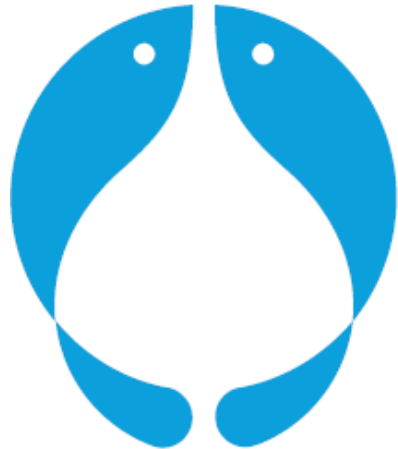

Marine Ingredients Denmark 21st April 2023


”Danish way of control of bulk landings”.




Marine Ingredients Denmark



FF Skagen group is incl. Scandic Pelagic:

- Approx. 350 employees in what is called small communities of Denmark.
- An annual turnover of around 350 million EUR.
- Handles annually approx.: 350.000 tons of protein fish to production of fishmeal and oil,
and approx.: 100.000 tons of herring for production for Direct human consumption.
- Member of the industry org. : Marine Ingredients Denmark (**MID**)  Marine Ingredients
Denmark

Scandic Pelagic: 100 % own by FF Skagen.

- Scandic Pelagic is a processor of herring products for human consumption.
- The main production is marinated, fresh and frozen herring filets, as well as herring roe as a by-product.
- Member of the industry org. : Danish Seafood Association (**DSA**)  Danish Seafood
Association

Peter Kongerslev:

- Senior Advisor at Scandic Pelagic (FF Skagen).
- Worked in the pelagic business for 4 decades.
- Started in the FF Group in 2017



- When it comes to reliability and credibility, the fishing industry & the processors for many years have had a very bad reputation. Politicians and other authorities have often announced new laws and steps, that should prevent the possibility for fishing and landings of unreported pelagic catches, in other words steps that should guarantee sustainable fishing.
- To improve our reliability and credibility, and not least to secure sustainable landings, we by FF-Skagen in 2014 made a new policy, and we started to go forward to find out, how to build a watertight system, that makes trustworthy weighing and registration of our landings, this we did in cooperation with a local independent certified 3-rd part survey expert: “Skawinspection”.



- We had to be very alert in building up reliable and trustworthy handling systems and procedures. And at the same time ensuring that the costs didn't run in the wild.
- In the following process, we found, that the use of Remote Electronic Monitoring would be a good and useful tool.
- And for the "Skawinspection" it from the beginning was made fully clear, that if their survey wasn't 100 % reliable and trustworthy, they could not have the job.
- Therefore, all their work descriptions are a part of their certifications.



- As Anne Mette this morning informed, Brussels back in 2018 decided that the **Control Regulation** should be renewed/improved.
- Therefore, among other a Working Group was established (Costal States Monitoring, Control and Surveillance Working Group). This group should make recommendations on control measurers for some pelagic fisheries. (which final report is the basic in the *EFFOP Industry standard for draining and weighing*). [EFFOP'S Industry standard – European Fishmeal](#)
- With the effect of January 2020, the Danish fishery control authorities decided, that all future registration of bycatches should be the responsibility of the fish buyer, and a new sampling plan was put into force.



- We by FF-Skagen and 999/MID decided, that these future registrations of bycatches also should be made by an independent certified 3-part surveyor.
- Simultaneously we started to incorporate this new “regime” into all work descriptions.
- And with the base in the EFFOP Industry Standard, we have conducted the: ***FF-GROUP Standard for draining, weighing and determination of species composition.***
- So, in the following we can say:
- **How do we register pelagic bulk landings by the FF-Skagen group?.....**



- 1. :
 - a. ...to have an arm's length to the weighing and species control/determination, and
 - b. ...to make sure legislations are followed, and
 - c. ...to make sure all standards are followed,

we have hired a registered, certified, independent 3-rd part Surveyor as an Inspector to handle all registrations, procedures of the weighing, the weighing itself, and the species control/determination of our landings.



- 2. The company we are using is the local Danish company: “Skawinspection”.

