

PRESS RELEASE

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Franco-Sri Lankan victory against eco-crime

Flagrant pollution offences observed from space, criminal polluters identified thanks to CLS, a subsidiary of the French Space Agency, penalties imposed by local authorities, unprecedented discovery of alarming pollution levels, operational and legal management advice provided by Cedre and Cosse Consulting, development aid funding provided by France: discover the behind-the-scenes of a well-honed French anti-pollution system.

The sinking of the X-Press Pearl: the tip of the iceberg of unsuspected ecocrime.

On June 17, 2021, a Singaporean cargo ship sank off the Indian teardrop at a depth of 21m.

The X-Press Pearl was carrying 1,486 containers loaded with nitric acid, caustic soda, epoxy resin, urea, foodstuffs, consumer goods, industrial plastic granules and around 350 tons of petroleum products, including 320 tons of bunker fuel.



Marine and coastal pollution is unprecedented. It affects wildlife and the environment, as well as fishing and aquaculture.

In response, France offered its assistance to Sri Lanka by mobilizing the FASEP* development aid scheme, which enabled the Sri Lankan authorities to test France's know-how in terms of pollution response, and more specifically the satellite-based polluter detection and identification services provided by CLS, as well as the expertise of Cedre and Cosse Consulting.



The objective is precise: to monitor oil pollution at sea on behalf of the Marine Environment Protection Authority of Sri Lanka (MEPA), and more particularly that resulting from illegal discharges (or degassing) by ships reluctant to clean their tanks in port.

After 6 months of operation, the results are alarming. The local authorities themselves claim not to have suspected the extent of the problem until now. Data acquired and analyzed by CLS show that, on average, at least the equivalent of an X-Press Pearl is discharged into Sri Lankan waters every month. 66 illegal discharges have been detected, generating pollution up to 160km long. 500,000 liters of hydrocarbons are thus discharged outrageously each month by cargo ships with no sense of conscience.

An initial condemnation - a system that advocates deterrence.

50,000 is the fine the Global Crest had to pay to be allowed to resume its journey after being boarded following the flagrant degassing observed on a radar satellite image analyzed by CLS experts using MAS (Maritime Awareness System) software.

This unique system, combining big data technologies and CLS expertise, has once again proved its worth.

Beyond the sum, which may appear symbolic since it is ten or twenty times less than what would have been imposed in Europe, this is a demonstration of a desire to restore regalian control so that these environmental crimes no longer go unpunished. Thanks to the MARPOL Convention adopted 40 years ago by the United Nations, the maritime authorities of coastal states can inspect ships suspected of illegal discharges, if necessary using coercive means (boarding at



sea, detention in port), and if necessary, impose fines on them in accordance with the polluter-pays principle. The operational costs of immobilization (several tens of thousands of euros per day) and, to a certain extent, damage to reputation must be added to this fine. The Sri Lankan authorities also intend to use these deterrents.

A look back at an investigation from space.

In the middle of the night, CLS analysts received and analyzed the image that would prove that an environmental crime had been committed. They immediately reported the heavy pollution detected off Colombo to MEPA, which was clearly caused by an illegal discharge from the Global Crest, a 120-metre tanker flying the Panamanian flag en route from Malaysia to the United Arab Emirates.

The ship had set sail from Port Kelang (Malaysia) bound for Khor Fakkan (UAE). After a few days, the ship slowed down, changed course, and approached the Sri Lankan coast. It then began to degas, in the evening, for over 3 hours. Unfortunately for the ship, under the eyes of the satellite, and an hour and a half later, the radar image analyzed by CLS's 24/24 experts revealed the whole story.

CLS analysts use MAS, a system based on almost 35 years of expertise in maritime safety, which uses big data technologies to process large volumes of heterogeneous data and relies on the expertise of CLS analysts based in Brest. Together, they provide valuable information on all maritime activities at the time of the crime.

On this first map, on the right, our experts observed all the maritime traffic in the area at the time of the crime, as well as the radar footprint in the form of a grey rectangle.



On this second map, on the left, the trajectory of the guilty boat over the same period has been isolated.

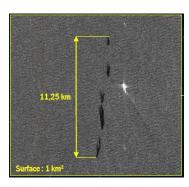






On this third map on the left, the satellite image acquired and analyzed reveals the oil slick detected (underlined and circled in red).

