Technical Assistance

in support of the

CoopP Project:

TEST PROJECT ON COOPERATION
IN EXECUTION OF VARIOUS MARITIME FUNCTIONALITIES
AT SUB-REGIONAL OR SEA-BASIN LEVEL
IN THE FIELD OF INTEGRATED MARITIME SURVEILLANCE

PROJECT FILE: Appointment Letter N°258444
dated 11/07/2013

DELIVERABLE OUT 5.1.1: Amended uses cases (4) with detailed scenarios

Date: Oct 31, 2013
Ref.: BSC/JRC

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References

The present report is produced as a result of the activity specified by the Statement of Work 0001-13 Profile1 : Senior Expert dated July11, 2013, and implemented by the Appointment letter 258444 of the same date; and its amendment by mutual agreement on Oct 28, 2013

The present report materializes the first deliberable of the contract, namely:

OUT5.1.1 – Amended uses cases (4) with detailed scenarios

The amended Use Cases are produced in the original template developed by the CoopP WP2 (Annex B document); the text in black is the original text produced by the WP2 team, while the text in blue is the new development.

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Summary of activity: Use Cases rework from WP2

Context:

The WP2 had a very comprehensive activity to collect a very large library of Operational Use Cases relevant to CISE ; these 94 Use Cases were then ranked and short-listed down to 8, as a basis for the other work packages of the CoopP Project.

When trying to use these Use Cases for verifying the Data Model activity and the description of CISE Services, the WP5 team could not find a sufficiently detailed « storyboard » for each Use Case to identify the concrete flow of information generated through CISE during the course of events : the narrative had to be by far more explicit.

As a consequence, a specific activity was added to the WP5 to produce a serial of Use Case narratives down to the required level of detail, tracing in particular step by step each precise cross-sectoral and/or cross-border exchange of information.

Concrete framework:

The work has been strictly limited to the re-development of the « Flow of Events » box of the Use Cases produced by WP2 (Annex B table V2.2 dated 25/4/2013), taking the original text as a global specification, and remaining compliant with all the other sections of each Use Case.

Even if the story telling exercise is only meant to put in a credible context the flow of information exchanges and illustrate the corresponding CISE services, the described events have been as far as possible inspired by true examples, sometimes deliberately skipping details of the current modes of operation when perceived sensitive enough to not be disclosed without necessity – this is not a document to foster advanced standing operating procedures... Hence sometimes a flavor of « ingenuity » however not biasing the specific purpose.

It has been found soon counter-productive to suggest precise locations and national actors, as it immediately tends to particularize the modus operandi and legal background to the specific organizations and countries. The best compromise found is to identify the actors as members of one or the other 7 User Communities of CISE (in their order of appearance in the CISE communication and TAG reports), and involved Countries as A,B C etc. For example, Officer2B is a Fishery Control officer from Country B.

Outcome:

WG5 defined an explicit validation rule for the redeveloped Use Cases to insure full coverage of the CISE information exchange schemes.

In parallel, the Data Model activity resulted into a drastic reduction of the number of core data elements, ending with 15 entities.

It has been found that elementary exchange schemes of this reduced core data entities would soon repeat many times through the initial 8 Use Cases : the WG5 activity appeared fully covered by half of them, while 2 could be merged. Conversely, the full development of every Use Case revealed much more time consuming and demanding than planned.

Summary:

The final deliverable of this activity contains 4 fully developed Use Cases edited as 3 "storyboards":

- Use Case 25b "Marine Pollution" rolling through 37 steps,
- Use Case 37 "baseline marine surveillance" rolling through 29 steps,
- Use Case 57+70 "cooperation through assets against IUU fishing" with 24 steps

Through these 4 detailed cases,

- 70% to 85% of the CISE User Communities are actively involved in each Case from an average 3 Countries, and of course 100% in one or the other of the 3 cases,
- 85 to 90% of the core data entities are actively invoked in each Case, and of course 100% in one or the other of the 3 cases,
- All EU Agencies relevant for CISE are are actively involved in one or the other of the 3 cases

Use Case 25b

Cooperation Project
Work Package 2

Investigation of antipollution situation(law enforcement)

Specific requirements (WP2):
Responsible authorities alerted of a suspicious pollution event. (System alerts to each member state of the presence of a suspicious vessel in their territorial waters).
The alert may come from a number of sources e.g. AIS system, intelligence source, from other member state or from a vessel that has observed some irregular activities.
The own member state could ask to the system for any additional information about the vessel.
If the system has any important information regarding the vessel, the complete information is reported: name, cargo, ownership, activity, position, previous pollution problems.
- Containment plan initiated,
- Response vessels mobilized
- Response aircraft mobilized
- C2 in place
- Interagency coordination group meet and decide on best course of action
- Actions carried out
- Event close

Conventions:
- Narratives describing actions and information sharing out of Cise perimeter but needed for the use case progression are provided *in italics*
- EC Agencies are considered at the same level as National Authorities in the information sharing environment, and their data repositories assumed to be (at the time of the story) accessible through CISE

Use Case ID 25b	Description		
Goal	Investigation of antipollution situation(law enforcement)		
Operational situation / Trigger	A vessel is suspected of polluting. - Sighting by surface vessel - Sighting by satellite - Sighting by aircraft *(not used:* *- Sighting from coast line* *- Reported by vessel polluting* *- Reported by other sources)*		
Lead Actor	Marine pollution preparedness and response/Marine Environment (UC3)		
Additional Actor(s)	General law enforcement (UC6), Maritime Safety (UC1), Defence (UC7)		
Pre-conditions	1/ Pollution sighting is verified 2/ Baseline, Targeted and Response operations (in case of environmental disaster such as The Prestige)		
Post-conditions	In case of positive response, relevant authorities alerted. Make an intervention as soon as possible. Seek additional support from other Agencies/countries as necessary 1/ Pollution contained and analysed to determine source for possible prosecution. 2/ Data base feed for lessons learned, action taken reporting		
Failure/Outcome	Failure	Outcome	Condition leading to outcome
	1/ Pollution not contained 2/ Analyses not satisfactory.	1/ Polluter not prosecuted 2/ Environmental damage to sea life and shoreline	1/ Insufficient number of sensors or poor quality 2/ Insufficient anti-pollution resources 3/ Insufficient operational coordination 4/ Insufficient law enforcement procedures
	1/ Failure to receive on time the requested information	1/ Pollution not detected in time for efficient countermeasures 2/ Environmental damage to sea life and shoreline 3/ Environment	1/ Poor information sharing 2/ Too much time to gather sufficient info and data 3/ Request not directed to the correct Authority 4/ Request not clear 5/ Restricted information

		affected, 4/ polluter not prosecuted	6/ Poor sensor quality 7 / Inadequate Alert systems

