

## **SUBJECT: Interoperabilities S-401**

### **1. General information**

Since December 2019 the first edition of the S-401 Product Specification has been published. In accordance with the S-101 Product Specification, the section regarding portrayal was temporarily removed. The next steps for the S-401 working group in the alignment with S-101 was among other things, the development of the portrayal catalogue and the description of the portrayal. For this last topic the working group had to wait on the results of the S-101PT.

The portrayal section of S-101 has been divided into two parts: all general requirements are described in the S-100 Product Specification Part 16, while the specific S-101 interoperability will be described in the S-98.

### **2. Findings**

Currently the S-98 proposal is only dealing with the interoperability of S-101 with other S-101 related products. It doesn't take the S-401 and its possible interoperability into consideration. However, one of the aims of the S-100 framework is the compatibility of the different products in order to achieve the possibility of a complete exchange between the different S-products. If S-98 is only taking S-101 into account, this compatibility can't be honoured.

### **3. Questions**

This issue raised another important question that needs to be solved before the S-401 WG can proceed with the development of their product. Because there are a lot of mixed zones (e.g. ports) where maritime and inland vessels are navigating, both systems (S-101 and S-401) will be used in these zones. The question is what a skipper must do when he enters such a zone in regards of the existing regulations? Is it possible to have one base layer (e.g. maritime S-101) and combine it with the other (e.g. inland S-401) or vice versa? Or does the skipper have to choose between the maritime and inland chart as the base layer for his ECDIS? How can it be ensured that mandatory features of the inland charts will be shown in the ECDIS when the maritime charts are used as base layer? What are the implications of one or other technique for the skipper and the standards?

Another issue that must be solved is interoperability. At this time, the S-401 WG sees interoperability with the future S-402 (bathymetric IENCs), but the use of other products should be possible as well. As it is now, the interoperability can't be integrated in the current draft version of the S-98. The question is how to implement this since the S-98 only allows the S-101 ENC as the base layer? Will there be one S-98 for ENCs and IENCs or should a separate S-498(?) be created for S-401?