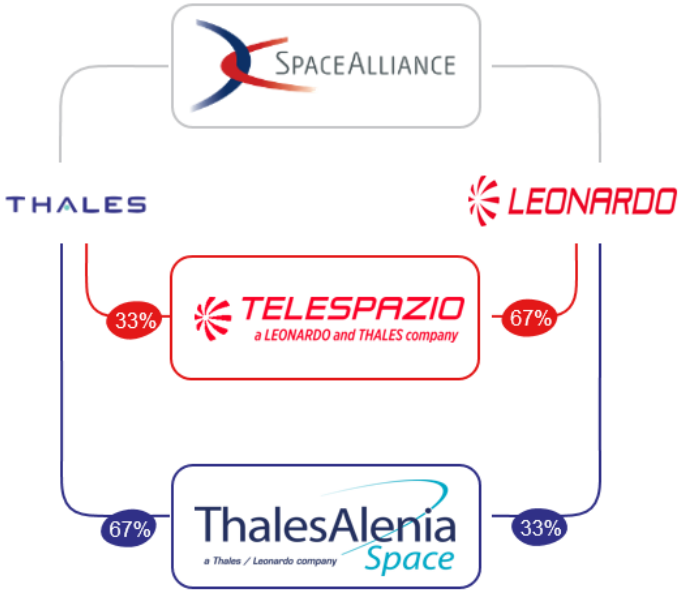
→ ATLANTIC FROM SPACE
WORKSHOP
23–25 January 2019
National Oceanography Centre
Southampton, UK
Maritime vessel detection and behavioural analysis to identify uncooperative vessels associated with oil pollution and illegal, unreported and unregulated fishing (IUU)
Geraint Cooksley & Andrew Iwanoczko
Telespazio VEGA UK
esa
European Space Agency

	Telespazio VEGA UK	Telespazio Group	Leonardo
Employees	130	2,500	67,400



Global player in satellite solutions and service delivery

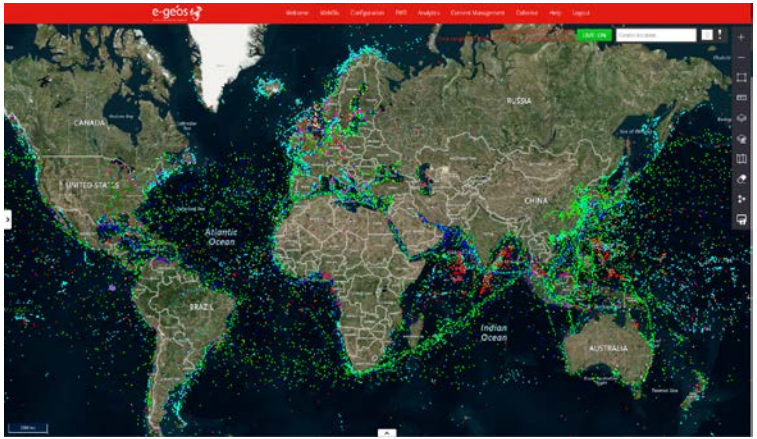
Telespazio S.p.A (Italy)
Telespazio VEGA Deutschland
Telespazio VEGA UK
Telespazio France
Telespazio Argentina
Telespazio Brazil
Telespazio Iberica

e-geos AN ASI / TELESPAZIO COMPANY GAFAG RARTEL TELESPAZIO a LEONARDO and THALES company

Telespazio Group Maritime Solution providing

multi-sensor Maritime Situational Awareness:

- security and intelligence organizations
- environmental protection
- resources management
- Market analysis and business intelligence



SEnSE
Smart Eyes on SEas

INSTITUTIONAL SECTOR

FRONTEX
EMSA
European Maritime Safety Agency
European Fishery Control Agency
Italian Ministry of Interior
Italian Ministry of Environment
US Navy
Marinha do Brasil
Italian Navy
Australian Maritime Safety Authority
GISTDA

PRIVATE SECTOR

TOTAL
Shell
REPSOL
eni
BR PETROBRAS
O&G companies

Access

as a Service	on Premises
Contents provided to the Customer, generated through operational service chains	**Software** provided to the Customer who independently generates the contents

- What are illicit maritime behaviours?

- How can these behaviours be identified?

- How can technology help?

- What can we usefully understand?

- How could these technologies be enhanced for the Atlantic?

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- Illegal fishing
- Smuggling
- Illegal Immigration
- Drug trafficking
- Embargo breaches