Flow of Events		Data exchanged
Step1 A Initialization D1 6am	*A vessel V1D chartered by the UC3 of Country D for a mamals counting operation in a marine protected area located in the adjacent EEZ of countries A and B makes a sighting in the early morning of some limited oils slicks in international waters, slightly out usual maritime routes, well beyond the 12nm coastal waters and out of range of costal VTS.* *This observation (position, length and pictures) is sent by SatCom to the parent institution UC3 CountryD.* *The parent institution asks the vessel V1D to try to collect some pollutant samples.*	**Initializing data = Event**
Step2 A Alert D1 8,30am	UC3 authority of Country D (UC3D) decides to alert MRCC UC1 of Country A (UC1A) in charge of the zone where the pollution has been sighted. *(in this country, MRCCs are also in charge of response to pollutions in the whole EEZ)* *As the sighted slick seems limited, the MRCC considers it as a minor incident to be investigated resources permitting. It does not trigger a formal MarPol reporting.*	**Incident/Location/Object** (oil slick) **/Document** (map, position, length, picture, name, position and details of the observation source, time of observation, pollutant description) UC3D to UC1A unprotected *push*
Step2 B Alert D1 8,45am	The neighbouring VTM communities are informed of the incident through a simplified report	**Incident/Location/Document** (name, position and details of the observing vessel + oil slick picture) UC1A unprotected *broadcast push*

Step2 C Alert D1 9am	In consideration of the proximity of a National Park Island of Country B, the UC1A of Country A decides to inform the authority UC3B managing this Maritime National Park in Country B.	**Incident/Risk/Document** (map, position, picture, type of pollutant, worst case drift estimate) UC1A to UC3B unprotected *push*
Step2 D Alert D1 9,15am	UC1A also seeks advice from the UC3 of his own Country A in charge of maritime environmental damages assessment and pollution response expertise.	**Incident/Risk/Document** (map, position, picture) UC1A to UC3A unprotected *delayed pull*
Step3 A Pre-Investigation D1 9,20am	The Maritime Authority UC1A decides to ask UC1B (CG HQ) if they might mandate in a near future an air reconnaissance as the location is closer to CountryB than CountryA, and the current daily air patrol of CountryA already directed far further away so unavailable that day.	**Action/ Operational asset/Location/ Document** (operation purpose, slick position, picture) UC1A to UC1B unprotected *delayed pull*
Step3 B Pre-Investigation D1 9,20am	In parallel, UC3A investigate from EMSA CSN service recent enough satellite SAR data possibly tracing the pollution.	**Operational asset** (Access to commercial SAR data) **/Document/Period/Location** (area of interest) UC1A to EMSA *delayed pull*
Step3 C Pre-Investigation D1 9,20am	As there are no CSN data available, the Maritime Authority UC1A decides to ask EUSC for investigating all possible sources of satellite SAR images of the polluted area	**Operational asset** (Access to non-commercial SAR data) **/Document/Period/Location** (area of interest) UC1A to EUSC unprotected *delayed pull*

Step3 D Pre-Investigation D1 10am	EUSC confirms that they were no high resolution RadarSat or EnviSat images taken that recently in this precise location (explaining why no Sat SAR picture was available at EMSA in the context of CleanSeaNet) but likely passings from the CosmoSkyMed CSK constellation operated by CountryB however not commercially available.	**Location/Period/Document** (map, SAT passage schedules, SAT coverage) EUSC to UC1A unprotected *push (result of delayed pull 3C)*
Step3 E Pre-Investigation D1 10,30am	Maritime Authority of CountryA makes a request to Maritime Authority of CountryB to access CSK SAR images if any taken in the last 24h in the area	**Operational asset** (SARsat constellation) **/Location/Period/ Document/** (official letter, map, SAT coverage) UC1A to UC1B unprotected *delayed pull*
Step3 F Pre-Investigation D1 10,50am	Maritime AuthorityB UC1B approves the query and pass to Defence Community, operating CSK	**Operational asset** (SAR sat constellation)**/ Document/Location/Period** (official letter, map, SAT coverage) UC1B to UC7B unprotected *push (associated to delayed pull 3E)*
Step4 A Investigation D1 10,20am	An airplane of the UC4B currently monitoring possible goods smuggling in the area, is mandated by Maritime AuthorityB UC1B to fly further north to the spill area in the framework of an established air surveillance coordination between UC1B, UC3B and UC4B.	**Operational asset/ Action/Location** (map, plane route, spill location) UC1B to UC4B *push (result of delayed pull 3A)*
Step4 B Investigation D1 11,20am	The plane reports to the Maritime AuthorityB UC1B that the oil slick reveals extended and significant, and what was detected before is just a fragment of the slick tail. Due to the significant wind of the previous night, the slick has already drifted south-west and lost shape, and there are no more ship track clues. The slick is now at the fringes between CountryA and CountryB SAR zones, threatening both CountryA and CountryB coasts. It seems to exceed 7tons of oily products	**Operational asset/ Location** (map, plane route, spill location)**//Object** (slick, extent, characteristics) **/Movement** (drift of oil slick) UC4B to UC1B, then transmitted UC1B to UC 1A *push*

Step4 D Investigation D1 11,30am	The airplane observations are sent by UC4B to UC3B and UC1B, which immediately forward to UC1A; UC1A forward immediately to UC3A**.** This brings UC3A to re-evaluate significantly the pollution risk level (Level2 Marpol incident)	**Incident/Object/Document/ Risk** UC4B to UC3B+UC1B then UC1B to UC1A then UC1A to UC3A unprotected *push*
Step4 E Investigation D1 1pm	1hr after landing, the photographs and brief report from the plane crew is sent to the same actors	**Incident/Object** (oil slick)**/ Document** (map, oil slicks positions, pictures)**/ Risk** UC4B to UC3B+UC1B then UC1B to UC1A then UC1A to UC3A unprotected *push*
Step4 F Investigation D1 2pm	A PolRep report(PolWarn) is elaborated and sent by UC3A Immediate measures to restrict fishing as a consequence of the pollution are assessed.	**Incident/Object/Risk/ Document** (PolRep, map, positions, pictures)) UC3A to UC3B+UC1A +UC2A then UC1A to UC1B+UC2B then UC3A to Regional Agreement Secretary and to EC-MIC unprotected *push*
Step5 A Reaction D1 1,30pm	Pollution Response Plans are jointly activated by Maritime Authorities of Country A&B. *Joint coordination is established and lead attributed to UC1A while UC3A and UC3B, UC1B, UC7A, UC5B directy participate* *The slick appearance and the V1D feedback suggest to UC3A the presence of relatively heavy fuel not possibly evaporating and dispersing naturally.*	**Document** (response plan)**/Object** (oil spill)**/ Organizations** (planned actors)**/Event** (planned response)**/Operational Assets** (planned) UC3A to UC3B, UC1A, UC1B unprotected *broadcast push*

