



Demonstrating the benefits

(the e-navigation we were promised)

By Thomas Christensen (DMC)



e-navigation (2006)



- *the harmonized collection, integration, exchange, presentation and analysis of marine information on board and ashore by electronic means to enhance berth to berth navigation and related services for safety and security at sea and protection of the marine environment.*



e-navigation (2006)



*the **harmonized** collection, integration, **exchange**, presentation and analysis of marine information on board and ashore by electronic means to enhance berth to berth navigation and related services for safety and security at sea and protection of the marine environment.*



e-navigation (2006)

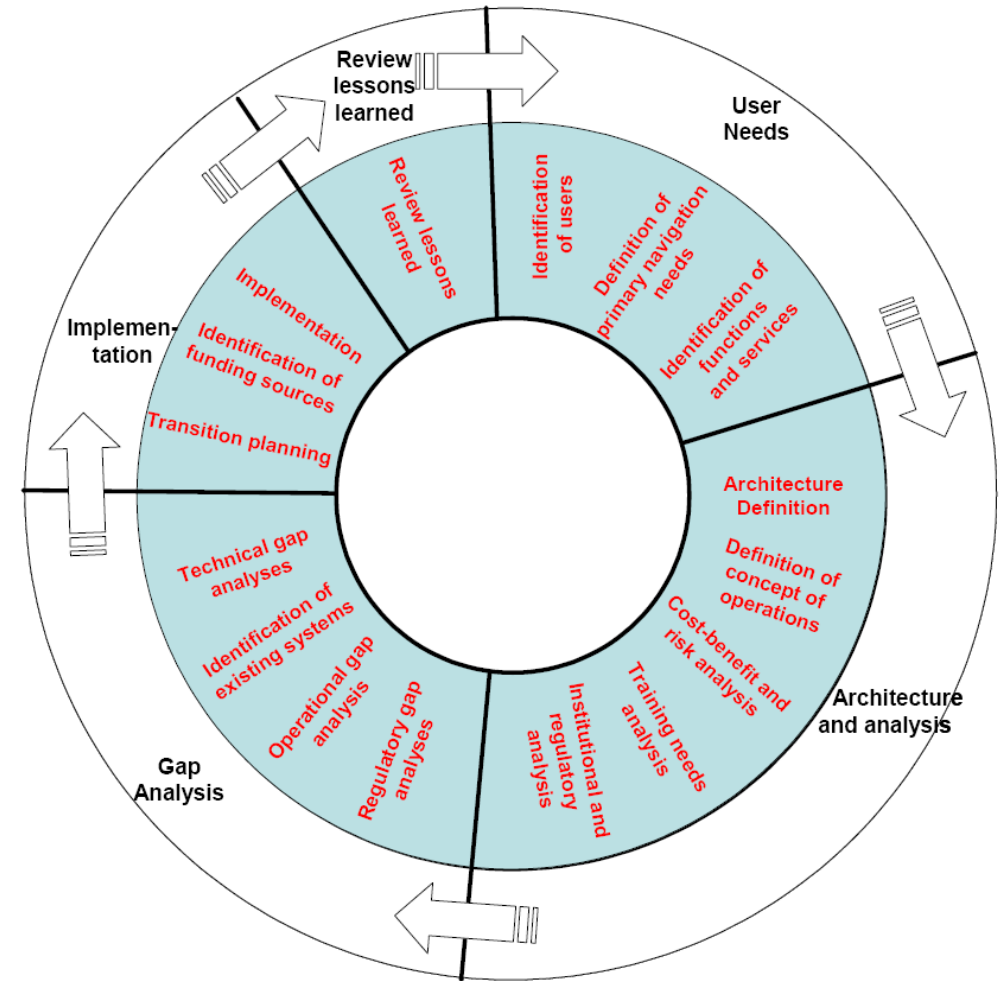


*the **harmonized** collection, integration, **exchange**, presentation and analysis of marine information on board and ashore by electronic means to enhance berth to berth navigation and related services for safety and security at sea and protection of the marine environment.*

= Technical Services!



e-navigation (2006)

