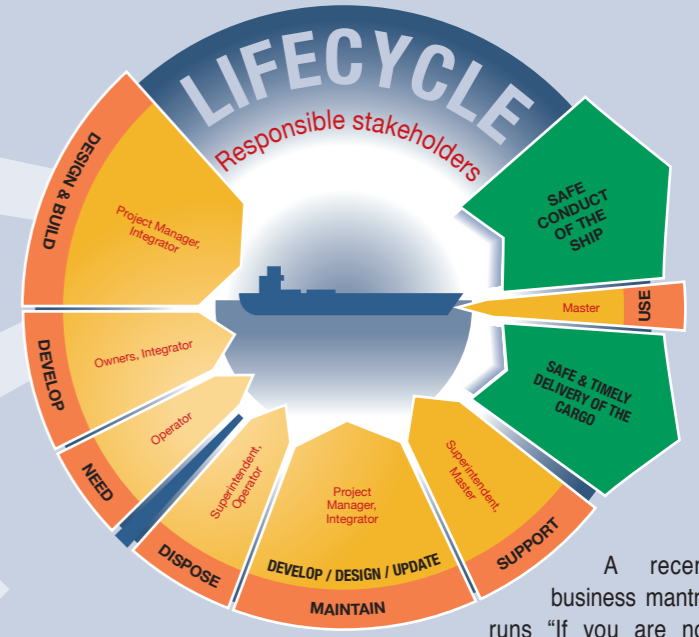


A human-centred approach to ship & system design

Mitigating risk to the Human Element



A recent business mantra runs "If you are not managing risk, you are managing the wrong thing". System engineering is the process by which systems are decomposed and specified to a point where they can be acquired with acceptable risk.

Human-centred design is the means by which the risks arising from a mismatch between seafarers, their ship, its systems and operational procedures are mitigated. Being human-centred entails early and continued focus on the requirements of people who are going to use a system throughout its life.

User requirements are derived from human factors data considered in the context of the particular ship, its manning, outfitting and operation. A large amount of human factors data is already captured in Regulation, Standards and organisational knowledge.

This centrespread includes a set of checklists for the type and location of human factors data required during the planning and specification of a new ship or ship system. For novel situations, new equipment or unusual manning, new data may be needed. Who collects this data depends on what it is about and how it can be most beneficial. For example, manufacturers are best placed to collect information on the use of equipment, owners for workspaces, and operating companies for training and manning.

- An A to Z of Ergonomics (Alert! issue 3)
- Exploring Human Factors (Alert! issue 2)
- Mind, body & spirit The 7 needs of the mariner (Alert! issue 4)
- The development and maintenance of the human component of ship systems (Alert! issue 6)

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Shipbuilding