

Meeting: CSN 18th User Group Meeting

Place and date: Lisbon, 12 March 2019

Agenda item: CSN Support to ENP countries

Document number: CSN 18.2.2

Submitted by EMSA

Summary	This paper provides summary information on the CleanSeaNet (CSN) services delivered in the context of the European Neighbourhood Policy (ENP) through the SAFEMED IV and BCSEA projects in 2018.
Action to be taken	As per paragraph 3.
Related documents	n.a.

1 Background

The scope of this paper is to present the results of CleanSeaNet (CSN) services delivered in 2018 in the context of the European Neighbourhood Policy (ENP).

In 2018, ENP policy was implemented through the continuation of the SAFEMED IV and BCSEA projects, both initiated in December 2017, and scheduled to last until 2021.

For SAFEMED IV, two additional countries signed the CSN Conditions of Use (CoU) in 2018, and started receiving services along with Jordan (already part in 2017): Tunisia in January, and Morocco in March.

For BCSEA, the beneficiary countries of CSN services remained Azerbaijan and Georgia.

Services ordered for SAFEMED IV and BCSEA projects are visible to the CleanSeaNet community in the SEG interface.

2 SAFEMED and BCSEA service results

In 2018, the CleanSeaNet service was provided to the SAFEMED IV project using SAR imagery exclusively from the SENTINEL-1 mission. For each of the 3 countries participating in SAFEMED, the requirement was to order 4 images per month.

For BCSEA, the service was delivered using SAR imagery exclusively from Radarsat-2 mission. For each of the participating country in BCSEA, the requirement was 4 images per month. Success Delivery Rate

Table 1 and Table 2 indicate the number of ordered and delivered services.

Satellite	Number of Ordered images	Number of Delivered images	Delivery Ratio
SENTINEL-1A/B	136	125	92%

Table 1 - CleanSeaNet images ordered and delivered in 2018 for SAFEMED.

Satellite	Number of Ordered images	Number of Delivered images	Delivery Ratio
RADARSAT-2	96	90	94%

Table 2 - CleanSeaNet images ordered and delivered in 2018 for BCSEA.

2.1 Near Real Time (NRT) performance

CleanSeaNet service near real time (NRT) performance refers to service results being available on the CleanSeaNet web portal and/or that alerts have been sent to relevant authorities in the coastal States shortly after acquisition. For satellite images covering up to 160 000 Km², the NRT service is available within 30 minutes. For larger images, more time is necessary.

The service NRT performance is best characterised by the delivery time of the alert report which contains all necessary operational information for the coastal States to take any initial action. The alert report includes a clip image of the spill extracted from the satellite image which allows authorities to assess the situation before the full resolution image is available on the CleanSeaNet portal. Therefore, the indicator used to measure the service NRT performance is the time when the alert is sent. As alert sending times are not directly available in the system, an accurate approximation can be obtained by adding three minutes to the time when the oil spill notification package as delivered by service providers is available in the system. The three minutes is an estimate of the time it takes to generate alert reports and to send them. This is the time that is used in the figure below.

The graph in Figure 1 shows the CleanSeaNet NRT performance of the services delivered for SAFEMED and BCSEA. Table 3 indicates the percentage of alert reports delivered in NRT for both projects.

