



Turnkey Electrical Solutions

for Newbuilding, Retrofit and Conversions



Your System Partner for the Complete Electrical Package

Turnkey Electrical Solutions

System Integration from Bridge to Propeller

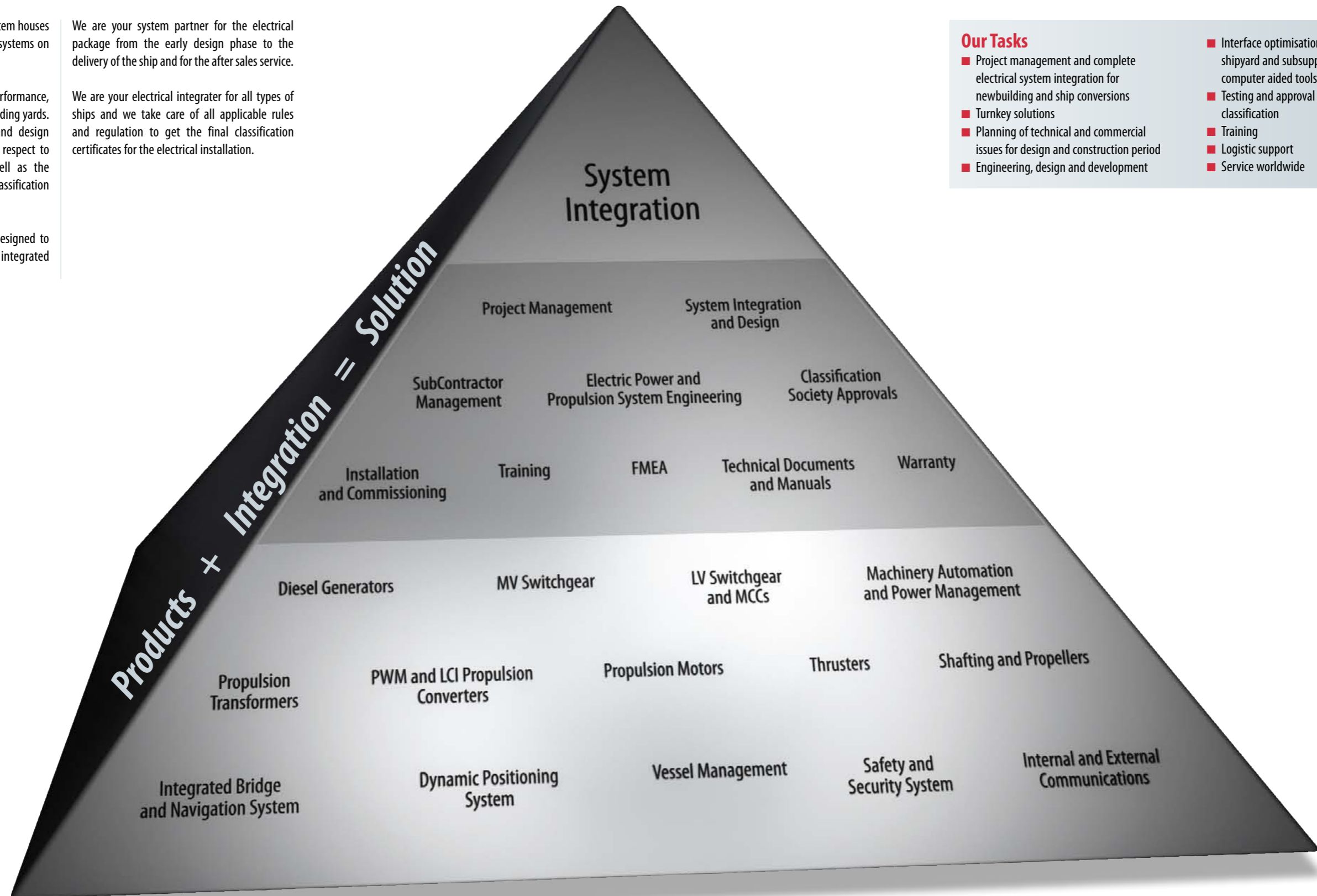
Our company is one of the leading system houses for the supply of complete electrical systems on vessels - the turnkey solutions.

Turnkey is no product but a system performance, typically in close partnership with building yards. It includes planning, engineering and design for complete electrical systems with respect to the mechanical coordination as well as the requirements of the owner and the classification societies.

All of our modular subsystems are designed to allow the composition of totally integrated systems for various applications.

We are your system partner for the electrical package from the early design phase to the delivery of the ship and for the after sales service.

We are your electrical integrater for all types of ships and we take care of all applicable rules and regulation to get the final classification certificates for the electrical installation.



