

KONGSBERG DEFENCE SYSTEMS

Focus on Submarine Systems

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KONGSBERG has four business areas



- Turnover NOK 15,1 billion (2011)
- 82 % of revenues outside Norway
- 6 700 employees (approx.)
- Located in 25 countries



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Naval Systems

More than 40 years of experience as a supplier of Naval Command & Weapons Control Systems



Submarines



Frigates



MCM



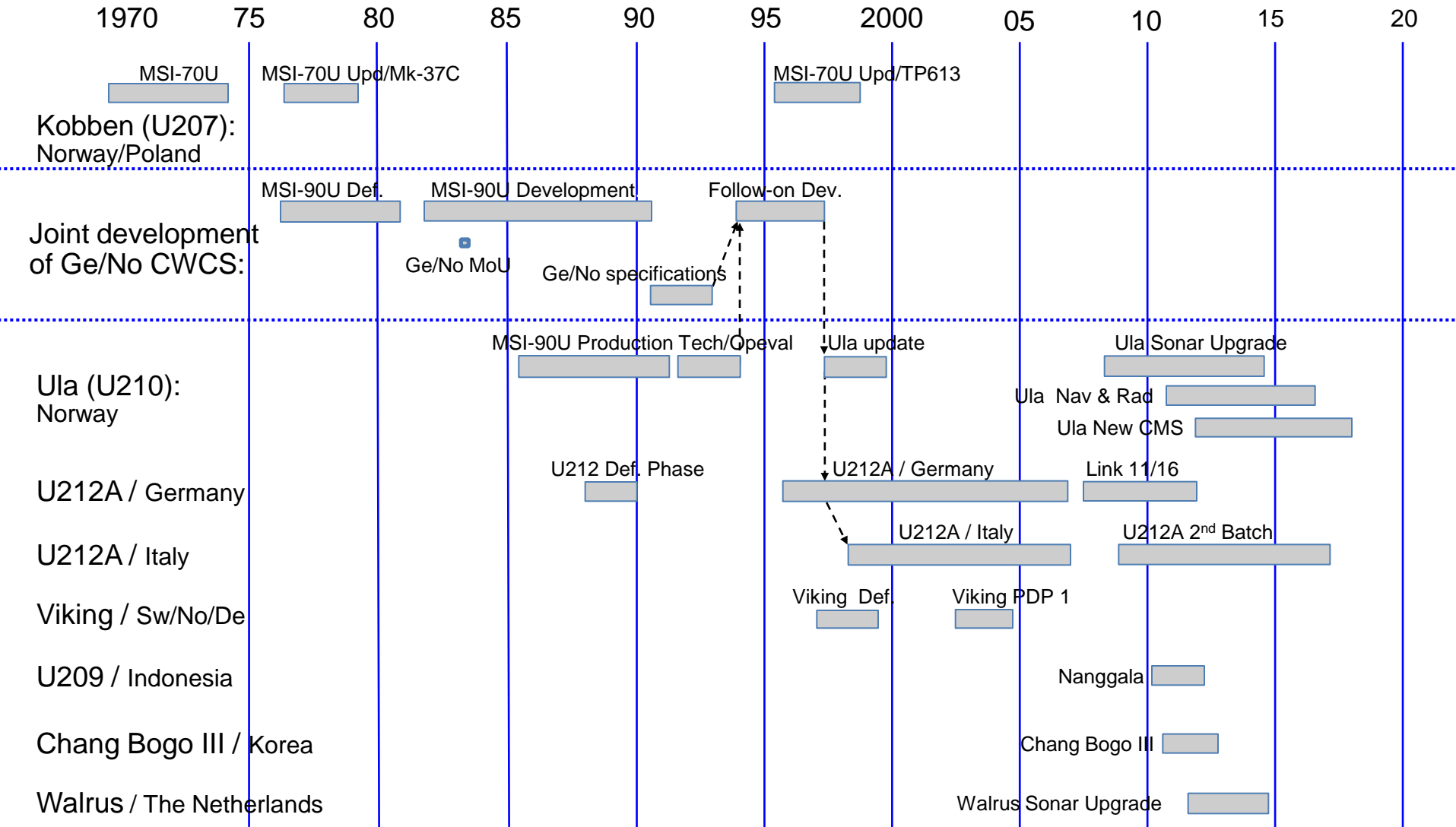
Corvettes /FPB





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KONGSBERG's Submarine History



MSI-70U for Kobben class



- Prototype developed by FFI (1969-70)
- KONGSBERG delivered 15 MSI-70U (1971-1975)
- Automatic TMA
- Updates up to 1998
- 4 Kobben still in the Polish Navy



MSI-90U – Main Development



- German-Norwegian Cooperation
- MoU in 1983
- MSI-90U – a new Command and Weapons Control System
- Developed by KONGSBERG for Ula and U212A classes
- Delivery of 6 systems for Ula



MSI-90U “Follow-on” development and production



- Ula Techeval/Opeval
- Revised German-Norwegian Requirements
- MSI-90U Follow-on (1994-1997)
- MSI-90U Production contract to 4 U212A in Germany in 1995
- MSI-90U Production contract to 2 U212A in Italia in 1997



MSI-90U for U212A to Germany and Italy



- Deliveries to U212A in Germany up to 2006
- Deliveries to U212A in Italy up to 2007
- 2 new systems for U212A Batch II in Italy in 2008
- Ula Sonar Upgrade in 2008



From C2 to to Combat System

1970

1980

1990

2000

2010...

