AN INTERVIEW WITH
FORTH PORTS

" The use and scope of GIS is growing, and more and more departments are now making use of this valuable resource.

We are proud of what we have developed and now have one version of the truth. "

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GIS Software: QGIS

GIS utilised to support: Pilotage, Risk Assessments, Pollution (oil maps), Security, Asset Management, Marine License Applications and Decision making on future developments

Datasets Used: Maritime Boundaries, Shipping routes, Bathymetric Data / Hydrographic Surveys, Port Infrastructure, Metadata Layers

Q Describe a situation where using GIS made a significant difference in your organisation

A We survey deep water areas every 10 years which showed us where our assets, such as Aids to Navigation (AtoN), are needed. We also used AIS data from Marine Traffic to create heatmaps which improved our understanding of traffic routing. As a result of the above, we changed some survey parameters and shipping boundaries, which also fed into a review of our AtoNs. **The knowledge we gained, improved the conversations we were having** and **enhanced both the integration of our data and our confidence in it**.

In doing this work, we also decided that the publicly available dataset wasn't comprehensive enough so we installed additional AIS receivers to create our own data. We now have a **rich dataset** that we are almost **100% confident in**.

Q What limitations or frustrations, if any, do you experience with GIS?

A There are some barriers to entry, it takes a bit of time initially to get used to working with GIS systems.

However, once you get over this, it opens up a world of benefits. It's a bit like washing an elephant - you can't do it in one go! Take it in stages and involve competent team members, with experience in GIS.

Q What other benefits have you experienced using GIS?

A We have experienced a number of benefits including improvements to our risk assessments (by including GIS vessel traffic heatmaps to inform the assessment). Heatmaps have also allowed us to set survey parameters and frequency and verify aids to navigation (to check if they are fit for purpose).

We have also completed a topographic survey of some of our quays which showed the land data from published marine charts was inaccurate. Updating accurate data helps us to improve situational awareness and safety for all.

Creating rich datasets, and being able to share them with others, has led to us confidently having "one version of the truth".

OceanWise