



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

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Sample Production of S-127 dataset



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- challenges in storage of S-1xx conform data
 - lack of efficient software solutions available
 - BSH content management system is MS Office based (Word)
 - workaround to store relevant NPUB information in an S-127 conform database

Vision:

create and use an S-127 conform dataset to produce the VTS Guide

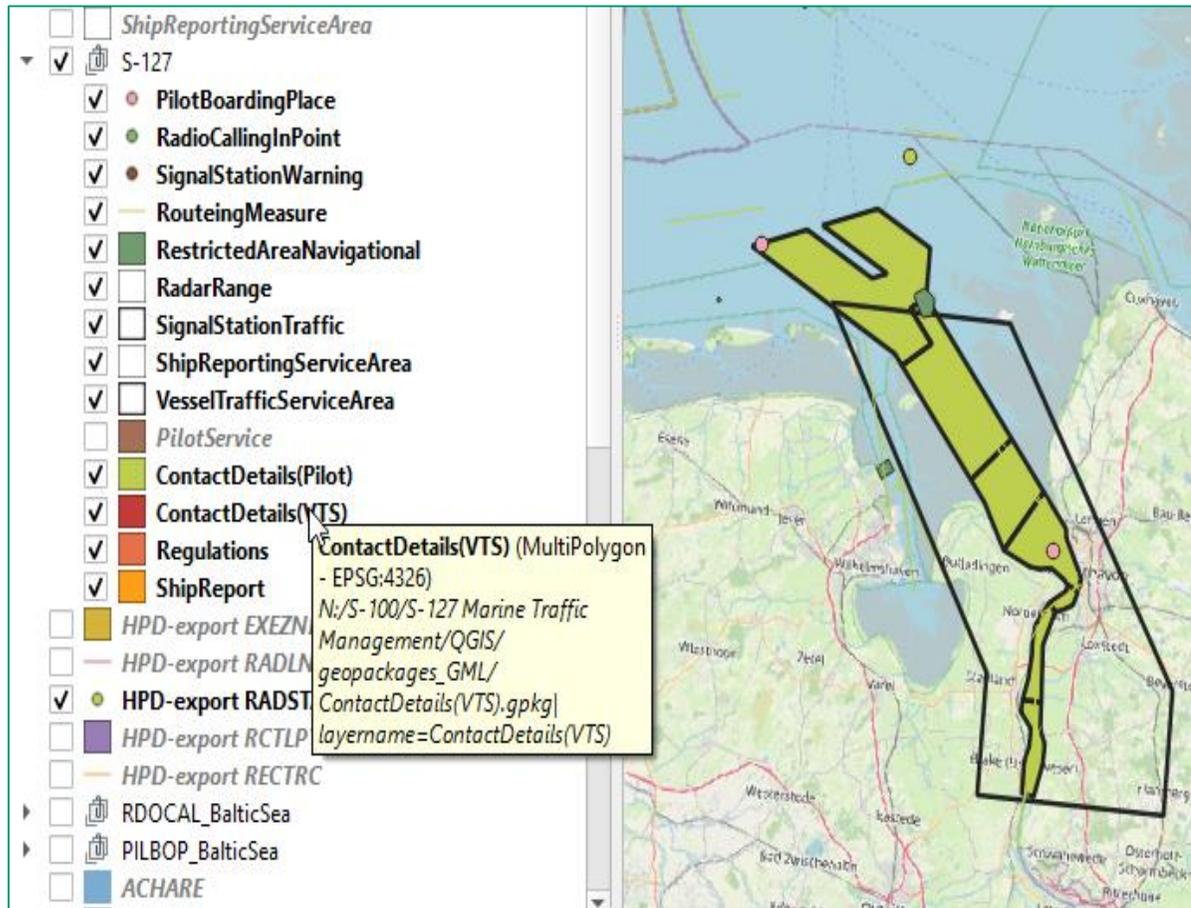
1. Dismantling of VTS Guide into smaller sections – VTS centres, e.g VTS Centre Travemünde
2. Dismantling VTS centres into Vessel Traffic Services, e.g. Fehmarn Belt Traffic, Kiel Traffic and Trave Traffic
3. Analysing NPUB structure → identical and no major variations from VTS to VTS:
 - The name of the VTS
 - A graphical overview of the surveillance area
 - The contact details
 - Necessary Reports
 - Rules
 - Services
 - Pilot Information

