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WWF

Interreg Baltic Sea Region

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Harbour Collection and Waste management of End-of-Life and Retrieved Fishing Gear

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PRF and EPR for Fishing Gear, DG Mare, Brussels, 18. Feb 2020

Outline

Results from the MARELITT Baltic INTERREG project

1. **Harbour Infrastructure**
2. **Implications of recycling aims for fisherfolks and waste managers**
3. **Logistics implications**
4. **Waste management of fishing gear retrieved from the sea**
5. **Summary & Recommendations**

1. Harbour Infrastructure – the revised PRF

New EU Directive on Port Reception Facilities calls for collection points for fishing gear.

Preamble of EU Directive 2019/883

(17) Separate collection of waste from ships, including derelict fishing gear, is necessary to ensure its further recovery to enable it to be prepared for reuse or recycling in the downstream waste management chain and to prevent it from causing damage to marine wildlife and environments.

(31) In certain Member States, schemes have been set up to provide alternative financing of the costs of collecting and managing fishing gear waste or passively fished waste ashore, including 'fishing for litter schemes'. Such initiatives should be welcomed, and Member States should be encouraged to complement the cost recovery systems set up in accordance with this Directive with the fishing for litter schemes to cover the costs of passively fished waste. As such, those cost recovery systems, which are based on the application of a 100 % indirect fee for MARPOL Annex V waste, … , should not create a disincentive for fishing port communities to participate in existing delivery schemes for passively fished waste.

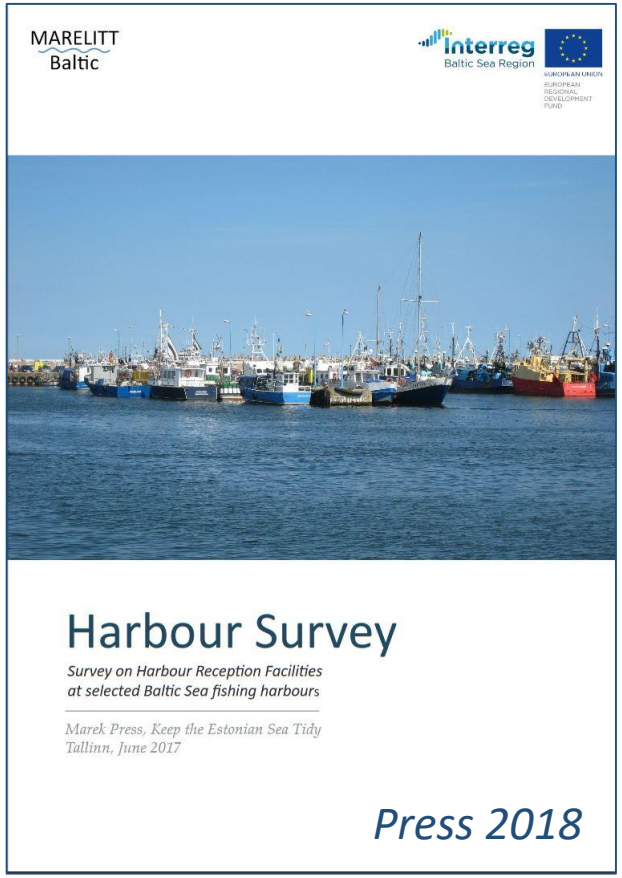
1. Harbour Infrastructure – the revised PRF requirements

The revised PRF calls for

- Collection points for fishing gear in fishing harbours
- Collection points for passively fished waste (“Fishing for Litter”)
- 100% indirect fee system to incentivise landing of fished and operational waste

To facilitate sorting, aiming at **recycling additionally requires**:

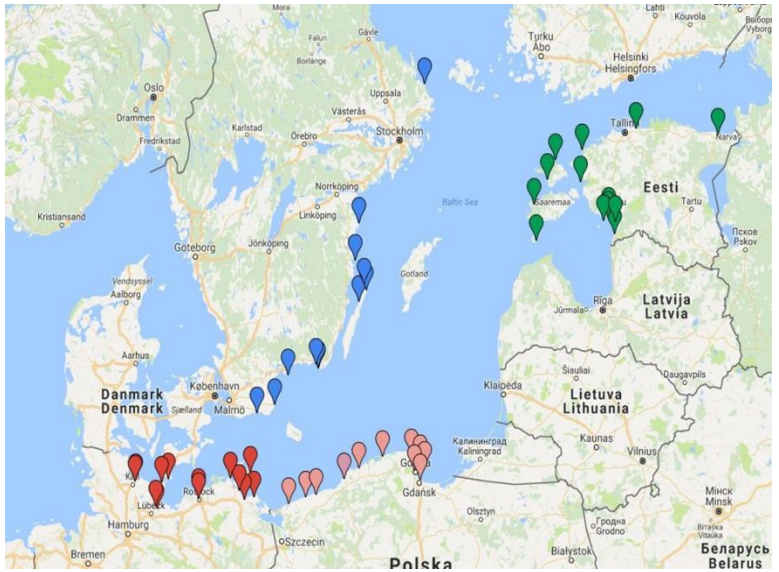
- Separate collection of end-of-life fishing gear and ALDFG
- Separate collection of FG and passively fished waste



