EUROPEAN COMMISSION
DIRECTORATE-GENERAL
Joint Research Centre
Institute for Environment and Sustainability
Water Resources Unit

MINUTES OF THE 8TH MEETING OF THE

MSFD TECHNICAL GROUP ON MARINE LITTER (TG ML)

RIGA, LATVIA

11-13.06.2014

	LIST OF PARTICIPANTS	
	Name	**Affiliation**
1	Nigel Smith	DG ENV
2	François Galgani	IFREMER, FR, Chair
3	Georg Hanke	JRC, Co-Chair
4	Stefanie Werner	UBA, DE, Co-Chair
5	Maria Ferreira	EUCC, TSG-ML Secretariat
6	Annemie Volckaert	Arcadis-BE, TSG-ML Secretariat
7	Joana Mira Veiga	Coastal & Marine Union (EUCC)
8	Jan van Franeker	IMARES, NL
9	Per Nilsson	University of Gothenburg, SE
10	Thomas Maes	Cefas, UK
11	Lex Oosterbaan	Ministry of Infrastructure and the Environment, NL
12	Jesus Gago	IEO, ES
13	Andreja Palatinus	Institute for Water, SI
14	Sue Kinsey	MCS, UK
15	Heather Leslie	IVM-VU, NL
16	Emma Priestland	Seas-at-Risk
17	Gijsbert Tweehuysen	Waste Free Waters Foundation, NL
18	Thomais Vlachogianni	MIO-ECSDE
19	Richard Thompson	Plymouth University, UK
Invited Experts and Representatives		
20	Janis Ulme	MARLIN Project
21	Jean-Baptiste Dussaussois	Surfrider Foundation Europe
22	Ilse Donina	Latvian Ministry of Environment Protection and Regional Development

Minutes

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DAY 1

1) OPENING OF THE MEETING

On behalf of the Chairs, Stefanie Werner opened the 8th TG-ML meeting, welcomed all participants and introduced Ms. Ilse Donina from the Latvian Ministry of Environment Protection and Regional Development. Ms. Donina who welcomed the group in Riga and acknowledged their work, represents the branch of the Ministry responsible for waste management. The regional approach to address the ML challenge is strongly supported by her Ministry. Riga is Capital of Culture 2014 and worth a visit as well as the coast and Jurmala as an inspiration for our work.

S. Werner welcomed Nigel Smith (DG ENV) who presented the MSFD D10 update state of implementation.

2) ARTICLE 12 AND IDA REPORT

By Nigel Smith (DG ENV) and Georg Hanke (EC JRC)

Nigel Smith provided an overview of the status of implementation (check PPT for details). Regarding the article 12 assessment to retain: little precision of GES and targets (hard to enforce); limited coherence between MSs/marine regions; knowledge gaps identified, without clear plan on how to address them; limited analysis of pressures and impacts (e.g. cumulative effects). Table overview of adequacy assessment per descriptor: quite some progress but still quite some work to be done. For D10, some targets have been set (beach litter, biota) but there is lack of comprehensive baselines, which are needed to check efficiency of Programme of Measures (PoMs). There are some recommendations at EU and regional level relevant to be taken into account (in PPT). The recent meeting of Marine Directors in Greece stressed the need for further regional coordination between MS to address GES and targets setting.

In terms of ongoing ML activities at EU level a brief overview: EU informal Environmental Ministerial meeting (Athens, 14 May), where ML was seen as high-profile example of human impact in the marine environment; development of quantitative reduction target: Stage 1 - land-based circular economy dimension forthcoming to 2020; Stage 2 - wide range of measures with longer time horizon.

JRC in–depth assessment report

Technical details on the implementation of D10 regarding GES definition: 50% of MS didn't provide a definition of GES, and regarding data availability there are gaps and insufficient reporting of data. This assessment provides an overview of the progress since the start of the process. The present situation is most certainly different, as progress has been made and it seems clear that cooperation at regional level is solidifying and becoming more coherent. However, some conclusions can help to align the work of TG ML in the future. The recommendations of the TG ML have been taken into account by the Regional Seas Conventions (RSC) and it is important to continue receiving their feedback and updates. The role of the TG ML as a platform for discussions across all RSCs for coherence at EU level was emphasized.

