



INTERNATIONAL CONFERENCE

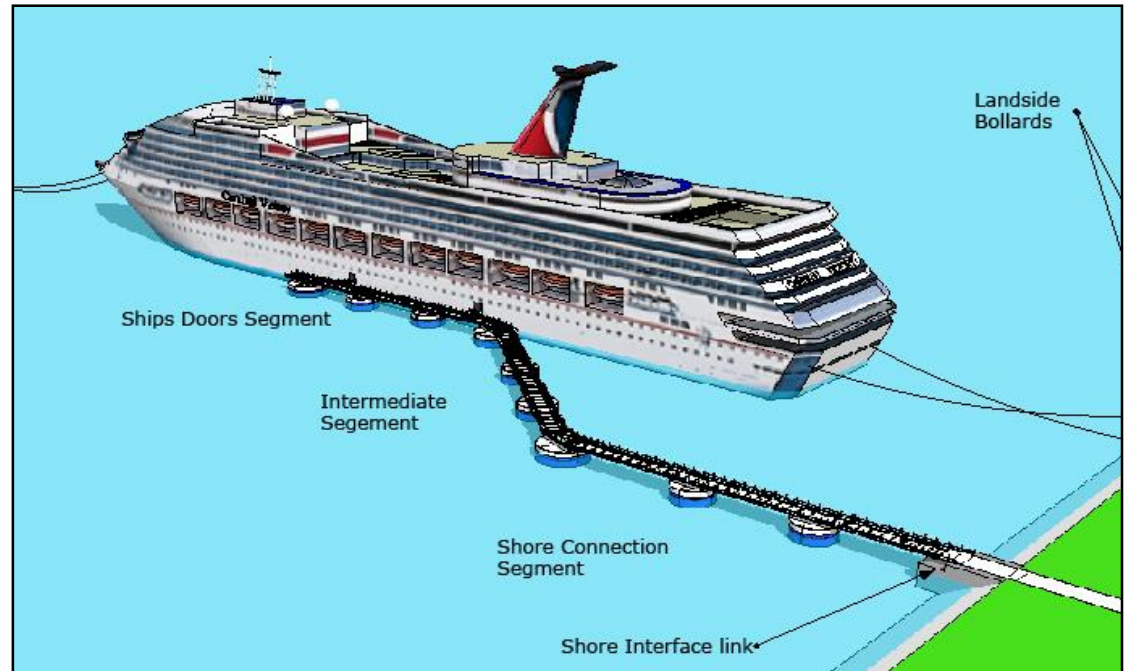
PORTS MARITIME TRANSPORT & INSULARITY

MILOS 21-22 APRIL 2017

SeaWalk™ The Innovative Cruise Pier Solution



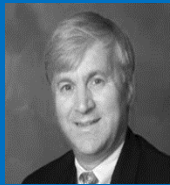
- 3 foldable walkway sections (total length approx 230 m, width approx 4,5 m)
- 9 - 10 pontoons , innovative design enhancing stability and reduced wave motion
- Capacity of min. 5000 passengers per hour
- Diesel-hydr. propulsion machinery powering 2 azimuth thrusters.
- Electro-hydr. propulsion or battery solutions upon request.
- Built acc. to known off-shore standards - used for oil & gas platforms in the harsh North Sea



SeaWalk - The Partners & Key Management Team

Highly experienced team with background from the cruise industry, shipbuilding and Oil & Gas

21.04.2017



Svein Sleipnes

- Master Mariner, Naval Academy, Aalesund – Norway
- OMA I , Norwegian Navy, Bergen – Norway
- Senior Vice President, Marine Operations – NCL, Miami
- Vice President, Nautical and Port Operations – NCL, Miami
- Director of Port Operations – RCCL, Miami
- Port Captain – RCCL, Miami
- Captain – NCL, Miami
- Staff Captain – NCL, Miami
- Chief Officer – NCL, Miami
- First Officer – NCL, Miami
- Over 20+ years of extensive cruise line experience both shipboard and shoreside



