

## HOW TO OBTAIN ECO-FUELS WITH SUNLIGHT

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### WHAT IS CONDOR?

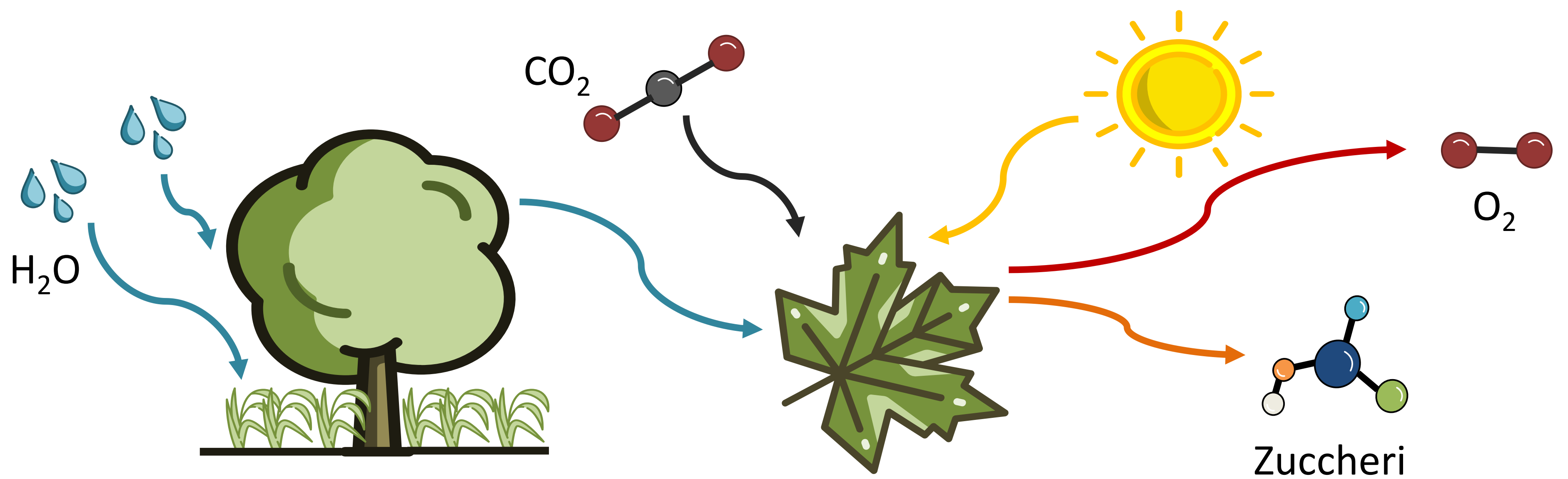


CONDOR will produce a device for the **artificial photosynthesis** able to convert water and carbon dioxide (one of the main **greenhouse gases**) into **fuels and bioplastics** by means of **sunlight** as the only energy source.

### NATURAL vs. ARTIFICIAL PHOTOSYNTHESIS

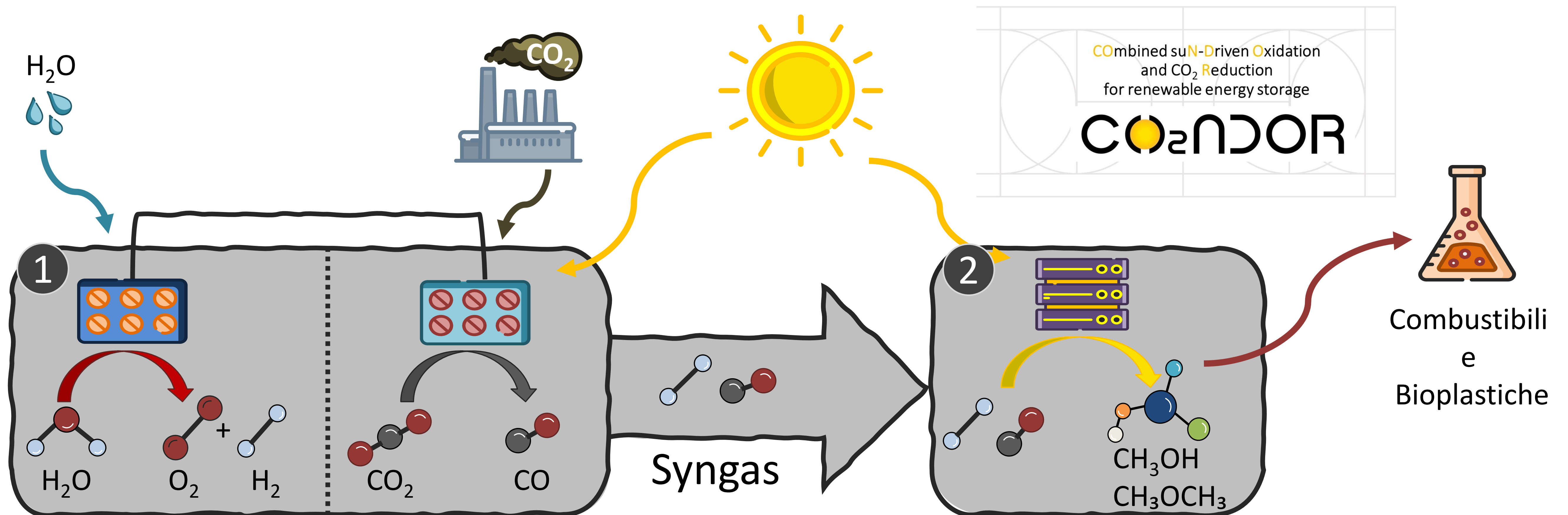
#### Natural Photosynthesis

Plants exploit **sunlight** for converting water ( $H_2O$ ) and carbon dioxide ( $CO_2$ ) into energy.



#### Artificial Photosynthesis

Similarly, our device will use water and carbon dioxide in order to obtain **energy carriers** such as methanol and dimethyl ether; useful for the production of fuels or bioplastics.



Formed by two compartments:

1. Photoelectrochemical cell for the conversion of  $H_2O$  e  $CO_2 \rightarrow$  Syngas formation (hydrogen  $H_2$  and carbon monoxide  $CO$ ).
2. Photoreactor that converts Syngas into useful products.

### Aknowledgements

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### Info