Step5 B Reaction D1 2pm	CountryA already co-located actors gather in countryA crisis mgt facility, while all other actors get connected via chat, common data discovery platform, and videoconferencing	**Organization** (crisis management facility)**/ Service** (video-conferencing, shared data space, chat) UC3A, UC3B, UC1A, UC1B unprotected *common infospace*
Step5 C Reaction D1 1,30pm	Pre-established response plans are actualised;	**Organizations/ Operational Assets/Period/Location** UC3A, UC3B, UC1A, UC1B unprotected *common infospace?*
Step6 A Enquiry D1 1,30pm	Maritime authorities of both countries are asked to investigate the possible polluter. *In countryA Navy UC7A has assets and mandate to do so, while in CountryB Law enforcement UC6B as naval assets on its own, and Navy has no legal prosecution mandate.*	**Organization/Vessel** (unknown polluter)**/Incident** UC1A to UC7A and UC1B to UC6B unprotected *delayed pull*
Step6 B Enquiry D1 2,30pm	UC7A makes the request to EMSA for all LRIT data in the region as Coastal State from the previous 2 days (historic data) and as a continuous service for actual data to come	**Period/Location/Vessels/ Movement** (LRIT Data history) UC7A to EMSA limited access *delayed pull*
Step6 C Enquiry D1 3pm	The specific AIS receptions, radar tracks and sightings from all surveillance assets (ships, planes, coastal patrols...) and manned or tele-operated coastal stations (incl. coastal visible/IR cameras when available) in the preceding 48hrs are exchanged between CountryA & B to create a retroactive augmented maritime surveillance picture of the region including non-reporting ships. Actual data are made automatically available to both. This includes fishing vessel data collected by UC2 (fishery control) in the region.	**Operational assets** (patrolling ships or planes, semaphores, AIS, radar and EOS systems) **/Location/Period/Movements** (ship tracks, history+ current) **/Vessels** (those explicitly identified from AIS or sightings) UC1A to UC2A+UC7A+UC1B+ UC2B+UC5B+ UC7B *some data to be declassified, limited access* *delayed pull*

Step6 D Enquiry D1 3pm	UC1A and UC1B request to the ferry operators in the region for all ship AIS and VHF voice contacts possibly gathered in the region that night. This information is exchange between the 2 countries	**Organization/Vessels** (ships having crossed the area)**/Vessels** (contacts & sightings)**/Documents** (logbook excepts and nav system records) UC1A to UC1B unprotected *delayed pull*
Step6 E Enquiry D1 3,30pm	Ministry of Defence countryB accepts to release 3 HR SAR images from the CSK Constellation. The first two overlap the zone at 8,30 pm D0, the third 6 hrs later. Service Provider SP4 is tasked to perform both oil slicks and ship detection processings.	**Operational asset** (Satellite SAR) **/Location/Period/Vessels** (unknown)**/Object**(slick) /**Document** (Raw SatSAR pictures, standing order) UC7B to SP4 some data to be declassified, limited access *push*
Step6 F Enquiry D1 4,30pm	The Service Provider SP4 disseminates the results to his customer UC7B, which decides to share immediately with the Joint crisis cell established in Step5B. *At 8,30 pm D0, the slick was still very straigt and a ship is visible 5nm north of the northern tip of the slick, heading visibly toward CountryA harbours HA1 or HA2 respectively at about 220 / 180 nm so at an average 15kn the ETA is already over at the time of the analysis.* *The image resolution is too limited to give any characteristic of the ship except a length likely in the 30-50m range, and this approximate heading and speed from the wake angle.* *At 2,30am D1, at the next passing of a satellite of the CSK constellation, the slick is already altered and drifted by the wind, and a few ships are visible in the north so the track reconstruction has several solutions. In addition, the ship probability of detection remains low due to the wind-induced sea clutter, so this image is not providing any more help to locate the polluter.*	**Organization** (SAR image processing capability) **/Location/ Period/Object** (slick)/ **Vessels** (detected but not identified) **/Document** (e-mail +attacht = processed SatSAR pictures) SP4 to UC7B then UC7B to UC1A+UC7A+UC3B declassified, limited access *push (reply from 3E)*

Step6 G Enquiry D1 4,40pm	UC1A requests EMSA to get all the incoming ships in the last 12h and expected in the next 24h to the port 1 and 2.	**Organization (**Port facilities)**/ Period/Vessels/Location** (pier locations of vessels) **/Documents** (port notices of arrival - history+actual) UC1A to Organizations unprotected *delayed pull*
Step6 H Enquiry D1 5,20pm	Assigned to support the Crisis Mgt Cell established in Step5B. the MSA cell of UC7A produces an overlay of the ship positions detected by satellite and all known vessel positions during the night in the search area merged together (AIS, LRIT, coastal radar, VMS, sightings.etc from step6C). It comes out with a shortlist of 3 ships, as there are no position reports exactly synchronous to the radar images. One is a large fishing vessel and the other 2 small cargo ships, all non-EU flagged. The dynamic analysis is shared with JRC which has more advanced track extrapolation tools	**Organization** (data fusion and augmented MSA facility) **/Vessels/ Movements/Document** (zoom and replay of ship tracks on the GIS) UC7A to UC1A then shared with UC2A+UC7A +UC1B+UC2B+UC5B+ UC7B +EC/JRC Limited access *push (reply from 6A)*
Step6 I Enquiry D1 5,30pm	Request are sent to all Mediterranean Port Authorities to possibly locate these 3 ships and hold possible departure while the enquiry continues to progress. This request is supported by the PolRep report update (Polinf) assembled by UC3A with these latest details	**Incident/Organizations**(ports) **/Vessels** (e-mail + attachts = formal notice +Polinf report) UC1A to UC1+UC2+UC3 +UC6 of several nations through MarPol network Limited access *broadcast push*
Step6 J Enquiry D1 6pm	The application of a specific ship track interpolation tool (by the JRC) allow to point-out a single foreign flag ship with a reconstructed track matching the slick. The polluting cargo ship V2Z is now determined, from non-EU notorious flag-of-convenience State.	**Operational asset** (Track extrapolation tool)**/Vessel/Movement/ Location** (initial location of slick) **Document** (short report with pictures EC/JRC to UC1A unprotected *Push*

Step6 K Enquiry D1 6,10pm	UC1A locates the vessel V2Z in the AIS recent history (from step 7B) and from the port call history (from step 7G) This info is immediately shared to all the stakeholders	**Vessel/Location** (exact berthing location)**/ Organization** (port facility) UC1A to UC3A +UC7A+ UC1B+UC5B +UC7B unprotected *broadcast push*
Step7 A Notification D1 6,15pm	The PolRep report is updated accordingly (PolInf2) by UC3A and shared The Flag State is informed of the suspected infringement, however this country is not known as much cooperative in such matters...	**Incident/Vessel**(the now identified polluter)**/Document** (PolRep, map, positions, pictures) UC3A to UC1A+UC2A then UC1A to UC3A +UC7A+UC1B+UC2B +UC3B+UC5B+UC7B unprotected *broadcast push*
Step7 B Notification D1 6,30pm	*Knowing the ship was already preparing for departure in the evening, CountryA Maritime Authority requests an immediate legal warrant from its Legal Authority*	
Step7 C Notification D1 6,40pm	*The warrant is issued to the UC6A harbour HA1 police force for inspecting and sampling the various tanks of the ship, and the log book, detaining the ship and consigning the crew on board.* The Harbour Master is informed.	**Action/Ship/Document** (warrant) UC6A to UC1A limited access *push*
Step8 A Following steps D1 7pm	*About at the same time, the samples taken by V1D are transferred to the UC6B to be sent to UC6A as a supplementary conviction element.* Possible antecedents of the Master, Owner and Mechanical Officer in previous pollution cases are collected.	**Incident/Person/Document** UC6A to Europol limited access *delayed pull*