3) MARINE LITTER IN THE BALTIC SEA

By Stefanie Werner (UBA)/ HELCOM

Recently, there has been considerable progress in HELCOM in relation to ML. Decisions at HELCOM Copenhagen Ministerial Declaration (2013):develop a RAP by 2015 at the latest. HELCOM MONAS 19/2013initiated an intersessional correspondence activity on ML.

Overview of main sources amounts and top items of ML, available methodologies, data and on-going projects per contracting party (CP). Most CPs have reported about protocols and methodologies being

used (see PPT), which varies per descriptor and per country, *e.g.* beach litter monitoring in each of the CP (EE, FI and SE use the UNEP approach, while DE uses the OSPAR's). Data gaps are particularly obvious for seafloor and water column. There is also a lot of R&D undergoing, *e.g.*SE is working on a pilot on litter dynamics and variation of litter in short periods (weeks-days), in reference beaches. WWF-Poland is very active on the issue of ghost-nets and there is a national programme on floating litter; for seafloor litter DE, DK, PL and SE report activities mainly following the protocol of TG ML. In terms of R&D on biota, there are a few pilot studies on fish stomach contents (DK, DE, SW); quite a lot going regarding microlitter in the region, including a recent study on amounts of microplastics used in cosmetic products and another one just about to start about microplastics in drinking water, rain water and sewage effluent water (DE, 2014). Regarding R&D fishing gear and ghost nets there is quite of activities under development and in more general and wider activities.

Discussion

The use of different of methodologies e.g. UNEP versus OSPAR, in particular when done by NGOs (e.g. *Keep Sweden Tidy* – UNEP): NGOs may not be willing to change their methodologies, which for some reflect data obtained for many years and in line with other programmes worldwide. Also the difference between regional and national e.g. Med and Atlantic Spain and France, which share 2 regional seas. NGOs tend to be the ones responsible for beach monitoring, so it is essential to engage them but how? In the UK, MCS surveys 300 beaches but only a fraction is used for the MSFD purpose. Discussion around the role of the group in leading and promoting harmonised approaches in each RS. In the collaboration project Germany-Netherlands, given the great variability of litter it didn't seem to matter so much if methodologies are based on OSPAR or UNEP. In terms of governance, often the entity responsible for the MSFD and the one responsible for collecting data don't even know each other. A strategy might be needed to align who is responsible and implementing monitoring at regional seas and NGOs. There is a lack of practical guidelines for implementation the various descriptors. There are existing OSPAR guidelines and experiences that can be used.

➔ **Actions**: Suggestion use the existing section on basecamp for RSC to upload and update their Regional Action Plans (19_Regional Action Plans);
➔ Communication map: compiling of contacts of who is implementing MSFD in MS, link with practical implementation in order to ensure efficient information flow.

5) DEVELOPMENT OF MSFD MARINE LITTER MONITORING PLANS AND REGIONAL ACTION PLANS

Round-table of summarisations and updates from the MS and RSC representatives.

Sweden: P. Nilson

Beach litter monitoring in the OSPAR region is done by a professional agency but in the Baltic is not yet decided if it will be the NGO *Keep Sweden Tidy* or another organisation doing the permanent beach monitoring. Seafloor in under development, in conjunction with BT surveys. In the water column no progress done but might be implemented in conjunction with other programmes (contaminants, plankton), also depending on the emphasis that is put on the "harm". Litter in biota is being considered for seals and bottlenose porpoise. There is some research on-going in terms of microplastics, including on transference of contaminants to fish for human consumption.

Spain: J. Gago

Beach litter (OSPAR methodology) and seabed (in conjunction with benthos fisheries) are well implemented. There is one project ongoing on microplastics on water surface (started recently in cooperation with France, in the Biscay Bay) and sediments.

Biota is less developed – a national workshop is being prepared to discuss potential species that cover the whole Spanish territory and in the various regions: turtles in the MED and possibly a bird in the Atlantic.

Netherlands: L. Oosterbaan

Monitoring programme developed and gone through the consultation phase. Expected to be approved latest after the summer. In practice, monitoring of beach litter and fulmar (as both impact and floating

indicator) is on-going. IBTS is not yet adopted but a couple of surveys have been done, possibly to be considered as an OSPAR common indicator next year. The monitoring programme is to be reviewed every year in order to add new indicators (e.g. IBTS). Microplastics positioned under R&D initiatives.

