



- Carbon-based Waste
- Biomass
- Municipal Waste
- Wastewater sludge
- All Plastics

Green Electricity



Green Hydrogen



Carbon-recycling products

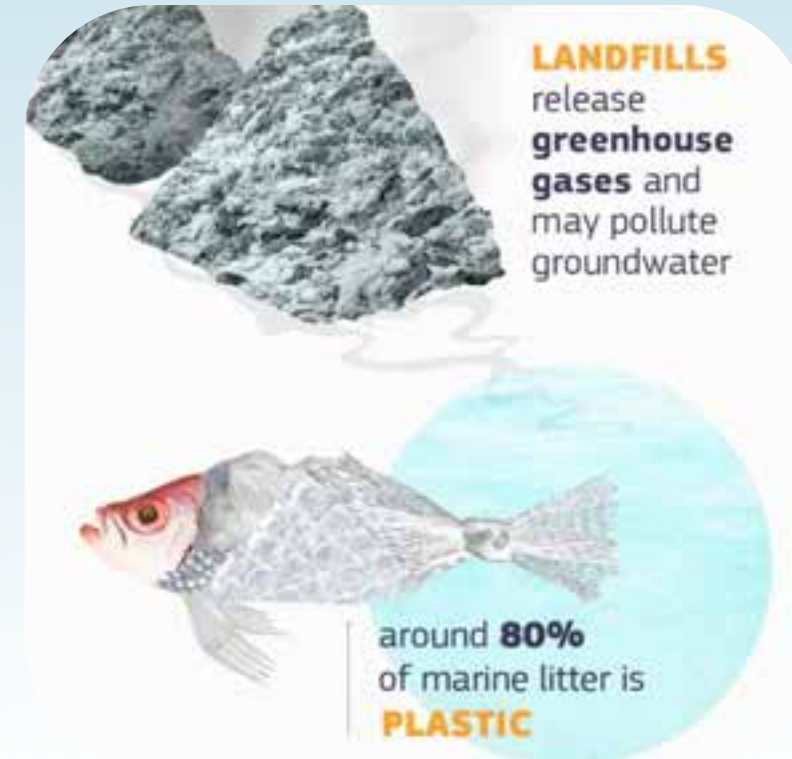


Dynamic CO2-storage



We believe in a sustainable, net-zero future by smart, decentralized and autonomous waste-to-energy systems

- EU Facts and goals for 2030



**5 tonnes of waste**

is produced by the average European  
each year

**Only 38%**

of waste in the EU is recycled

**Over 60%**

of household waste still goes to  
landfill in some EU countries

## ● Why now?



**2**

Electrification is key to decarbonize

RES will take **TIME** and heavy investments.

