

Helping our Customers

Thrive in a Global Economy.

*Ammonia Authentication –
A Key Component of the Certification Framework*

AEA Annual Conference

November 14, 2023

Authentix[®]
The Authority in Authentication



Currency

Level 3 Security

- Actively used at **6 industry leading central banks** and across **27 denominations**

High Speed Sensors

- Over **550 high speed sensors** are used by central banks for **authentication and note fitness**

CDI2 Sensors

- World's **first CDI2 Camera Sensor/Fitness** solution
- Dual sided authentication detector



Government

National Fuel Integrity

- **12 active national** fuel integrity programs
- **150 billion liters** of fuel authenticated annually

Tax Recovery

- Operating one of the three **largest global tax stamp programs (Pakistan)**
- **Over 5 billion** products are stamped annually
- **EU TPD ID Issuer** solution provider for **Greece and Cyprus**



Commercial Brand Protection

Pharmaceuticals

- Trusted by **6 of the leading global pharmaceutical companies**

Spirits

- Trusted by one of the **largest global spirits brand owners**

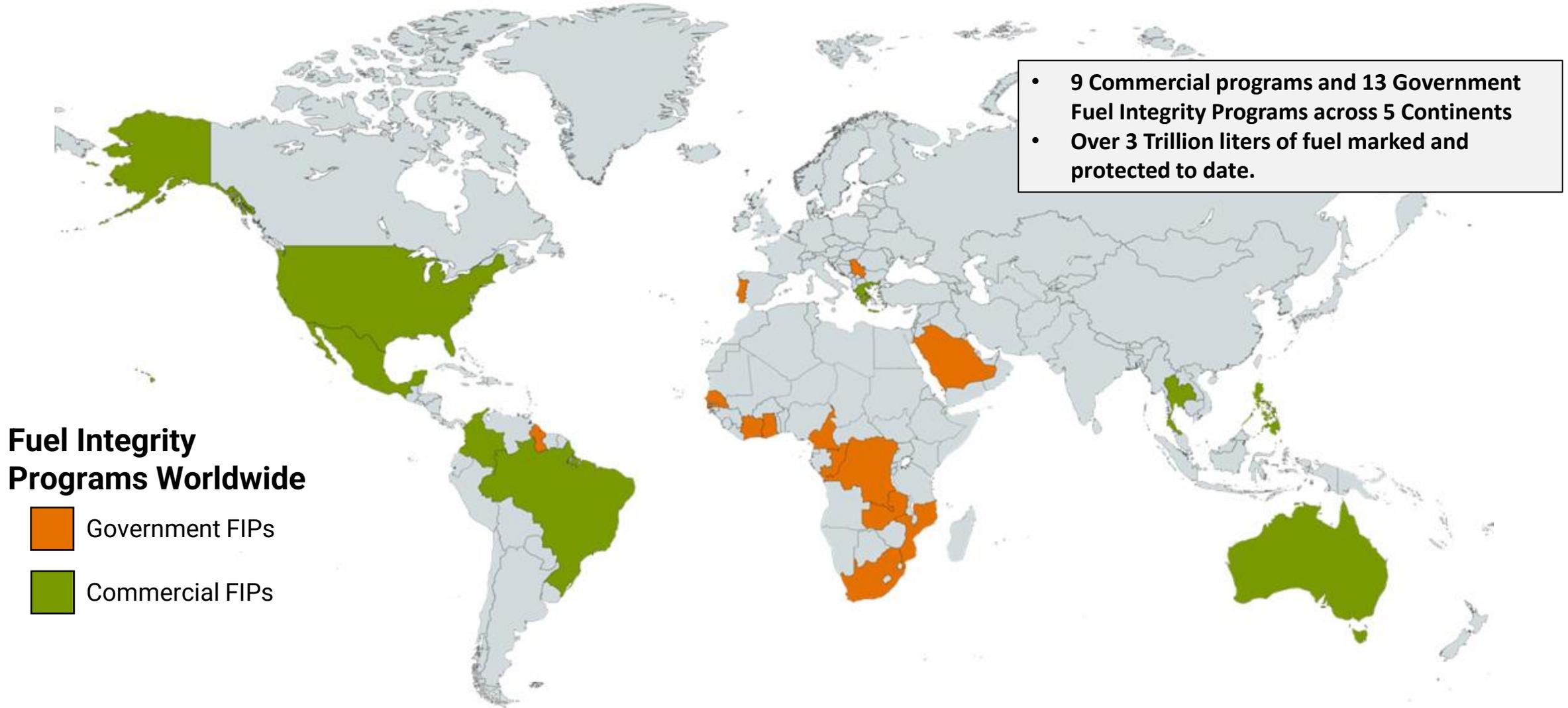
Beauty

- Trusted by **leading global consumer brands**

Online Brand Protection

- Trusted by **over 200 global brands**

GLOBAL EXPERIENCE IN FUEL AUTHENTICATION PROGRAMS



WHAT DRIVES FUEL FRAUD? | A BALKANS EXAMPLE

Country	Diesel \$ per liter*	% of Serbia
Serbia	\$1.917	n/a
Bosnia & Herz	\$1.508	78.7%
Montenegro	\$1.659	86.5%
Kosovo	\$1.776	92.6%
N. Macedonia	\$1.396	72.8%



- **Less than 30%** arbitrage in fuel prices drives extensive fraud
- In 2014 alone, Serbia recovered **>\$160MM** in excise taxes with a fuel integrity program

What will happen when low carbon ammonia is 2x...3x...5x the price of grey ammonia?

*Diesel prices as of 6 Nov 2023. Global Petrol Prices

CHAIN OF CUSTODY PROCESSES? | WHERE DOES PHYSICAL VERIFICATION MAKE SENSE?

IDENTITY PRESERVATION



Throughout the supply chain

MASS BALANCE



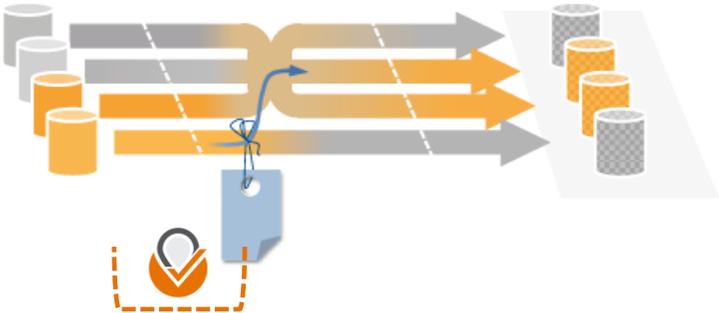
During segregation and into blending

SEGREGATION



Throughout the supply chain

BOOK & CLAIM



During segregation and into blending

*Graphics from Ellen MacArthur Foundation