Slovenia: A. Palatinus

The monitoring programme developed in 2014 has been approved. Beach litter monitoring under responsibility of the Institute of Water. Other indicators, inc. riverine litter, are not officially considered in the monitoring programme but being covered within on-going projects, as the *DeFishGear*.

Greece: T. Vlachogianni

No official update, as no indications received from the competent authority. Seafloor covered by MEDITS.

Germany: S. Werner

Beach litter monitoring established for the OSPAR region and currently set-up in the Baltic. Litter in stomach content in Fulmars for the North Sea. Pilot monitoring project started: macro and meso litter (beach), seafloor (using IBTS, BITS and other national surveys), floating (visual surveys), biota-ML as nest material and associated mortalities for North Seas and Baltic (gannets and cormorants). Ingestion in fish is being considered at different levels of the life-cycle (e.g. Mackerel and Herring juvenile) and also in estuaries. Sampling of micro particles in sediment and water column. There are quite some R&D and other projects running and expected that these will generate new information within the next 2-3 years.

France: F.Galgani

OSPAR monitoring programme for beach litter extended to other areas in France – 30 beaches, 4 times of year. For floating litter surveys, observers on each important cruise for fish stocks assessments and a survey every 6 years through aerial observation for all French waters. Seafloor monitoring – IBTS (in OSPAR area) and MEDITS (in the Med). Microplastics sampling every year, on the same beaches as for macrolitter and at sea, on regular cruise (fish stocks assessments).Ingested litter in Fulmars (North Sea) and sea turtles (Biscay and Med).There is research ongoing for *Harm* and modelling in French waters. All of these are organised in a monitoring plan.

UK: T. Maes

Beach litter monitoring is ongoing and in cooperation with NGO (agreement with MCS). Seafloor in conjunction with CEFAS' bottom trawling fish programme. Fulmars are expected to be used as indicator for floating litter and impact on biota but programme not yet set-up. R&D projects on sewage, MICRO Project. Benthic report almost available = 20 years of data from CEFAS.

➔ **Action: compile** list of ongoing regional projects and national initiatives from absent MSs for informative overview

From **Regional Sea Conventions** perspectives:

OSPAR (L.Oosterbaan)

OSPAR Commission meeting will take place at the end of June. 2017 intermediate assessment will cover beach litter and Fulmar (for North Sea only) indicators At OSPAR level, Fulmar is an EcoQO and has been adopted as a common indicator for the North Sea (Spain is investigating alternative species and Germany, together with Sweden are investigating ingestion in fish). Litter in the seafloor is being proposed as a common indicator for all the sub-regions of OSPAR. Microplastics research will continue but it hasn´t been chosen as a priority indicator and will therefore not be considered for the next round of assessment in 2017 (too complicated within the R&D sphere, many uncertainties and quality control needed). Norway (non-EU MS) is implementing beach and seafloor litter monitoring.

H. Leslie

Microplastics: potential for funding proposed pilot actions within JPI-Oceans but no decision yet. Foresight process is currently examining possibility of future coordinated research actions on microplastics. One of the key gaps experts recommended to be filled was to increase QAQC infrastructure and organise an interlaboratory for microplastic in environmental matrices.

Barcelona Convention (F.Galgani)

Progress done with the RAP and by using the MSFD TG ML Monitoring Guidance. Working Groups CoGEst, GES and Targets. Common group dealing with pollution by end 2014.ECAP indicators: Beach litter, marine environment (surface and seafloor, including microplastics) and ingested litter in turtles. MEDPOL 2015 will agree on the monitoring programme to start in 2016.

Additional support in Med EU area:

DG ENV support the MED MSFD implementation with EU MS through a dedicated activity. Level of involvement and commitment for beach litter will be ambitious and is planned to be implemented through EACAP (Barcelona Convention). Biota will be considered through project initiatives for sea turtles. As for microlitter there is no commitment. There will be a group working on coordination of the monitoring programme.MED HORIZON2020 pollution initiative: ML is a priority and monitoring for capacity-building in 2015.

HELCOM (S.Werner)

The HELCOM monitoring strategy follows a 6 year-cycle assessment approach. Discussion started on common-indicators (water column, seafloor, beach litter, litter in biota and microlitter), which will be further developed within the HELCOM project CORESET II (next meeting is scheduled for September 29-30). TG ML recommendations are taken into account. The core indicator should be agreed on by mid-2015 and protocols should follow TG ML recommendations.

