

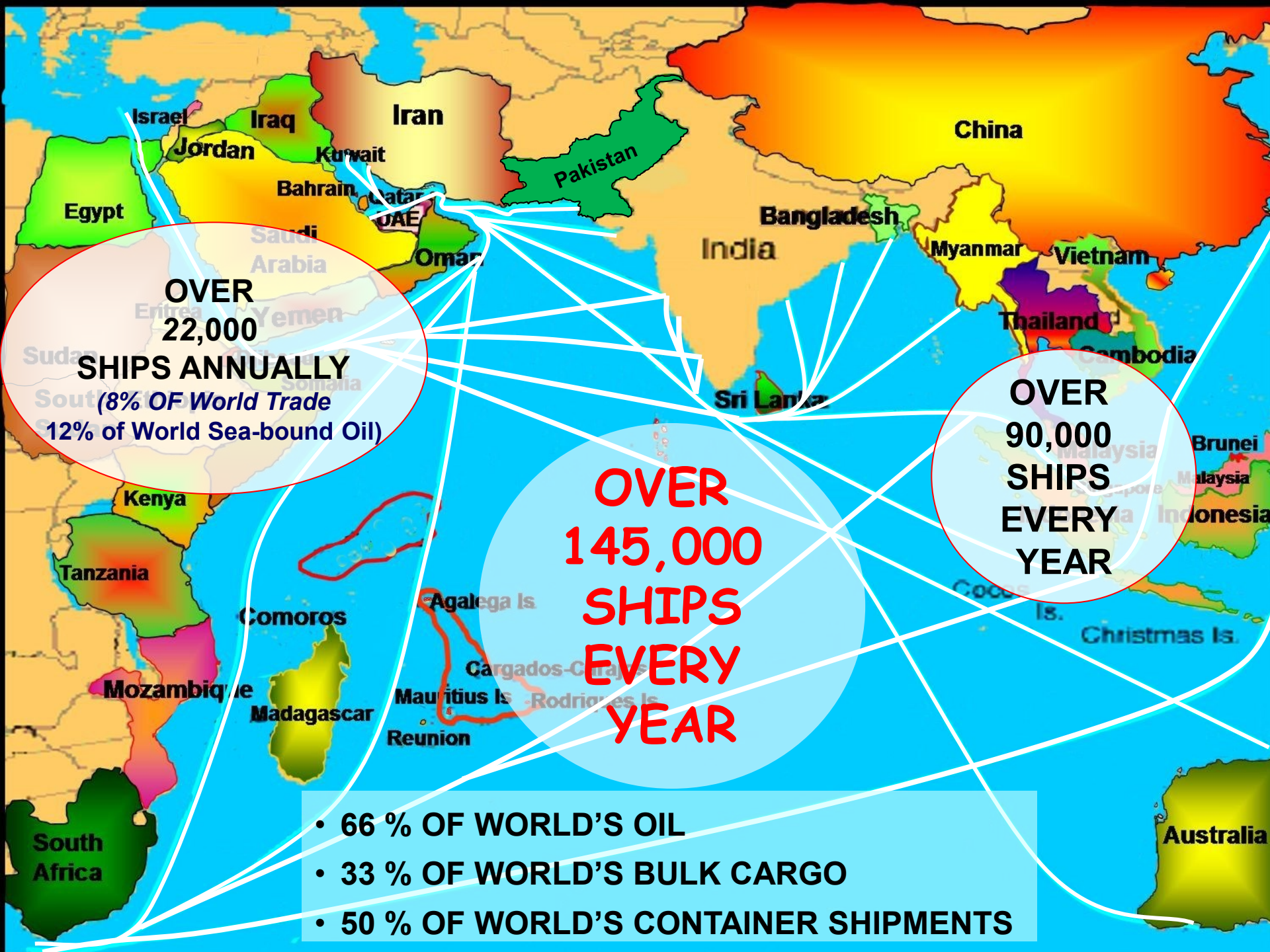
# MENA REGIONAL WATERS:

## “NESAWORKSHOP ON THE RED SEA/ARABIAN SEA SMUGGLING CONUNDRUM”

**Vice Admiral *Pradeep Chauhan*, AVSM & Bar, VSM, IN (Retd)  
Director General, National Maritime Foundation**



**15 September 2021**

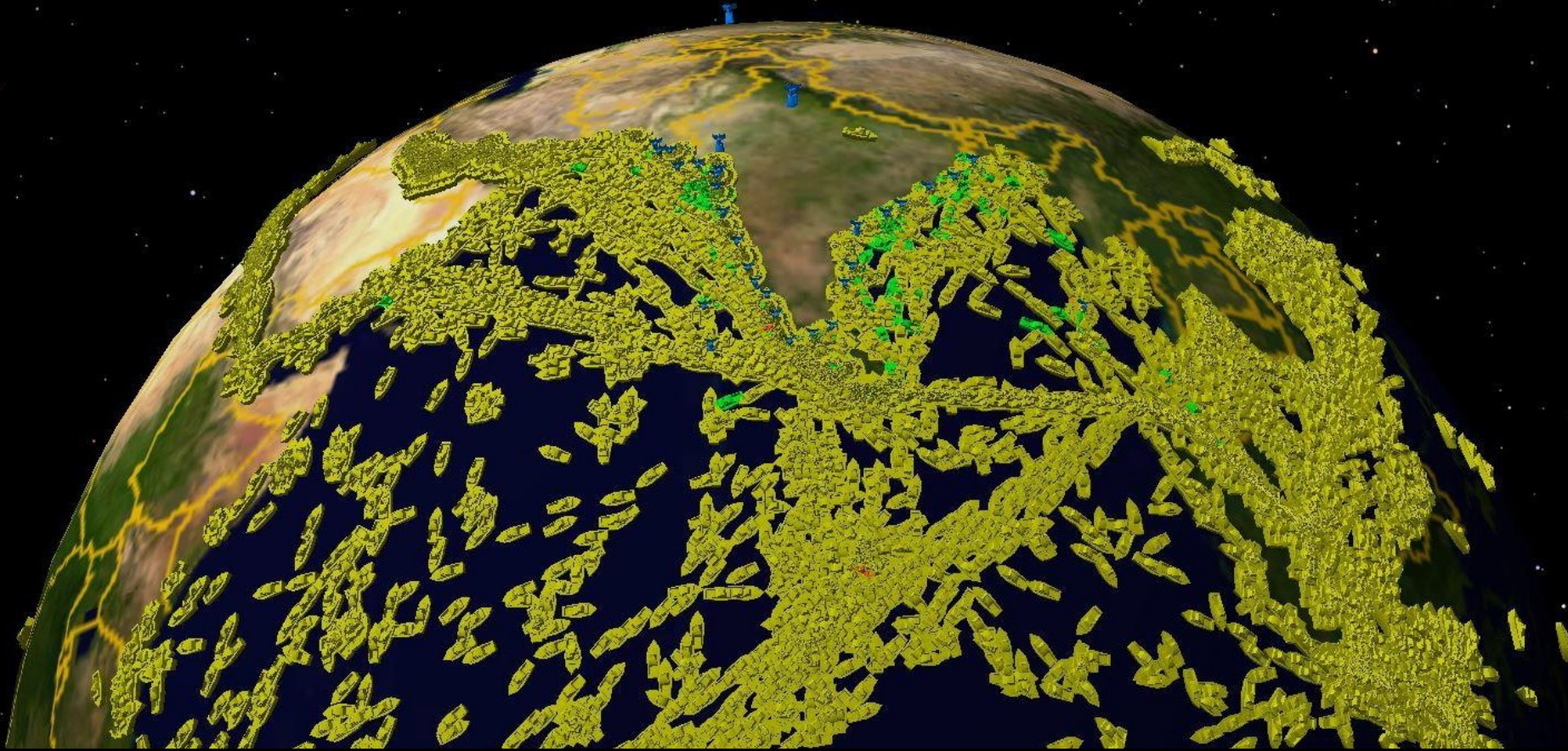


**OVER 22,000 SHIPS ANNUALLY**  
(8% OF World Trade  
12% of World Sea-bound Oil)

**OVER 145,000 SHIPS EVERY YEAR**

**OVER 90,000 SHIPS EVERY YEAR**

- 66 % OF WORLD'S OIL
- 33 % OF WORLD'S BULK CARGO
- 50 % OF WORLD'S CONTAINER SHIPMENTS



**All this shipping is present in the Indian Ocean  
in order to promote trade, or to protect trade,  
or to disrupt trade**

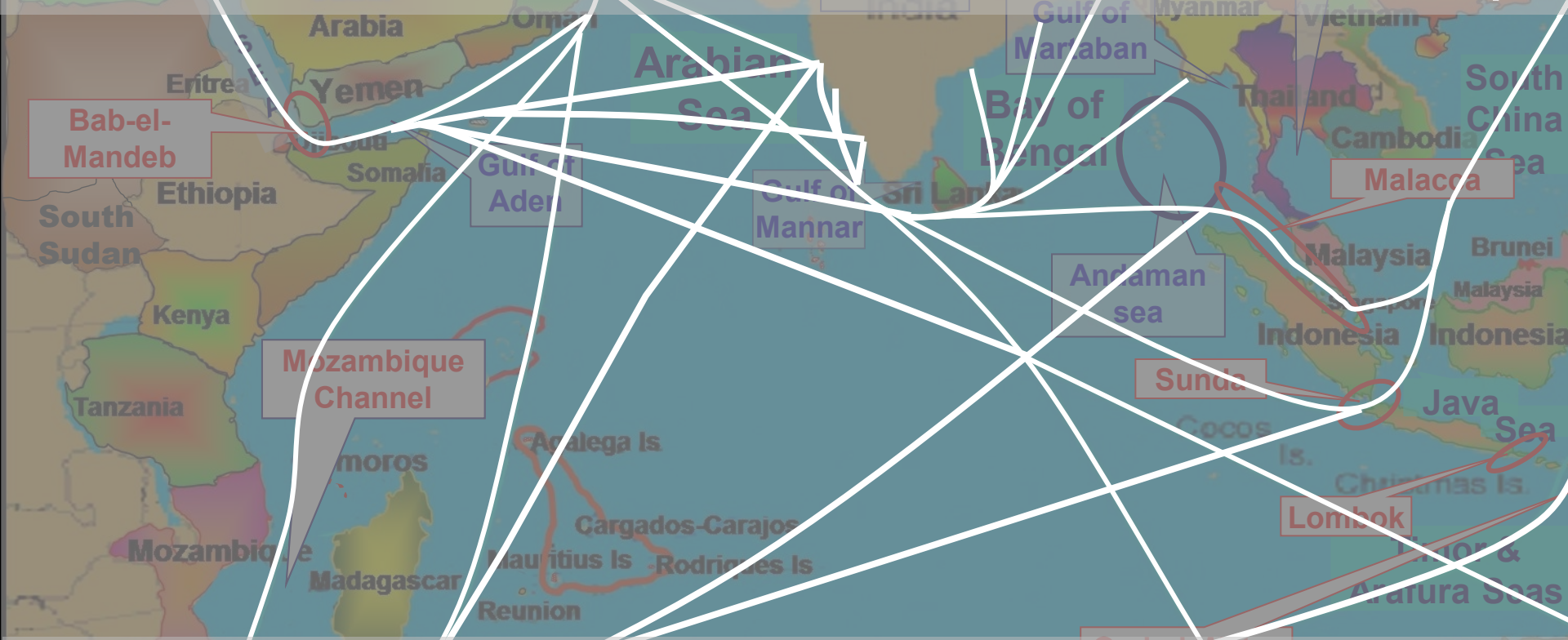


**Seaborne trade is carried by merchant ships along the most suitable sea routes, which are usually the shortest navigable routes that provide the best environmental conditions and proximity to staging ports *en route*. These internationally used sea-trade routes are called **‘International Shipping Lanes’ (ISL or ISLs)****