1. Harbour Infrastructure – the situation today (2018)

FG collection & ALDFG landing at fisheries harbours

- 70% of harbours offer possibility of EOL FG collection
  1-2x per year, organised and paid by the fisheries association
- Of these, only 28% of Baltic fishing harbours have regular collection of end-of-life fishing gear
- No reception facilities for retrieved fishing gear
- Pre-processing in the harbour is key to waste management, but is currently barely available



Press 2018

FF Norden in Smögen/Sweden collects, sorts and pre-processes EOL FG from all regional fishing harbours for recycling.

2. Implications for fisherfolk and waste managers

<u>If we aim for recycling…</u>

… Fisherfolk must be prepared to

- put effort into dismantling, material separation, sorting
- use dedicated collection points exclusively for FG
- avoid mixing ALDFG with end-of-life FG
- remove lead lines and other hazardous waste

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Key message: Fishing gear is neither mixed commercial nor household waste!

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Input Categories, Ver02 - 20170701

PLASTIX CAN accept & recycle:

HDPE Nets

Nylon 6 (PA6) nets

PP Nets

Fish Boxes

Monofilament

Ropes ONLY if part of nets/trawls

PLASTIX - WHERE BLUE MEETS GREEN
Contributing to a more blue and green circular economy

PLASTIX CAN NOT receive and accept:

Ropes

Iron, chains, waste

Ghost gear / Coaded net

Contaminated waste

TaifunWire, Rock hoppers, Rubber etc.

PLASTIX will execute "right of refusal at gate" or charge a fix fee of EUR 300 per mt. for the handling of the above listed waste fractions, which are not considered as input

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Practical guidance

on DFG pre-processing

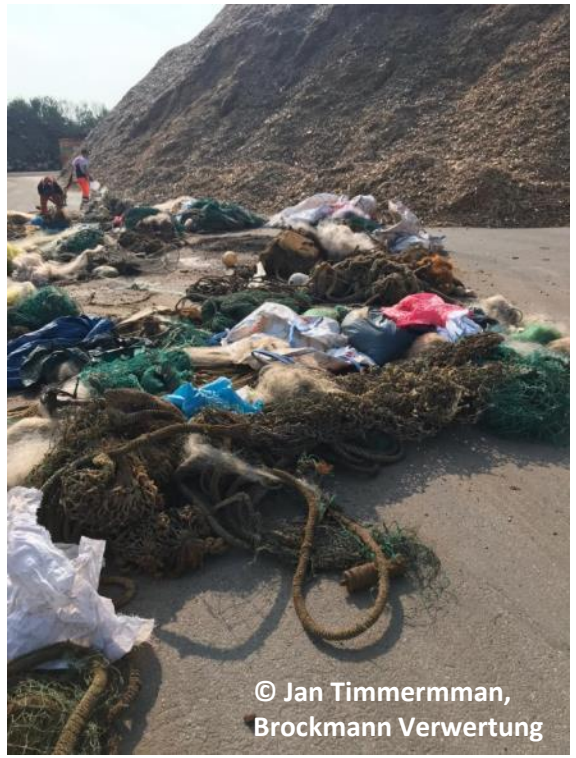
Marek Press, Keep the Estonian Sea Tidy
Tallinn, February 2019

2. Implications for fisherfolk and waste managers

<u>If we aim for recycling…</u>

… Waste managers must be prepared to

- collect fishing gear separately from other waste streams
- dismantle FG that could not be dismantled in the harbour
- accept increased manual labour effort
- where ALDFG is landed, collect and dismantle separately to avoid mixing with contaminated materials



Key message: Fishing gear can be recycled if separated into individual components, but it comes at a cost.