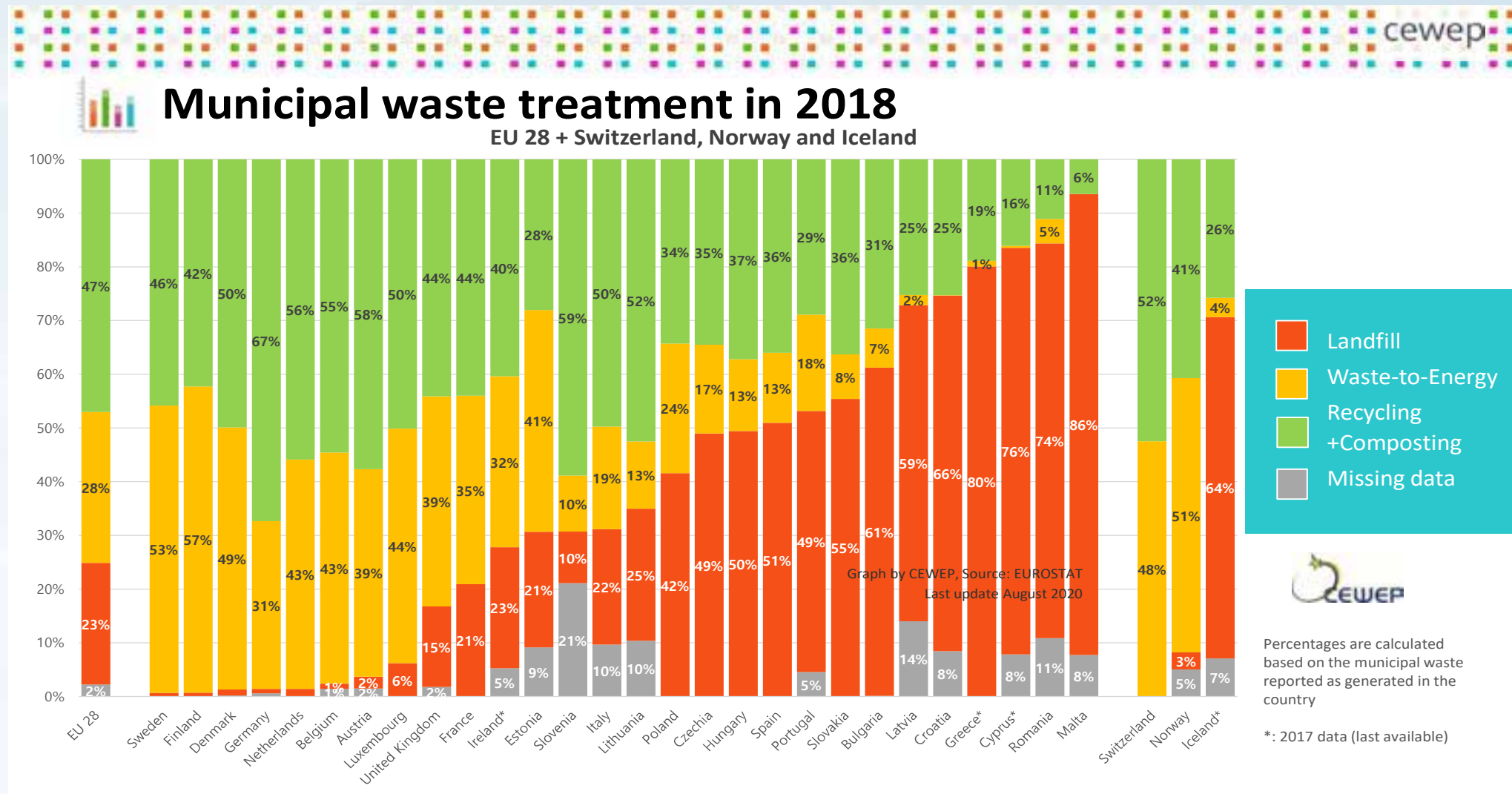
Green Hydrogen from electrolysis is expensive + it will take **TIME** to reach scale.

Do we have **TIME** to wait?