- However, there are other survey companies e.g.:
- Sworn Inspection
- DAN EYE
- ECS EUROCARGO SERVICES
- SGS
- Intertek
- Saybolt
- NMCS (NORWEGIAN MARINE & CARGO SURVEY)



➤ 3. When the Skawinspection started doing their surveys by us, they had a good reputation as a trustworthy surveyor, but no experience with weighing and species determination of industrial landings. Therefore, they had to develop specific work descriptions of the job they are doing. e.g.:



Procedure for "remote weighing" and segregation of different species, when discharging fresh unsorted pelagic bulk catches for indirect human consumption, into trailers in Hanstholm.

Table of Contents:

1. Procedure before start-up of weighing process.
2. Procedure during ongoing weighing process.
 - 2.1. Location of discharging installation.
3. Procedure for finalizing the weighing process.
4. Self-monitoring of the weighbridge.
5. Segregation of species (Determination of bycatch) of unsorted catches
6. Various enclosures

1. Procedure before start-up of weighing process

Before starting the weighing process, a visual inspection of the weighbridge itself is performed. This inspection is performed with the installed cameras and is performed to determine any conditions that could compromise the actual and accurate weighing of the weighbridge. An inspection of the weighbridges main instrument (weight indicator) is also carried out with a dedicated camera. The main instrument is connected directly to the weighbridge and must before it may be used, always indicate "0 kg.". In the same way, the "repeater" in the office where the weighbridge inspection is carried out must also show "0 kg."

Gives the above causes of doubt, staff will be contacted "on location", this to correct the errors that may have occurred. If there is no solution to certain problem, the remote weighing procedure cannot be carried out. The person in charge at the customer and the coordinator at SKAWINSPECTION are contacted for the further course.

If the weighbridge has not been used for a third-party inspection in the last month, the inspector must obtain the last registered check weighing to ascertain the "ability" of the weighbridge. The last valid verification or calibration certificate can on request always be obtained by contacting SKAWINSPECTION. If there are no deviations, the equipment / weighbridge is ready for use.

2. Procedure during ongoing weighing process

Skawinspection's inspector is during active weighing process always present in given "remote office", and the weighing itself is only carried out by Skawinspection's certified inspectors.



Procedure for weighing and segregation of different species when discharging fresh unsorted pelagic bulk catches for indirect human consumption directly pumped from vessel to Hopper Scale at FF Skagen.

Table of Contents:

1. Procedure before start-up of weighing process.
2. Procedure for start-up of weighing process.
3. Procedure during ongoing weighing process.
4. Procedure for finalizing weighing process
5. Self-monitoring of weighing units.
6. Segregation of species (Determination of bycatch) of unsorted catches
7. Various enclosures

1. Procedure before start-up of weighing process

Before start-up of each weighing process, it is controlled that the sealings on the weighing units are intact. As soon as this has been confirmed, the weighing process may start.

2. Procedure for start-up of weighing process

Select the boat from the list in the weighing system (if the boat is not already registered this must be done) and subsequently the unique reference No. is selected. This No has been informed by FF Skagen. Next step is to choose whether weighing takes place on Line 1, Line 2 or both lines at the same time. The choice is confirmed, and the automatic weighing process may be started.

The weighing process starts by pressing the **Start** button. The weighing system will now perform self-monitoring where weights are set down on the scales. After monitoring the scales will find their zero point and subsequently weighing is released and discharging may start.

3. Procedure during ongoing weighing process

Skawinspection's certified inspector is always present at the inspection during active weighing process. During ongoing weighing process, it is checked whether the weighing units run correct. Apart from visual control, the weighing units indicate this by an error message.

All operation messages are video monitored, not stored. The above is available for all views of all



Procedures for weighing and segregation of different species when discharging fresh unsorted pelagic bulk catches for human consumption directly pumped from vessel to Flowscales at Scandic Pelagic.

Table of Contents:

1. Procedure before start-up of weighing process
2. Procedure during ongoing weighing process
3. Procedure for ending a landing code (e.g., change of code/vessel or final stop for the day)
4. Procedure for finalizing weighing process
5. Filling in weight report/log
6. Self-monitoring of the weighing units (Flowscales)
7. Segregation of species (Determination of bycatch) of unsorted catches
8. Various enclosures

1. Procedure before start-up of weighing process

The office, where the operating computer is located, is always locked and only Skawinspection (third part) has access to this office.