Black Sea(absent)

Apparently Valeria Abaza is not anymore the BSC contact point. Irina Makarenko is the person in the Secretariat to harmonise regional work with the ongoing initiatives and will replace her. Violeta Velikova, a former contact, appears to be involved with the Secretariat of the Bucharest Convention, as an external consultant (tbc). Pilot projects ongoing. The same approach as OSPAR Med exchanges platform.

➔ **Action:** Raise the level of exchange and engagement of persons involved. To offer a platform for technical exchange on monitoring through Basecamp, at Regional Level: RAPs development and implementation with monitoring programme and its assessment. Various levels to deal: EU level, regional and national considered in the implementation and how this will influence the Review Process.

➔ **Confirm contact with RSCs, in particular BSC**

6) REPORTING FROM LITTER PROJECTS

Updates and expected outcomes of following ML projects have been presented (please check PPTs for details):

GESAMP(Jesus Gago)

Transitional waters – floating plastic components; attempt to harmonise methodologies for monitoring.

Outputs include: mapping of existing data; web portal; written reports - information will be shared on basecamp for the group, for the moment some TG members have been contacted about this. Results will be presented in PICES Conference, October 2014.

CLEANSEA (Heather Leslie)

The project is now 1.5 years in its programme of work. Brief overview and update on progress. Study areas – both ecologic but also socio-economic (identifying barriers to GES, from a legislative and economic perspective); identify leverage points for mitigation measures. Project will produce a "ROADMAP for GES" on ML, highlighting policy options and as a transparent, coherent synthesis of natural &social science WPs. Sharing best practices examples: build upon previous initiatives (e.g. MARLISCO, Berlin Conference). In terms of new methodologies for monitoring - it will be relevant to provide and share interim results with the TG ML - Heather to follow-up.

www.cleansea-project.eu

MARLIN Project *(Janis Ulme, FEE Latvia)*

Project covered 4 Baltic countries - Latvia, Estonia, Sweden and Finland. Beach litter assessments according to UNEP guidelines, 3 surveys/year/beach (no surveys during winter) and over 130 surveys in total. In Latvia ca. 40 sites along 500 km of coast. Results: litter composition; difference between countries; difference between rural and urban beaches (latter more littered); possible negative trend on attitude and littering behaviour. Project run between 2011 and 2013 but monitoring is going to continue, possibly using the Master List of categories put forward by the TG ML. Data is stored in EEA database and the EEA ML App will be tested this year. Feedback will be given.

www.projectmarlin.eu

DeFishGear *(Thomie Vlachogianni)*

Adriatic Macro-region project, including 3 non-EU partners. General objective: facilitate efforts of policy-makers and stakeholders to effectively deal with ML in the region. 3 WPs dealing with ML assessment and several activities already on-going – microlitter, *Fishing for Litter*, ghost nets and derelict fishing gear retrieval and recycling. Monitoring activities to start in September 2014.Expected results and outputs: database for ML (considering to the extent possible the needs of the RSC – via Tatjana Hema); Regional Network of Experts on ML in the Adriatic Macro-region; training workshops on implementation of monitoring protocols. Data base should be in line with e.g. EMODNET; the TG ML can and would like to follow-up the developments and provide expertise and feedback on results.

www.defishgear.net

MARLISCO *(Joana Mira Veiga)*

One year from conclusion, MARLISCO has been successful in implementing its activities so far, mainly focused on societal awareness raising and educational tools (exhibitions, video contest, educational material &"serious game") involving 14 European coastal countries and Turkey. The most relevant for the TG ML are the assessment of perceptions, attitudes & behaviours, results of which the group has considered including in the "Harm" chapter (i.e. how people perception the level of harm); the 12 national fora being organised during 2014 and 2015 in 12 EU countries; and the data-base of 72 good practices, which are possibly relevant to the programme of measures.

www.marlisco.eu

PLOS one *(Francois Galgani)*

Publication by Francois Galgani on deep sea seafloor litter collection in MED region (with ROVs, trawling) showing a.o. that fishing gear makes up a large proportion of seafloor litter (deeper regions) in certain areas. (http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0095839)

7) & 8) REVIEW OF COM DEC 2010/477/EU – Roadmap and discussion

A roadmap was presented by Georg Hanke (EC JRC) to review the COM DEC 2010/477/EU of 1 September 2010, on criteria and methodological standards for *Good Environmental Status* of marine waters, and more specifically for Descriptor 10.