**However, in times of tension or conflict, a nation may prefer other sea routes for its merchant traffic or to sustain a maritime/expeditionary operation, which it can protect from interdiction by an adversary. Such routes — which may coincide partially, fully, or not at all, with ISLs — are termed **‘Sea Lines of Communication’ (SLOC or SLOCs)** of that nation**

# 'INTERNATIONAL SHIPPING LANES' (ISLs)

are determined by economic considerations  
(these considerations include safe navigation, which drives the economic cost of insurance premiums)



# 'SEA LINES OF COMMUNICATION' (SLOCs)

are determined by operational considerations

Canal of 'Good Hope'  
& 'Agulhas'

# Complexity of the Maritime Domain



**1** The Seas are a “*Global Common*”

**2** Not all ships use AIS – exempted or *Dark*

**3** Piracy, drug trafficking & IUU fishing

**4** Gaps exploited by subversive elements

# Maritime Challenges in the IOR

Maritime Terrorism  
'at sea' and 'from the sea'

Natural  
Disasters

Piracy, Robbery  
and Theft at Sea



Illegal Unreported &  
Unregulated Fishing

Drug Smuggling,  
Gun Running  
& Human Trafficking





**Maritime Domain**

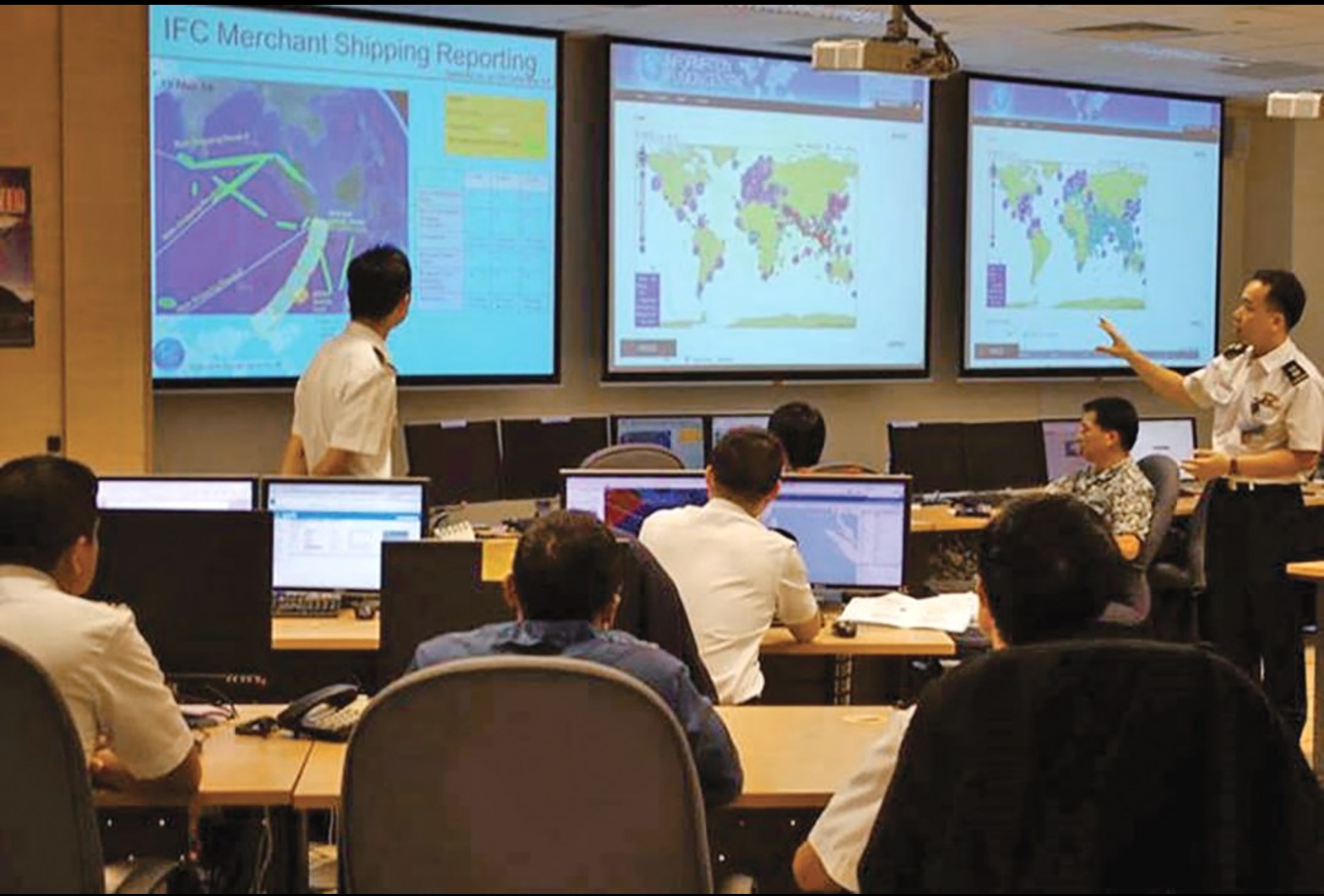
**Awareness**

*The Key to Maritime Security*

# Information-Fusion: IFC-IOR



# Information-Fusion: Singapore's IFC





**EU** INDIAN OCEAN REGION  
SOUTH & SOUTHEAST ASIA  
**CRIMARIO**



CRIMARIO II, part of the Critical Maritime Routes Programme,  
is an European Union initiative implemented by Expertise France