Verification of the following subjects must be established before commencement of any discharging process:

- CE mark of conformity (Confirmed at installation of the scales)
- Digital seals (Event Counters, CAL and CON). Must be the same as officially label placed in the technical box underneath the display units
- Total weight counters (Comparison of latest weighing process)
- Unique alibi numbers on each weighing unit (Comparison of latest weighing process)
- Physical seals attached to the adjustment bolts (Conveyor's centre height adjustment)

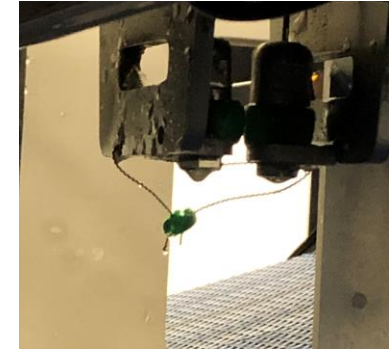
"Danish way of control of bulk landings".



- 4. The scales we are using all are a type, that not allows any untraceable deduction in the registered volume.
- In our opinion this type of scales should be the only scales, that can be named as: “an Approved scale”!
- (It took a while before our scale suppliers (Scanvægt, Jydsk Vægtfabrik and Marel) understood what type of scale we were looking for.)
- In addition, all scales are sealable.



- 5. Our sealable scales are, as a part of the technical weighing solutions, of course all sealed and before start of each discharging, the inspector checks that all seals are unbroken.



- If not, the discharging cannot begin.

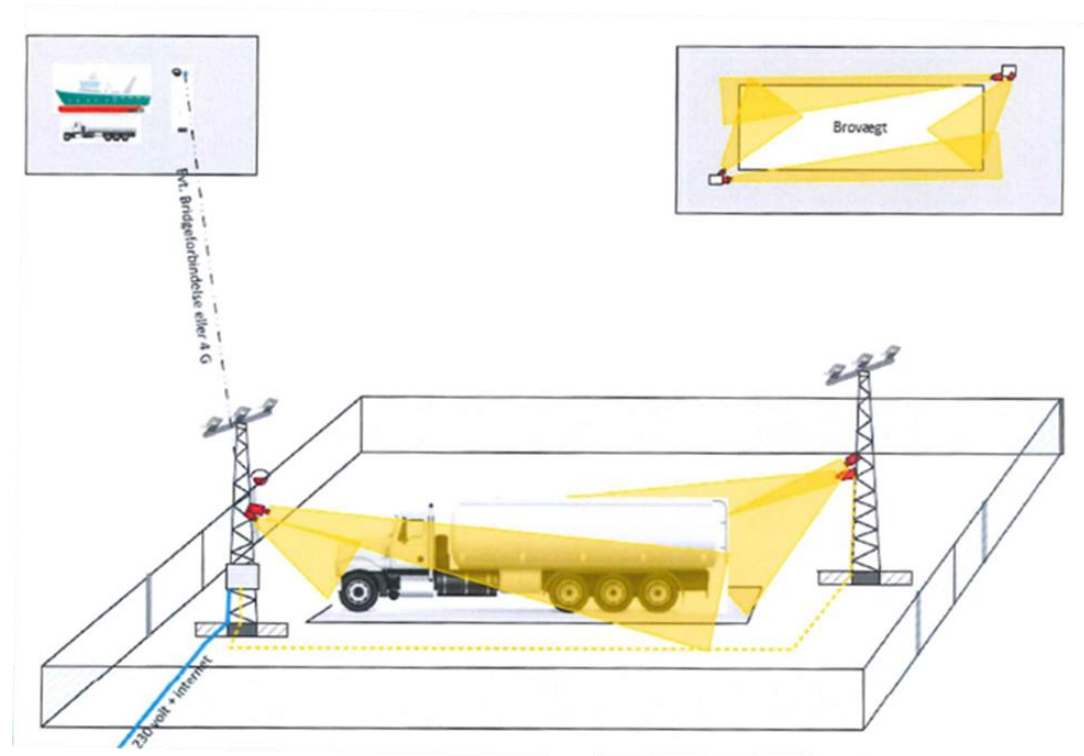


- 6. As another part of the technical solutions, REM are used as a tool to verify and streamline the efficiency of the Inspectors job.
- e.g., the inspector has in his internal work description for “remote registration” in Hanstholm written:

....To provide any irregularities and in general to be ahead of the situation a complete set of cameras are installed on berth 43 (See below). This makes it possible to see when – and which – trucks drives under the discharging installation, and to see if fish is discharged into the trailer. Furthermore, it is possible to see which ship is placed at the berth, and whether it is connected to the discharging installation....



