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PRESS RELEASE

## THANKS TO ECOSLOPS' TECHNOLOGY, GREENHOUSE GASES EMISSIONS TO PRODUCE HYDROCARBONS ARE THREE TIMES LESSER

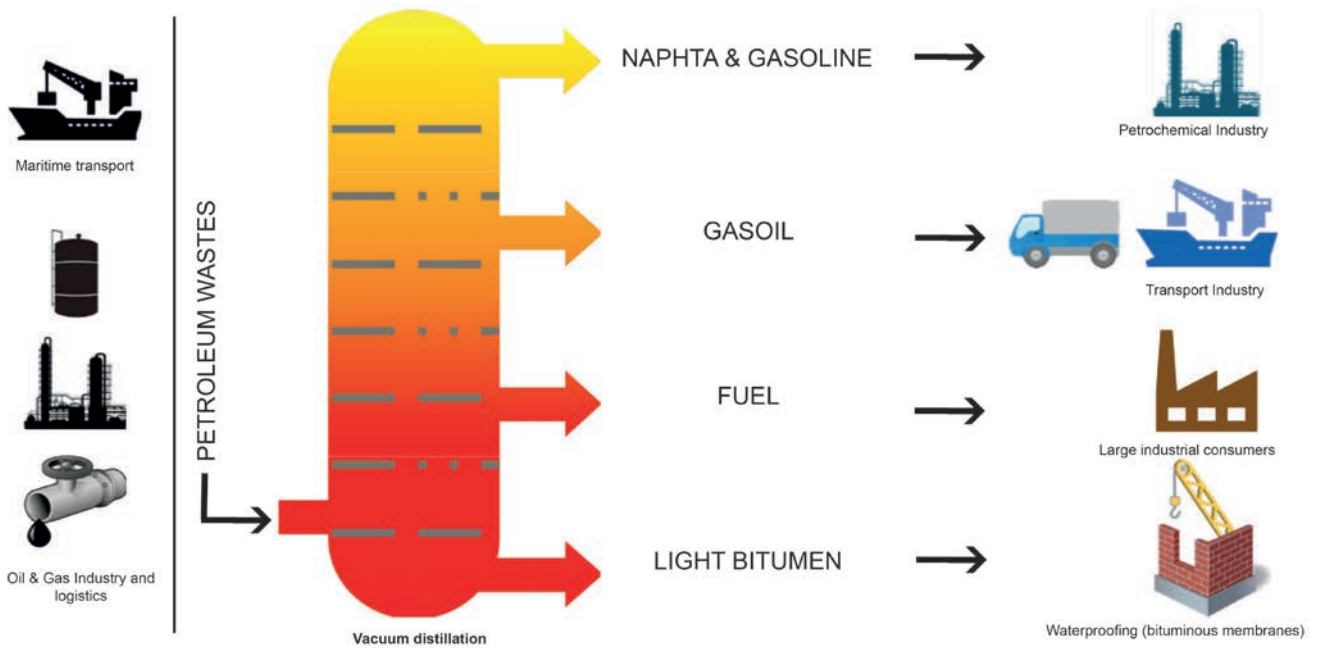
Paris, June 13th, 2018

**Ecoslops has selected Carbone 4, a french consulting firm specialised in climate change and energy transition, to assess the carbon impact of its production site in La Mède in Provence, planned to open in 2019.**

Ecoslops is the cleantech company that applies circular economy principles to the production of petroleum products. Its innovative micro-refining technology makes it possible to bring added value to hydrocarbon residuals, by turning them into new products that meet international standards. This process is economically sustainable, improves the material footprint and promotes sustainable actions by giving a second resourceful life to waste. Overall, this innovative technology emits three times less greenhouse gas (GHG) emissions compared to standard hydrocarbon extraction and production.