The review process is planned for 2014-2015 and will mainly be driven by MS under the coordination of JRC and ICES (depending on the descriptors). A call for expert network groups for the other descriptors has been launched beginning of June. The role of these groups, including the existing ones on D10 (TG ML) and D11 (TG Noise), will be to provide advice based on scientific evidence. Workshops per descriptor will be organised in July-September to discuss the review process in more detail. The outcome from

discussions will be e.g. suggestions for further harmonization and eventual recommendations for a revision of the Com Dec). The review process should be finalized in April 2015..

Aim of the process is to make the Com Dec if appropriate:

- Simpler
- Clearer
- Containing minimum requirements
- Coherent with other EU legislation
- Coherent with regional assessment methods

Following stepwise approach has been proposed by JRC for the review:

1) Identification of shortcomings, problems, inconsistencies through Expert group on ML (TG ML) , further to existing assessments.
2) Analysis of Com Dec text for D10 (to combine with step 1)
3) Compilation of input with reasoning, documentation and references
4) Proposal of necessary actions in the implementation process, such as harmonisation, provision of additional, specific guidance or amendments

A dedicated discussion document will be posted on basecamp. The outcome will be reported through a template with a common structure across all descriptors.

Discussion TG ML

It was stated that in few MSs it is not always clear who to contact to get feedback for this review process (as stated to be mainly driven by national MS). Communication mapping already proposed as an action point could be helpful.

Within the TG ML there is common agreement that some concepts need simplification and clarification (e.g. microparticles, "harm") but caution should be taken on the consequences/implications of changing text within the COM DEC. Georg stated that it would be desired to relate to methodological standards as integral part of the COM DEC, and to use the opportunity to define operational targets, parameters, etc. or set minimum requirements. At this moment there was not much support by TG ML to include operational targets in the COM DEC. More time is requested by the experts of TG ML to study the COM DEC in more detail to be able to give their advice for this review process (as new task).

➔ **Actions**

- Roadmap presented for D10 review:
    - o July/Aug Com Dec text review by MS through discussion document
    - o TG ML restricted Meeting in September 2014 (MS delegates)
        - ▪ Main purpose: the revision COM DEC (no discussion on other ML reports)
        - ▪ Participants: active, interested people from MS + others?
        - ▪ Date: Doodle to be made up by JRC
        - ▪ Location: to be decided
    - o 13 October 2014 Final draft report (as input for GES meeting planned on the 21st of October)

DAY 2

1) PROGRESS ON TG MLREPORTS

Georg Hanke questioned if the timing of the ML reports should be reconsidered as deadline of 21st of October (next GES meeting) can become critical, also due to the additional and high priority task of the

ComDec review. An overview of the status of the 3 marine litter reports (riverine litter, sources, harm) was given by the lead contributors, as well as proposals for the way forward.

2) RIVERINE LITTER _ Presentation and discussion draft report

As an introduction to the report on riverine litter, three presentations were given on related projects:

- **Jean-Baptiste Dussaussois** (Surfrider Foundation) on the monitoring pilot of the **river Adour** (Bay of Biscay) riverineinput.surfrider.eu
  In total, 5 spots along the river have been selected, based on a geographically-located pressures (industry, urban, agriculture, harbour) + first impacted beach (closest to river mouth), all subject to monthly surveys. Important aspects & outputs are stakeholder involvement (e.g. local knowledge to select best spots), open database, etc. There is no data yet available on comparison between beach litter and riverine litter.
  Some discussions on whether to use net for collection or using the opportunity of clean-ups of the litter accumulated in dams. It was seen as very important to formulate key research questions regarding the topic of riverine litter, providing information with strengths and weaknesses - as is still an emerging area of research, where it may not be yet possible to provide concrete methodological guidance.

- **Andreja Palatinus** on the **Riverine Litter Pilot Project in 4 EU rivers**
  Rivers: Rhein I (Rozenburg, NL); Dal (Alkvarleby, SW), Po (Ferrara, IT), Danube (Braila, RO), Rhein II (Vlaardingen, NL), Oder (Szczecin, PO), Rhein III (Vlaardingen, NL). Methodology (monitoring by Gijsbert – WFW): assess micro (333µm – 5mm) and small particles (5-25 mm), floating and in suspension. Equipment: Surface and suspension trawl designed by Waste Free Water (WFW) and epineuston nets.
  Site selection in the rivers was done in conjunction with Deltares (based on parameters such as flow patterns) to select best sites and through JRC contacts. Need for long-term measurements and considering all up-stream events. Only to a certain extent it is possible to distinguish between primary and secondary microparticles (i.e. the ones that are directly input as such or the ones that result from fragmentation in the river/sea).On-going sampling campaigns show the significant influence of factors such as rain and wind direction on the occurrence of riverine litter. Project results expected by end of October 2014.

