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<b>Document title</b>	Proposal for financing model for the maintenance of the Seatrack Web (STW)
<b>Code</b>	4-16
<b>Category</b>	DEC
<b>Agenda Item</b>	4 - Matters arising from the HELCOM Groups
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<b>Submitted by</b>	Sweden
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## Background

The Seatrack Web (STW) is an online forecasting and hindcasting system for calculating the fate of oil spills hosted by the Swedish Meteorological and Hydrological Institute (SMHI) and developed by a group of research institutions around the Baltic Sea: Denmark (FCOO), Germany (BSH) and Finland (FMI). The Seatrack Web (STW) has an important role in the HELCOM response cooperation in the Baltic Sea region as the drift model used jointly by all Baltic Sea coastal states since the 1990s.

The daily maintenance and running of the system (not accounting for development work) imposed in 2014 operative costs of approximately 90 000 euros for SMHI annually. The costs are not covered by existing national or international arrangements. SMHI has no governmental responsibility or funding for running the system and needs to cover these expenses in some way.

Based on a recommendation by the HELCOM RESPONSE Working Group the HOD 47-2014 meeting highlighted that the Seatrack Web (STW) has been a central tool for the regional HELCOM cooperation on spill response for three decades and agreed that it should be considered as the official HELCOM spill modelling tool (Outcome § 3.25). The meeting requested that a proposal on financing STW is prepared by the host country Sweden in cooperation with the Secretariat to HELCOM 36-2015.

The HELCOM 36-2015 meeting agreed to give the Seatrack Web (STW) official status as HELCOM drift modeling tool for regional response. The meeting also considered the proposed way to divide and cover the costs related to the STW maintenance as proposed by Sweden (document 2-4) and recalled that institutions in several Baltic Sea countries either pay for STW licenses or contribute to the STW development work. The meeting took note of the information by the EU that they are not in the position to provide a special contribution to the HELCOM budget to finance the STW. The meeting finally agreed, including upon request of Germany, to return to the issue of financing the maintenance of HELCOM STW at HOD 48-2015 and invited Sweden to amend the scheme for financing taking into account the discussion at the Meeting.

As the issue was not considered at HOD 48 2015 the Meeting will be invited to return to the issue of financing the maintenance of HELCOM STW based on the attached scheme for financing proposed by Sweden, which has been amended taking into account the discussion at HELCOM 36-2015 and intersessional consultations.

## Action required

The Meeting is invited to:

- decide on whether the maintenance costs of STW (approximately 90 000 euros) could be financed from the HELCOM budget (fully or partly) - which would require special annual contributions from the Contracting Parties accordingly;
- decide on the division of costs as included in Table 1 of the document.

## 1. Seatrack Web – A short Description

The Seatrack Web (STW) oil drift calculation system is an online forecasting and hindcasting system for calculating the fate of oil spills hosted by the Swedish Meteorological and Hydrological Institute (SMHI) and developed by a group of research institutions around the Baltic Sea: Denmark (FCOO), Germany (BSH) and Finland (FMI).

Seatrack Web (STW) has an important role in the response cooperation in the Baltic Sea region as the drift model used jointly by all Baltic Sea coastal states since the 1990s. Since March 2015 STW is formally recognised as the official HELCOM drift modeling tool for regional Response cooperation.

### *Long HELCOM history*

STW has a long joint history with HELCOM starting as a simple trajectory model in the 70 and, evolving to an operational oil drift forecasting system during the 90s. The HELCOM Recommendation 12/6 (superseded by Recommendation 24/7) stating that every country around the Baltic Sea should have an operational oil drift forecasting system by 1993 enhanced the development further. The system has since then continued to be developed in close cooperation with the user and during the last years a number of new functions have been included (possibility to simulate booms, to show multiple simulations, etc.) together with a user friendly web interface and modernised technics. TWB is used by all HELCOM Contracting Parties (CPs).

### *Predicting the fate of oil slicks*

The STW system is able to make forecasts of how a cloud of particles (e.g. oil) is spreading. In case an oil spill is detected, the system is used to predict where the oil will be after some hours for the combatting units to be able to plan where to be positioned to make the most use of its oil recovery equipment. On shore, cleaning units can plan where to move their units so they can protect the shorelines most probable of being affected by the oil.

### *Identifying illegal polluters*

If it is an illegal spill it is of interest to identify the polluter. STW combines its information with AIS information and can run in a backtracking mode to track which ships have passed a certain oil spill. This information is used to find a possible polluter.

### *24/7 support by SMHI*

The system has been updated to a new version in 2014 and the old version will be closed down on 1 April 2015. SMHI runs the current operational version of STW used by the HELCOM fleet and provides access and support 24/7.