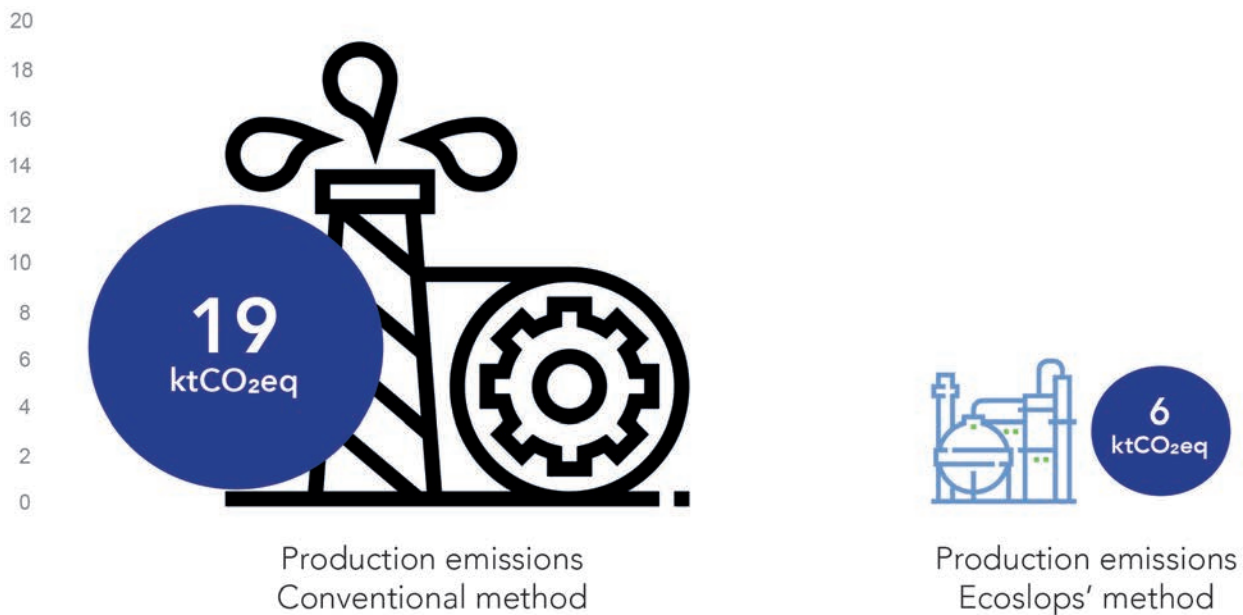


## STUDY PERIMETER



## THREE TIMES LESS GHG EMISSIONS

Carbone 4 showed that for a production unit the size of La Mède's (30,000 tons/year), Ecoslops' hydrocarbon production process could divide greenhouse gas emissions by three compared to the traditional process based on crude oil extraction<sup>1</sup>. Moreover, this technology improves the hydrocarbon material footprint, as the raw oil material stock is not wasted.



The study shows that La Mède production site alone will allow to reduce emissions by 13 ktCO<sub>2</sub>eq per year.

## A SECTOR ENCOURAGED TO ADOPT MORE VIRTUOUS ACTIONS

Ecoslops' economic revalorisation gives financial incentives to ship-owners and other residual producers to treat this residual waste in a more transparent way. This will, de facto, **avoid illicit dumping of toxic by-products into the sea.**

Moreover, Carbone 4 highlighted that before the establishment of an Ecoslops production site such as La Mède's, petroleum residuals were generally used by cement-manufacturers as a starting fuel for their factories. Since the residuals go to Ecoslops production site directly, these cement-manufacturers have to find new sources of energy.

With current techno-economic conditions, the most relevant substitute is natural gas. As it is less carbon intensive than petroleum residuals, **this substitution results in an additional reduction of emissions.** In the case of La Mède, this additional decrease represents **9 ktCO<sub>2</sub>eq per year.**

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**13 ktCO<sub>2</sub>eq + 9 ktCO<sub>2</sub>eq = 22 ktCO<sub>2</sub>eq**  
**GreenHouse Gases emissions avoided per year**

