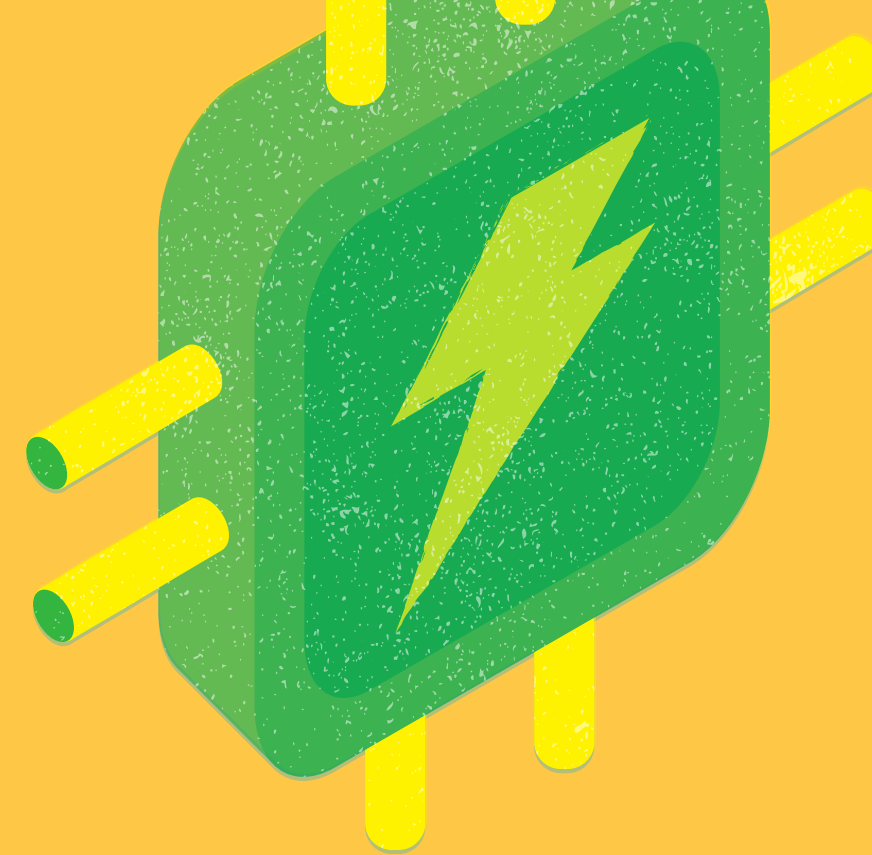
*Acknowledgement of low-carbon hydrogen production*

*Constellation of factors*

*Future*



# China



- Largest producer (1/4 global)