Harald R. Christensen

- M.Sc. Mech. Engineer. at NTNU
- Marketing NHH
- Contracts, Advisor, Subsea Div. Agotnes, Statoil ASA
- Purchase & Contracts Director, OWEC Tower AS
- Contracts Administrator, Hydro Oil & Gas
- Sales Manager, Roylls Royce Marine AS
- 25 years industrial experience



Ole A. Heggheim

- CFO Aker Yards ASA (renamed to STX Europe ASA)
- Executive Vice President Business Development since the listing of Aker Yards in 2004
- Aker Kvaerner ASA, Vice President Finance
- Petroleum Geo-Services in Houston and in Oslo, last as Vice President in Finance
- 18 years of industrial experience from stock listed corporations
- MBA from University of Texas and a Cand.Mag./BBA from University of Bergen



Arthur Kordt

- CEO Travel invest AS, Incoming tour operations and ship agent operations for cruise ships
- Profiled Companies in the area : European Cruise Services-Norway, Sweden British Isles
- Chairman and owner more than 10 Guide and coach companies
- Norwegian Navy Logistics Command
- Project Manager SW and HW dvl command and control systems submarines – A German Norwegian joint venture
- Norwegian Navy Lt. Com
- Norwegian Navy Academy



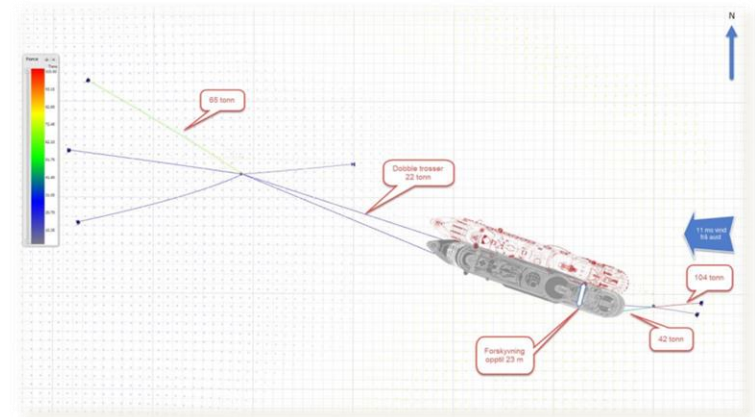
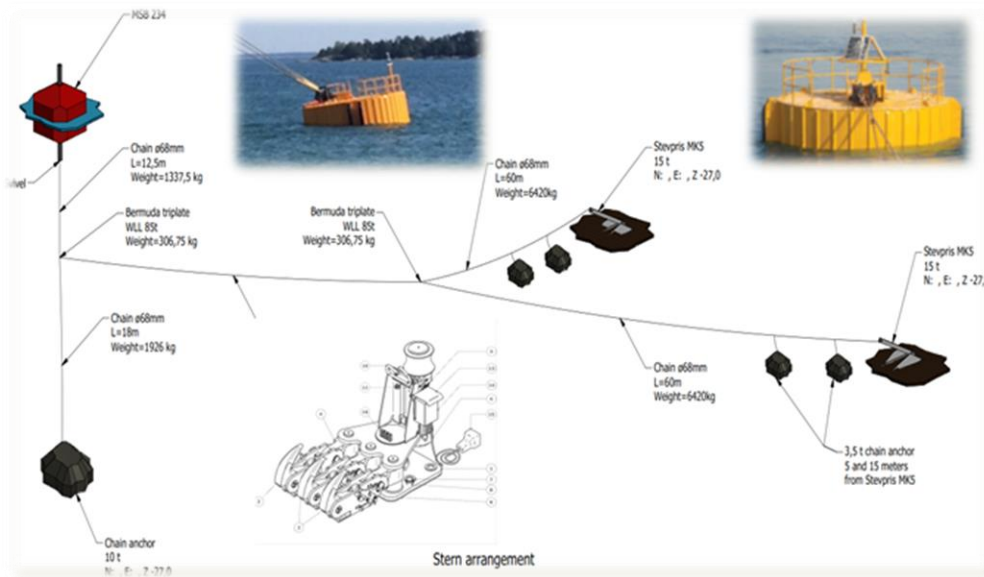
Kai Levander

