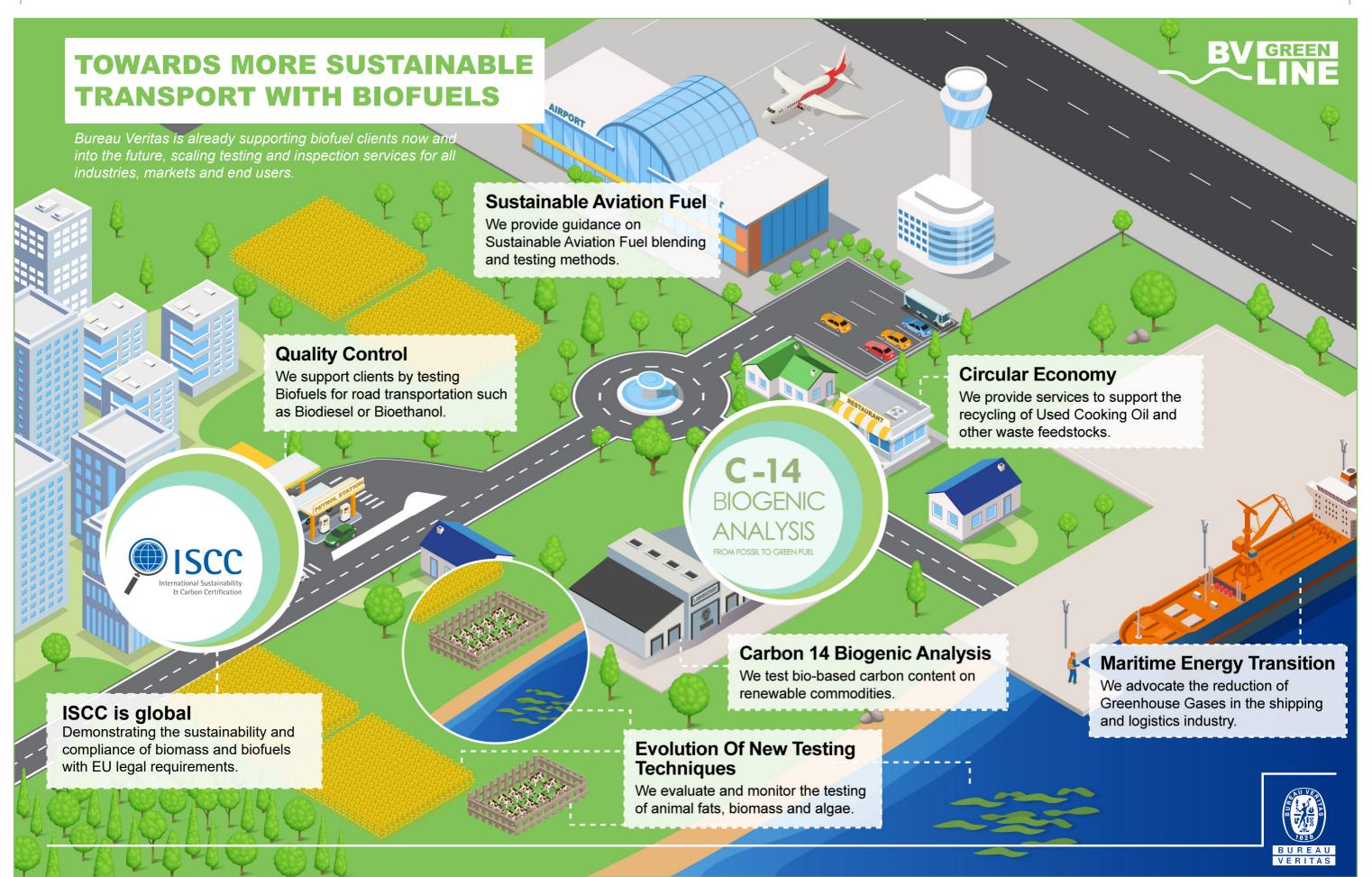


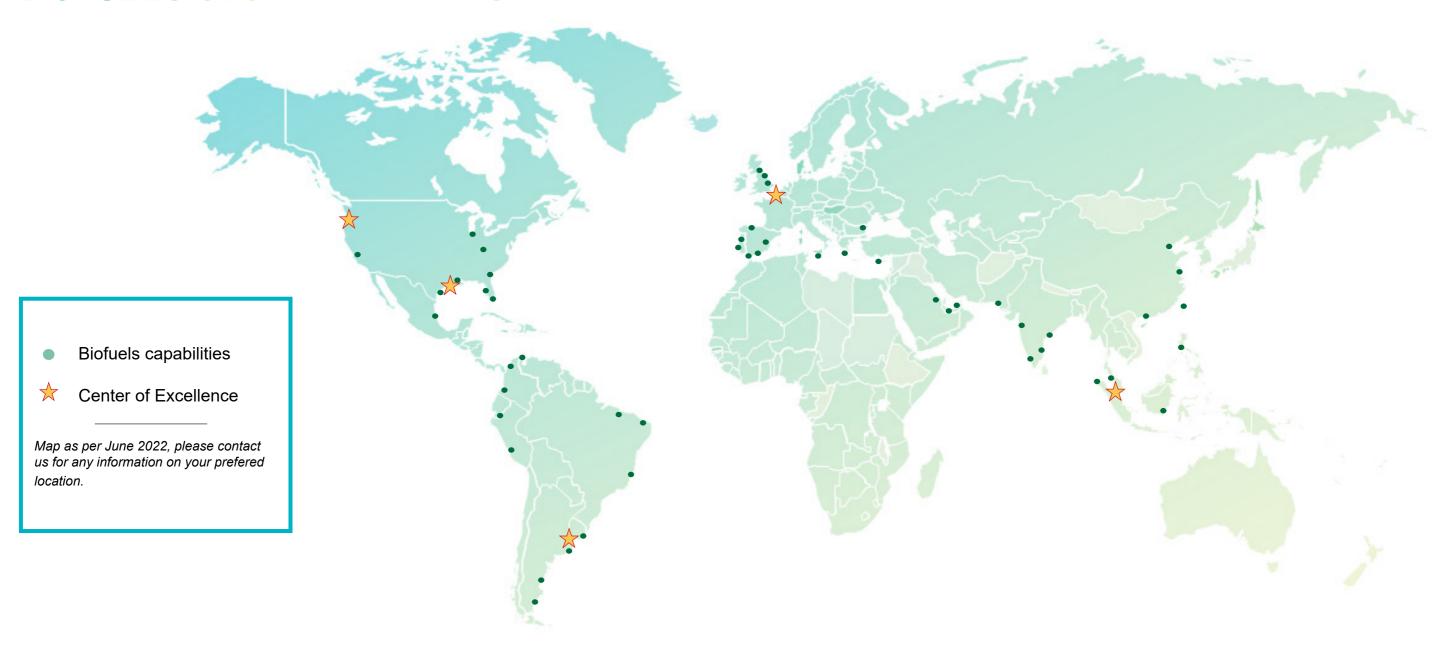
BIOFUELS BIOFUELS



****2

BUREAU VERITAS

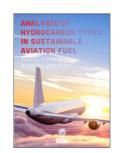
BIOFUELS GLOBAL EXPERTISE





ACHIEVING NET ZERO O&G

CLICK TO KNOW MORE



SAF

CLICK TO KNOW MORE



ISCC

CLICK TO KNOW MORE BIOFUELS

BUREAU VERITAS BIOFUELS LIFECYCLE

1**G**

- Ethanol: Corn, Wheat Sugarcane, Molasses, Other grains (Low carbon intensity)
- BD/RD/RJ: Soybeen oil/canola oil, Palm oil, Sunflower oil, Other vegetable oils (High carbon intensity)



Bureau Veritas supports their clients along the full biofuels lifecycle, from feedstock to end-product.

2G

- Animal fats: Tallow, Pig fat, Poultry fat, Other fats
- Greases: UCO, DCO (Distillers corn oil), Palm by-products (PAO, PFAD, POME)

WASTE AND FEEDSTOCK MANAGEMENT



BLENDING & DISTRIBUTING BIOFUELS



- Bio-ethanol
- Biodiesel / FAME
- HVO
- SAF
- Bio-methanol
- Biogas
- Hydrogen

3-4G

- Novel vegetable oils (Cover crops, degraded land)
- Municipal solid waste
- Lignoscellulosic residues (agriculture, forestry)
- Cellulosic energy crops
- Algea

CONVERTING INTO BIOFUELS



- Fermentation