Step8 B Following steps D2 8am	Records detained on board of the vessel's previous inspections in terms of sewage system and ballast are collected. Copies of Ship's oil record book, oil pollution certificate, ship's previous dischages of ballast and bilge water in port reception facilities are made and their authenticity assessed, then the inspection report is shared with the Maritime Authority UC1A. *Fuel, oil and ballast water samples are collected*	**Vessel/Document/Anomaly** (to be assessed by inspectors) UC6A to UC1A limited access *delayed pull*
Step8 C Following steps D1 8am	Port state control data relating to this vessel are collected and screened *Possible MarPol surveys are requested* *Antecedents of the vessel in terms of sewage and ballast water collection in proper discharge facilities in previous harbours of call are collected.*	**Vessel/Documents** (past control reports) UC6A+UC1A to EMSA and MarPol unprotected *delayed pull*
	End-of-story: *The pollution is partly recovered by a specialised ship and the rest dispersed before reaching any shore. Temporary fishing interdiction is managed by both CountryA and CountryB authorities. Additional surveys are conducted by the Marine Environment community.* *The ship detention and court case can start, with indisputable converging evidences.*	
Alternative Scenarios	- Time lag in reporting - Response vessels and aircraft not available. - Poor C2 - No pollution response plan - Inter-Agency rivalry	
Procedures	- Pollution incidents reporting - Cross-border management of maritime incidents - Incident management escalation - Pollution response - Declassification of mil-satellite data - Ship inspections - Samples and evidences collection - Ship detention	

Traceability	A database of suspicious vessels suspected of polluting, could be useful for checking vessels inside a given area (territorial water/sea basin for instance). Cross checking ship information per AIS signals with a register of vessels suspected of (or have caused)pollution should alert the operator to report presence of vessel to the relevant authorities
Inputs Summary	- Report input on pollution - Fused maritime situation (all sources of ship positions) - Satellite detection (retroactive) - Joint operations (cross-border, cross-sectoral, mil/civilian cooperation) - Drift model usage - Pollutant data (type, substance, volume etc) - Ship data (basic and additional, cargo, ownership) - Response resources (national, cross border, EU) - C2 structure cross border and cross sector
Output Summary	- Alert to shipping and shore authorities - Successful identification and prosecution of polluter - Financial claims settled - Data base input (lessons learned, Pollution reports)
Potential for CISE improvement	Greater efficiency of the controls Agreed SOP's between National Authorities

Use of WP5 Model Data: checklist – 13 of 15 used

~~Action~~
Anomaly
Cargo
~~Document~~
~~Event~~
~~Incident~~
~~Location~~
~~Movement~~
~~Object~~
~~Operational asset~~
~~Organization~~
~~Period~~
~~Person~~
~~Risk~~
~~Vessel~~

Involved User Communities :

~~UC1 MARITIME SAFETY, SECURITY AND PREVENTION OF POLLUTION BY SHIPS~~

~~UC2 FISHERIES CONTROL~~

~~UC3 MARINE POLLUTION PREPAREDNESS AND RESPONSE, MARINE ENVIRONMENT~~

~~UC4 CUSTOMS~~

~~UC5 BORDER CONTROL~~

~~UC6 GENERAL LAW ENFORCEMENT~~

~~UC7 DEFENCE~~

EFCA – ~~EMSA~~ – EUROPOL - ~~EUSC~~

Use Case 37

Cooperation Project
Work Package 2

Monitoring of all events at sea in order to create conditions for decision making on interventions

Specific requirements (WG2)
Monitoring systems are always sending information (tracks and pictures), that must be interpreted by a trained operator. In case of anomalies in vessel behaviour, the operator triggers a process for intervention.
- Information Services to deliver information on basic, additional and restricted information with a high level of reliability.
- Tools and functional services to process basic ship data in order to produce risk analyses and anomaly detection
- Produce alerts to other cross sector and borders
- Operators and decision making procedures to be able to act if necessary
- Sharing of information in accordance with SOPs and agreements cross border- and sector
- Produce history input to databases

Conventions:
- Narratives describing actions and information sharing out of Cise perimeter but needed for the use case progression are provided *in italics*
- EC Agencies are considered at the same level as National Authorities in the information sharing environment, and their data repositories assumed to be (at the time of the story) accessible through CISE

Context information :
Daily work in a National inter-administration Maritime Surveillance Centre including Coast Guard, Border police and Customs officers.
The Centre has following roles :
- monitoring the local traffic to / from a close-by major Sea PortA (local VTS),
- performing the risk assessment for the PortA safety and security,
- implementing the sea border control in the region,

The precise activity that morning is following:

Use Case ID 37	Description		
Goal	Monitoring of all events at sea in order to create conditions for decision making on interventions		
Operational situation / Trigger	Sensor information e.g. coastal radars and cameras, aerial sensor information and AIS) relaying information in real time or delayed), and other information services (anomaly detection services, data bases) and systems such as EUROSUR or MARSUR .		
Lead Actor(s)	All User Communities		
Supporting Actor(s)	All User Communities		
Pre-conditions	Baseline,		
Failure/Outcome	Failure	Outcome	Condition leading to outcome
	1/ Technical failures	1/No data input 2/ Less than optimum response	1/ Low quality sensors/systems 2/ no redundancy in systems 3/ Lack of contingencies
	2/ Operators fail to detect threats	The threat is not identified	1/ Lack of training 2/ Lack of common SOPs
	3/ The event is not detected hence remains unknown	No intervention possible	1/ Training and/or op posture 2/ Technical faults
	4/ The event is detected but the information is not integrated into the system	No intervention possible	1/ System integration not adequate
	5/ The information is integrated but not sent to the relevant authority(-ies)	No intervention possible	1/ Operator fault 2/ System integration/ architecture inadequate
	6/ Failure to detect Contact of Interest (CoI).	CoI is not detected	1/ Incomplete RMP. Poor interagency cooperation. Inexperienced operators
Flow of Events			Data exchanged
Step1 A Alert D1 8am	Officer4A from Customs (UC4A) receives a BlueBelt risk notice from EMSA for Ship1 expected that day in PortA indicating an unscheduled slow-down and detour of a ship1 (registered as “BlueShip”) the previous		Initialization Data **Document/Vessel/Location** (PortA) **/Anomaly** EMSA to UC4A