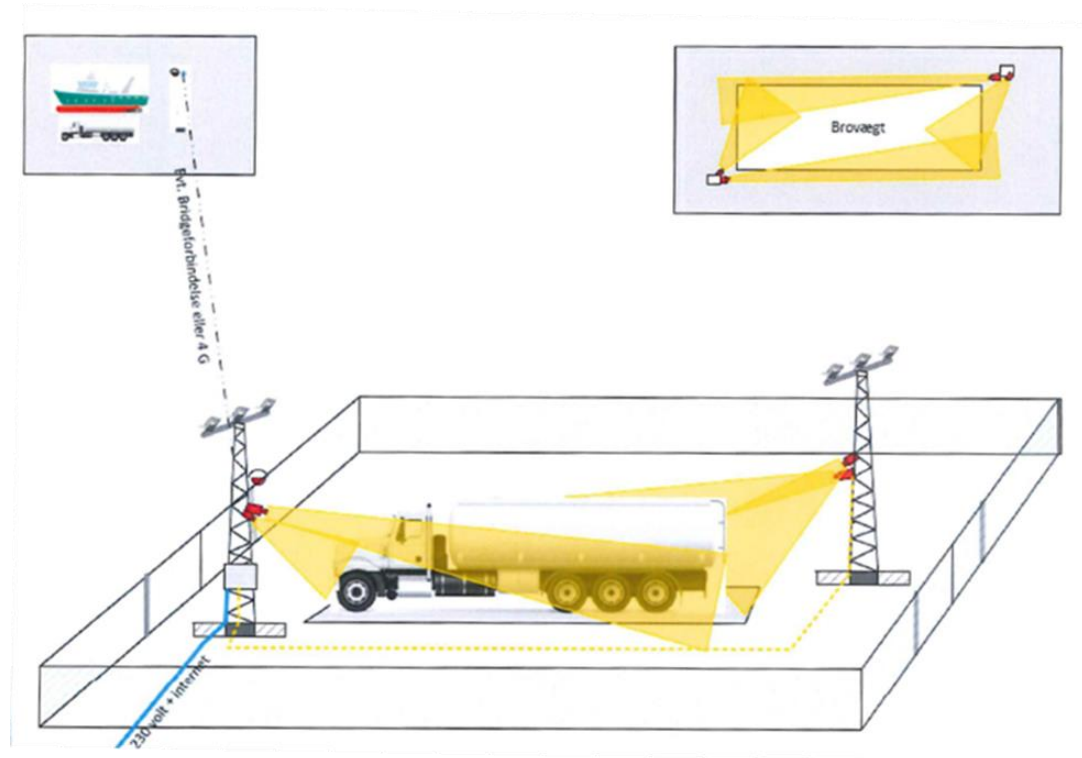
- 6. The monitoring cameras are located at strategical important places. Locations are agreed with the Danish fishery control authorities.