## Strategy 1

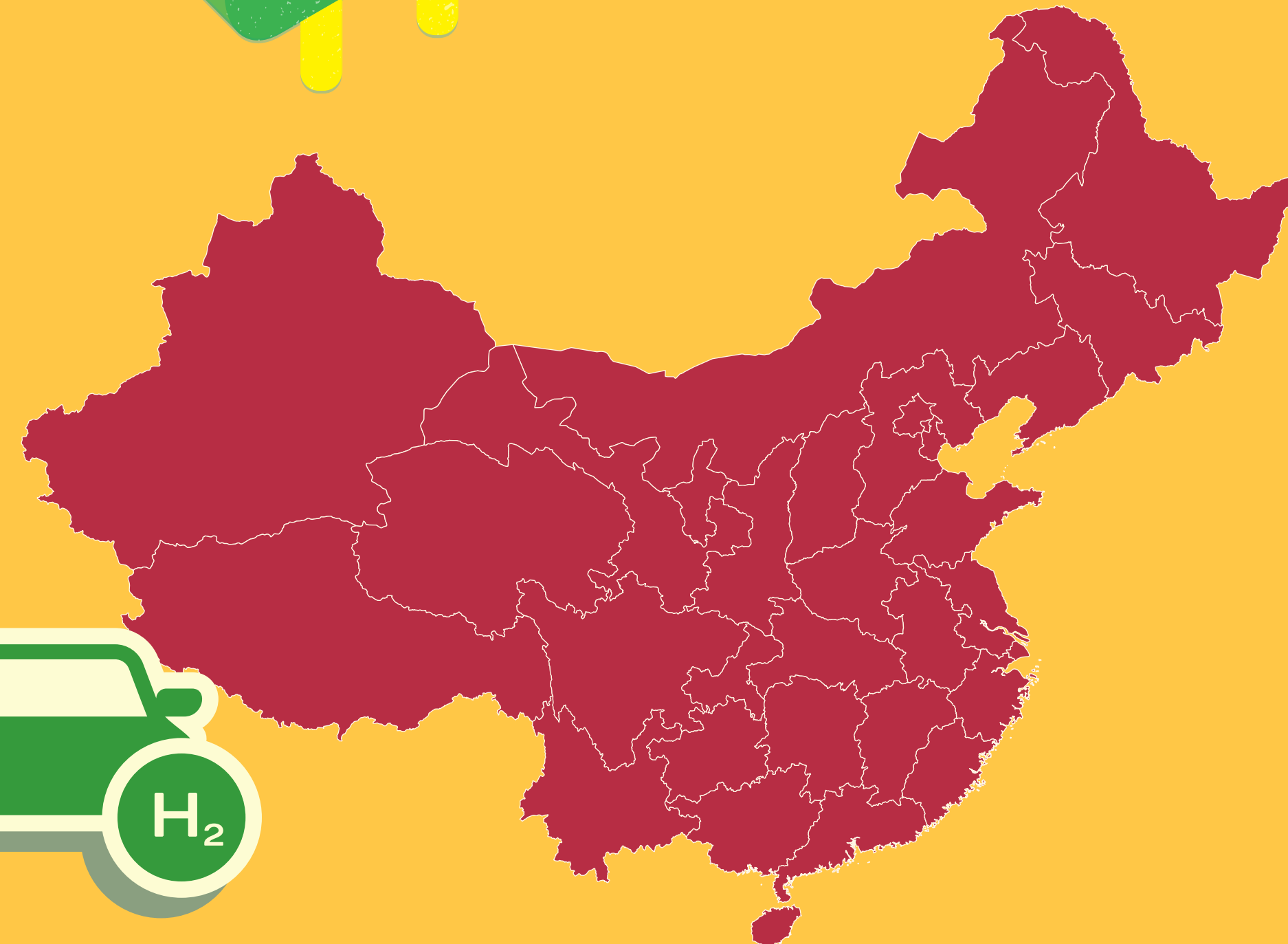
Hydrogen applications

## Strategy 2

International collaboration

## Strategy 3

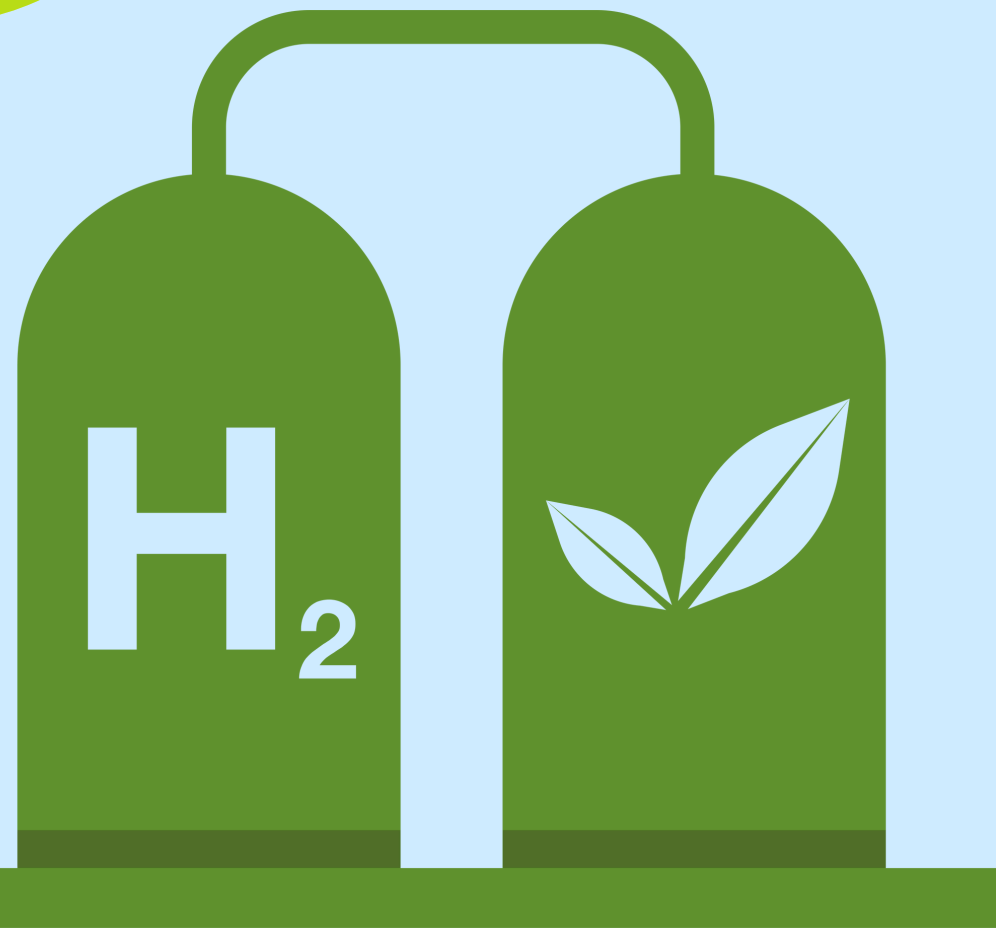
Policies





# Mexico

- Largest Project: ***Baja California Hydrogen Hub***
- Strategic partners for collaboration
- ***Baja California HUB*** can offer more jobs

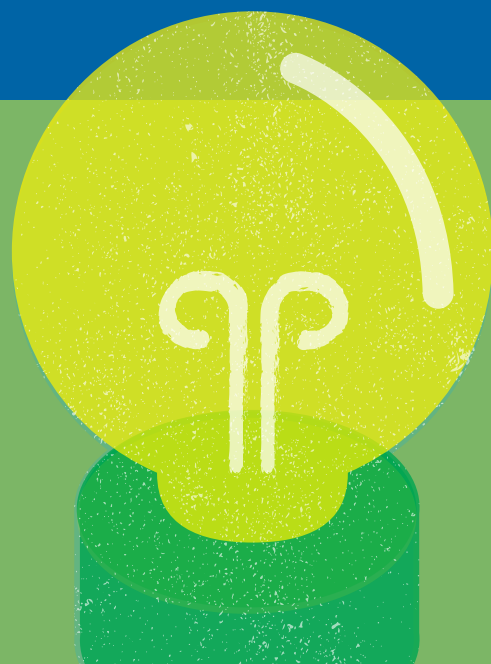




# Africa

## "Going Green" Mission

- Noor Solar Complex (Morocco) generates over 580 MW of clean energy.
- Morocco's partnerships in 2020 led to Africa's first standalone green hydrogen plant.
- Green hydrogen-powered ammonia plant in Morocco on track to produce 31,000 tons of green hydrogen by 2026.



**The *Green Revolution*, or was it *Vegetables*?**





# Challenges in Scaling Green Hydrogen

## Africa's potential in solar resources

FUEL OF THE FUTURE?