3. Logistics implications

Fraunhofer UMSICHT investigated 2 scenarios

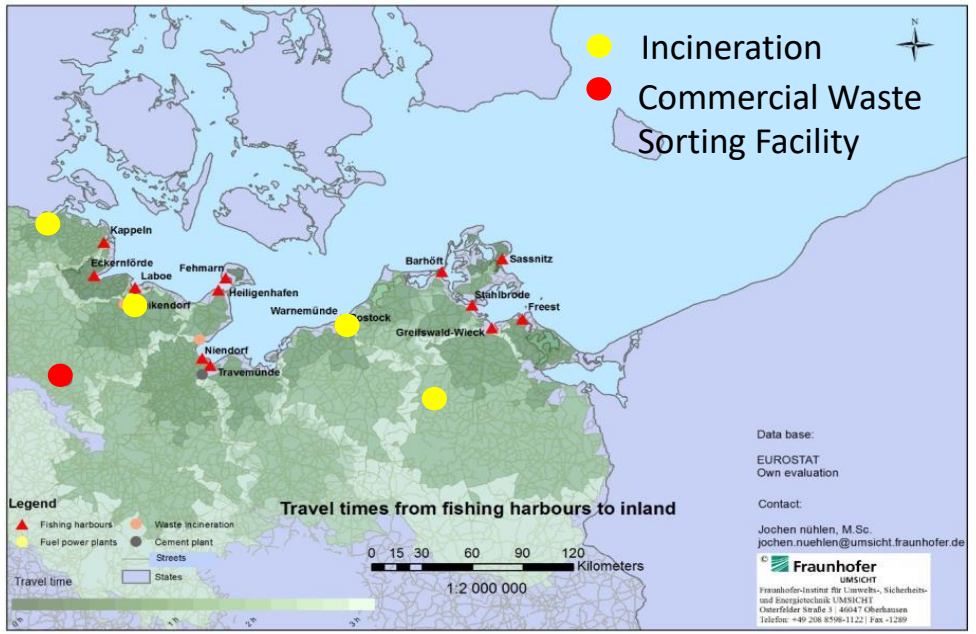
- Centralised processing and recycling
- Decentralised processing with
  - Centralised recycling
  - Decentralised recycling

3. Logistics implications

Key results

- Anticipated amounts of waste FG per year are not sufficient for multiple, decentralised recycling facitilities
- Solid numbers of FG turnover are not available for planning, market monitoring is urgently needed
- A combination of decentralised collection and sorting with centralised recycling facilities is most efficient

Note: FG could, in principle be recycled with other fibre waste streams (e.g. carpet fibres: Aquafil, Corajec), but textiles are currently also not recycled, and FG technology could foster textile recycling.



Fraunhofer UMSICHT, Berlting & Nühlen 2019

Collection and sorting need to be economically viable, requiring a centralised+decentralised approach.

3. Logistics: Recommendations

Centralised + decentralised FG recycling

- Decentralised collection in fishing harbours with pre-dismantling to reduce contamination and metal loads, esp. lead lines
- Regional dismantling in commercial waste sorting facilities
  - Recyclable materials (metals, plastics)
  - Non-recyclable materials for incineration

  Nofir Lithunia, Brockmann Recycling Schleswig-Holstein, Germany
- Centralised recycling facilities
  - Plastix in Denmark for PE/PP
  - Aquafil in Slowenia for PA6
  - Antex/Ecoalf in Spain for PET/Polyester

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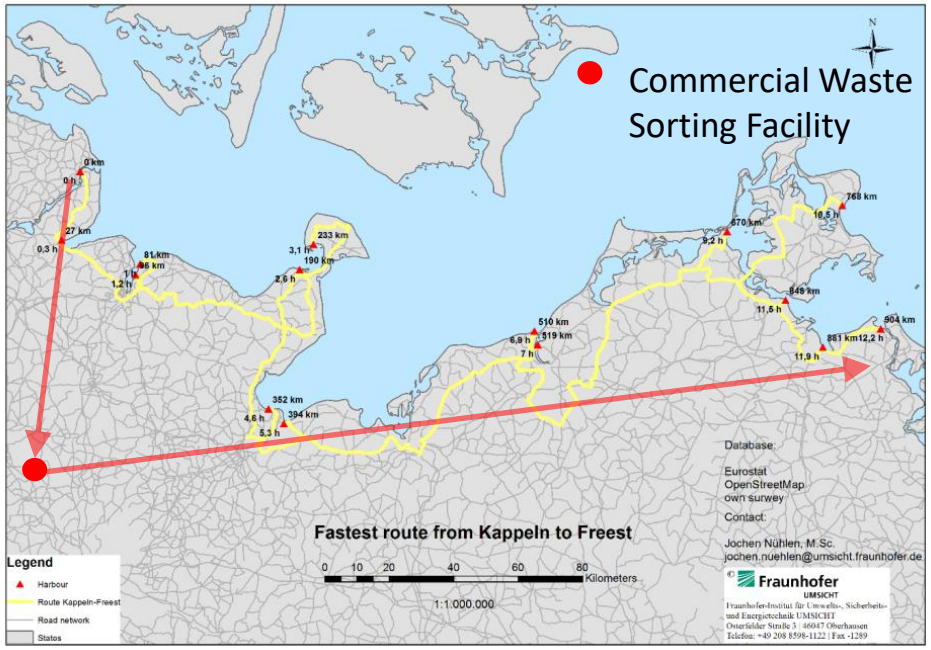