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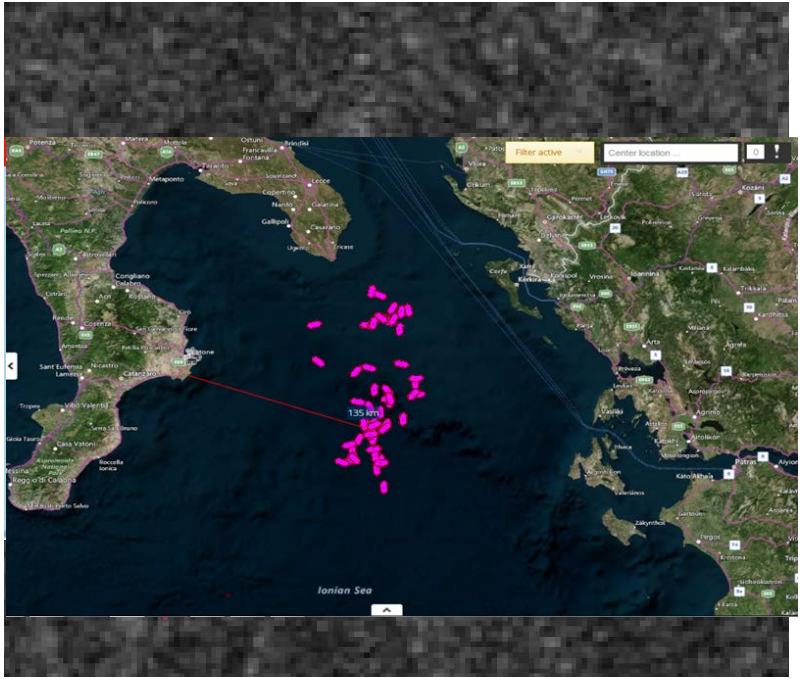
Vessel rendezvous

No positional messaging

Changes of heading / speed

Persistent / recurrent behaviour

Accumulated behaviour



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- Systematic ship detections
- AIS for Sea Lines of Communication
- Vessel density per ship type
- Link to data sources
- Dashboards of key metrics

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Port activity

Fishing intensity

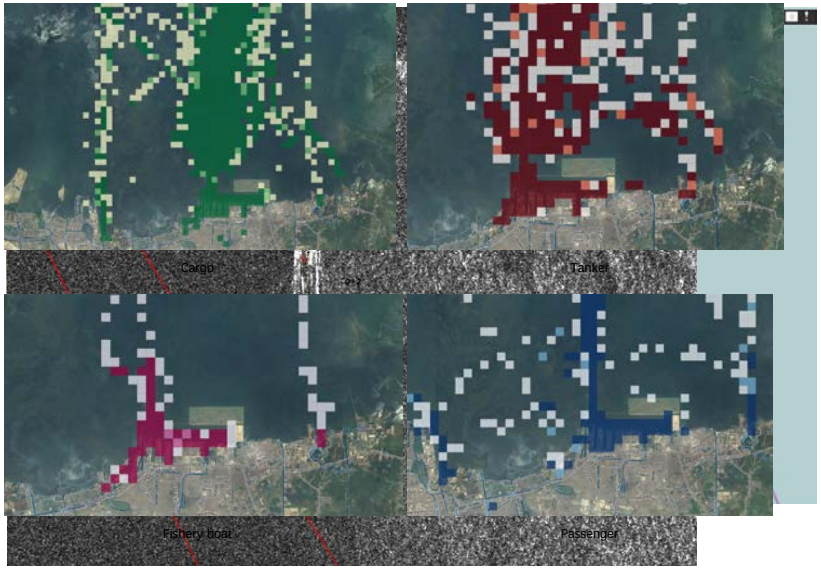
Pop-up floating O&G platforms

Migrant vessel search & rescue

Illegal fishing

Drug trafficking

Embargo breaches



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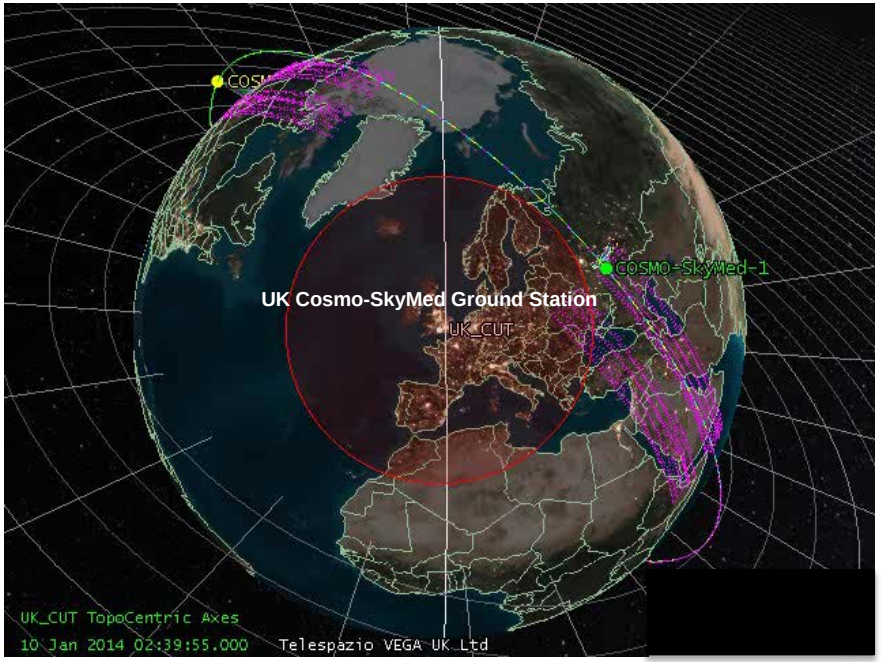
Wide area near real time Information

Via Sentinel-1 NRT
Via NovaSAR

Via COSMO-SkyMed NRT

2hr globally
30 mins in ground station



- Thank you…
- Questions?

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