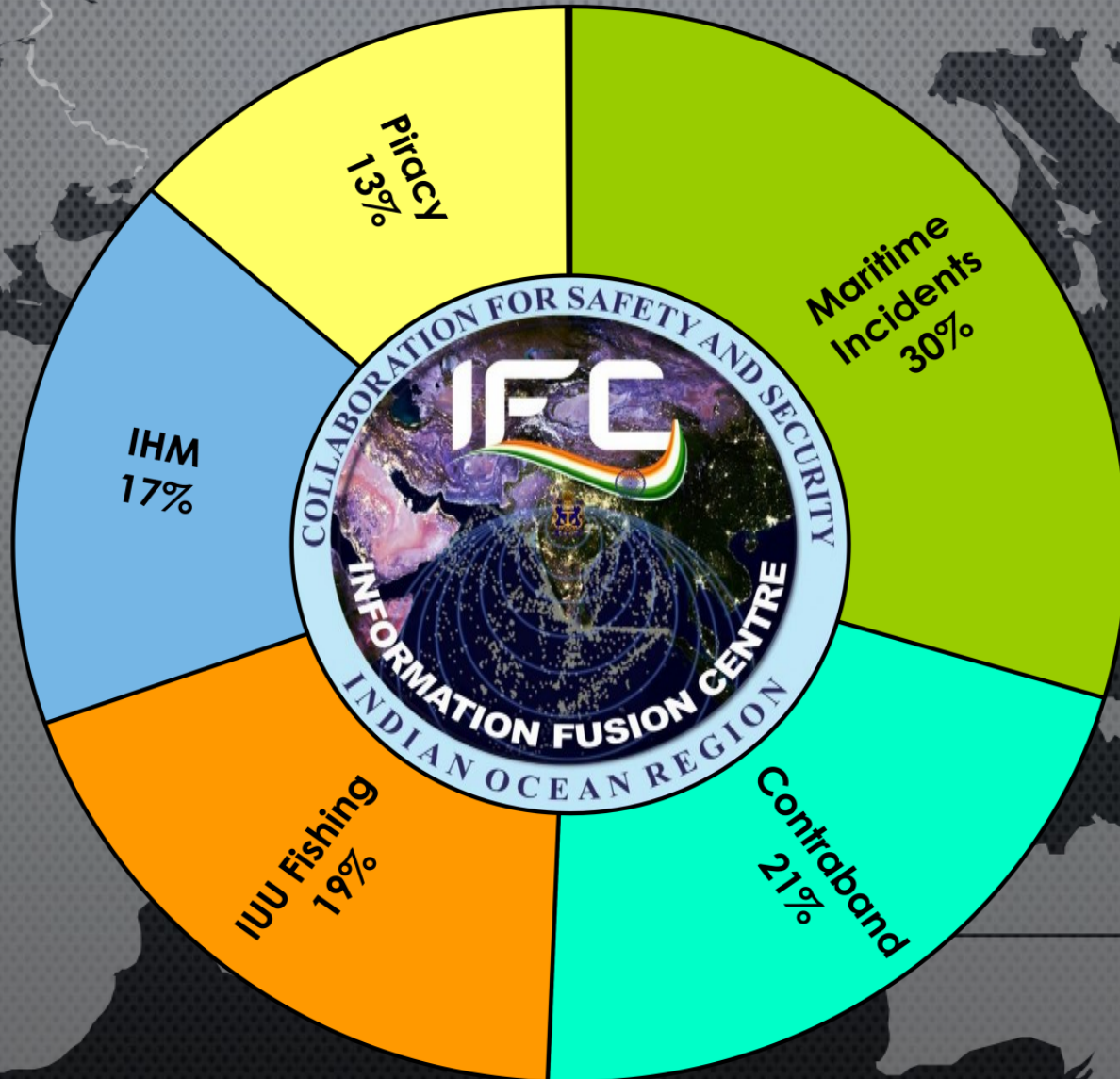


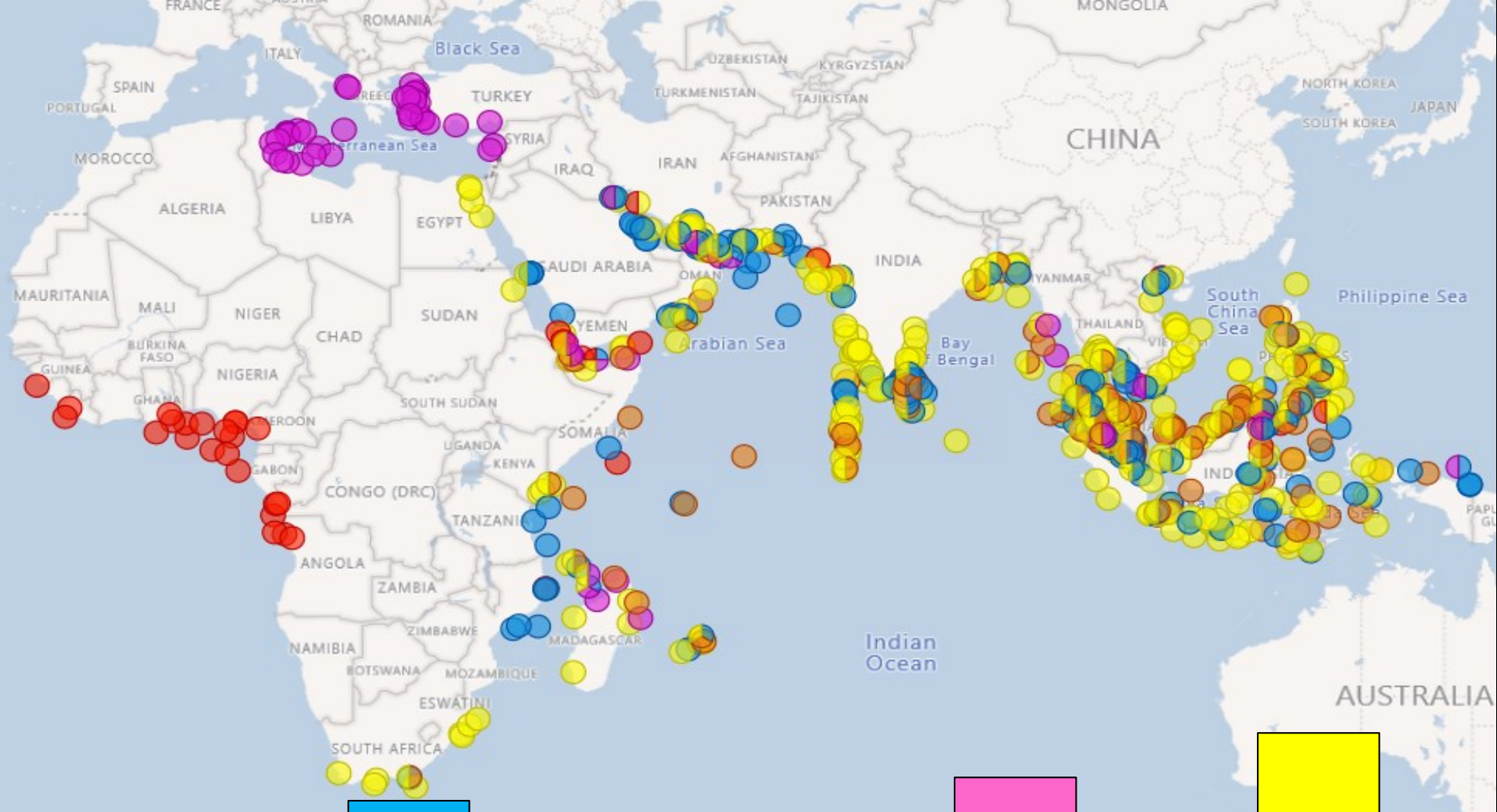
# India: 'White Shipping' Data-Sharing Agreements