	day	limited access *pull*
Step1 B Initialization D1 8,15am	Officer4A request Officer1A from Coastguard to investigate the ship1 journey in order to decide if simplified custom clearance can still be granted upon ship1 arrival	**Action/Vessel/Risk** UC4A to UC1A limited access *push*
Step2 A Investigation D1 8,20am	Officer 1A investigates the SafeSeaNet track of the late ship1 for the last 48 hrs to find an explanation of this anomaly in the journey from the last port of call	**Movement/Period/Anomaly /Vessel** UC1A to EMSA unprotected *pull*
Step2 B Investigation D1 8,25am	Because the anomaly occurred in CountryB adjacent waters, he makes a query to the closest coastguard coastal station of CountryB for any information on the vessel transit susceptible to justify speed and course alteration	**Document** (query)**/ Anomaly/Vessel/ Movement/Location/Period** UC1A to UC1B unprotected *delayed pull*
Step2 C Decision making D1 8,40am	Officer 1B replies that severe weather and sea state occurred during that period. They would not have allowed Ship1 to undertake any sort of trans-boarding at sea, whilst they are sufficient to justify such speed drop and route deviation toward CountryB coast for momentary sheltering.	**Document/Location/ Event** (weather condition) **/Vessel /Movement/Period** UC1B to UC1A unprotected *answer to 2B*
Step2 D Decision making D1 8,45am	Officer 1A sends the explanation to Officer4A, suggesting to maintain the BlueShip control exemptions for ship1, while suggesting that the Ship1 log book would be better verified on that point when harboured.	**Document/Vessel/ Anomaly** (cleared) **/Risk** (cleared) UC1AB to UC4A unprotected

		answer to 1B
Step3A Initialization D1 9am	*Then Officer 1A makes a review of the security reports of all ships due the next day – some received by fax, the other by mail. The semi-automated transcript in a common e-format is made (unnecessary after 2015, unified e-format)* *A ship comes out with a tag after applying a national automatic security screening software on these data:* Ship 2 (an old reefer) is owned by a foreign company with poor records in terms of maintenance	Initialization data: **Vessel/Organization/Risk /Document**
Step3 B Alert D1 9,50am	Officer1A informs the PortA Authority (UC1A) that the expected Ship2 is under scrutiny and might have to be berthed under some conditions or be inspected at sea before.	**Action/Vessel/Risk/Location /Period** UC1A to UC1A limited access *push*
Investigation	*Then Officer1A starts a search to assess if the security warning on Ship2 condition has real grounds (Risk assessment) and if specific measures have to be taken.*	Initialization data: **Risk/Vessel/Organization**
Step3 C Investigation D1 10am	For Ship2, Officer 1A makes queries into EMSA THETIS port control database to know when and where the last port inspection occurred, and get the inspection reports summary**,** current detentions and refusals of access.	**Vessel/Event/Incident/ Document** UC1A to EMSA unprotected *pull*
Step3 D Investigation D1 10,15am	Officer1A makes a query to all national focal points of Port State Control to get the possible antecedents in terms of Ship2 detention due to deficient condition earlier than the creation of Thetis.	**Vessel/Event/Incident/Period /Document** UC1A to UC1eu unprotected *broadcast delayed pull*
Step3 E Investigation D1 11am	Returns from Thetis and from Port State Control authorities confirm the long record of deficient maintenance, recurrent defaults and non-conformances only partially rectified.	**Vessel/Event/Incident/Period /Document** UC1eu to UC1A

		unprotected *answer to 3D*
Step3 F Investigation D1 10,45am	However the ship and shipowner are not found in the ship's Paris MoU "blacklist" and Ship2 cannot be denied PortA access from this criterion.	**Vessel** (ship black list)**/organization** (ship owner) UC1A to UC1EMSA unprotected *pull*
Step3 G Investigation D1 10,50am	Because it is a reefer, Officer 1A decides to interrogate the IUU fishing vessels database, where Ship2 comes as blacklisted and banned from EU Ports due to IUU fishing involement antecedents.	**Vessel** (ship black list) UC1A to UC3DG MARE unprotected *pull*
Step3 H Investigation D1 10,55am	Officer 1A interrogates the Fishery Control Authority of his CountryA and is confirmed that ShipA must be prohibited of access to the PortA that day	**Vessel** (ship black list)**/organization** (PortA) UC1A to UC3A *pull*
Step3 I Decision making D1 11am	The ShipA Master is notified he is prohibited to enter PortA nor any other EUPort. The Harbour Master, Maritime Authority and Fishery Control Authority are informed, together with EMSA and EFCA. ShipA track is labelled accordingly for prompting the awareness of adjacent countries.	Final product **Action/Vessel/Document** (Interdiction of entering PortA) UC1A *Broadcast push*
Step4 A Initialization D1 9,45am	*Officer 5A (Border Control) makes a review of the Crew Lists of all ships due the next day – some received by fax, the other by mail.* Three Crew Members of Ship3 present nationalities requiring a specific check *The main risk associated to the country of origin of these 3 crew members of Ship3 is light arms trafficking.*	Initialization data: **Document/Risk/Vessel/ Person/Location** (place of origin)

Step4 B Alert D1 9,50am	Officer5A notifies the PortA Authority (UC1A) that this Ship3 is under scrutiny and might have to be berthed under some conditions or be inspected at sea before.	**Action/Risk/Vessel/Location** (Port facility) UC5A to UC1A limited access *push*
Step4 C Investigation D1 11,55am	Officer 5A interrogates the Schengen Information System (SIS) about any border control antecedents on these 3 persons The SIS DataBase has no entry on them	**Person/Event** (antecedents)**/ Document** (older files) UC5A to UC5Frontex SIS limited access *pull*
Step4 D Investigation D1 12,00	Officer 5A interrogates his national liaison officer at Europol UC6A about any pending case on these 3 persons	**Person/Event** (criminal case)**/ Document** (open files) UC5A to UC6EuroPol limited access *delayed pull*
Step4 E Investigation D1 2pm	Names don't come as people under investigation, warrant or banned to enter EU; the SIENA DataBase has no entry on them	**Person/Event** (none)**/Document** (none) UC6EuroPol to UC5A unprotected *answer to 4D*
Step4 F Investigation D1 2,10pm	Passport data is scrutinized, and the Schengen Visa System is interrogated to identify previous entries of these people in the Schengen area, or if the same passport numbers have been recorded possibly with other names The VIS DataBase has no entry on them, *which seems strange to Officer 5A for would-be sailors, which confirms them as suspicious people.*	**Person** (name, nationality, passport, nr, date, place of issue)**/Event** (previous visa)**/ Document** (files) UC5A to UC5Frontex VIS limited access *pull*