- Naval Architect, University of Helsinki
- SVP of Naval Architecture Aker Yards Finland/STX Europe Finland
- Professor Ship Design
- Honorary doctorate from University of Helsinki
- Finnjet Gas Turbine Ferry
- Windstar
- Diamond Swath-Cruiser
- Carnival/Costa Panamax
- Color Fantasy
- Oasis of the Seas
- 40 years experience in shipbuilding industry

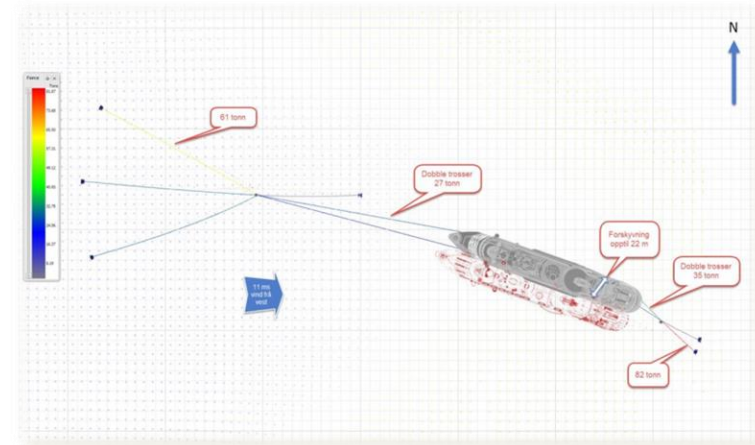


Arntit A. Ampazai

- Naval Architect, University of Athens
- Hilios Shipyards, Athens - Greece
- Naval Architect and Marine Engineer at Delta Consultants and Marine Surveyors
- Associate Member of RINA and SNAME since 2011



DNV or silmilar third party certified



SeaWalk™ - Shore power installations available:

21.04.2017

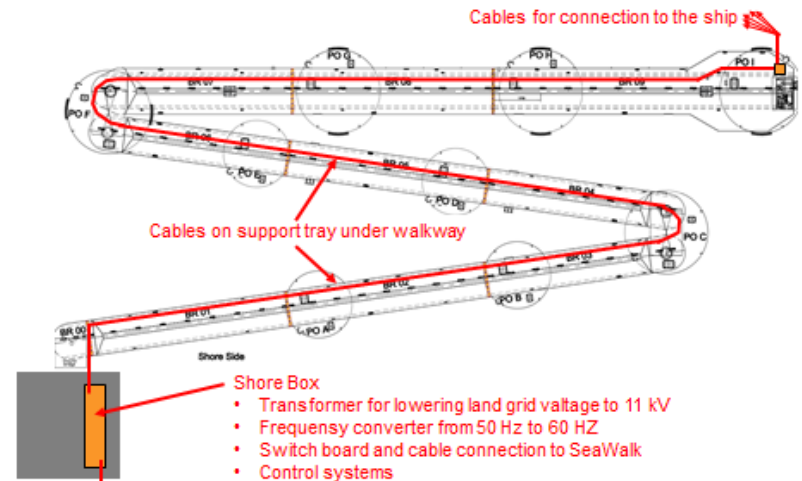
SeaWalk Shore Power Installation

Cruise Ventures have developed the concept for transmitting shore power from quay side via the SeaWalk floating pier to a flexible connection at ship side.

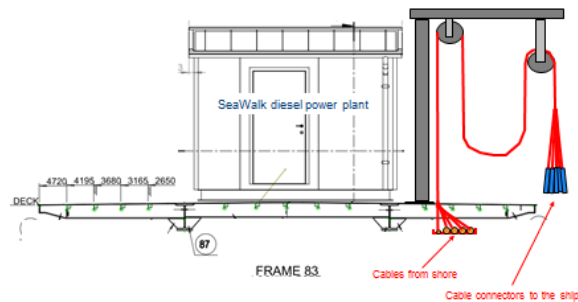
- For large cruise ships the shore power is dimensioned for 11 kV and 7,5...15 MW.
- The equipment for connection to the power grid ashore, like transformers, frequency converters and control systems are located in a shore box on the quay.
- From the shore box the power cables are installed on cable tray under the walkway.
- At the link pontoons flexible cable tracks allow extending and retracting the walkway.
- Connection to the ship is at the outer end of the walkway, where a support beam assist in extending the connectors out to the ship.
- All existing SeaWalk walkways can have shore power installed. The equipment on the walkway can be implemented in 2 - 4 weeks. The delivery time for the equipment in the shore box will, however, be longer.
- Seawalk floating pier is design for more than 300 ton passenger load (300kg/m²). The added weight of the shore power equipment will be about 20 ton.