Our Tasks

- Project management and complete electrical system integration for newbuilding and ship conversions
- Turnkey solutions
- Planning of technical and commercial issues for design and construction period
- Engineering, design and development
- Interface optimisation between shipyard and subsuppliers based on computer aided tools
- Testing and approval with owner and classification
- Training
- Logistic support
- Service worldwide

Turnkey Electrical Solutions

Some References



RoPax Ferry "Norröna"

- Electrical engineering and system integration
- Electrical thruster drive system
- Electric power generation and distribution system
- Lighting system
- Complete cable network installation
- Power management system
- Alarm, monitoring and control system
- Navigation and communication system
- Bridge and ECR consoles
- Safety and security system



Cruise Liner "Norwegian Sun"

- Electrical engineering and system integration
- Diesel generators (11 KV)
- Switchboards for low and medium voltage distribution
- Transformer and thruster motors
- Power bus system (PPB)
- Complete cable network installation
- Power management
- Alarm and monitoring system
- Light and sound installation
- Safety and security systems
- Internal and external communication
- Navigation system and consoles



Frigate "F 124"

- Planning, design
- Switchgear
- Active corrosion protection system
- Shipboard degaussing system
- Installation work, cables
- Documentation, logistics
- Setting to work, test and trials



RoRo Vessel "Tor Magnolia"

- Electrical engineering and system integration
- Electrical thruster drive system
- Electric power generation and distribution system
- Lighting system
- Complete cable network installation
- Power management system
- Alarm, monitoring and control system
- Navigation and communication system
- Bridge and ECR consoles
- Safety and security system



Multipurpose Vessel "Arkona"

- Electric podded propulsion system
- Electric power generation and distribution system
- Lighting system
- Complete cable network
- Power management system
- Alarm, monitoring and control system
- Navigation and communication system
- Safety and security system
- Bridge and ECR panels

Some References

RoPax Ferry "Coastal Renaissance"

- Electrical engineering and system integration
- Electrical drive system (2 x 11 MW)
- Medium voltage system 6,6 kV
- Electric power distribution system
- Lighting system
- Complete cable network installation
- Power management system
- Alarm, monitoring and control system
- Navigation and communication system
- Consoles for ECR and both bridges
- Safety and security system



Cruise Liner "Pride of America"

- Electrical engineering and system integration
- Diesel generators (11 KV)
- Switchboards for low and medium voltage distribution
- Transformer and thruster motors
- Power bus system (PPB)
- Complete cable network installation
- Power management
- Alarm and monitoring system
- Light and sound installation
- Safety and security systems
- Internal and external communication
- Navigation system and consoles



Trailing Suction Hopper Dredger "Vasco da Gama"

- Dredger process automation system
- Electrical power generation and distribution system
- Electrical drive systems
- Cable network - design and installation
- Lighting plant
- Alarm and monitoring systems
- Communication systems



SWATH Research and Trial Vessel "Planet"

- Electric propulsion and power distribution
- Lighting system
- Power management system
- Alarm, monitoring and control system
- Dynamic positioning (DP) system



Pipelay Vessel „Solitaire“

- Diesel-Electric propulsion system (8 x 4,3 MW) (peak load 8 x 5,5 MW)
- Diesel generators (8 x 8 MVA/10 KV)
- Main switchboards 10 KV (36 panels)
- Protection system 10 KV - supply
- 28 Transformers 10 KV/2,0 MVA to 3,5 MVA
- GMDSS radio station
- Navigation system
- Public address and general alarm system
- Entertainment



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Major References for Projects on International Shipyards

Project	Building Country	End Customer	Scope
Research vessel	Italy	India	Electrical platform system, electrical propulsion, automation incl. supervision, project management and services
Research vessel	Malaysia	Malaysia	Electrical platform system, navigation and communication incl. supervision, project management and services
Research vessel	Poland	Germany	Electrical platform system incl. drives, automation, navigation and communication, supervision, project management and services
Offshore patrol vessel	Malaysia	Malaysia (RMN)	Electrical platform system incl. supervision, project management and services
RoRo carrier	Northern Ireland	Great Britain (MOD)	Electrical platform system, automation, navigation and communication incl. supervision, project management and services
RoRo vessel	Denmark	United Kingdom	Electrical platform system, automation, navigation and communication incl. supervision, project management and services
Windlift carrier	Lithuania	Germany	Electrical platform system, automation, navigation and communication incl. supervision, project management and services
Ferry	Lithuania	Finland	Electrical platform system, automation, navigation and communication incl. supervision, project management and services
Container vessel	Vietnam	Germany	Electrical platform system, automation, navigation and communication, supervision, project management and services
Suction hopper	Dubai	Belgium	Retrofit after fire damage: automation, safety, switchboards, power distribution, project management, installation supervision
Cutter dredger	Singapore	Belgium	Dredging package, electrical platform system incl. drives, automation, navigation and communication, supervision, project management and services
Container vessel	Romania / Ukraine	Germany	Electrical platform system, automation, navigation and communication, supervision, project management and services