

## Paper for Consideration by NIPWG

## [Benefits of VONI]

<b>Submitted by:</b>	Norwegian Hydrographic Office
<b>Executive Summary:</b>	Paper on the benefits of VONI
<b>Related Documents:</b>	
<b>Related Projects:</b>	

**Introduction / Background**

In Norway at the Hydrographic Office, we are working to digitize "The Norwegian Pilot". This involves developing a new national port standard. We became aware from our involvement in the NIPWG meetings that other countries including Sweden are also in the process of modernizing the way they store and generate their data for the sailing directions.

During our participation at the VONI workshop in New Hampshire at the NIPWG4 meeting, we began to see how useful regular VONI meetings would be in helping all the countries work together and not only discuss plans for digitization, but also actually walking through the steps for implementation. VONI proved to be the perfect place for collaboration on similar issues, sharing technology, learning about proper methods and techniques for applying new technology and a place to learn from one another's successes and failures. With everyone working on a common goal, the work can be divided and shared allowing everyone to reuse each other's ideas and technical data. We foresee a greater success rate for each country as we help each other achieve the same goals.

We feel collaborating in an environment such as VONI promotes a desire to increase the commitment needed to be useful at the NIPWG meetings where we are charged to create standards for digitizing. Along with implementation standards for digitizing it could also open the door to discussing portrayal standards. Especially regarding icons used related to port information. If countries make their own symbols, it will undermine the idea of setting a common standard that will reduce the burden of the mariner due to having to learn a new symbol set for each country.

The NHO would like to offer an example of what is going on internally within Norway of how having regular VONI meetings would be beneficial.

**Project example from NHO, establishment of new national port standard:**

In Norway, we are working on developing a new national port standard.

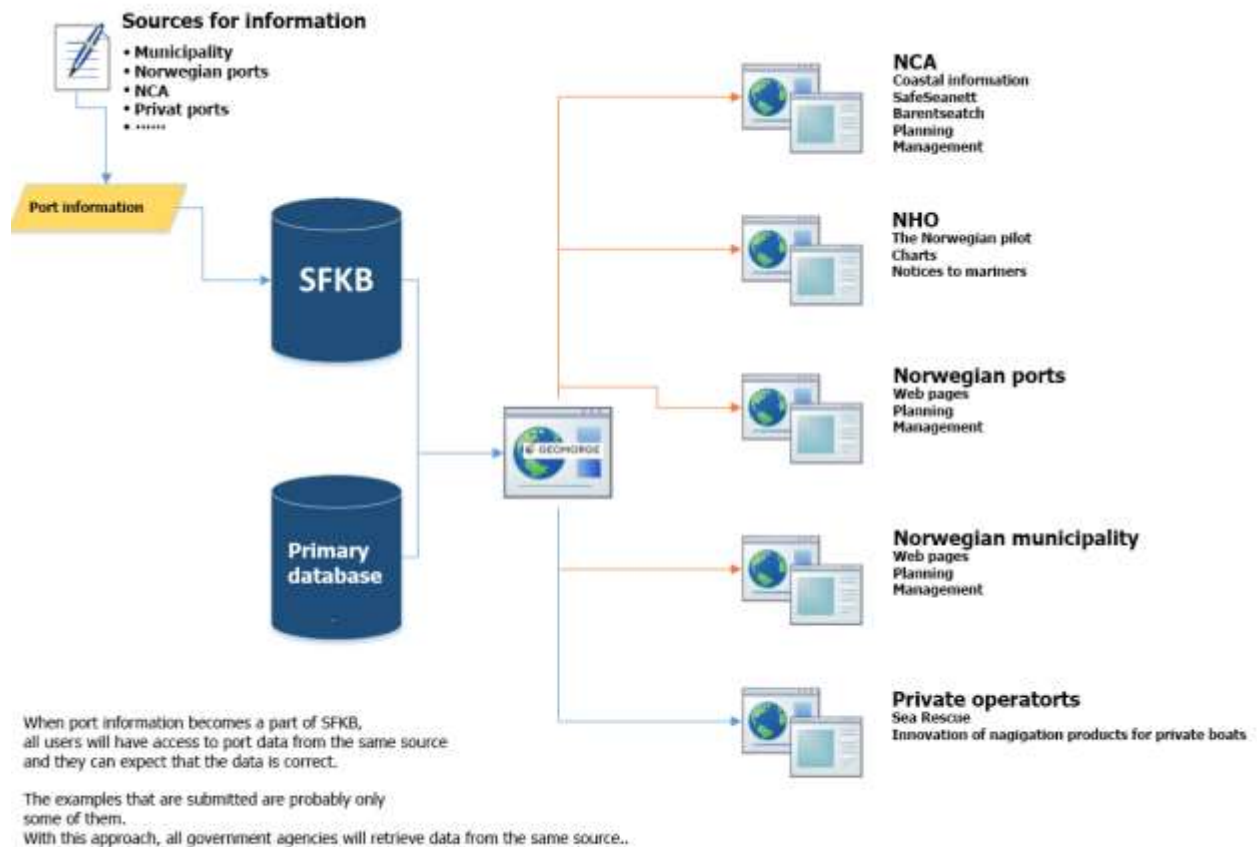
We do not have a common port standard today and we see the need to achieve a common port standard where all ports and municipalities themselves are responsible for their own data.

There are currently three databases in Norway that provide the same information, none of them is coordinated. Do they all have the correct data?

Nobody knows.

However, by compiling the data into a common map database, based on port information, we will have all the information in one place, which means that all information is correct and will be updated.

If we establish a common database and process the data via Geo Norge, the data model could look like this:



This will make sure that we always have the correct data, everyone knows where the data exists and it will be easier to keep the data up to date and to share on different devices.

We did a test on data from FKB (the Norwegian common map database) without port information, versus a common map database including port information, they looked like this:



Figure 1. Illustration without port information from common map database. Like it is today.

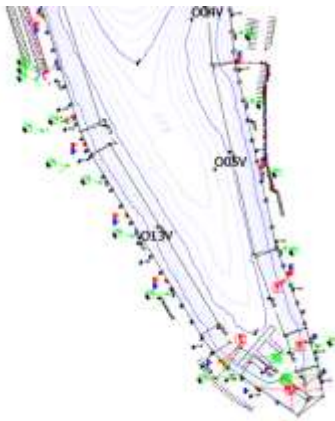


Figure 2. The data from Stavanger Port



Figure 3. When we got the data into the common map database.

Combining all the data this way proves very useful to the mariner and is something municipalities and ports should keep updated themselves.

The municipalities and ports are making a standard regarding which data to deliver and what format it should be delivered in. Today, data is delivered into .dwg (AutoCAD) which is transformed into Shape, geojson, gml, xml and sosi data (Norwegian standard). All data will be available for download via GeoNorge, Primar and APIs in the same format. It is a goal of NHO that all data should be used on different devices in the future.

## **Conclusions**

In Norway, we consider it very helpful to have the opportunity to discuss in detail technology across national borders in order for us to learn from each other. Collaboration at this level is best done in its own venue like VONI.

We have included Norway's project as a suggestion of our digitization solution, so others might benefit from our work (as we could have benefited from Sweden's work earlier had we known about it) as well as for a starting point for discussion. Since several countries are working on digitization of nautical publications and NIPWG is working on data models for it, it is a good time to collaborate on a deeper level.

We invite a discussion to find out if others also see the usefulness maintaining regular VONI workshops to discuss development, digital services, and more on an implementation level of detail.

## **Action Required of NIPWG**

The NIPWG is invited to:

- a. note and discuss the paper.
- b. agree or disagree the conclusions