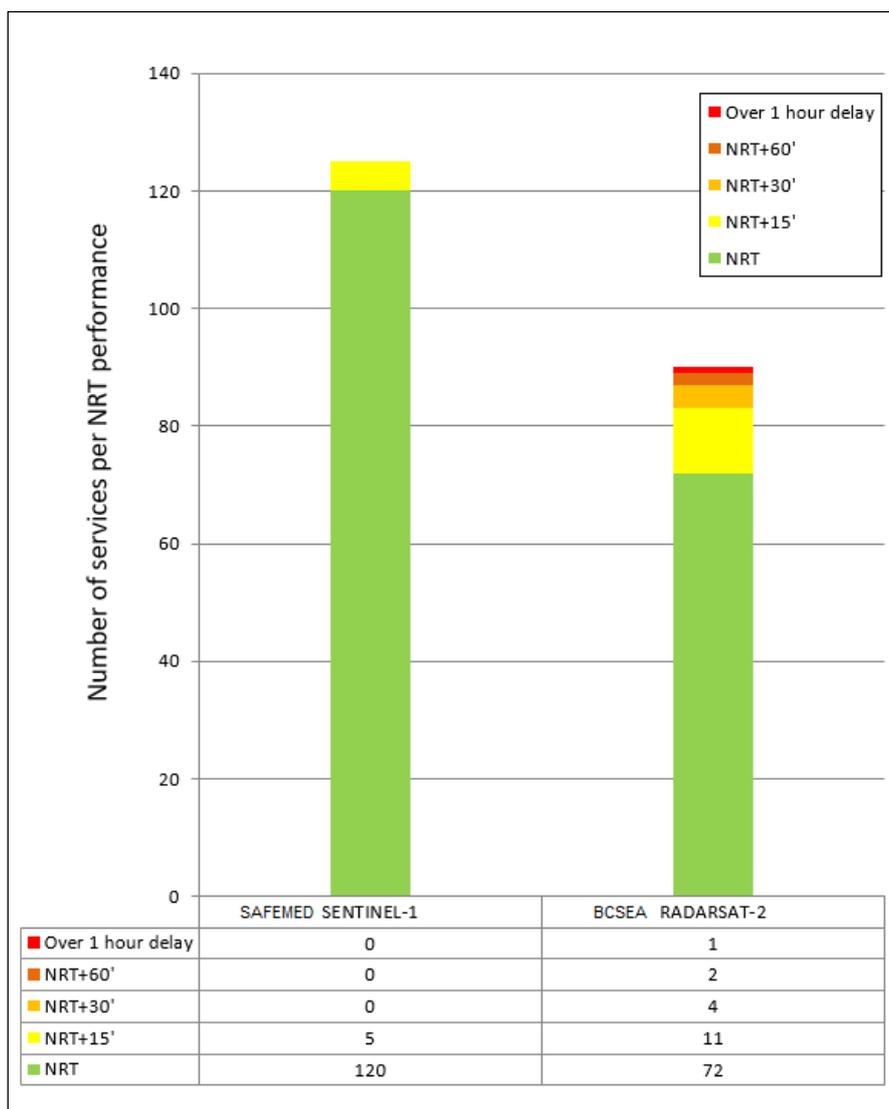


Figure 1 - CSN NRT Performance for SAFEMED and BCSEA in 2018.

Project	Total of Alert Reports in NRT	Total of Alert Reports	NRT Ratio 2018
SAFEMED	120	125	96%
BCSEA	72	90	80%

Table 3 - Alert reports sent in NRT for SAFEMED and BCSEA in 2018.

2.2 CleanSeaNet service detections

In 2018, for the 125 CSN services delivered to SAFEMED countries, a total of 142 possible oil spills were detected. For the 90 BCSEA CSN services, the total number of oil spills was 246. CleanSeaNet detections are separated into two classes:

- **Class A** – the detected spill has a higher detection confidence level.
- **Class B** – the detected spill has a lower detection confidence level.

The distribution in Class A and B is shown in Figure 2.