- **Georg Hanke**, on behalf of **Tom Doyle** (CMRC, University College Cork, Ireland) on a study done in Ireland, on a river in Cork City area, through visual observation from bridges. The project is in a final stage, results can be expected soon, publication in preparation.

Riverine Litter - Discussion draft report(by Lex Oosterbaan)
- Outline discussed and agreed in TG ML (Lisbon, December 2013)
- First input to content done by Bert Bellert, Gijsbert Tweehuizen and L. Oosterbaan
- Start overview table of activities on riverine litter monitoring (info about activities in NL)
- Key issues to be considered: link to WFD process, need for definition of the key questions to be answered in this report
- Due to different ongoing activities it was proposed to delay the publication of the report to 2015 and concentrate for now on the collection of approaches and information

3) SOURCES Presentation and discussion draft report

A short presentation was given on the methodology of likelihoods proposed for source identification of ML (by Joana Veiga) and on modelling of floating ML transport in the MED (by Francois Galgani).

- Table of contents discussed and approved during meeting in Lisbon. At this stage, little progress in the report for lack of availability of contributors. However, lot of the information is there and ready to be used.
- Which methodologies exist to link items to sources? OSPAR item-indicators, methodology of likelihoods (Tudor & Williams, 2004) used and adapted in the Pilot Project on Plastic Cycle Loopholes, including a set of parameters that can provide additional information, which can support the design of the PoMs (e.g. % of packaging and which type of packaging – in line with Waste & Packaging Directives terminology, duration of use of items, potential risks associated, etc.
- There was a general support within TG ML for the likelihood methodology to define sources and pathways of ML (incl. stakeholder involvement to help defining likelihoods for specific case). The methodology will already be used in the DeFishGear project.

Discussion draft report on Identification of Sources of ML (lead by Joana)

- Agreement to make two separate reports (sources/pathways & ML transport), with the first drafted for the 21st October deadline, as it is urgent to provide MS with some guidelines on Source Identification. The report should describe methodologies available and their strengths & weaknesses.
- Joana will provide the excel sheet used in the ML Case Studies Pilot, where parameters and terminologies are included, to further evaluation from the TG ML contributors. A sensitivity analysis (QA/QC) will be done by Per and Richard (supported by Joana) on the scoring techniques presented in the likelihood methodology (Tudor & Williams, 2004 – paper already in Basecamp) and the parameters used in the Pilot Project.
- Clear reference to be made to report on modelling ML transport at sea (~pathway), the report on riverine litter (~ pathway) and to the report on Harm. Important to note that sources/pathways are mainly based on beach litter data, which can generate a lot of detail.
- RSCs could be used to validate the more local/national exercises on defining the likelihoods (stakeholder workshops)
- Likelihoods methodology could be the link towards operational targets/measures within MSFD process as it helps defining the greatest contributors / deficiencies to the problem of ML. This could form the input for an 'integrated chapter' within the report showing the relevance to policy questions and the selection process of measures under MSFD.
- Suggestion to link to harm is in strict sense useful but can be very complicated (as ML items degrade and can cause other harm in other phases of degradation), while it also depends on the type of ecosystem & existing species. Parameter of "risk" can be link to the developments carried in the Harm Chapter.