Analysis „Transforming process“

| | |
|--|--|
| S127:ContactDetails_callName | Bremerhaven Weser Traffic |
| S127:ContactDetails_categoryOfComPref | prefered working |
| S127:ContactDetails_communicationChannel | 22, 02, 04, 07 |
| S127:ContactDetails_communicationChannel | 02 |
| S127:ContactDetails_communicationChannel | 04 |
| S127:ContactDetails_communicationChannel | 07 |
| S127:ContactDetails_communicationChannel | 16 |
| S127:ContactDetails_language | eng |
| S127:ContactDetails_telecommunications_categoryOfCommPref | preferred calling |
| S127:ContactDetails_telecommunications_telecommunicationIdentifier | +49 (0) 4 71 4 83 53 33 |
| S127:ContactDetails_telecommunications_telecommunicationService | voice |
| S127:ContactDetails_telecommunications_telecommunicationIdentifier | +49 (0) 4 71 4 83 52 00 |
| S127:ContactDetails_telecommunications_telecommunicationService | facsimile |
| S127:ContactDetails_telecommunications_telecommunicationIdentifier | vts-bremerhaven@wsv.bund.de |
| S127:ContactDetails_telecommunications_telecommunicationService | email |
| S127:VesselTrafficServiceArea_featureName_name | Bremerhaven Weser Traffic |
| S127:VesselTrafficServiceArea_requirementsForMaintenanceOfListeningWatch | Continuous listening watch when entering on VHF working channels and VHF channel 16 |

Figure 1: Extract of S-127 form (MS Excel based)

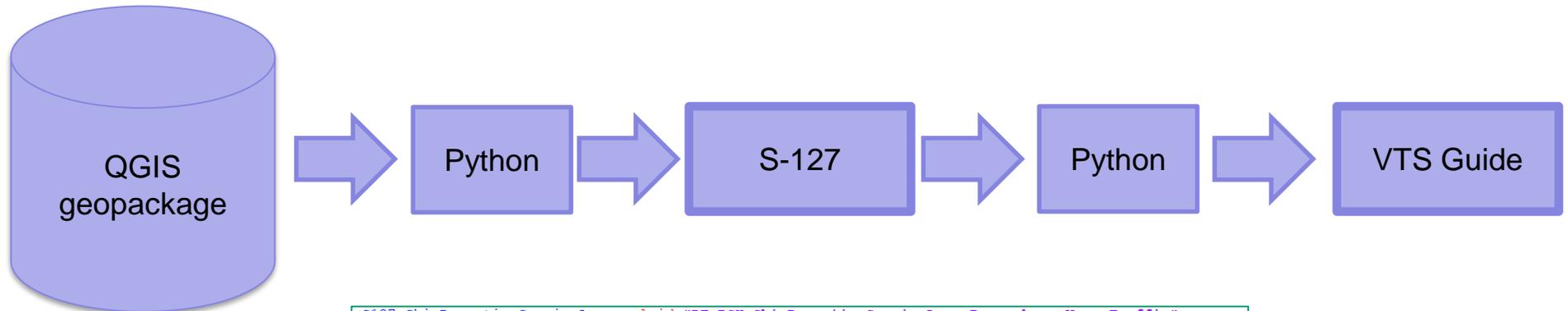
Analysis „Transforming process“



- supporting nautical and geographical data were extracted from HPD
- use of QGIS to display, sort and evaluate data

Figure 2: Display of intermediate results (QGIS)

Analysis „Transforming process“



```
<S127:ShipReportingServiceArea gml:id="DE.BSH.ShipReportingServiceArea.BremerhavenWeserTraffic">
  <featureName>
    <name>Bremerhaven Weser Traffic</name>
  </featureName>
  <requirementsForMaintenanceOfListeningWatch>Continuous listening watch
when entering on VHF working channels and VHF channel 16</requirementsForMaintenanceOfListeningWatch>
  <geometry>
    <S100:surfaceProperty>
      <gml:Polygon gml:id="DE.BSH.ShipReportingServiceArea.2.1" srsDimension="2" srsName=
"urn:ogc:def:crs:EPSG:4326">
        <gml:exterior>
          <gml:LinearRing>
            <gml:posList>53.2804663654414 8.37913034669872 53.4213931033307
8.37913034669872 53.8225840525264 7.95238257281511 53.8225840525264
8.37116688659334 53.4236262766788 8.81149938653911 53.2801882995237
8.8114993870247 53.2804663654414 8.37913034669872</gml:posList>
          </gml:LinearRing>
        </gml:exterior>
      </gml:Polygon>
    </S100:surfaceProperty>
  </geometry>
</S127:ShipReportingServiceArea>
</member>
```