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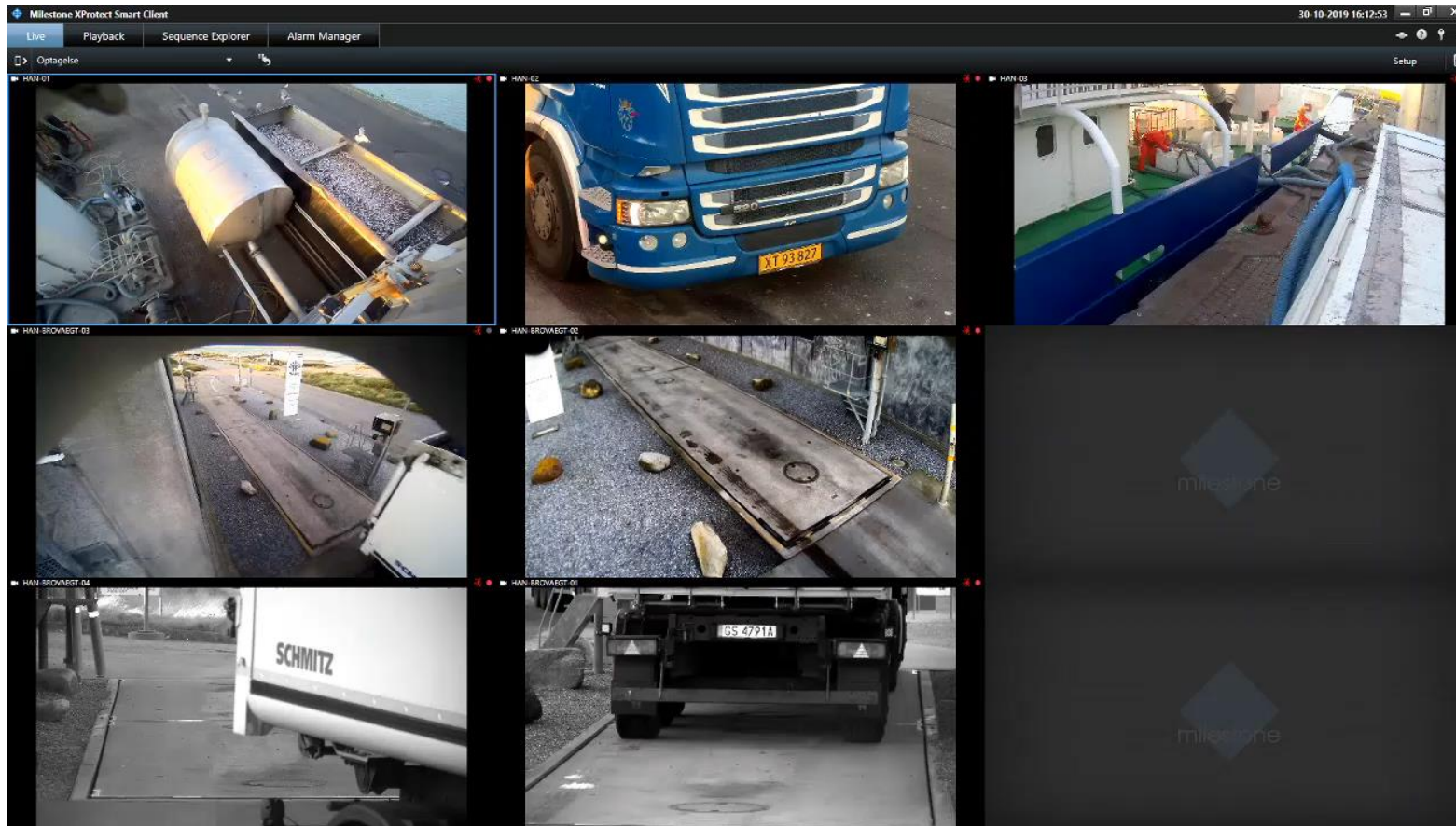
➤ 7. Using this REM technique at its full, as mentioned also allows us to receive landings in other ports, than where we are situated.



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➤ 7. All cameras shows live pictures, here recorded in Hanstholm...