SeaWalk Shore Power - Layout

SeaWalk™



SeaWalk Shore Power Connecting cable support beam for access to ship



Cable support beam on quay

Connection board in the ship



CONFIDENTIAL

SeaWalk™

SeaWalk 1, delivered 2012

21.04.2017

SeaWalk Skjolden

Supported by Innovation Norway



SeaWalk 2, delivered 2013

World Heritage Fjord of GEIRANGER

21.04.2017



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SeaWalk 4, delivered 2016 :

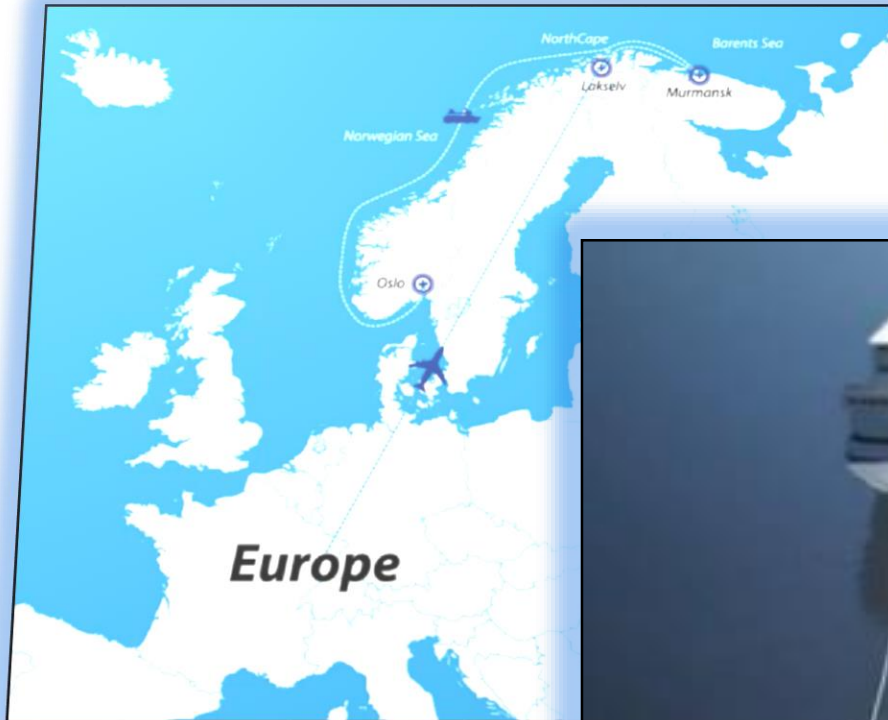
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SeaWalk Nynäshamn, Stockholms Hamn AB