Step4 G Decision making D1 2,35pm	*Officer 5A decides to maintain an alert on these crew members; he sends an alert message to his Border Police colleague in the Port to insure a thoroughful passport inspection should these crew members decide to disembark*	Final product **Person/Risk** (counterfeit passport)/**Action/Vessel/ Location/Period** UC1A
Step4 H Decision making D1 2,40pm	Officer 5A sends an alert message to the Port Security Officer for insuring a careful 24/24 video-monitoring of the jetty location during the whole stay of the Ship3.	**Action/Organization** (videosurveillance facility) **/Ship/Risk/Location/Document** (mail) UC5A to UC1A unprotected *push*
Step5 A Decision making D1 3pm	As arms might be disembarked with the cargo, should the threat materialize, Officer 5A alerts Officer4A (Customs) suggesting to control all containers originating from Ports possibly connected to such trafficking.	**Ship/Cargo/Risk/Document** (e-mail) UC5A to UC4A limited access *push*
Step5 B initialization D1 3,30pm	Officer 4A runs an assessment of Ship3 cargo from the ICS database, and get the full container numbers of those to be disembarked.	Initialization data **Ship/Cargo/Document** (cargo manifest from ICS) unprotected *pull*
Step5 C investigation D1 3,45pm	Officer 4A makes a query in the Contraffic System of JRC to check prior voyage data of the shortlisted containers against the specific ports possibly related to light arms trafficking.	**Cargo/Movement/Location** (ports) **/Document** (query) UC4A to JRC unprotected *delayed pull*

Step5 D investigation D1 4,30pm	After screening against various databases, the ConTraffic search engine comes with 3 specific containers having had a voyage matching the search criteria of UC4A	**Organization** (Contraffic facility)**/Cargo/ Movement/Location/Document** JRC to UC4A unprotected *answer to 6B*
Step5 E Decision making D1 4,45pm	Officer4A send a query to the Port facility Custom team for these 3 containers to be X-ray scanned specifically in the custom clearance process instead of usual random checks. He also requires all seals to be meticuously verified for all containers disembarked from Ship3. **That closes the Port Security activity of this Centre that day.**	Final product **Organization** (Xray screening facility) **/Action (**scan + check seals) **/Cargo/Ship/Location** UC4A to UC1+UC4A limited access *push*
Alternative Scenarios		
Procedures	The reports are processed and related information is fused with other data / information in accordance with SOPs of authorities involved.	
Traceability	Data coming from all available sensors are displayed and fused together for operators or automatic evaluation.	
Inputs Summary	Sensor input (radar tracks, AIS, Cameras, satellites, UAVs etc.)	
Output Summary	Anomalies in vessel movements detected and operational intervention considered.	
Potential for CISE improvement	Enhanced RMP	

Use of WP5 Model Data: checklist – 14 of 15 used

~~Action~~
~~Anomaly~~
~~Cargo~~
~~Document~~
~~Event~~
~~Incident~~
~~Location~~
~~Movement~~
Object
~~Operational asset~~
~~Organization~~
~~Period~~
~~Person~~
~~Risk~~
~~Vessel~~

Involved User Communities :

~~UC1 MARITIME SAFETY, SECURITY AND PREVENTION OF POLLUTION BY SHIPS~~

~~UC2 FISHERIES CONTROL~~

UC3 MARINE POLLUTION PREPAREDNESS AND RESPONSE, MARINE ENVIRONMENT

~~UC4 CUSTOMS~~

~~UC5 BORDER CONTROL~~

~~UC6 GENERAL LAW ENFORCEMENT~~

UC7 DEFENCE

EFCA – ~~EMSA~~ – ~~EUROPOL~~ - EUSC – ~~JRC~~ – ~~FRONTEX~~

Use Cases 57+70

Cooperation Project
Work Package 2

Baseline Maritime Surveillance, assets sharing and Fishery Control: **merged Vignette 57+70**

Specific requirements (WP2):

- Request for information received through agreed lines of communication
- Request is comprehensive in nature
- Information transferred through agreed lines of communication in a timely manner
- Information transferred is comprehensive in nature
- Information transferred is pertinent to the request
- Intelligence alert to the presence of a fishing vessel/small boat suspected of collaborating with other suspected vessels.
- The track of the fishing vessel is monitored and if it is possible, an inspection should be carried out.

Conventions:

- Narratives describing actions and information sharing out of Cise perimeter but needed for the use case progression are provided *in italics*
- EC Agencies are considered at the same level as National Authorities in the information sharing environment, and their data repositories assumed to be (at the time of the story) accessible through CISE

Context information :

Daily work in a National inter-administration Maritime Surveillance Centre including Coast Guard, Fishery Control and Navy, which has following roles :

- managing a Traffic Separation Scheme alternatively within contiguous waters (12-24 nm range) and beyond on a major european Sea lane.
- insuring the fishery control and environmental protection in the EEZ

The busy mandatory Vessel Traffic Separation Scheme (TSS) is passing beyond the horizon of this Station, at the fringes of the international waters and at the limits of coastal radar range (some days are fine, some days nearly blank, in average 80% of ships are detected); AIS range is better and, when merged with the AIS collected by the EU CountryB at the other side of the TSC, about all ship's AIS are gathered.

Even if the coast of CountryB is closer in some sections of the TSS, international agreements have attributed the management of the 2 lanes of the TSC to CountryA.

Fishing is allowed either side of the TSS (inshore traffic zones) managed respectively by CountryA and CountryB, and include very valuable species subject to strict quota and fishing periods.

Contraband and IUU fishing are known to occur across the TSC, so the Centre has the duty to spend attention also on non reporting ships:

- some are detected by the VTS radars,

- some are detected by regular air patrols shared between Customs and Coastguard,

- some are detected by a non-permanent monitoring of small ships movements in/out the local leisure and small fishing harbours in the area has been implemented.

The precise activity that morning is following:

Use Case ID 57+70	Description (merged)		
Goal	Knowledge of surveillance capacities of partner authorities in a given sea area to plan basic tactical surveillance (Baseline and Targeted operations) Suspect Fishing vessel/ small boat is cooperating with other type of vessels (m/v, Container vessel etc.)		
Operational situation / Trigger	- Need for enhancing or complement surveillance in areas where surveillance is poor or there is a specific surveillance need. - Support for decisions where to deploy additional surveillance assets - A fishing vessel / small boat is suspected to have suspected activity with another vessel.		
Lead Actor(s)	All user communities General Law enforcement, Customs, Fisheries control, Defence, Maritime Safety		
Supporting Actor(s)	All user communities General Law enforcement, Customs, Fisheries control, Defence, Maritime Safety		
Pre-conditions	- Policy on info sharing between actors both Nationally and Internationally - Common data formats - Agreed MOU's leading to agreed SOP's - Secure lines of communication - Baseline, Targeted, Response operations.		
Post-conditions	- All available information collected - Support for intervention decision provided - Operational assets alerted - Event recorded - Lessons learned and other information provided to databases		
Failure/Outcome	Failure	Outcome	Condition leading to outcome
	57-1/ Info not shared	1/ Decision making process compromised 2/ Poor RMP 3/Uncertainty about surveillance capacities of partner authorities in a given sea area to plan basic tactical surveillance 4/ Lack of decision support leads non-optimal management	1/ Lack of inadequate procedures for sharing information 2/ Classification levels 3 / Request not directed to the correct Authority 4/ Request not clear 5/ Restricted information