Regarding the Report on Transport & Modelling:
- It will be important to identify different existing approaches (e.g. oil dispersion, oceanographic modelling, connectivity modelling, etc.) possible for extrapolation to ML modelling. Provision of some examples.
- There will be a need to bring relevant modelling experts together and to bring models to relevant scale (large vs local scale).
- CSM meeting planned in 3rd week of June
- Information on the different modelling approaches should be compiled on basecamp

4) HARM _ Presentation and discussion draft report

A presentation was given by Stefanie Werner on the status of the report. Thomas Maes provided an overview of the Ecological Risk Assessment Approach, including following steps:
- Problem formulation
- Exposure assessment

- Effect assessment (at different levels)
- Risk characterisation

Discussion Draft RP Harm *(lead Stefanie Werner)*
- Structure discussed and revised; current texts are fine, but some revisions and elaborations of text needed by TG ML contributors
- Need to define target audience as this will help determining the approach of the report: scientific vs. pragmatic (top 10 items) (never forgetting the scientific evidence) – is a combination possible?
- Discussion on level of detail of risk assessment:
  - Acceptance for (semi)-qualitative evidence, rather than quantitative (limited information)
  - Ecological risk assessment: a semi-quantitative matrix based on occurrence + 'likelihood-scale' for different types of harm/biota (based on case studies) will be developed
  - Need to consider harm in a broader context
  - E.g. fulmar should be seen as an indicator that ML can cause harm to marine life (even if Fulmar itself is not affected on population level; it can be that other organisms are affected) – avoid discussion that fulmar is not suffering from ML
- Agreement of test case of risk assessment matrix
- Chapter at the end of the RP on risk from top 10 (identifiable) ML elements (incl. fragments) for preferably more than one region (linkage to RAPs (actions)).

DAY 3

1) PRESENTATION AND DISCUSSION OF DRAFT REPORTS 2014

Introduction given by Georg Hanke on next steps for ML reporting, followed by breakout group sessions on draft reports Riverine Litter/ Harm/ Sources to discuss open questions and further planning.

Outcomes group session discussions (main results & actions)

RP Riverine Litter
Report should be a "trigger" report, presenting the state of the art of river litter monitoring, support EU Member States to derive riverine fluxes into the sea (all EU seas) and provide the necessary elements to support a good analysis of riverine input of litter. Focus should be on total volume of litter into the sea (contribution from rivers to marine litter). With respect to sources: only a preliminary analysis at this stage (a second step will be needed).

Issues to be taken into account, include:
- large non polluted rivers versus small polluted rivers

- making use of existing weirs/dams

- Monitoring vs collection tool

- At this stage impact on river systems themselves will not be analysed

- Present different river systems
  - keep outside tidal influence;
  - select location on beach near mouth of river

- There should a clear relation to marine litter units/categories to make better comparison possible

- o   Weight, volume, number of items

- o   < 5 mm; 5 – 25 mm; > 25 mm (max = 50 cm?)

- With respect to frequency: seasonal versus continuous

- General River Info sources: UNECE; River Basin Authorities (Paris), JRC,

- New studies: Adour river study (Surfrider Foundation), Ireland study/Cork: visual observation from bridges

- There should be advice on units, categories, sizes; future cross river calibration and on long term deployment: continuous monitoring (pump/micro; macro/video)

- Research question: net (litter) outflow into the sea / rainfall watershed

Actions planned
- Collect approaches per River basin
- Contact contributors
- Compile approaches of all EU MS in a table (headings have been defined, available in basecamp in the riverine litter section)
- Publish information on Basecamp, so that it is already accessible to MS
- Report publication postponed to 2015

Further Planning
- First information for table on national practices: End of July
- Input RP from other contributors TG ML: September 2014
- Final report postponed to 2015

RP Identification of Sources of ML
Actions planned
- Separate modelling part for later report (2015)
- PART Sources (lead by Joana)
    - o   Revision content & identification of contributors for RP chapters
    - o   Discussion on adequacy of parameters and their terminology
    - o   Description of approaches for source identification, their strengths and weaknesses
    - o   Potential contributors to provide link to EU Regional Seas: MED (Thomie), NEA (Thomas), Baltic (Stefanie), Black (Joana?)
    - o   Deadline: foreseen for October 2014

- PART on ML transport modelling (supported by Francois Galgani/ Georg Hanke)
    - o   Structure to be defined
    - o   Overview of type of models + some good examples per region
    - o   Deadline to be postponed to 2015

Further Planning

IDENTIFICATION OF SOURCES
- Uploading revised structure report asap
- Upload Excel sheet containing parameters and definitions in basecamp: by end of June

- Review of likelihood scoring systems by Per/Richard/Joana based on paper (Tudor & Williams, 2004) by Mid-July and overall parameters
- Parameter of "risk" can be link to the developments carried in the Harm Chapter
- Contribution TG ML different sections Mid July
- First consolidated draft RP end July (Joana)
- Review process until end first week Sept TG ML
- Review by end September (final remarks)
- Final draft RP: beginning October
- Report publication for beginning October 2014