- Ula Upgrade Program
 - Sonar processing
 - Navigation and Radar
 - MSI-90U Mk 2 CMS
- Integrated systems solutions
- New international contracts
- Combat System Integrator



Ongoing Submarine Programs

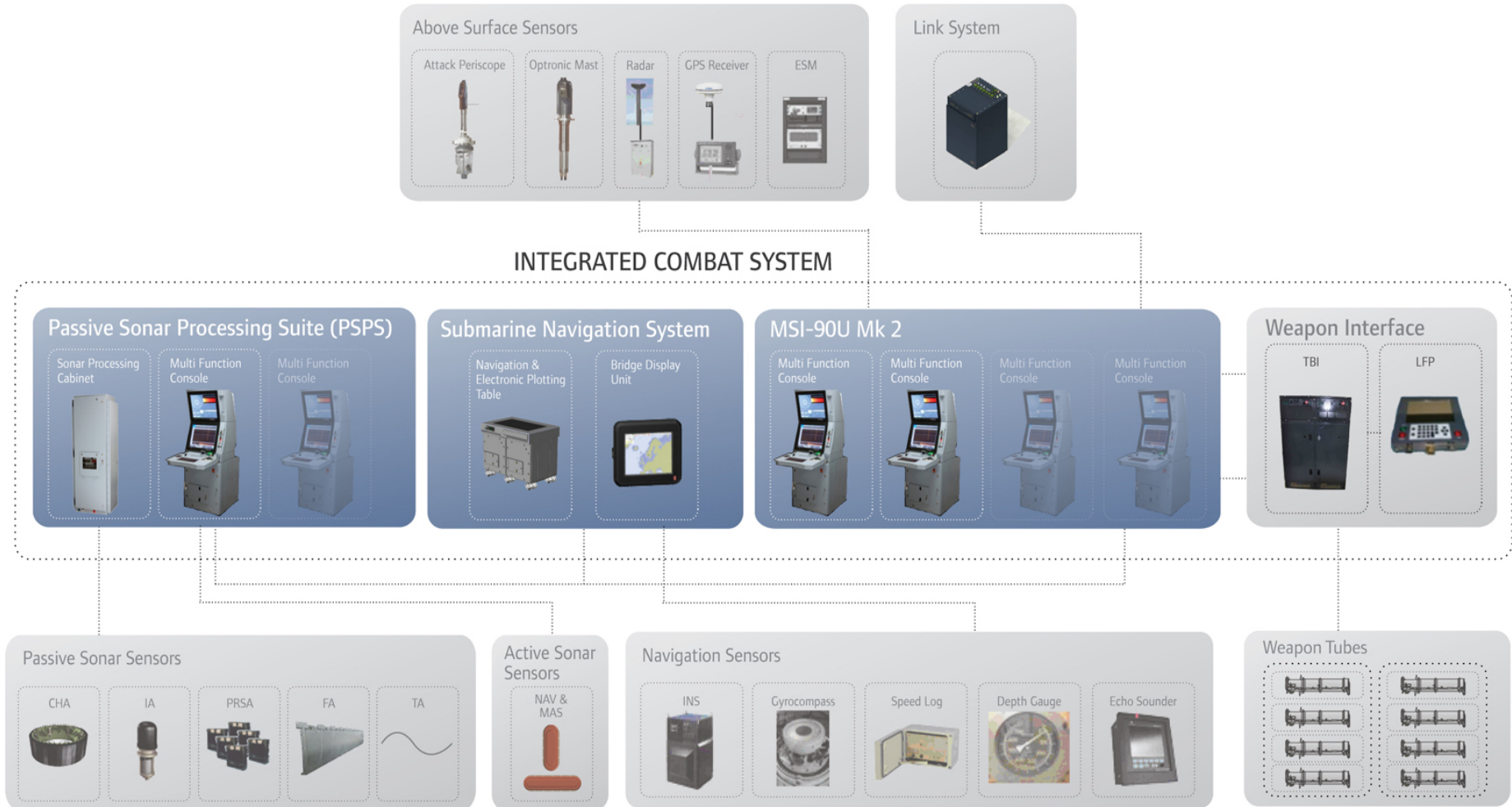
- ULA Class Upgrade / Norway
 - Passive Sonar System (PSS), Active BM and NAV/MAS
 - New Combat System Integration Infrastructure (CSI2)
 - Tactical Simulator Upgrade System
 - New Navigation & Radar System
 - MSI-90U Mk 2 CMS
- U212A 2nd Batch / Italy
 - MSI-90U Mk 2 CMS, Navigation System, Black Shark Torpedo
 - TADAS-ML U212A (Link 11/16)
- U212A 2nd Batch / Germany
 - TADAS-ML U212A (Link 11/16)
- Joint SW Maintenance Program for No/Ge/It Navies
- KRI Nanggala upgrade (U209) / Indonesia
 - MSI-90U Mk 2 (completed Dec. 2011)
- Chang Bogo III / Korea
 - CMS Partner for TMA and Wire-guided Torpedo Control
- Walrus Sonar Upgrade / The Netherlands





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Summary- KONGSBERG Submarine Products and Capabilities



Thank You



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