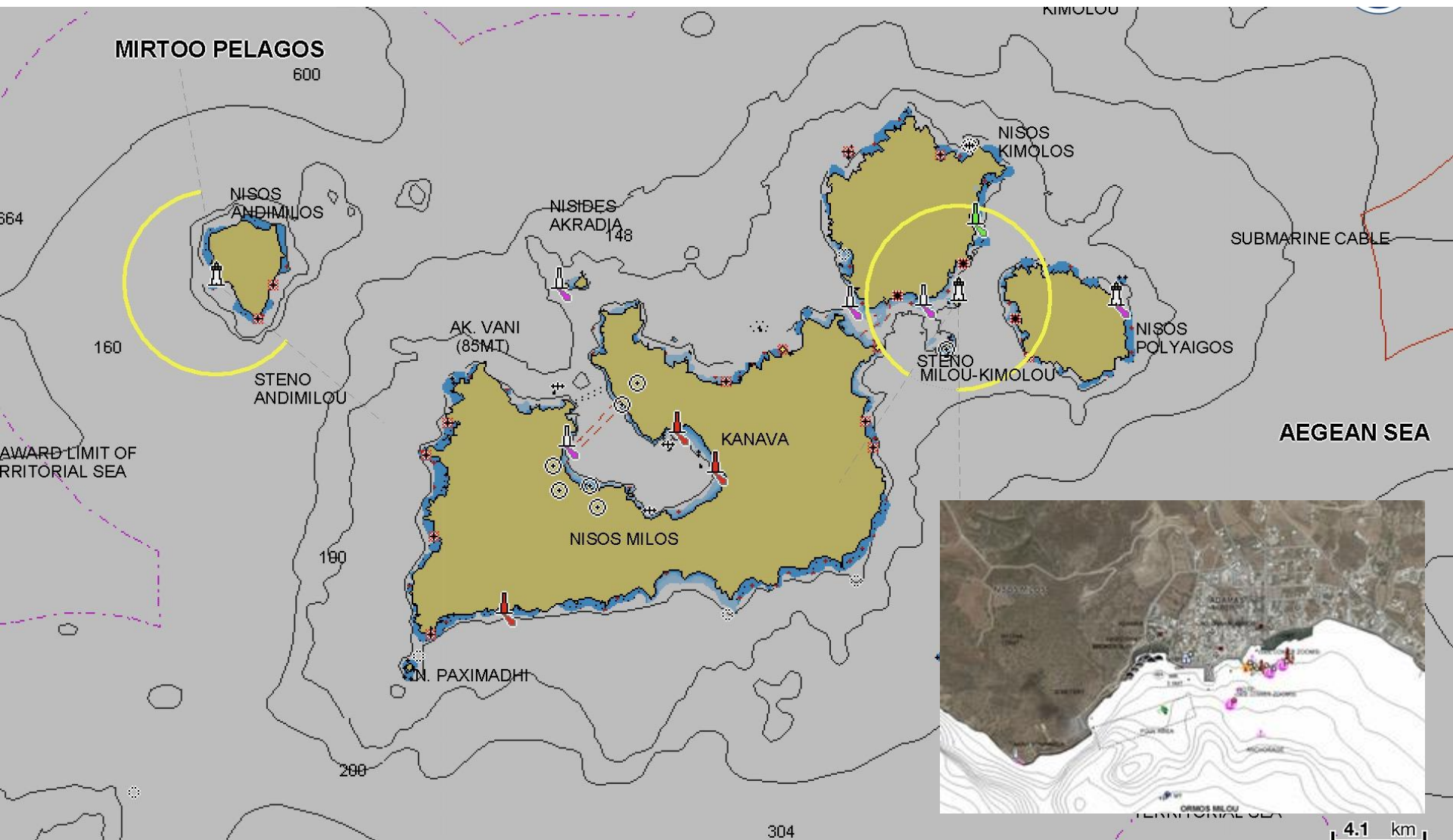


SeaWalk 3, NorthCape Turnaround Port **OPENING JUNE 2017**

21.04.2017



















Other potential **SeaWalk™** projects in progress..

A number of other national and international customers have shown their serious interest in our flexible pier system - We expect to see the **SeaWalk™** present at several of these destinations :

- Cuba
- Lærdal og Vik i Sognefjorden
- China – New ports
- Christchurch, various ports - New Zealand
- Kotor - Montenegro
- Australia - Barrier Reef
- Caribbean Islands, various projects

BERGEN – NORWAY :

HOW SEAWALK CAN INCREASE OR CONCENTRATE CRUISE SHIP PIER CAPACITY



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- **A tool for development of new cruisedestinations**
 - **50 ship calls equals 100 mill nok in export value for the comunity**
- A tool for port development and city planning
- A tool for emission reduction comared to tendering
 - A tender operation can emit up to 30 t CO2
- Short delivery time - max 12 months
- Movable & reusable installation – requiring minimal space
- Minimal environmental-intervention; avoiding «non-reversible» processes
- Eliminating tendering operations and accompanying emissions (eg. 40 ton CO2 pr call)
- Shore power, - consentration of infrastructure
- Black/brown water and waste relief from cruise ships
- Luggage handling from ship to shore
- **Less than 50% cost of a normal pier**

SeaWalk™

Thank you !

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