On the map on the right, the zoom on the oil slick shows the characteristics of a ship-source spill: the pollution is over 10km long (11.25km) and its surface area is close to $1 \, \mathrm{km^2}$, the equivalent of 100 soccer pitches.



Immediately diverted to the port of Colombo, an onboard inspection confirmed illegal degassing. The vessel was then detained until the owner admitted the offence and paid the maximum fine provided for under Sri Lankan law, i.e. 15 million rupees (around 50,000 euros), as part of an administrative procedure.

What's next? Reinforcing intervention resources.

Asela B. Rekawa, Chairman of Sri Lanka's MEPA:



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"Recognizing the imperative to swiftly identify and address oil pollution events in Sri Lankan waters, as well as hold accountable those responsible, the collaborative endeavor, "Pioneering Project for Maritime Oil Spill Detection and Monitoring in Sri Lanka", generously funded by the French government, marks a significant milestone. This project sets the stage for the establishment of a state-of-the-art satellite-based oil spill monitoring system, empowering us with cutting-edge technology to vigilantly monitor and respond effectively.

This collaboration marks the initial phase of our partnership, and we anticipate its evolution towards a comprehensive, long-term solution for ship-based oil pollution monitoring, achieved through our join efforts."

Olivier Germain, Oil Spill Detection Project Manager Sri Lanka, CLS:

"Since September 2023, CLS has provided over 130 detection reports to MEPA, with the aim of demonstrating the effectiveness of satellite technologies in combating marine pollution and mitigating its impact on the environment.

The Global Crest case is considered a real success by the project's stakeholders. This example proves that it is possible to punish polluters as long as satellite information is used efficiently by the operational and legal players involved downstream. We are extremely proud to have contributed to MEPA's success, in collaboration with all the project's stakeholders. All that remains now is for the Sri Lankan authorities to implement a fully operational national capability to ensure that the system becomes a complete deterrent."



* FASEP - A fund set up by the French Treasury to finance feasibility studies and demonstration projects for innovative green technologies on behalf of foreign public authorities in developing countries.



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CLS

CLS is a global company, mission-driven, and pioneer provider of monitoring and surveillance solutions for the Earth, created in 1986. We are subsidiary of the French Space Agency (CNES) and CNP, an investment firm. Our mission is to create innovative space-based solutions to understand and protect our planet and to manage its resources sustainably.

CLS employs **900 people** at our headquarters in Toulouse (France) and in 30 other sites around the world.

The company works in five strategic markets:

- sustainable fisheries management,
- environmental monitoring,
- maritime surveillance,
- mobility,
- and energies & infrastructures.

CLS processes data from 100,000 transponders per month (such as drifting buoys, animal tags, VMS transponders, & LRIT tracking) and observes the oceans and inland waters (more than 20 instruments onboard satellites daily deliver information to CLS on the world's seas and oceans). In addition, we monitor land and sea activities by satellite (nearly 20,000 radar and optical images and several hundred drone flights are processed each year). The CLS Group had revenue of nearly **180 million Euros** in 2023.

Committed to a sustainable planet, the company daily works for the Earth, from Space.

1 CNES

CNES (Centre National d'Études Spatiales) is the government agency responsible for shaping and implementing French space policy in Europe. It designs and puts satellites into orbit and invents the space systems of tomorrow; it promotes the emergence of new services useful in everyday life. Founded in 1961, CNES has developed major space projects, launchers, and satellites and is the industry's natural partner for promoting innovation. The agency has nearly 2,500 employees passionate about space and its infinite, innovative fields of application. They work in five areas: the Ariane project, science, observation, telecommunications, and defense. CNES is a major player in technological innovation, economic development, and France's industrial policy. It also forges scientific partnerships and is involved in many international cooperative endeavors. France, represented by CNES, is one of the main contributors to the European Space Agency (ESA). www.cnes.fr

2 CNP

CNP is an investment firm founded by Mr. Albert Frère and exclusively managed by the Frère family. CNP invests its permanent capital for control or joint-control of European industry leaders and acts as an active partner to drive sustainable value creation alongside the founders, management and families it associates with. Together with GBL, CNP is one of the 2 pillars of Groupe Frère that manages net assets of approximately \in 5.5Bn. www.cnp.be