TA Signed & Operational		TA Signed but not yet ops		TA being Pursued	
1	Australia	1	Japan	1	Bangladesh
2	Brazil	2	Myanmar	2	Djibouti
3	France	3	Nigeria	3	Egypt
4	Israel	4	Oman	4	Germany
5	Kenya	5	Qatar	5	Indonesia
6	Maldives	6	Thailand	6	Iran
7	Mauritius			7	Madagascar
8	Seychelles			8	Malaysia
9	Singapore			9	Mozambique
10	Spain			10	New Zealand
11	Sri Lanka			11	Philippines
12	UK			12	South Africa
13	USA			13	Tanzania
14	Vietnam			14	UAE
15	VRMTC + TRMN			15	South Korea
<b>Virtual Regional Maritime Traffic Centre + Trans-Regional Maritime Network</b> Albania, Algeria, Argentina, Belgium, Brazil, Bulgaria, Cameroon, Chile, Croatia, Cyprus, Ecuador, France, Georgia, Germany, Greece, India, Israel, Italy, Jordan, Libya, Malta, Mauritania, Montenegro, Morocco, Nigeria, Netherlands, Pakistan, Portugal, Peru, Romania, Senegal, Singapore, Slovenia, Spain, South Africa, Tunisia, Turkey, UK, USA, Ukraine				16	Italy
				17	SADC
				18	ReMIX



