

## Gas Customizer

Creation of different alternative gaseous fuels : natural gas, biogas, hydrogen, hythane.



CRMT has designed and developed Gas Customizer to reproduce the composition of fossil natural gas, bio gas, hythane or any other alternative fuel gas, in order to test and adapt the engine in its actual conditions of use. The system allows for :

**REPRODUCTION** of a precise gas composition from an existant sample. In order to do this, a first chromatographic analysis must be done in-house.

**CREATION** of a precise gas composition based on customer's needs and desired characteristics.

### How does it work?

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#### Gas validation.

*Example :* verification of the quality of a mixture aiming to match the real biogas composition out of a methanizer.



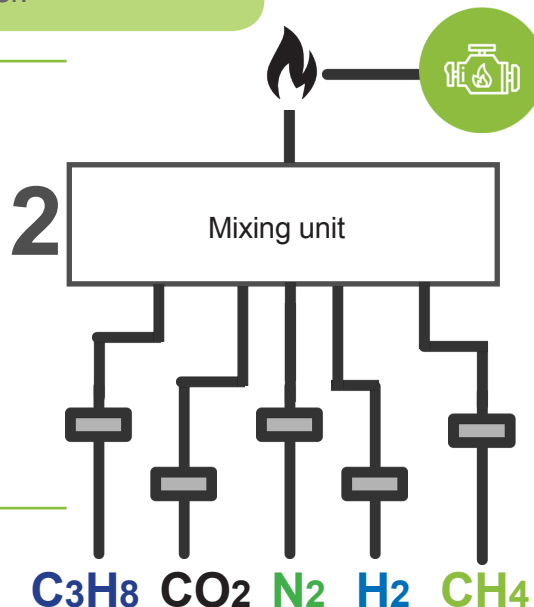
### 5 main gases

- H<sub>2</sub>** Hydrogen
- N<sub>2</sub>** Nitrogen
- CO<sub>2</sub>** Carbon dioxide
- C<sub>3</sub>H<sub>8</sub>** Propane
- CH<sub>4</sub>** Methane

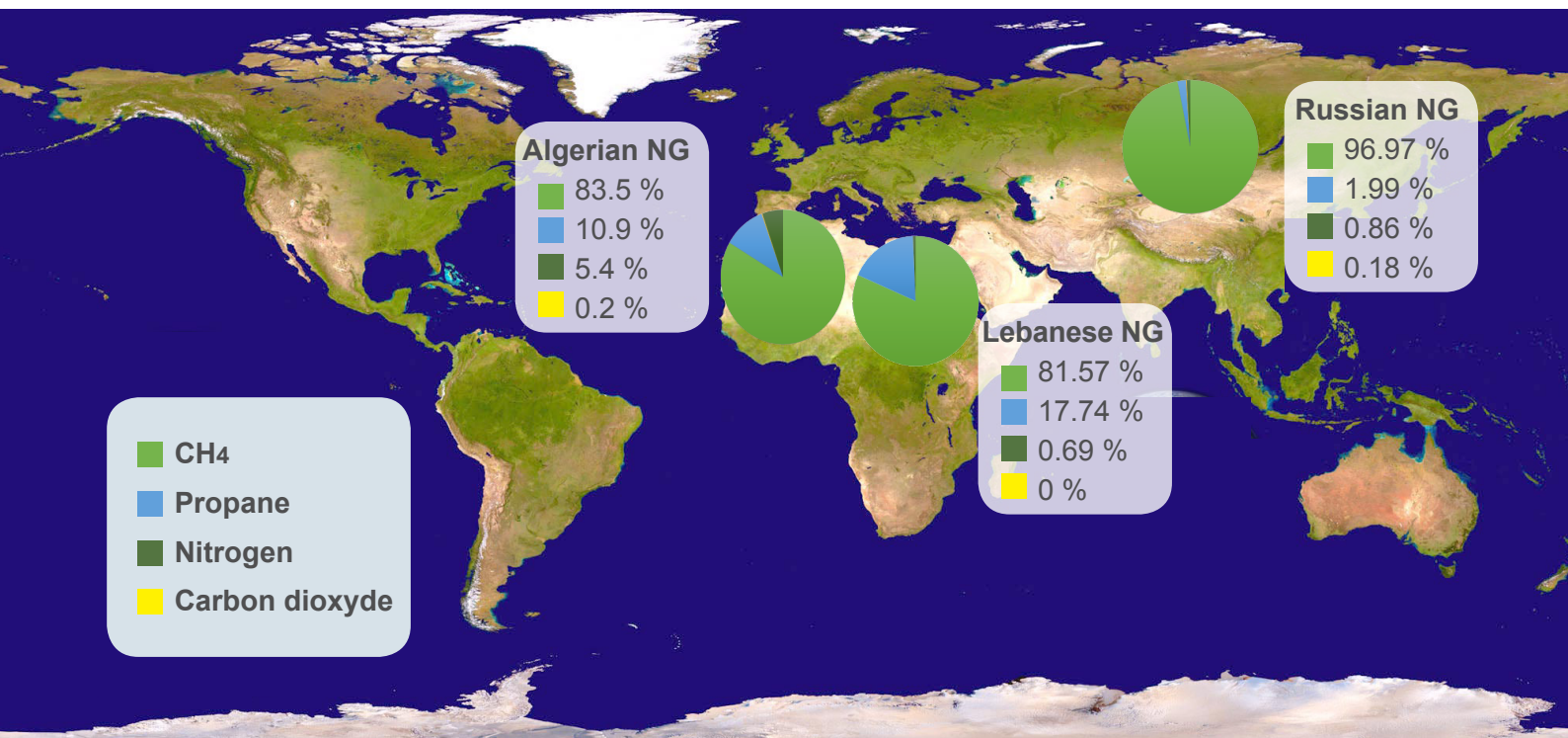
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**Content variation control** of each one of the **5 main gases** that will compose the final mixture.

CRMT's ECU, the brain of the system



## Natural gas (NG) composition variation according to its geographical origin.



### Optimum gas compositions

- ✓ depending on their geographical origin
- ✓ according to its treatment cycle
- ✓ out of a methanizer



### Hythane creation

- ✓ Hydrogen 5%
- ✓ Hydrogen 10%
- ✓ Hydrogen 15%



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