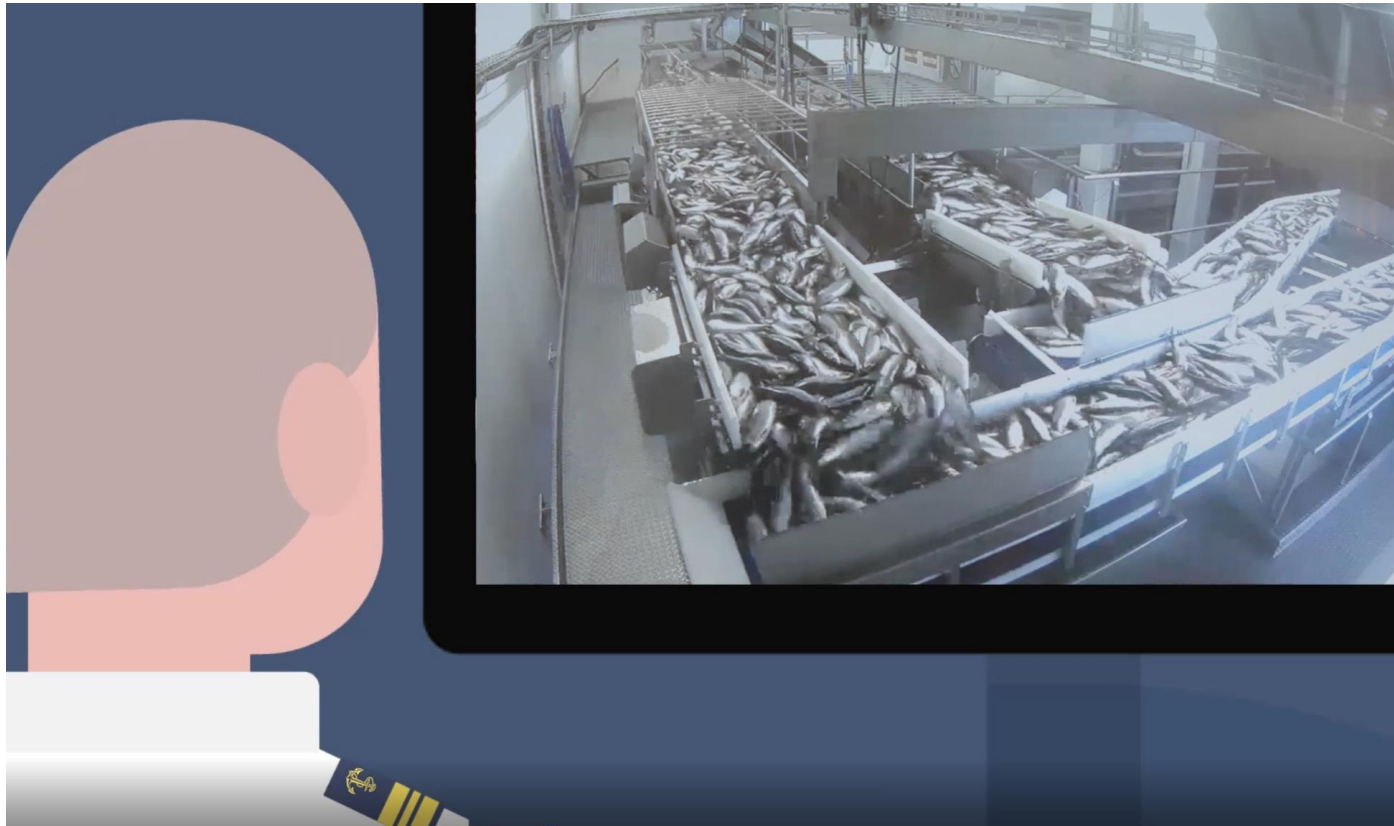


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➤ 8. and the local fishery control office has access to all live material.

[Vejestationer \(lytzenit.dk\)](http://lytzenit.dk)