**What have we learnt thus far?**





91

347

213

398

496

**Piracy &  
Armed  
Robbery**

**Contraband  
Smuggling**

**IUU Fishing**

**Irregular  
Human  
Migration**

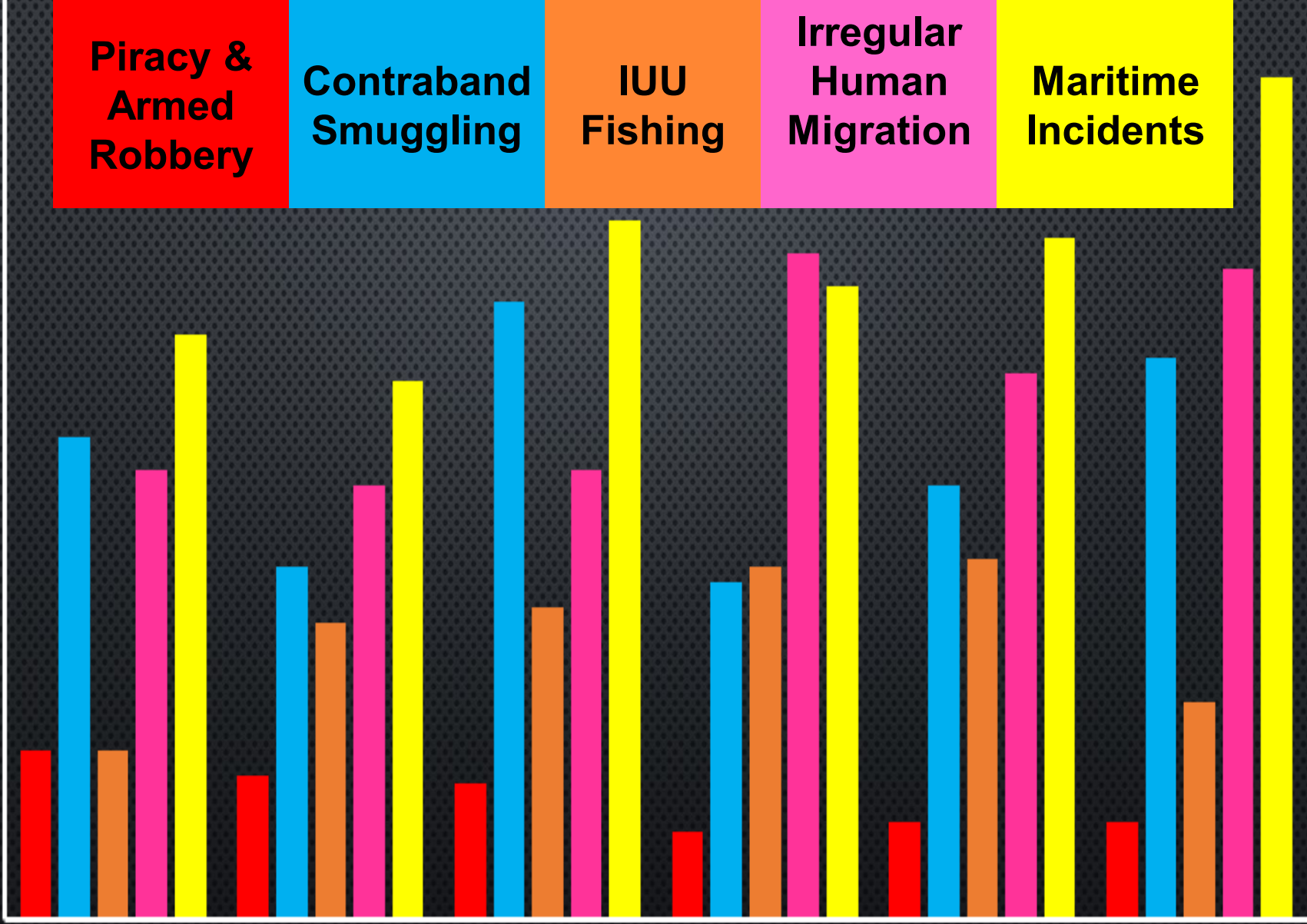
**Maritime  
Incidents**



# 2021: January to June

Number of Incidents

120  
100  
80  
60  
40  
20  
0



Jan

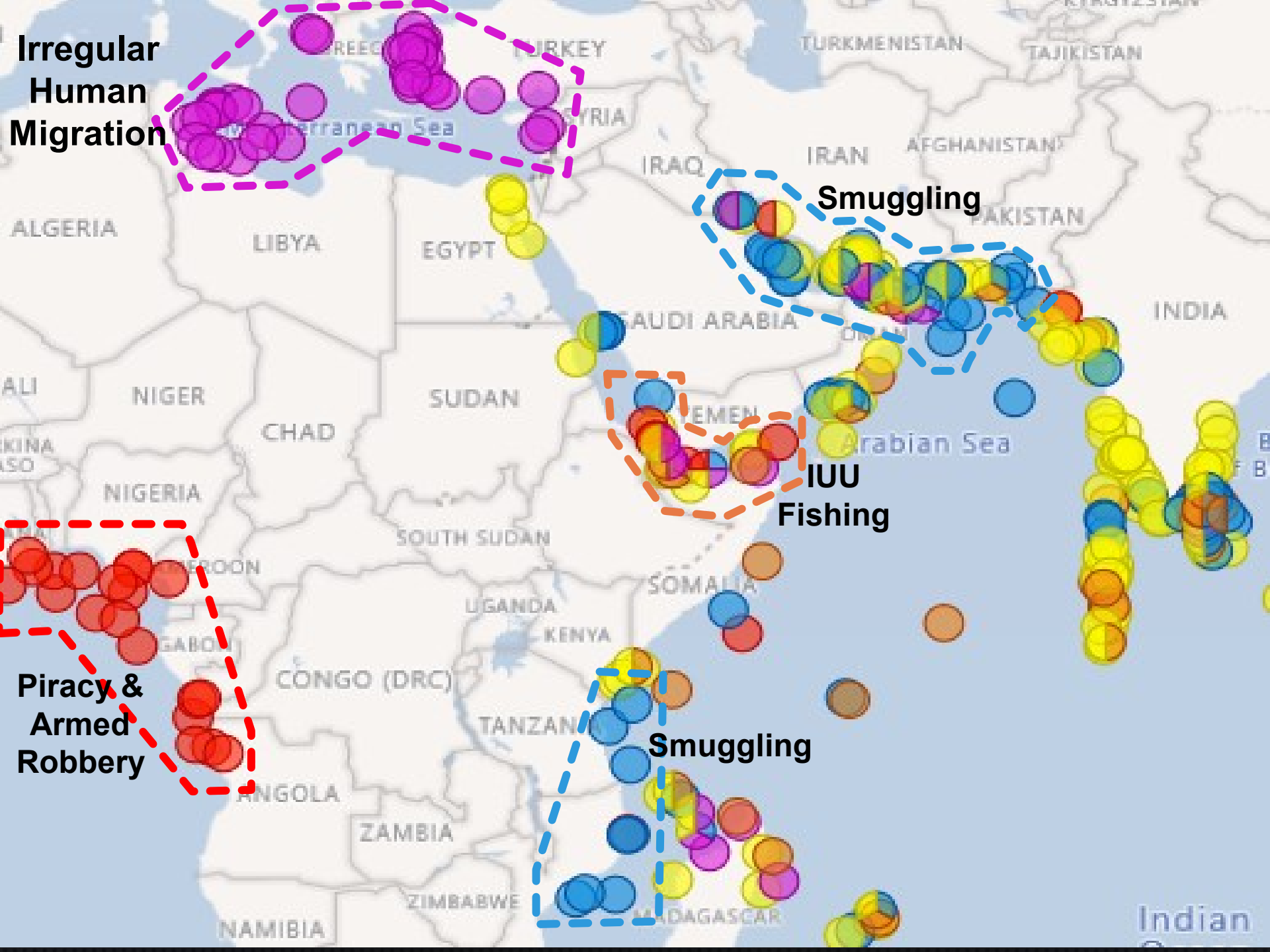
Feb

Mar

Apr

May

Jun