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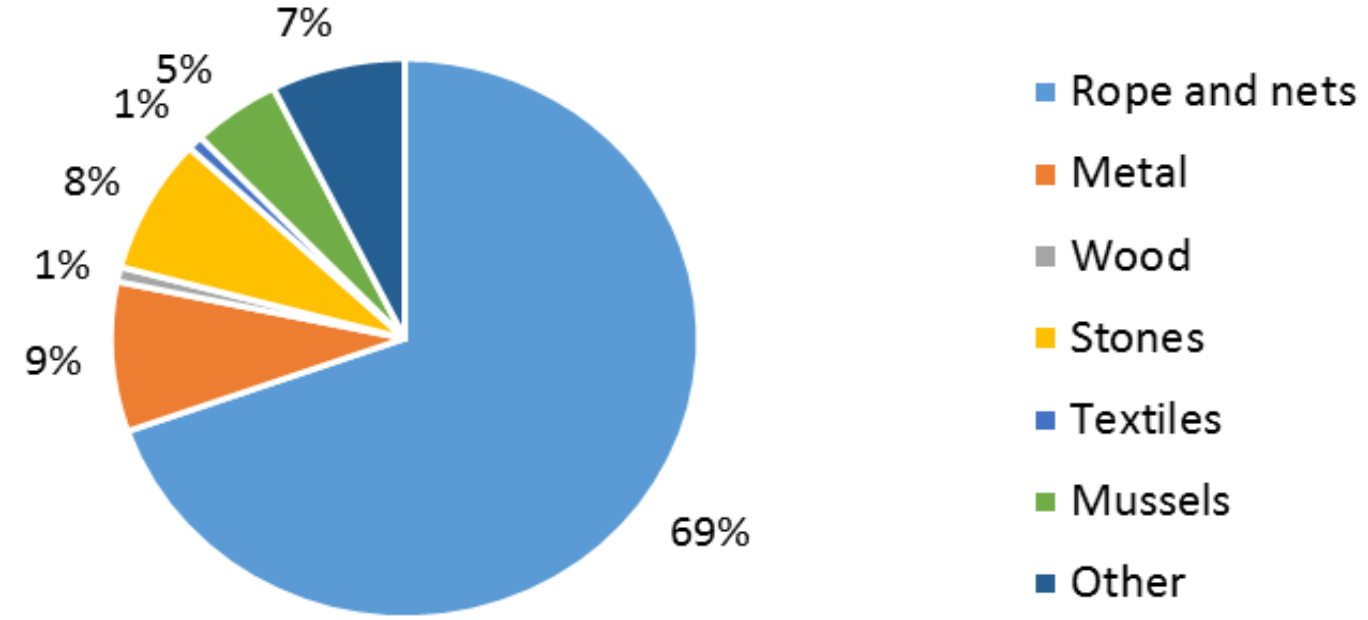
4. Waste management of fishing gear retrieved from the sea

Waste management of retrieved fishing gear

- Lost fishing nets collect marine litter (anchors, cables, ropes, …)



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4. Waste management of fishing gear retrieved from the sea

Waste management of retrieved fishing gear

- Lost fishing nets collect marine litter (anchors, cables, ropes, …)
- Waste management much harder than for end-of-life fishing nets
- Lead lines are toxic hazardous waste
- **No waste management solution for gillnets (yet)**

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Key result: Mixed ALDFG retrieved from the Baltic and North Seas is in most cases not suited for recycling, but needs to be prepared for thermal processing.

The situation might be different in other European areas, e.g. in the Mediterranean, where PE/PP netting floats on the sea surface when torn and lost.

Summary & Key Recommendations

Fishers and net manufacturers need to be aware that treating fishing gear as mixed waste is a waste – even if it is not hazardous waste!

1. Port reception infrastructure (PRF!)

- Collection & sorting points in harbours
- Synergies with Fishing for Litter harbours

2. Incentives for landing of lost and waste fishing gear (PRF)

- "No special fee" to encourage return to port

3. From Ocean to Landfill is no solution

- Waste management systems need to be able to process both end-of-life and retrieved fishing gear

4. EPR and the EMFF/EMFAF can help establish a circular economy around fishing gear

- EPR as an incentive for design for recyclability

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All studies are available for download on:
https://marelittbaltic.eu

Thank you very much for your attention!

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Keep the Estonian Sea Tidy
Estonian Divers Association

KEEP SWEDEN TIDY

Maritime University of Szczecin
Kolobrzeg Fish Producers Group
Institue of Logistics and Warehousing

WWF Poland
WWF Germany