		of resources 5/ Operational potential not achieved 6/ Less effective planning of operations	
	57-2/ Incomplete RMP	1/ Higher risks for illegal maritime events and accidents	1/ Inadequate information transferred
	70-1/ The information is not provided in a timely manner	1/ The investigation is compromised . 2/ Relevant Authorities not notified in a timely manner leading to non-intervention	1/ Request not directed to correct authority 2/ Classification mismatch 3/ Incomplete RMP 4/ Poor SOP's 5/ Inexperienced operators
	70-2/ Information not provided	1/ No Investigation takes place. 2/ Relevant Authorities not notified	1/ Failure to communicate through agreed lines of communications 2/ Classification mismatch 3/ Incomplete RMP 4/ Poor SOP's 5/ Inexperienced operators
	70-3/ Incorrect and/or not complete response	1/ Time delay verifying requests 2/ Relevant Authorities actions compromised 3/ CoI lost	1 / Failure to communicate coherently 2 / Lack of sensor- or database information 3/ Lack of proper information sharing functions 4/ Lack of SOPs 5/ Incomplete RMP 6/ Inexperienced operators 7/ Availability of operational assets
Flow of Events			Data exchanged
Context	*Officer UC1A is instructed to focus on following issues:* *- the safe navigation in the TSC, the strict compliance to the routes, speed limits and reporting obligations,* *- the safe behavior of fishermen and other non-transiting vessels when crossing the TSS,* *- any suspicion of illegal activity across the TSS and in the inshore traffic zone down to the coastline on CountryA side (CountryA EEZ+adjacent waters+coastal waters)* *Monitoring non reporting ships, most of them being at this season fishing ships, is his main concerns.*		

Step1 A Initialization D1 8,15am	Officer UC1A detects on his MSA screen that Ship1 (small cargo ship registered in CountryX) having normally entered the TSS at relatively low speed (8kn) **has stopped reporting AIS from now 10mn** *He tries to contacts by VHF the ship master, with no success: the ship's VHFcom system seems having failed.*	Initialization data: **Vessel/Movement** (track from AIS)**/Incident** (no more updates received)
Step1 B Investigation D1 8,20am	Officer UC1A makes a query to the Ships Register of CountryX to find the inmarsat number of Ship1 from its IMO number provided by the previous AIS transmissions *He calls the Master of ship1 which confirms the current failure of VHF/UHF coms equipment, the current ship position, speed and heading. The Master agrees doubling the watch and taking a route at the fringe between the TSS and the inshore traffic zone to minimize traffic density around the now non-reporting ship*	**Vessel/Document** UC1A to UC1x unprotected *pull*
Step1 C decision D1 8,25am	Officer1A makes a request to the Maritime Authority UC1x (Flag State) to be granted access to the LRIT messages from this Ship1 until AIS transmissions would resume	**Vessel/Movement/Period** UC1A to UC1x unprotected *delayed pull (subscribe)*
Step1 D conclusion D1 8,30am	*Officer1A now gets the Ship1 LRIT reports in his MSA picture.*	*(subscribed data)*
Step2 A Initialization D1 8,35am	Officer1A detects from LRIT reports that Ship1 is not right in the position declared, and has a doubt about the possibly deliberate AIS interruption and the current master's intention. *He knows from experience that reefers are commonly involved in IUU fishing cases to collect at sea unreported catches of regulated species which otherwise would*	Initialization data: **Vessel/Movement/Anomaly**

	exceed allocated quota... *Having this in mind, Officer1A decides to locate the fishing vessels possibly operating in the vicinity of Ship1.* From AIS data he only locates 3 fishing vessels currently transiting in either direction the TSS	
Step2 B investigation *D1 8.40am*	Officer1A reports his doubts to Officer 2A (Fishery Control, UC2A) and suggests a joint targeted fishery control operation in the vicinity of Ship1	**Action/Vessel** (all those possibly there)**/Location** (the area around Ship1) **/Risk** (IUU fishing) UC1A to UC2A unprotected
Step2 C investigation *D1 8.50am*	Officer2A grants access to VMS data in the area to Officer1A, which download them into his MSA system *It appears that **3 fishing vessels Ship2, Ship3, Ship4 are currently operating in the vicinity of the extrapolated position of Ship1**.*	**Vessel/Location/Time frame/** (past and current VMS reports of all fishing vessels in the area) UC1A to UC2A limited access *push*
Step2 D investigation *D1 8.55am*	Officer2A searches the IUU vessels database to get possible antecedents of Ships 1 to 4. Ship3 has antecedents *(he cannot detct that Ship1 changed name and ownership after being caught a year before, still within the same criminal circle)*	**Vessel/Document** (entries in the IUU ships database) UC2A to DGMare limited access *pull*
Step2 E investigation *D1 8.55am*	Officer1A investigates if there is any asset (ship, plane or helo) from CountryA (Navy, customs or border control, or fisheries control) currently deployed in the area to relocate these four ships Ship1-4 and possibly observe them**.** *He also verifies with his colleague Officer 2A if there is not already an ongoing Joint Operation (JDP) organized by EFCA or MS.*	**Operational asset/ Location** (a broad sector around the ShipA location) UC1A to UC7A, UC4A and UC5A limited access *broadcast delayed pull*

Step2 F investigation *D1 9am*	Navy UC7A has at this time a warship transiting in the TSS at about 20nm from the spot and agrees to disclose the position and provide contact details of the warship (secure broadband satcom VPN)**;** however the warship has no Helo	**Operational asset/ Movement/ Organization** (how to get into contact) UC7A to UC1A limited access *push*
Step2 G investigation *D1 9,05am*	Officer1A enters into contact with the warship through this secure network; he explain the case, sends the local situation picture he has and requests navigation radar contact details from the warship including the last hour history**.** *Officer 2A decides an immediate poll for VMS relocation of all fishing vessels currently under CountryA control in the area to update positions.*	**Operational Asset** (warship)**/Vessel** (those under investigation)**/ Movement** (the incomplete ship tracks to be assessed by the warship) UC1A to UC7A limited access *push*
Step2 H investigation *D1 9,15am*	Officer7A transmit to Officer1A the radar contacts. *The last known AIS allows unambiguous identification of Ship1 radar track, while the last VMS reports allow doing the same for the 3 fishing vessels.* Ships1 and 2 tracks are merging and their speed dropping down*, which confirms they have a rendez-vous at sea. Together with the IUU antecedents, AIS interruption and false voice report from Ship1, this suggests irregular activities such as imminent transshipment at sea* *Fishing Ship2 is registered in* ***CountryC from EU.***	**Vessel** (those in radar range of the warship)**/Movement** (their radar tracks)**/Anomaly** (2 ships rendez-vous) UC7A to UC1A limited access *push*
Step2 I investigation *D1 9,18am*	Officer 1A alerts immediately Officer 2A of this likely IUU fishing activity	**Anomaly/Vessel/Cargo/ Risk** (the catch to be possibly illegally transferred) UC1A to UC2A limited access *push*