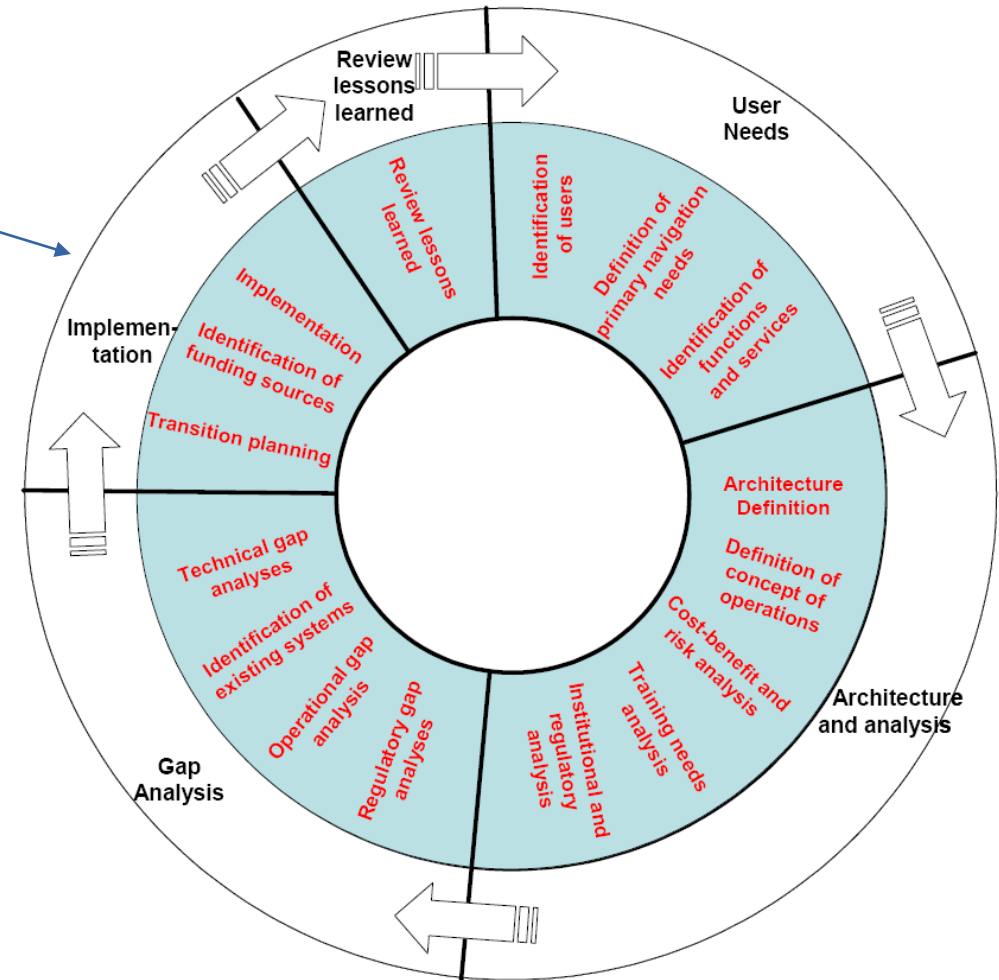




e-navigation (2006)