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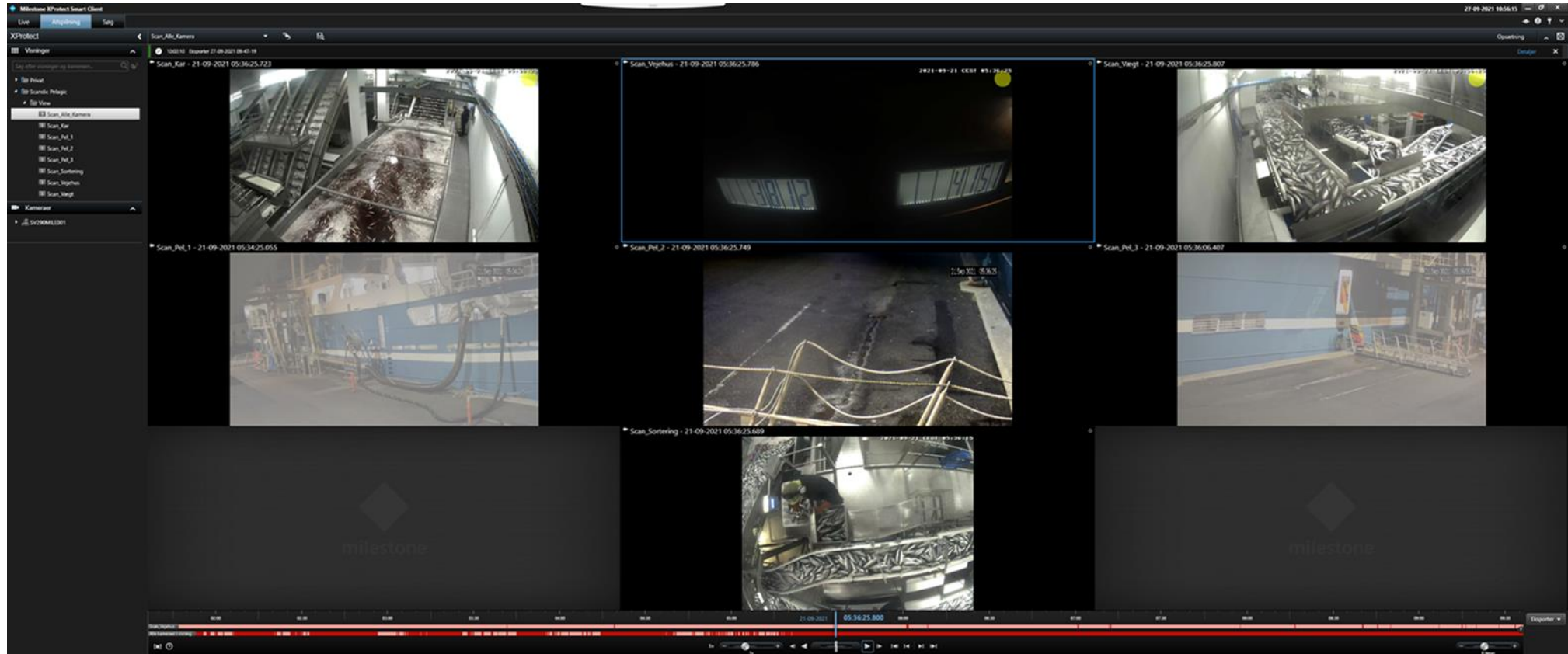
- 9. On top the recorded videos can be used as documentation for having done a correct job.



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➤ 10. At the FF-Skagen daughter company Scandic Pelagic, we have implemented same/similar procedures to secure full register of the landings of Herring for Human Consumption production. Example of monitoring.:





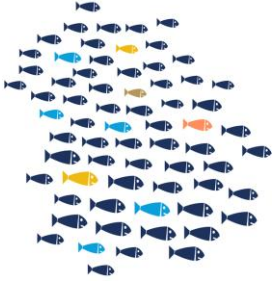
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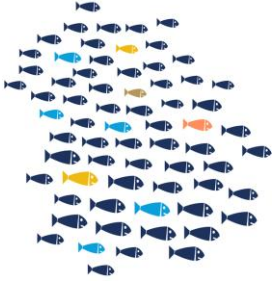
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- 11. Scale technical:
- When a scale is switched on, a so called “alibi” number automatically is created.
- When the scale is stopped and started again, a new alibi number automatically is created.
- An alibi number and its recorded weighed volume, cannot be deleted, and if so, a number is missing in the line of numbers.
- In the background a total figure adds up the weighed volume, and this figure increments until one million tons, hereafter it starts up again from zero. This total “background”-volume “fits” with all alibi numbers added up.

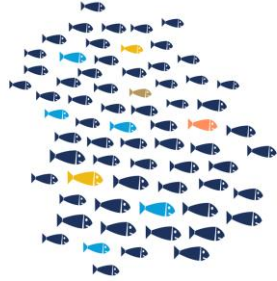


- 12. Sampling plan/samples:
- The Danish Fisheries Agency has made a mathematic sampling plans, which is based on statistical material collected over more than 10 years.
- This sampling plan is conducted by the DTU Aqua, which is the Danish National Institute of Aquatic Resources and is an institute at the Technical University of Denmark (DTU).
- This sampling plan is (at least for the time being) the most thorough sampling plan for pelagic landings ever developed. It's divided into two, one for pelagic indirect human consumption, and one for pelagic human consumption.
- Here is how it looks:



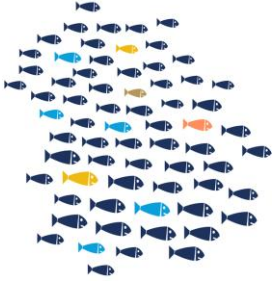
➤ 12. Sampling plan/samples:: indirect human consumption.