Step2 J investigation *D1 9,20am*	Officer2A checks the fishing ship2 characteristics, ownership, and fishing gear in the EU fishing fleet register	**Vessel/Organization/Document** UC2A to EU DGMare unprotected *pull*
Step2 K investigation *D1 9,22am*	Officer2A requires from his colleague from CountryC the fishing ship2 current permits and quotas, and the whole voyage data of this ship, reported fishing gear and fishing areas, if there are pre-notifications of transshipment etc. *There is no pre-notification, and the ship had nearly reached his quota the week before.*	**Vessel/Document** UC2A to UC2C unprotected *pull*
Step2 L investigation *D1 9,20am*	Officer 1A further investigate ship registers and detect the name and ownership changes of ShipA. The query to the IUU fishing vessels database comes this time positive for ship A IUU activity antecedents. *There is now about no doubt left on what currently happens...*	**Vessel/Document** UC1A to UC1EMSA ship register and CountryX ship register, then to UC2Mare IUU vessels Database unprotected *pull*
Step3 A Decision making *D1 9,25am*	*The challenge for Officer2A is to gather sufficient evidences on time on the spot for later seizure of the transshipped catch and prosecution. There are no fishery control operation at sea ongoing that day so no own assets deployed for that purpose.* Officer2A requests his counterpart of CountryB if they might have an ongoing air patrolling with a fishery control officer on board able to characterize and document the probable transshipment	**Operational asset/Location** (a broad sector around the shipA location)**/Period/Vessel /Anomaly/Risk** UC2A to UC2B limited access *delayed pull*

Step3 B Decision making *D1 9,28am*	Officer2A requests his colleague from Customs if they might have an ongoing air patrolling in the area able to film and document the transshipment	**Action/Operational asset/ Location**(a broad sector around the shipA location) **/ Period/Vessel /Anomaly** (to be assessed) UC2A to UC4A limited access *push*
Step3 C Decision making *D1 9,30am*	Both answer negatively *The situation turns difficult:* *- the warship has no helo and would require 40mn to reach the spot, then launch a RHIB but would not have either the competence to inspect fish catches.* *- deciding an unsheduled flight from ashore would require nearly one hour of preparedness.*	**Operational asset** (none available)**/Location/Period** UC2B to UC2A UC4A to UC2A unprotected *replies to 3A & 3B*
Step3 D Decision making *D1 9,30am*	Officer2A decides to broaden his urgent query of assets to all Maritime organizations in that area in both countries A&B	**Operational asset/Location /Period** UC2A to all maritime communities of CountriesA+B unprotected *broadcast delayed pull*
Step3 E Decision making *D1 9,35am*	Luckily the Border Control Unit of CountryB replies it has an ongoing air surveillance of the CountryB coastline against possible contraband or people smuggling and this small plane is equipped with a camera pod	**Operational asset/Period /Location** UC5B to UC2A limited access *reply to 3D*

Step3 F Decision making *D1 9,40am*	Officer2A transmits to the air patrol unit UC5B the details of the incident to be documented	**Operational asset/Action** (record evidences)**/Vessel/Location** (last ship 1+2 position transmitted by warship)**/Anomaly** (to be assessed) UC2A to UC5B limited access *push*
Step3 F Conclusion *D1 9,50am*	The surveillance plane succeeds to identify and film the two ships still alongside with evidences of cargo handling. The record can only be downloaded after the flight *These records will add to the follow-on by the Fishery Control Authorities and support later prosecution of the fisherman and the blacklisting of the reefer. Inspections on board will be organized in the following hours but the IUU catch will not be found on board as the Master anticipated the inspection because he detected and understood the purpose of the small plane survey, and decided to throw away all possible evidences...*	**Document/Vessel** (the 2 infringing ships)**/Cargo** (the transshipped catch boxes)**/Incident** (IUU activity) UC5B to UC2A limited access *delayed push*
	End of the Story	
Alternative Scenarios		
Procedures	- Each sector / Actor monitors own surveillance needs for baseline operations. When surveillance situation needs enhancement, operators send request to others (cross sector and/or border) for sharing and coordination of surveillance results/ assets. - When a planned operation is to occur (targeted operations), the lead organisation/agency liaise with other actors in the operation to ensure conformity to agreed actions/timelines Information exchange only made through secure channels. - Identify the origin of the fishing vessel and gather as much information as possible about the vessel, port of departure, catch, and crew details. - Same procedure with the other collaborative vessel if the identification is known. - Draw historical and current information on the vessel for input to the decision making process.	

	- Specify the type of information required and the reasons why it is required - Information exchange by secure means... - Alert the relevant authorities.
Traceability	- A database of suspicious vessels, could be useful for checking vessels inside a given area (territorial water/sea basin for instance). Cross checking ship information per AIS signals with a register of vessels suspected should alert the operator to report presence of vessel to the relevant authorities
Inputs Summary	- Request from actor in need of enhancement of surveillance - Surveillance needs for a planned operation - Basic, additional and restricted maritime traffic and additional information such as : - identification number of the fishing vessel - identification number of the collaborative vessel if possible - Catch - flags - crew if possible - suspect - last AIS signal - last known verified position - History of both vessels
Output Summary	- Answer to request of surveillance enhancement - Surveillance plan for planned operations - Deployment plan for surveillance assets - Coordination of surveillance assets - All the identification data required - Tracks and other data over the event to feed databases
Potential for CISE improvement	Greater efficiency of the controls Agreed SOP's between National Authorities

Use of WP5 Model Data: checklist – 13 of 15 used

~~Action~~
~~Anomaly~~
~~Cargo~~
~~Document~~
~~Event~~
~~Incident~~
~~Location~~
~~Movement~~
Object
~~Operational asset~~
~~Organization~~
~~Period~~
Person
~~Risk~~
~~Vessel~~

Involved User Communities :

~~UC1 MARITIME SAFETY, SECURITY AND PREVENTION OF POLLUTION BY SHIPS~~

~~UC2 FISHERIES CONTROL~~

UC3 MARINE POLLUTION PREPAREDNESS AND RESPONSE, MARINE ENVIRONMENT

~~UC4 CUSTOMS~~

~~UC5 BORDER CONTROL~~

UC6 GENERAL LAW ENFORCEMENT

~~UC7 DEFENCE~~

~~EFCA – EMSA – EUROPOL - EUSC – JRC - FRONTEX~~