Aalto University
School of Engineering

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Roles of passion and participatory processes in emergence of revolutionary cruise ship concept design

Title of the dissertation	Pathways of the creative journey – the significance of a cruise ship concept design
Contents of the dissertation	Passion, excellence, and co-creativity are strongly embedded in the practice of cruise ship concept design. Cruise ships are sophisticated and trend-extrapolated high-technology objects where the experiences of the end users are at the heart of all action. Concept design of cruise ships, the idea development phase, is a very complex phenomena including many uncertainties and stakeholders. More often new concepts are produced in a shorter time and with fewer resources. For creating new cruise ship concepts that are future-extrapolated, a smarter participatory approach and sustainable design processes are of the essence for companies to chart potential pathways for concept design regarding the many challenges of sustainability. For the successful approach of this multi-stage and difficult-to-manage design phase is to understand the critical success factors, the beacon lights for structured and organized iterative and spiral-like design process. The factors that throughout the design process promote product attractiveness and overall competitiveness on the market. The key aspects for the business success and partnership continuity are related to shared vision, values and attitudes, multidisciplinary excellence promoting mutual trust and respect, capability jointly to steer and create, manage crisis situations and to foster change. And the ability to extrapolate current technology and design far into the future, to the time when the vessel is delivered and operated in the experience market. This thesis provides advanced front-end design model that contributes to improve a cruise ship concept design approach. The research highlights that the more precisely content of the concept design process can be defined, and the actual design work organized and steered, the more mature and cost-effectively the new ship concept can be created. For the research material expert interviews and scientific literature were analyzed by the grounded theory method to identify the gaps between science and practice. The new model is validated through the real-life case of the concept design process of a prototype vessel.
Field of the dissertation	Marine Technology and Naval Architecture, Mechanical Engineering
Doctoral candidate	Marjo Keiramo M.Sc. (Tech.)
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Opponent	Professor Kim Wikström, Åbo Akademi University, Turku, Finland
Supervisor	Associate Professor Jani Romanoff, School of Engineering, Aalto University, Department of Mechanical Engineering, Finland
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Doctoral candidate's contact information	Marjo Keiramo, Aalto University, marjo.keiramo@aalto.fi, phone +358 40 7447683

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