- We are here

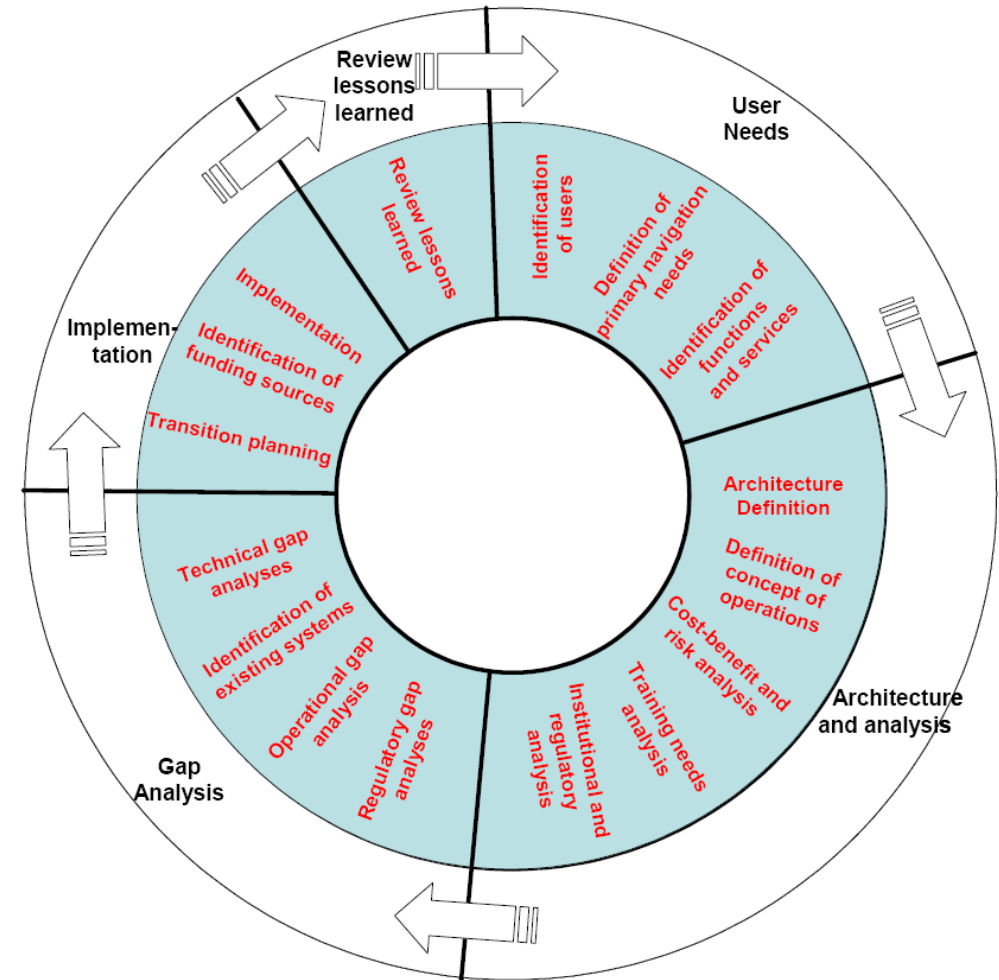




e-navigation (2006)



- Slow - but still come a long way since the first e-navigation testbed...

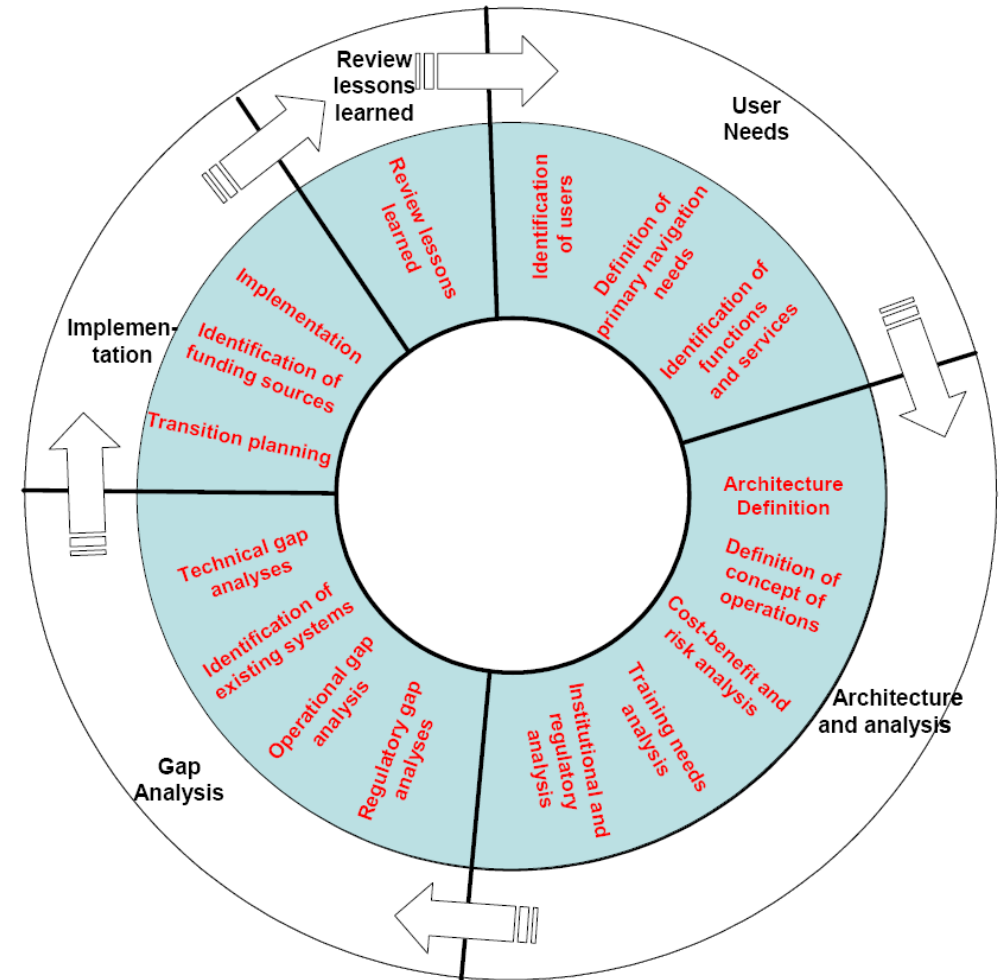
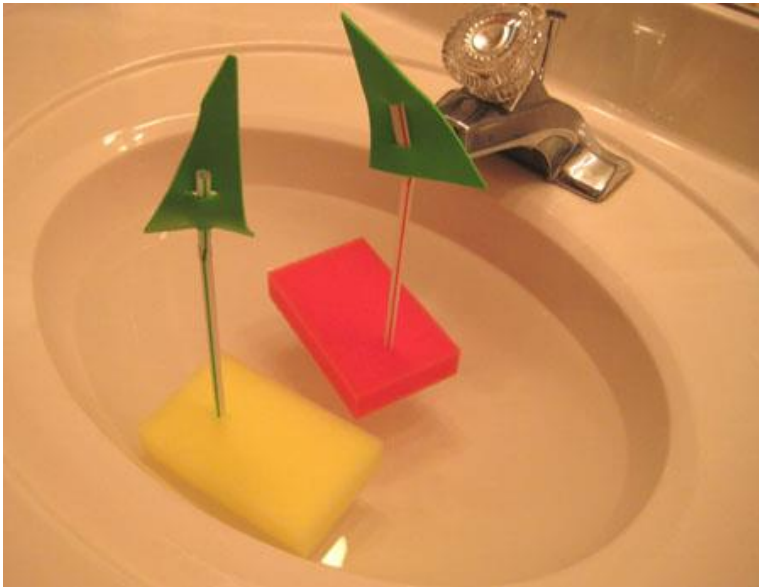