- Oil extraction & Transesterification
- Hydroprocessing of esters and fatty acids (HEFA)
- Anaerobic digestion
- SIP, ATJ, CHJ, ...
- Gasification & Fischer-Tropsch
- POX (E-fuels)
- Power-to-X technologies

BUREAU VERITAS CONFORMS TO THE REQUIREMENTS OUTLINED BY INDUSTRY STANDARDS INCLUDING (AND NOT LIMITED TO) FOSFA, NOFOTA, GAFTA, BQ9000; ASTM STANDARDS, D4806, D6751, D5798, D7467; ASTM D7566; AS WELL AS EUROPEAN STANDARDS EN14214, EN 15376, NPR-CEN/TS 15293; NEN NPR-CEN/TS 15912 AND DIN 51605. FURTHERMORE, WE HAVE EXPERTISE TO DEVELOP IN-HOUSE METHODS TO MEET OUR CLIENT'S NEEDS.

 $\sqrt{6}$



SHAPING A WORLD OF TRUST

Bureau Veritas is a Business to Business to Society company, contributing to transforming the world we live in. A world leader in testing, inspection and certification, we help clients across all industries address challenges in quality, health & safety, environmental protection and social responsibility.

For more information, contact Bureau Veritas:

Le Triangle de l'Arche 8 cours du Triangle CS 90096 92937 Paris La Défense Cedex FRANCE bureauveritas.com biofuels@bureauveritas.com



Shaping a World of Trust