Figure 3: Display of intermediate results (S-127 conform gml)

Analysis „Transforming process“

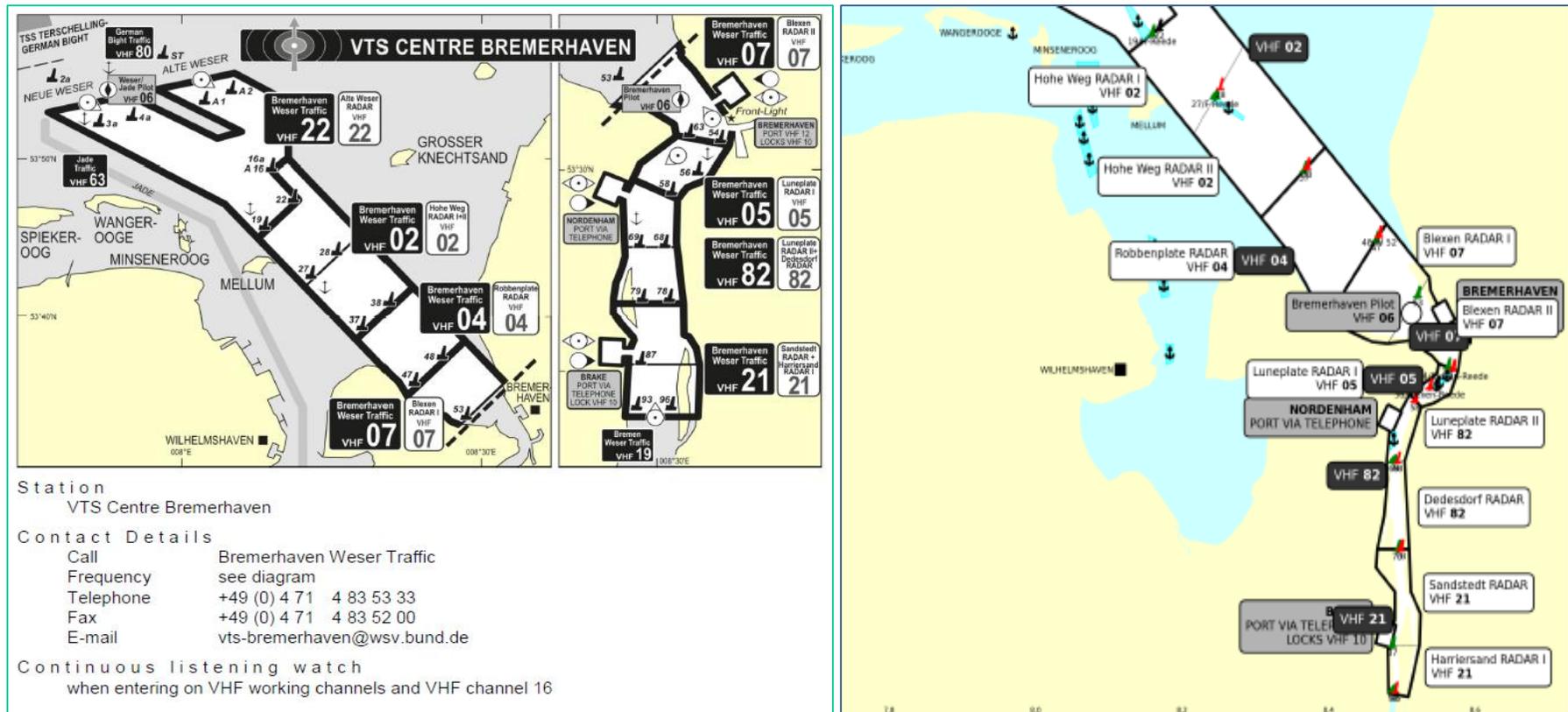


Figure 4: Comparison of VTS overview (left: "old" overview, right: data based graphic)

Further steps

- reduction of manual work → automation
- nautical check against the VTS Guide
- establishment of update process
- definition of unique identifiers for each individual feature (MRN)
- cross product interoperability

Conclusion

- Generation of test datasets requires manual workarounds
- Integration of human error
- redundant data storage, one for the S-127 datasets and one for the NPUB content, might not be necessary, soon

Actions required

The NIPWG is invited to:

- note this presentation (including input paper and to annexes)
- be encouraged to present further national developments