e-navigation (2006)



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Technical Services



Technical Service Specifications

Enabling the **harmonized exchange** of harmonized maritime data

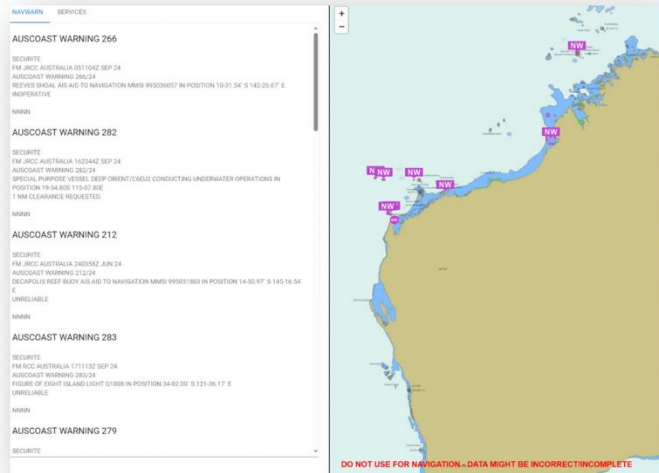
Services:

- Navigational Warnings (S-124)
- AtoN information (S-125 / S-201)
- UKC (S-129)
- VTS Traffic Clearance Service (S-212)
- VTS VTS Information Service (S-212)
- Marine Protected Area (S-122)
- Route exchange (S-421)
- ...

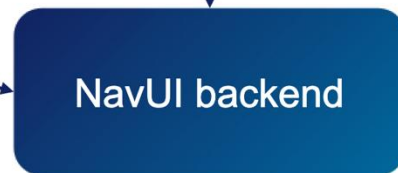


How NavUI works

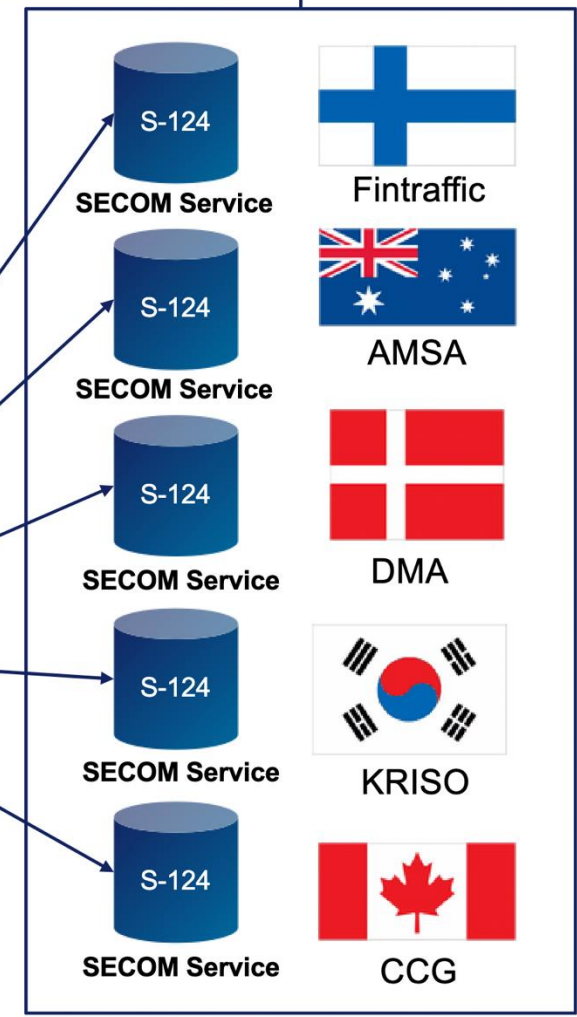
NavUI frontend



Maritime Service Registry



Register service metadata (IALA G1128)



*Protected by SECOM and IALA G1183