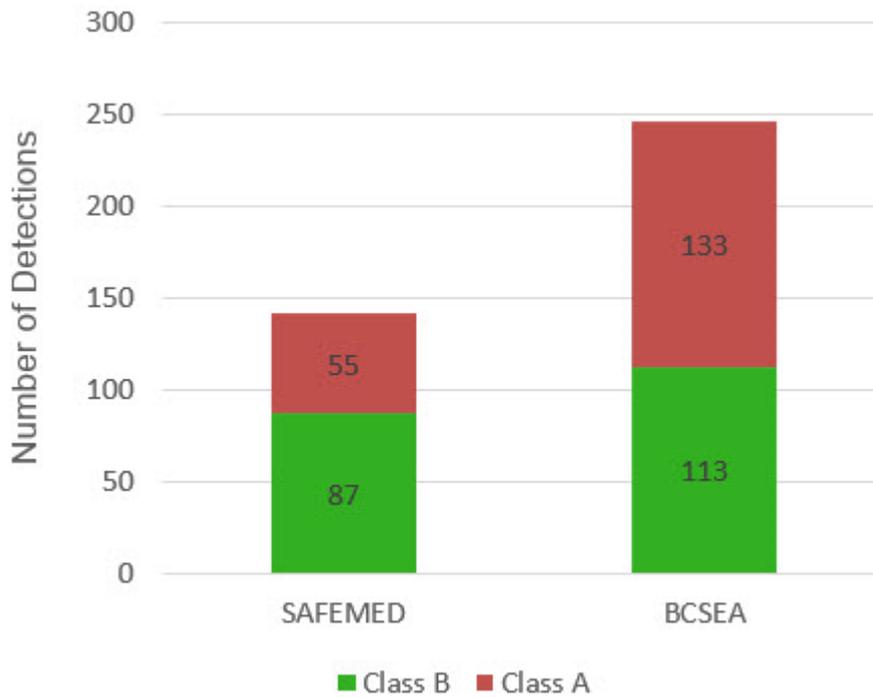


Figure 2- CleanSeaNet possible pollution detected in 2018.

Figure 3 shows the spatial distribution of possible oil spills detected in images ordered for the SAFEMED and BCSEA projects.

The alert areas for the countries in the projects are also displayed. It shall be noticed that these countries will also receive alerts for services ordered for CSN, given that their alert areas are intersected. In the same way, the CSN countries receive alerts for images ordered under SAFEMED and BCSEA which intersect their alert areas.