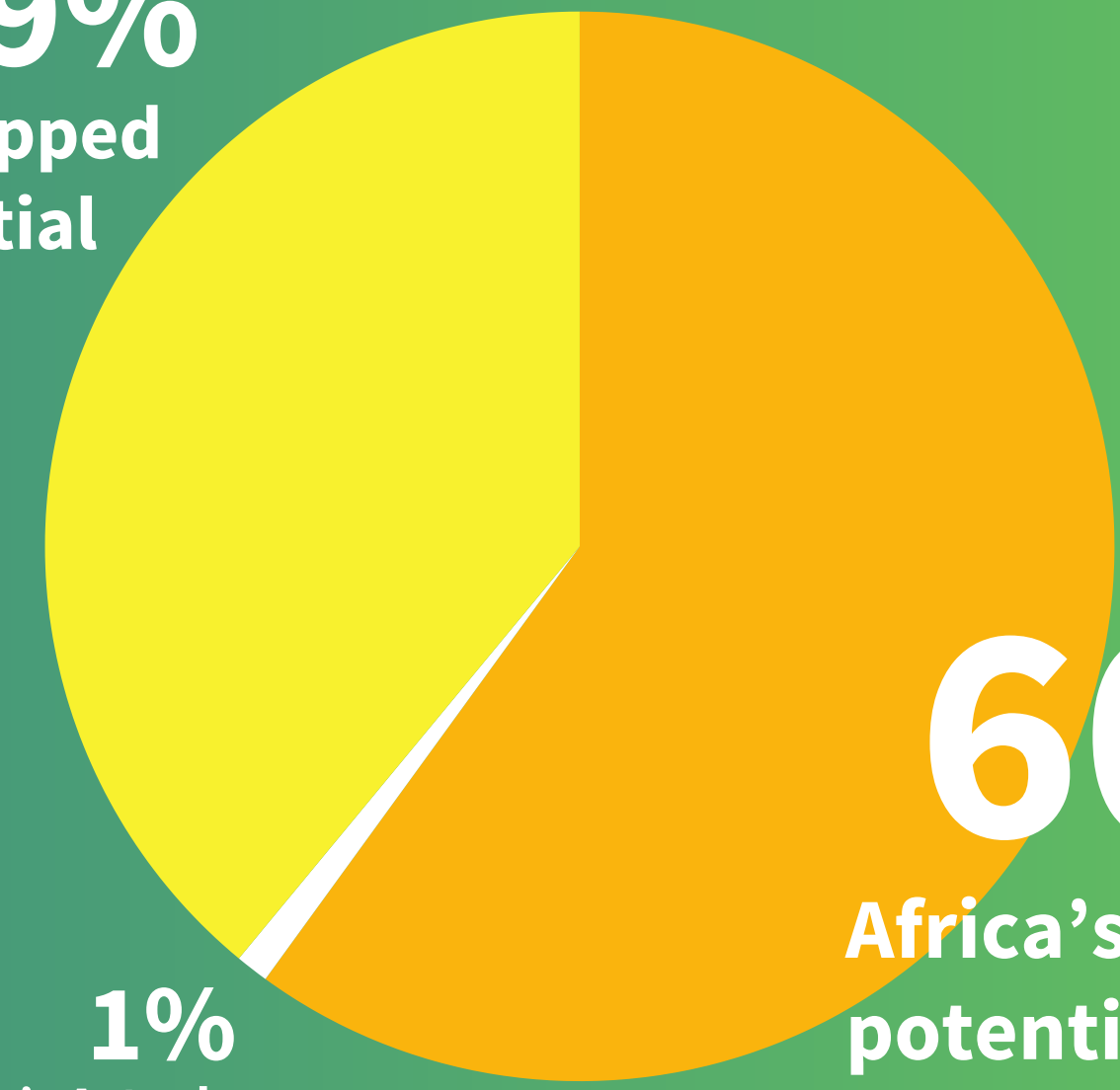


Elements in the Periodic Table

hydro = water  
genes = forming



39%  
Global Untapped Solar potential



60%  
Africa's solar potential

1%  
Africa's Actual Solar contribution

*Politicians, entrepreneurs,  
engineers, educators—  
each of you has a role in the  
green hydrogen legacy.*

**Green hydrogen isn't  
a dream anymore;  
it's already underway.**



**What will  
your role be?**





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# Thank you

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*Nina  
Benedetta  
Leonardo  
Milena  
Marta*

*Helena  
Alessandro  
Milca  
Rawane  
Ashraf*