**Irregular  
Human  
Migration**

**Smuggling**

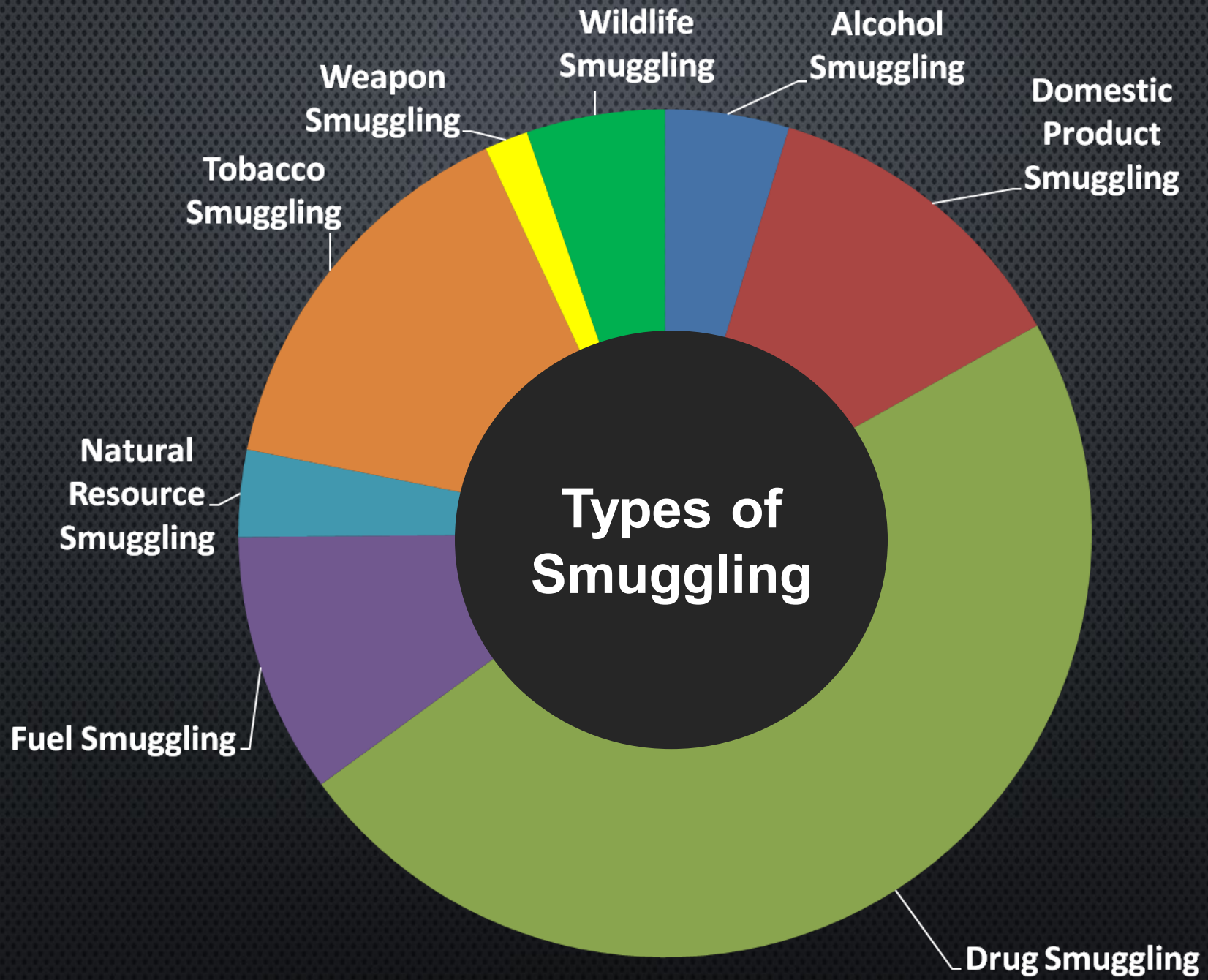
**IUU  
Fishing**

**Piracy &  
Armed  
Robbery**

**Smuggling**

Indian

# Types of Smuggling



# Sea Routes Increasingly Preferred

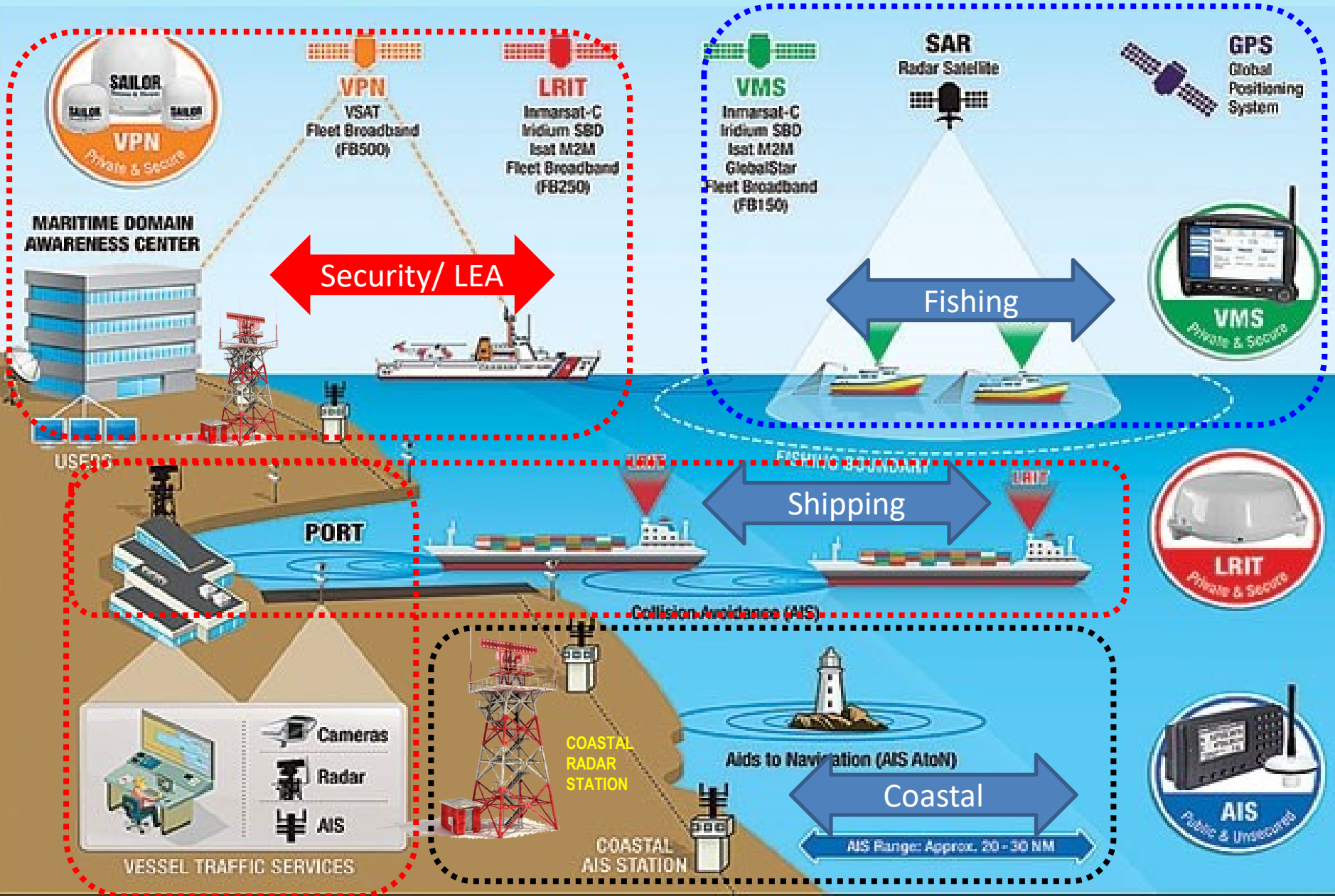
● Drug Smuggling ● Others



Where are we in terms of  
**Underwater Domain Awareness**  
for countering trends in narcotics-smuggling?