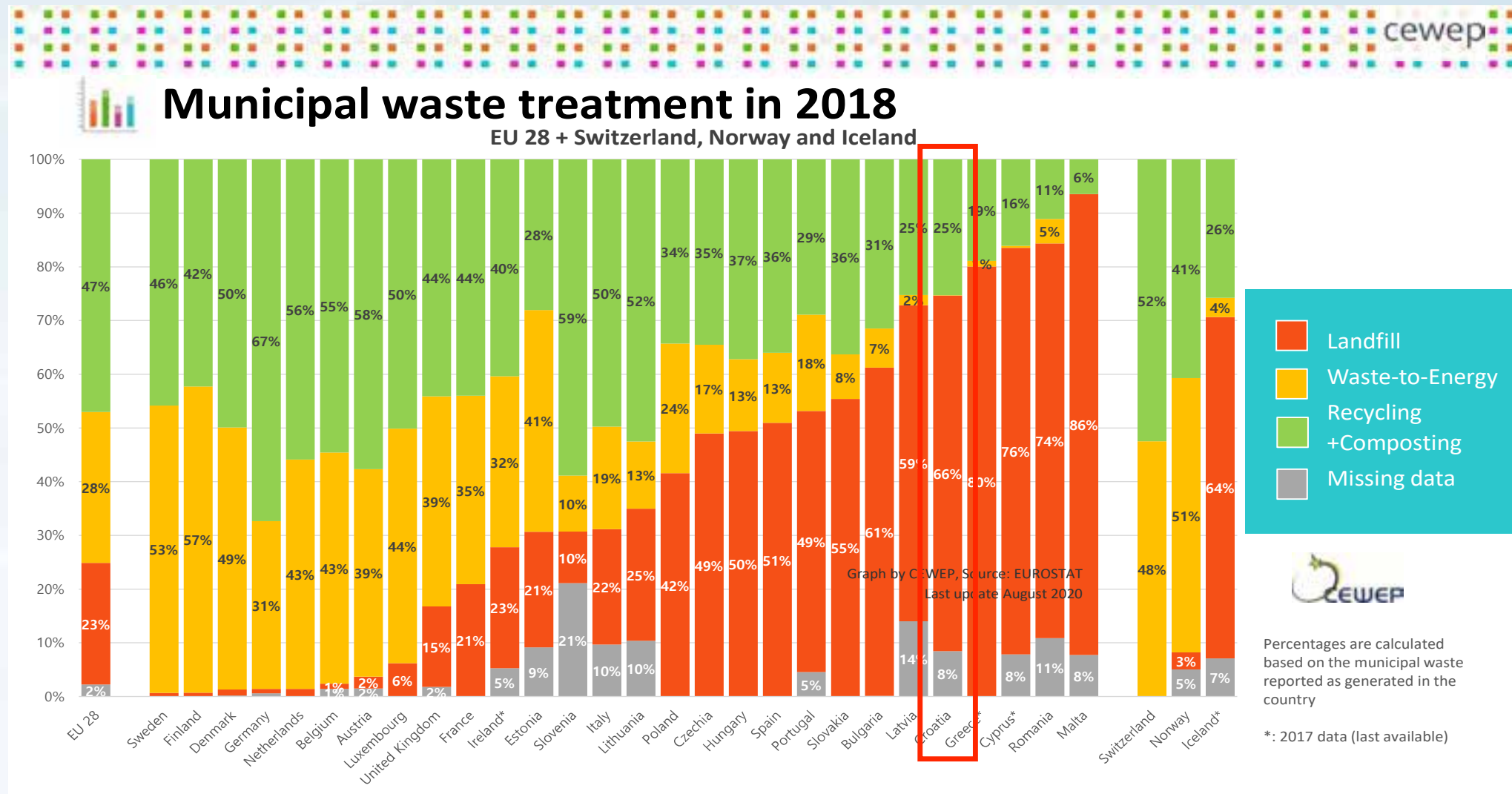
**Our strategy:** Through a patented tech we use direct solar energy to convert any carbon-based waste into valuable outputs: clean energy from hydrogen, together with market-ready carbon-recycling products.



# Waste-to-energy trends in Europe



# Waste-to-energy trends in Europe



## ● The Race to Zero is “On”

“To reach net zero emissions by 2050, annual clean energy investment worldwide will need to more than triple by 2030 to around €3.4 trillion.”

*Sources: IEA, Net Zero by 2050 – Flagship Report*

Green Hydrogen offers great potential, but...

**01**

**3 600 TWh**

Power needed to  
produce 75Mt of H<sub>2</sub>

**4 000TWh**

EU 2020 Energy output  
21% from RES

**=> Grow**

**02**

**€ 1 to € 2.5/kg**

H<sub>2</sub> from Gas  
with or without CCS

**€ 3.5 to € 8/kg**

H<sub>2</sub> from RES

**=> Scale**

**03**

**Hydrogen Valleys**

Auvergne-Rhône-Alpes,  
North. Nederlands, Aragon

**Mega projects**

NorthH<sub>2</sub>, NEOM

**=> Centralize**

- Our unique energy-autonomous waste-to-H2 technology produces environmentally friendly, high quality calibrated outputs



Energy autonomous process

Waste/biomass preparation and Granulation

Calibrated waste pellets  
Input

Solar powered  
**Pyrolysis**

400°C

Homogeneous **Biochar**

Cyclonic Plasma  
**Gasification**

1200°C

**Carbon Black** and **H2-rich gas**  
no toxic pollutants release

Hydrogen  
Purification and  
Compression

Pure **Hydrogen**



- What makes SMO uniquely profitable with competitively priced products?