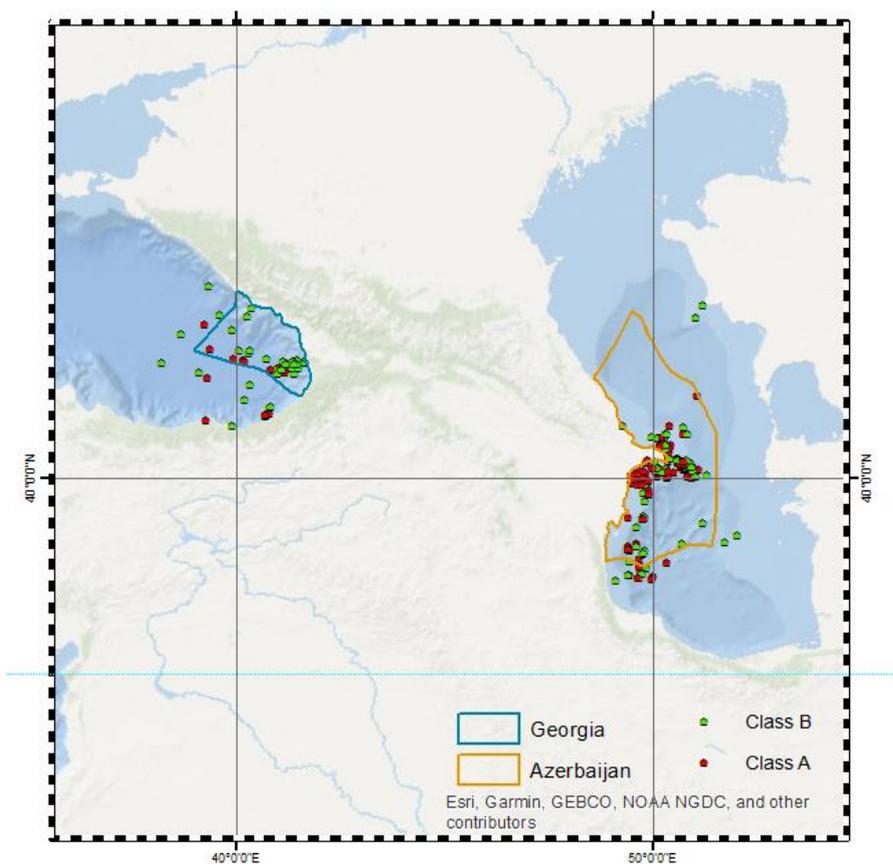
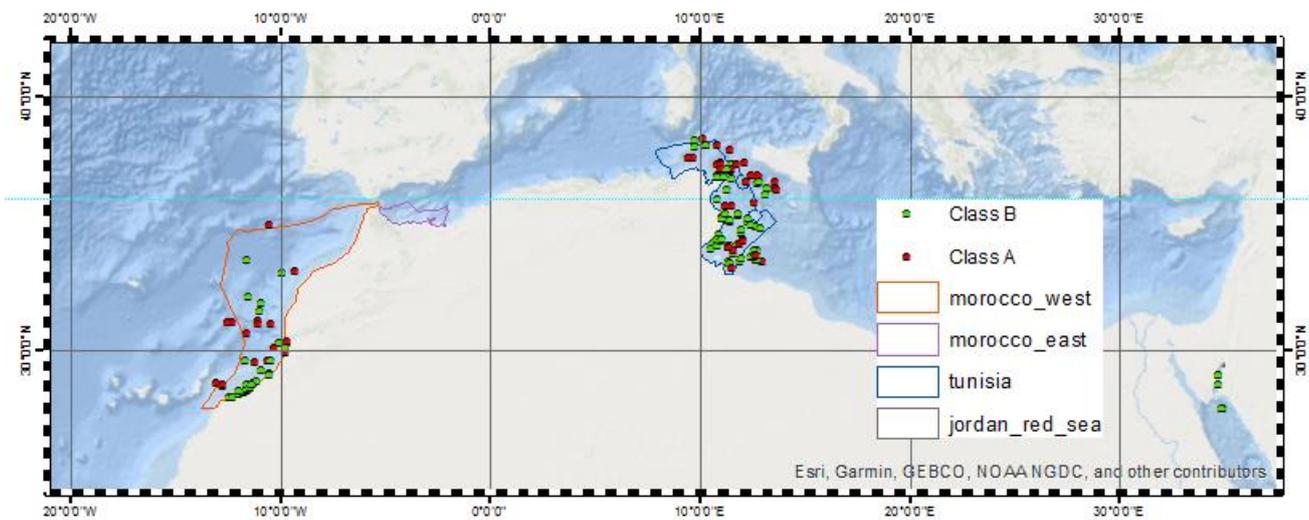


Figure 3- Map of possible spills in images ordered for SAFEMED (top) and BCSEA (bottom)

2.3 Verification results

ENP beneficiary countries do not provide feedback using the standard EMSA feedback mechanism – provision of feedback was done by filling a feedback document containing similar fields to those available in the graphical interface. Table 4 indicates the number of such feedbacks provided by ENP users, and its distribution by report type.

Verification Results	SAFEMED 2018	BCSEA 2018	Feedback Ratio SAFEMED 2018	Feedback Ratio BCSEA 2018
Mineral oil	3	1	27%	2%
Other substance	0	0	0%	0%
Unknown feature	1	7	9%	15%
Natural phenomena	1	2	9%	4%
Nothing observed	6	38	55%	79%
Total Nr Feedbacks	11	48	-	-

Table 4- Feedback provided through the interface in 2018, distributed by report type

Some feedbacks on ENP oil spill detections have been provided by the Member States via the standard feedback mechanism, as presented in Table 5.

Verification Results	SAFEMED 2018	BCSEA 2018	Feedback Ratio SAFEMED 2018
Mineral oil	1	0	5%
Other substance	0	0	0%
Unknown feature	0	0	0%
Natural phenomena	0	0	0%
Nothing observed	18	0	95%
Total Nr Feedbacks	19	0	-

Table 5- Feedback provided through the interface in 2018, distributed by report type

3 Actions required

The CSN User Group is invited to take note of the information provided.