# Technology-Aided Surveillance





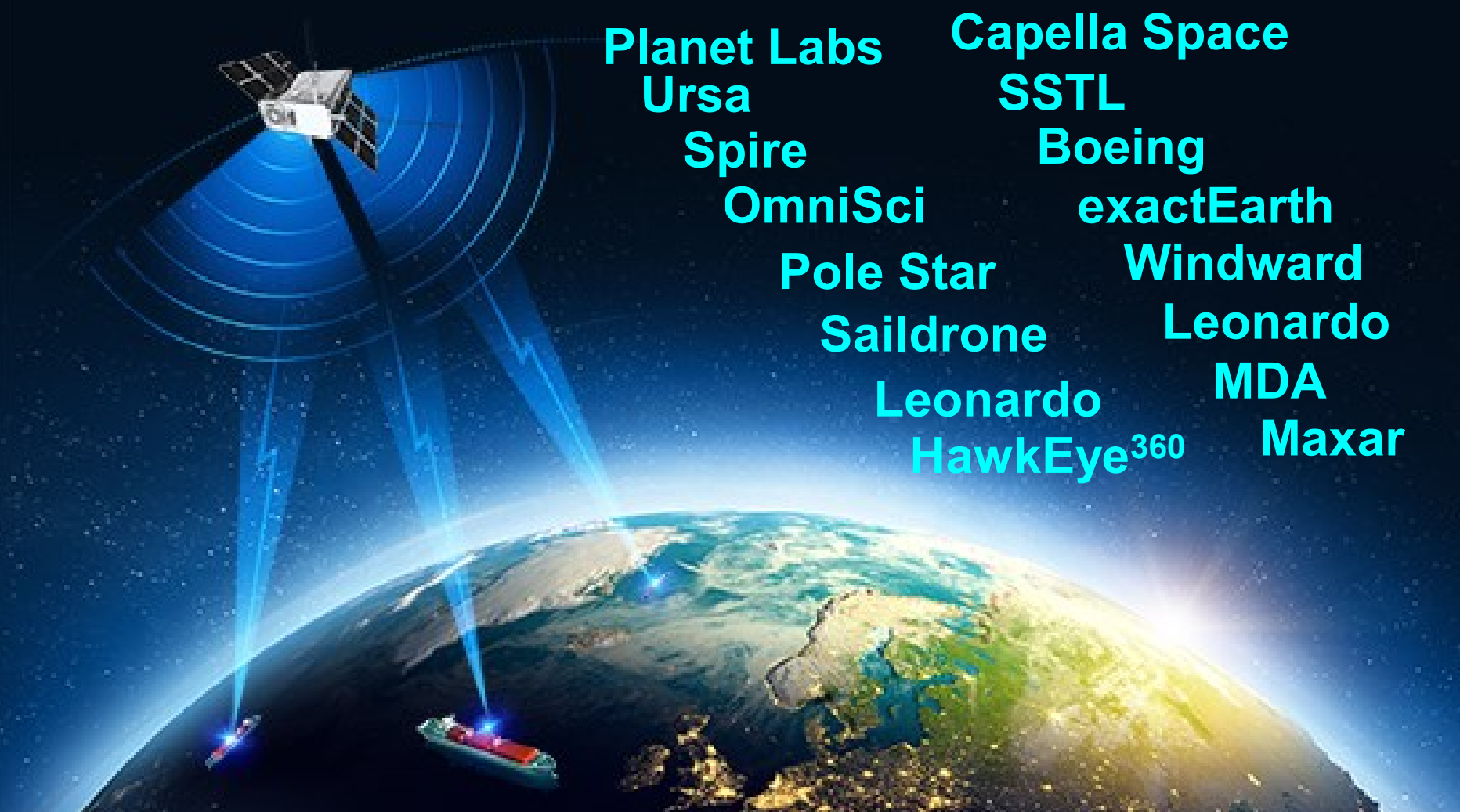
**Space-based Surveillance using Remote-sensing including  
by Infra-red, and Synthetic Aperture Radar Satellites**

# Space-based AIS Receivers





It is important to avoid mixing-up **Ends** (Objectives towards which one strives), **Ways** (Courses of Action), and, **Means** (Instruments by which some or all the Ends may be achieved). For MDA, the cheapest '**Means**' could well be commercial ones!



- Planet Labs
- Ursa
- Spire
- OmniSci
- Pole Star
- Saildrone
- Leonardo
- HawkEye<sup>360</sup>
- Capella Space
- SSTL
- Boeing
- exactEarth
- Windward
- Leonardo
- MDA
- Maxar

... but the most **Cost-effective 'Means'** are **Cooperative** and **Collaborative** ones...

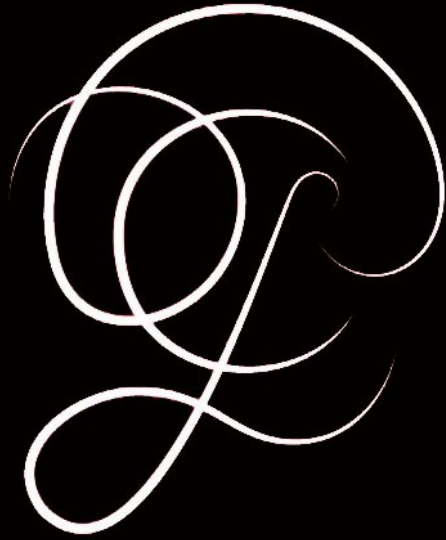


... Whether **Physical** or **Online**...



**Questions?**

**Comments?**



**Discussions**