



# CatchID

*Every fish counts!*

## THE NORWEGIAN EXPERIENCE

### Why should compliance strategies be improved?

In 2020, the Norwegian fishing fleet landed fish with a first-hand value of more than 2.6 billion USD. This, together with the aquaculture industry, makes seafood Norway's second largest export commodity. Norway's natural conditions allow fisheries at this level year after year. The situation could however, have been very different without proper management of our common resources.

Over the past decades, we have handled over-capacity in the fishing fleet, near collapse of our most important stocks and illegal, unreported and unregulated fishing (IUU-fishing) in our waters. To avoid overfishing, we have introduced a number of management measures followed by monitoring, control and surveillance (MCS), where the success can be measured in stocks being recorded at stable and high levels for years. Nevertheless, illegal fisheries evolve at the same rate as our management regimes and to combat this we constantly need to improve our efforts.

The main lessons learned from the Norwegian experience would be that a comprehensive management regime is required to achieve compliance and that the most efficient way to achieve compliance is to avoid unwanted or illegal actions occurring in the first place. Running after illegal activity will always be less efficient than preventing it.

Our philosophy is that by using a variety of strategies we can efficiently reduce the risk of non-compliance, focusing traditional MCS efforts on those that are unwilling to comply.



**Figure 1:** The pyramid of compliance is a good measure to illustrate the importance of implementing risk based management measures and intelligible regulations that will guide actors downwards in the pyramid.

*“Running after illegal activity will always be less efficient than preventing it”*





## Compliance by design

### What approach will be used?

Norwegian authorities have identified that the main reason we have not managed to end IUU fishing is that reporting by the fisheries industry is either based on self-reporting or there are no reporting requirements at all. Furthermore, consumers, markets and authorities are constantly raising their expectations and introducing new requirements to document the legality and sustainability of fisheries activities.

Therefore, we have decided that we need to develop and introduce new technological solutions to be used on board fishing vessels, where these solutions represent an independent third party. Bharosa et al. (2013) describe this as a compliance by design approach:

*«Compliance by design architectures represents an end-to-end approach in which information is collected from the source system and distributed to the relevant public agencies».*

An automated and open documentation system will be able to contribute to various documentation requirements. It will also reduce the potential for unlawful gain through deliberate misreporting and increase the quality of registered data. It will also incentivise more selective fisheries and increase efficiency through the value chain. This will result in stronger confidence in stock management, correct deduction of quotas, and in general increased confidence and trust between industry, managers, scientists and society, due to improved transparency at each part of the value chain.

*“Stronger confidence in stock management, correct deduction of quotas, and in general increased confidence and trust between industry, managers, scientists and society”*

## The CatchID program

### How can compliance strategies be improved?

**The CatchID Program is a new initiative launched by the Directorate of Fisheries to support development and implementation of new technological solutions to accommodate the challenges with unreported and unregulated fishing.**

The CatchID Program aims to support the development of a fully integrated documentation system. The initial objective is to use third party technology to automatically register all marine resources harvested in real time and with limited or no need for human interaction, and to provide relevant data to MCS authorities.

This will make quota deduction possible prior to landing, reducing the room to manoeuvre for intentional or unintentional violation of the regulations. Furthermore, the program aims to support the development of a tracking system to be able to trace the fishery products throughout the value chain. Such a system will support documentation of the origin of the catch, assuring consumers that the fish originates from ethical and sustainable fisheries, thus supporting the fight against IUU fisheries.

CatchID will make quota deduction possible prior to landing, reducing the room to violate the regulations – and make it possible to trace the fishery products throughout the value chain.

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## ***Four areas of focus***

**The program is in the startup phase and will take a stepwise approach, and currently has four areas of focus:**

### ***Focus 1: Anchor the program in the industry and building competence networks***

It is essential to anchor the idea and objective within the fishing industry, where a public-private collaboration will be a key to success. Development and implementation of a technology based MCS system will likely give positive ripple effects for all parties involved in the fishing industry, as there will be converging interests.

### ***Focus 2: Identify relevant projects***

The second focus is to map relevant available or emerging technologies that can be of relevance to achieve the objectives of the program. Furthermore, the aim is to identify, support and stimulate projects that can prove beneficial for a technology based MSC and a fully integrated documentation system.

To stimulate collaboration and form project partnerships, the CatchID program intend to start hosting an annual international conference to address new and ongoing projects that can be of relevance to reach the program objectives.

### ***Focus 3: Financing of projects***

Running projects and developing technological solutions to support an automated technology based MSC solution will require economic funding. The Norwegian Directorate of Fisheries has a limited annual grant intended to support projects working on solutions that will help reach the targets for the program. While these grants cannot fund all relevant projects, we intend to support projects applying for external funding. This could be through assistance in writing applications, letters of support for projects, taking part in steering groups, etc.

### ***Focus 4: Adaptions in the regulations and dispensation schemes***

The program will work to facilitate testing and implementation of new technological solutions for automated MCS, as current regulations are not necessarily adapted for this. Furthermore, we aim to initiate pilot projects or change regulations where necessary to give the industry, suppliers and R&D environments incentives to launch and participate in projects that use new technological solutions that contributes to the programs overall objectives.