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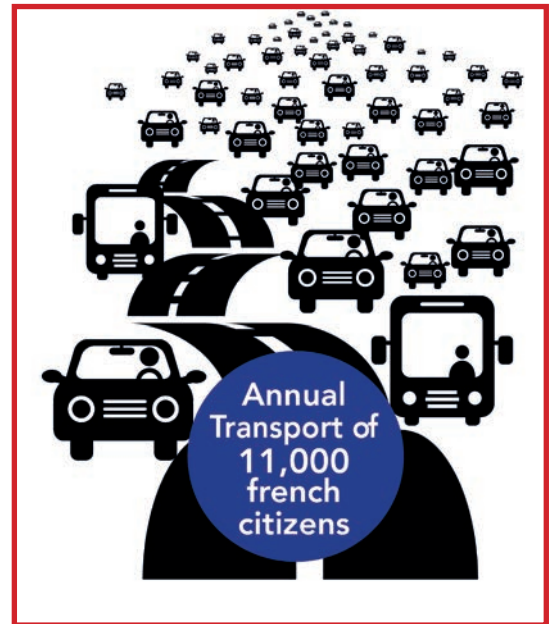
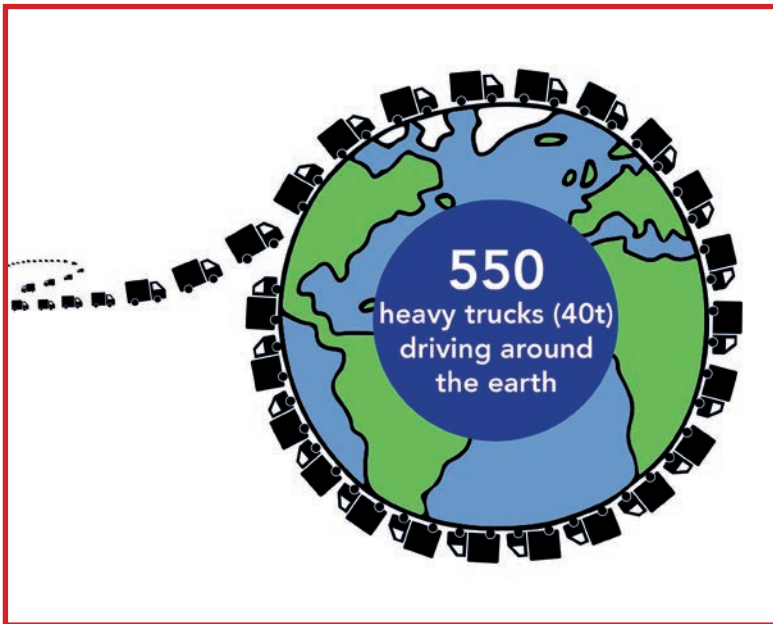
## SUMMARY

The deployment of Ecoslops' technology has many environmental benefits :

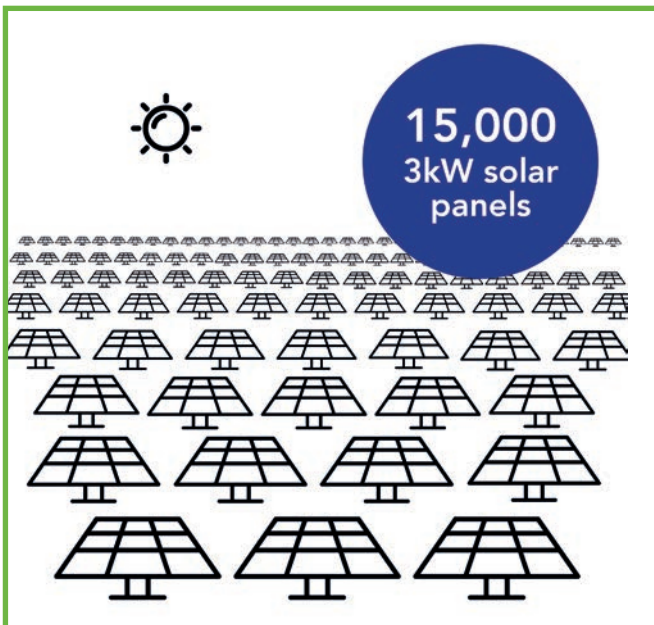
- Three times less GHG emissions to produce hydrocarbons
- 22 ktCO<sub>2</sub>eq of GHG avoided per year for a production site the size of La Mède, e.g. treating 30,000 tons of residuals per year.
- Decrease in illicit dumping into the sea
- Contribution to improve the material footprint of fossil fuels, by not wasting the raw material stock
- Complete traceability of the waste treatment process

By comparison, this amount of avoided emissions (22 ktCO<sub>2</sub>eq) is equivalent to :

the emissions of (2 3) :



the avoided emissions of (4):



1: Well-to-tank approach, taking into account direct and indirect GHG emissions from the well up to the moment the fuel is ready to be used.

2 : Source: Climate key figures 2018, Ministère de la Transition écologique et Solidaire

3: Source: ADEME Carbone base

4: Calculations are made based on IEA data on carbon emissions for electricity production and on IEA and IPCC data for the average emissions and yearly production profiles for renewables.