1

**Complete Energy autonomy**

2

**Clean process with a negative CO2 footprint**

3

**Modular tech → Adaptable revenue model**

EU market trends:  
SE Europe Islands: 20 000 MW  
energy generation capacities,  
1500 MW (€1 Bn) New Renewable  
Energy Sources by 2030

"...additional investments of EUR 78 billion are needed between now and 2030 in order to enable CESEC members to build an energy system that is substantially less reliant on imported fossil fuels, while delivering energy at competitive costs."

Source: International Renewable Energy Agency (IRENA)  
report

## Our Mission

Accelerate just energy transition, even in isolated areas, leaving no one behind,  
by offering solutions to carbon-intensive sectors



Waste on Croatian Islands represents a nuisance and a cost, our goal is to clean it up



It's bad  
for people's health



It's bad  
for the environment



It's bad  
for tourism

Together with our partners, we are developing a pilot site on Cres island to transform waste from a cost into a major opportunity.

40t

Waste  
Treatment/day

2.5t

Green  
Hydrogen/ day

20years

Economic life  
per plant



- We build and operate SMO plants and generate revenue by selling clean energy and carbon-recycling products

### Scenario for a 5 SMO units plant (10 MW)



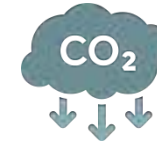
70 000t  
of  
Waste treated



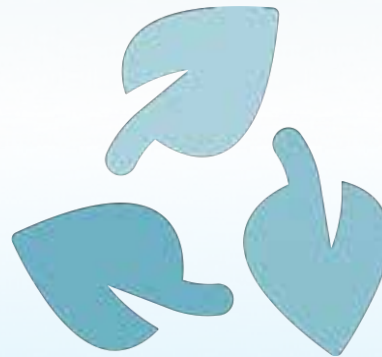
4 500t  
of  
Clean Hydrogen



or 75 GWh  
of  
Stable Electricity



75 000t  
of CO2 captured/  
avoided



5 unit  
SMO  
plant

Green Hydrogen: 4 500t+/yr

## ● Use Cases :

## Mobility:



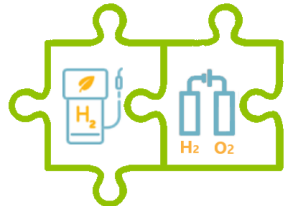
...enough to power:

(assumption: 15 000km/year)

up to

**60 000** BEV vehicles

Or

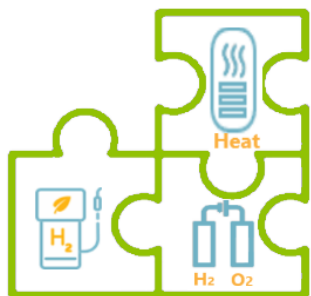
**32 000** FCEV vehicles (**1250** buses)Electricity for  
Grid injection:

...enough to power:

up to

**100** GWh energy needs/yr

or

**28 500** EU households/yrElectricity + Enhanced  
Energy Efficiency

...enough to power:

up to

**14 000** autonomous  
households (domestic + car)

- Implementing smart, decentralized waste to energy solutions on strategic locations for cross-sector benefits



Showcase a solution supporting the environment and the circular economy



Use waste in a smart waste-to-energy system and achieve CO2 neutrality



Become energy sufficient and autonomous through clean energy produced on the spot



# Clean, Green, Profit Machines

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