



**CONNECTED
OPERATIONAL
ENVIRONMENT**

**CROSS-
COUNTRY
INTERACTION**

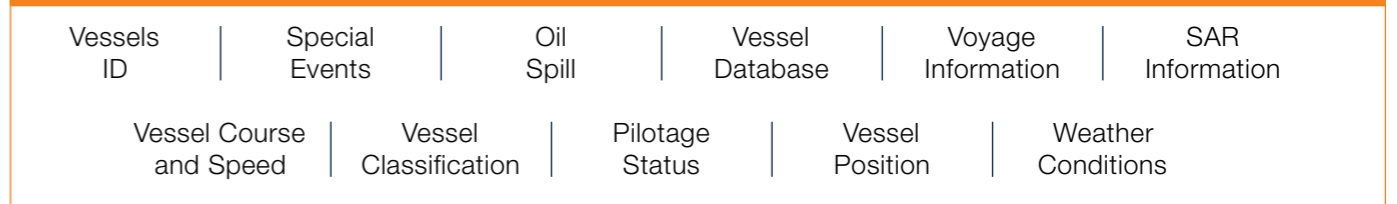
**DECISION
SUPPORT
TOOLS**

**SITUATIONAL
AWARENESS**

SHIP TRAFFIC CONTROL PLATFORM



STC SERVICE BUS



- EXTERNAL SERVICES**
- International Databases
 - LRIT
 - Weather Services
 - ENAV Services
 - 3rd Party VTS/CSS Systems

- SENSORS SERVICES**
- Radar Service
 - AIS Service
 - GMDSS Service
 - Additional Sensors Services

- ADDED VALUE SERVICES**
- Decision Support Service
 - SAR Services
 - Route Management Service
 - Analytics Services

Ship Traffic Control Solutions

Coordinated, Global Approach

Fully connected maritime traffic control and tools for coordinated monitoring and decision support among relevant stakeholders

Vessel Traffic Services

COORDINATION OF VESSEL TRAFFIC AND PORT CALLS



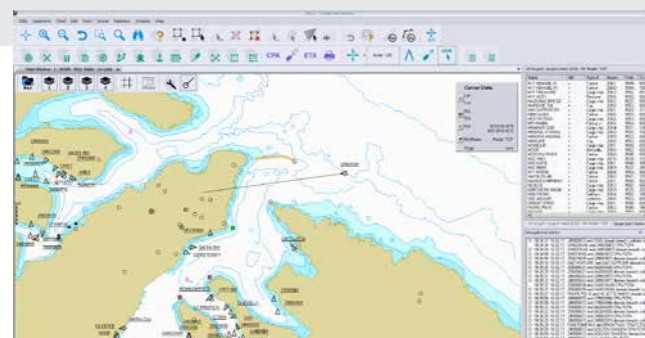
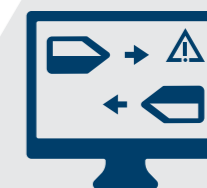
Scheduling approaching vessels optimizes port load and **INCREASES EFFICIENCY**

Distribution of common data to several operations stations improves VTS **TEAMWORK**



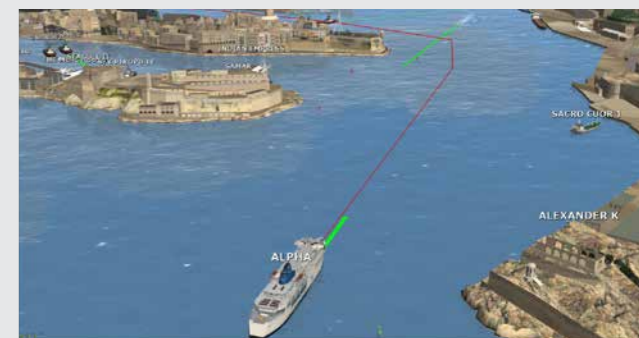
Operator receives **FULL INFORMATION** about VTS area as the result of automatic processing and fusion of data from various sensors, such as radars, AIS, CCTV, RDF, GMDSS, weather stations

Advanced decision support system helps operators to recognize a dangerous situation long before it escalates, and thus increases **SAFETY**



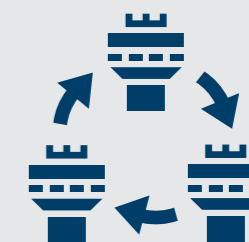
Electronic chart overlay, combined with vessel positions and sensor data, provides a **FULL TRAFFIC IMAGE**

3D VTS significantly enhances **SITUATION AWARENESS**



Traffic management tools provide a basis for **TRAFFIC COORDINATION**

Open interfaces enable **INFORMATION EXCHANGE** between VTS and other services



COMMUNICATION EQUIPMENT allows interaction with vessels

Recording system stores **ALL DATA** for debriefing and accident analysis

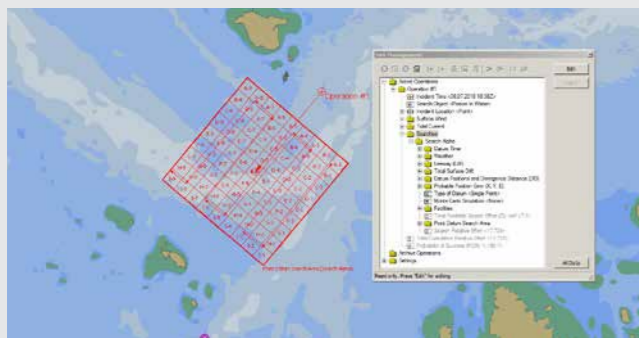


Search and Rescue Solutions

HELPING CONDUCT SAR OPERATIONS
WITH OPTIMAL RESOURCE ALLOCATION



Multiple sensor inputs facilitate more rapid
RECEPTION OF DISTRESS CALLS



System helps the assigned mission coordinator to **IDENTIFY SEARCH AREAS** and **CALCULATE SEARCH PATTERNS**



Resource management tools allow more **EFFICIENT ALLOCATION OF RESOURCES** in SAR operations



Real-time display of all search resources and surrounding traffic improves **SEARCH EFFICIENCY**



Automatic report generation **SIMPLIFIES MANDATORY REPORTING** requirements

River Information Systems

SAFE AND SECURE NAVIGATION ALONG RIVERS



Inland module displays
RIVER ELECTRONIC CHARTS



Inland AIS messages provide
ADVANCED INFORMATION ahead of vessel arrival

Automatic Transmitter Identification System (ATIS) VHF helps to **IDENTIFY VESSELS** communicating with the VTS



On-route monitoring allows for **NAVIGATIONAL ASSISTANCE** for vessels



Pilot Management Solutions

SAFE AND EFFICIENT PILOTAGE



Light-weight and user-friendly PPU brings **FREEDOM** and **MOBILITY** on the bridge

Coordination of pilotage operations
INCREASES EFFICIENCY and
ENHANCES COMMUNICATIONS
between all port services



SITUATIONAL AWARENESS
via onboard sensors
over AIS Pilot Plug

AUTOMATED REPORTING reduces
amount of VHF communications
and administrative burden



Pilot specific functions and powerful tools
provide **DECISION SUPPORT** on board

NAVIGATIONAL INFORMATION
through using official, local
and bathymetric data



COMMON OPERATIONAL PICTURE
through information exchange between
VTS and other services, including
Weather and Tidal Level data

IMPROVED SAFETY of pilotage by using
high-precision Independent PPU sensors



DATA LOGGING and **RECORDING**
for incidents investigation

Can be used for **DEEP-SEA, CHANNEL,**
HARBOUR and **RIVER** pilotage