Species	Waters/ Sea	Number of 10 Kg. samples at landings of 25 tonnes or less	Number of 10 Kg. samples at landings between 25-200 tons	Number of 10 Kg. samples for landings over 200 tonnes
Sandeel (SAN)	North Sea/ Skagerrak/Katt egat	3	3 plus 1 pr. commenced 50 tons	6 plus 1 pr commenced 250 tons
Sprat (SPR)	3A	5	5 plus 1 pr. commenced 25 tons, max 10 though	21
Sprat (SPR)	North Sea	5	5 plus 1 pr. commenced 25 tons, max 10 though	24
Sprat (SPR)	3D	5	5 plus 1 pr. commenced 25 tons, max 10 though	15
Herring (HER)	3D	5	5 plus 1 pr. commenced 25 tons, max 10 though	15
Norway Pout (NOP)	All	5	5 plus 1 pr. commenced 25 tons, max 10 though	24
Blue whiting (BLH)	All	3	4	4 plus 1 pr commenced 250 tons
Boarfish (BOR)	All	3	3 plus 1 pr. commenced 50 tons	6 plus 1 pr commenced 250 tons
Other Species*	All	0,5 Permille of the catch, minimum 100kg though	0,5 Permille of the catch	0,5 Permille of the catch



➤ 12. Sampling plan/samples: human consumption.

Volume expected landed (tons)	Minimum total weight of random samples (kg)
Under 5	8
5 to 15 excl.	20
15 to 40 excl.	40
40 to 60 excl.	60
60 to 80 excl.	80
80 to 100 excl.	100
100 tons and over	120 kg however at least minimum 0,08 % of every quantity higher than 100 tons.



- 12. Sampling plan/samples:
- The Danish Fisheries Authorities Agency sampling plans requires also that it is obliged that:
 - A:....All the sample collections taken must be representative, this means:
 - B:....That you must secure, that all samples taken out is properly taken out e.g., from the full withs of a conveyor belt.
 - C:....The sample collection “Installation” must be approved by the Danish Fisheries Authorities Agency



- 13. Costs:
- Investment: Cameras: Our camera and software supplier (Lytzen) informed in 2021 that price for e.g., 3 heated cameras and all the required software (Milestone) all in all costs around € 6.000,-
- Investment: Scales: very difficult to say. Is depended on the needed capacity but expect from € 100-200.000,-

- Surveyor: Costs average at FF for the weighing (/ton raw material): € 0,80
- and for the species control /ton raw material € 2,00
- Costs average over the past years at Scandic Pelagic for the weighing and for the species control combined /ton raw material : € 2,95



- 13. Costs: Who must pay these costs?
- Surveys: FF Skagen pays for weighing of the industrial fish, and the fishermen are billed for the species determination.
- Surveys: Scandic Pelagic (human consumption) the fishermen are billed all Survey costs, that is the costs for the weighing as well as for the species determination.
- Equipment: FF-Group has all costs.
- What next.....?



- **14. Can we afford not to be a part of the securing sustainable fishing. We think not.**
- We are happy that now also our Danish suppliers sees the benefit in our registration system, and they have taken it a step further:
- So, the DPPO (Danish Pelagic Producer Organization) besides their codex in addition has announced, that they during 2023 will have installed CCTV and associated sensors on all Danish pelagic vessels organized in the DPPO. And all data/information from the fishing operations will be made directly available to the Danish fisheries authorities.



- **14. Can we afford not to be a part of the securing sustainable fishing. We think not.**
- To sum it up in our opinion: All landings of small pelagic in fresh bulk catches must be registered:
 - a)...by an independent certified, monitored 3-party,
 - b)...who works according to clearly defined rules (incl. general sampling plans applicable to all),
 - c)...operates in registered / approved ports and,
 - d)...uses approved certified and clearly defined weighing equipment that gives no opportunity for hidden deduction.

➤ **Questions?**

Thank you for your attention!

If interest in any further specific information, please contact
Peter Kongerslev: peko@scandicpelagic.com

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