RP OVERVIEW MODELLING TOOLS OF ML TRANSPORT

- Uploading of information on Basecamp with potential relevance for modelling ML transport by TG ML (Francois, etc.) by end September 2014
- Outline report still to be discussed; only starting to collect material
    - Introduction by Francois
    - Inventory of existing approaches + analysis on usefulness of MSFD implementation
    - Need for specialists on modelling
- Final report postponed to 2015

RP Harm

Actions planned

- Identify approach for harm evaluation (risk assessment approach)
- Prepare and finish case studies
- Prepare risk assessment matrix (based on OSPAR items)
- Linkage to RAPs – evaluation of regional top 10 items
- Draft report for target community
- Deadline: foreseen for end 2014

Further Planning

- General RP
    - Revised report structure uploaded (contributors chapters identified)
    - First round of contributions by TG ML by end of week 32 (August 8, 2014)
    - Distribution first draft RP end of week 33(Stefanie)
    - Review process until end of week 35 (August 29, 2014)by contributors TG ML
    - Second draft RP Mid-September (Stefanie)
    - Review by end September (final remarks)
    - Final draft RP: beginning October (Stefanie)
    - Report publication for beginning October

- Planning Chapter 7
    - First draft risk based matrix draft: by beginning of July (By Per)
    - Review risk based matrix by end of July (by TG ML)
    - Second draft risk based matrix by end of August (by Per)
    - 'Testing' risk based matrix starting with top 10 elements, hopefully doing it for all ML items in the master list

- Planning chapter 8
    - Top 10 list of items per regional Sea: OSPAR & MED (already available)
    - Suggestion: European approach (lumping to list of top 10 elements from all RSs)
    - Further planning chapter 8: depending on outcomes chapter 7

2) OTHER – Marine Litter Watch

A brief overview was given by Andreja Palatinus on the Marine Litter Watch App (EEA). The web applications & Apps have been officially launched at the HOPE Conference and have been used on the 10th of May in several countries (44000 ML items reported; 48% plastics; Cigarette butts among the most dominant ML item). The application will also be used by the PERSEUS project.
Within the TG ML there is still some concern on the potential use of the tool for monitoring purposes, rather than for awareness raising only. The TG ML points to limitations of for example data sharing and use (e.g. reluctance of immediate data sharing, before processing of the data could take place). There is a request for feedback from EEA (Constança Belchior) on these concerns.

3) COM DEC 2010/477/EU REVIEW PROCESS PLANNING

Following roadmap has been presented by George Hanke (EC JRC) and Nigel Smith (DG ENV) to review the COM DEC 2010/477/EU:
- July/Aug Com Dec text review by MS through discussion document
- Sept 2014 restricted TG ML meeting (MS delegates only)
    - Option for limited meeting with as main purpose the revision COM DEC (no discussion on other ML report)
    - Participants: active, interested people from MS
    - Date? Doodle to be made up
    - Location?
- 13 October 2014 Final draft report

4) WRAP UP AND CONCLUSIONS, NEXT STEPS AND WORKPLAN TIMING

Georg Hanke pointed out to the fact that the current mandate for the TG ML ends in 2014 but that there is a need for continuation in 2015. Proposals for the work programme for next year include a.o. the review of COM DEC 2010/477/EU, the finalisation of the ML reports on riverine input and modelling of ML transport (both postponed to 2015), follow-up actions linked to the monitoring programmes and support towards the establishment of programme of measures.

Considering the new tasks for the TG ML on the review of COM DEC 2010/477/EC and on the considerable work load still needed to finalise the ML reports, there was a request from the TG ML to check for potential extra funding (e.g. as part of the support actions by DG ENV) for additional technical meetings on specific topics. The TG ML will make a clear outline for DG ENV on specific items that would need support.

As stated earlier a core meeting will be organised in September 2014 to discuss the revision of COM DEC for descriptor 10. No exact dates or location is available yet.

Closure of workshop
The TG ML chairs thanked everyone for the productive meeting and especially the two invited experts& Latvian representatives, bringing the issue higher on the Baltic agenda. The group thanked also EUCC and ARCADIS for the practical organisation of the Riga meeting and the preparation of the minutes. The meeting was closed by the chairs of the TG ML (Georg Hanke, Francois Galgani, and Stefanie Werner).