### *A joint tool - a joint responsibility*

The daily maintenance and running of the system (not accounting for development work) imposed in 2014 operative costs of approximately 90 000 euros for SMHI. The costs are not covered by existing national or international arrangements. SMHI has no governmental responsibility or funding for running the system and needs to cover these expenses in some way. SMHI has started the process to sign user license contracts (currently with value below 40.000 euro) as a partial solution to cover these operational costs.

### *The need to find a way forward*

It should be noted that STW is a key element in the successful implementation of a number of HELCOM Recommendations related to Response, including those concerning on shore response. Development of the STW has been highly prioritized by several CPs and large investments have been made by CPs in development projects. Thus, a long term solution to solve the financing issue should be sought for.

## 2. Proposal for the way forward

The daily maintenance and running of the system (not accounting for development work) imposed in 2014 operative costs of approximately 90 000 euros for SMHI. Such costs are not covered by existing national or international arrangements. SMHI has no governmental responsibility or funding for running the system and needs to cover these expenses in some way. The following is a proposal to cover such maintenance costs:

### **2.1 Development: partnership and coverage of costs**

The development of the STW will be done under the lead of the Swedish Meteorological and Hydrological Institute (SMHI) together with FCOO (Denmark), BSH (Germany) and FMI (Finland). Such development costs will be covered via project funding and other development resources and are not related to the fees for the coverage of maintenance costs of the joint model at SMHI, specified below.

### **2.2 Coverage of maintenance costs: general principles**

Instead of separate direct license contracts with SMHI the annual maintenance costs of STW is proposed to be shared by the Contracting Parties via the HELCOM budget.

The existing contracts with governmental institutions will be withdrawn by SMHI

Contracting Parties will pay an annual special contribution to the HELCOM budget which is equal to their allocated share of STW maintenance costs

HELCOM will pay the corresponding sum to SMHI to cover the annual maintenance costs

This special contribution by Contracting Parties enables full and free access to STW all national and European institutions according to the decisions of the nominated HELCOM Response Head of Delegation. Related national STW passwords will be distributed by SMHI to users based on a decision of the nominated HELCOM Response Head of Delegation.

Other private users which are not granted such national access can get access by signing an agreement directly with SMHI. Such license fees have to be reported by SMHI to the HELCOM RESPONSE Group and will correspondingly decrease the fee to be paid to SMHI by HELCOM. The surplus coming from the reduction of the fee will be used by the HELCOM Secretariat for STW development and in this way improving the link between STW developers and regular HELCOM RESPONSE cooperation.

Eventual increases in the maintenance costs to be paid to SMHI via HELCOM can be considered by the Response group based on a formal request of SMHI. Such increases will be decided on biannually by the HELCOM HOD according to a recommendation by HELCOM Response. The increases will be part of the proportional increase part of the maintenance cost sharing (see 2.5).

SMHI will once a year submit to RESPONSE a document listing the STW end users.

### **2.3 Coverage of maintenance costs: principles for division of costs**

The maintenance costs, estimated in 2014 as 90000 euro/year, are proposed to be divided among the HELCOM Contracting Parties according to the following principles:

- All Member States will contribute to the maintenance costs of the STW system
- Sweden will take a base burden of 15000 euro

- 30 000 euro/year is shared as Member State fees on a 1/9 basis (3333 euro).
- The remaining 45 000 euro/year is to be covered by an additional fee share, to be divided proportionally in accordance with the length of the coastline.

## 2.4 Coverage of maintenance costs: division of costs

The below Table 1 includes the annual special contributions to HELCOM budget to cover the costs of the STW system:

Table 1: Division of maintenance costs of HELCOM STW			
Contracting Party	Border length share (Territorial Sea) as % of total length of maritime borders within HELCOM area.	Proportional maintenance cost share in euro based on border length. (% border length x 45 000)	Total annual STW maintenance share in euro (coastline share +3333+additional 15000 for Sweden)
Denmark	17,1	7695	11030
Estonia	9,4	4230	7560
Finland	16,7	7515	10850
Germany	5,5	2475	5810
Latvia	5,7	2565	5900
Lithuania	1,7	765	4100
Poland	5,3	2385	5720
Russia	5,6	2520	5850
Sweden	32,9	14805	33140
European Union	0	0	0
<i>SUM</i>	<i>99,9</i>	<i>44955</i>	<i>89960</i>

Current university and private sector license contacts with SMHI include:

- Tallinn University of Technology, contact Jüri Elken;
- Immanuel Kant Baltic Federal University Kaliningrad, contact Elena Kuzmina;
- P P Shirshov Institute of Oceanology Moscow, contact Andry Kostianoy.
- [PLEASE add new contracts]