KONGSBERG DEFENCE SYSTEMS

Focus on Submarine Systems

Sea Power Seminar 2012 29 August 2012



\$ 302

UNIT

KONGSBERG

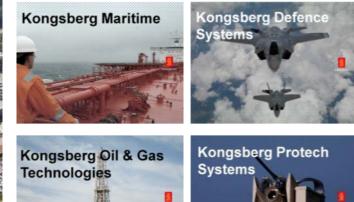
Leiv Inge Steig

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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



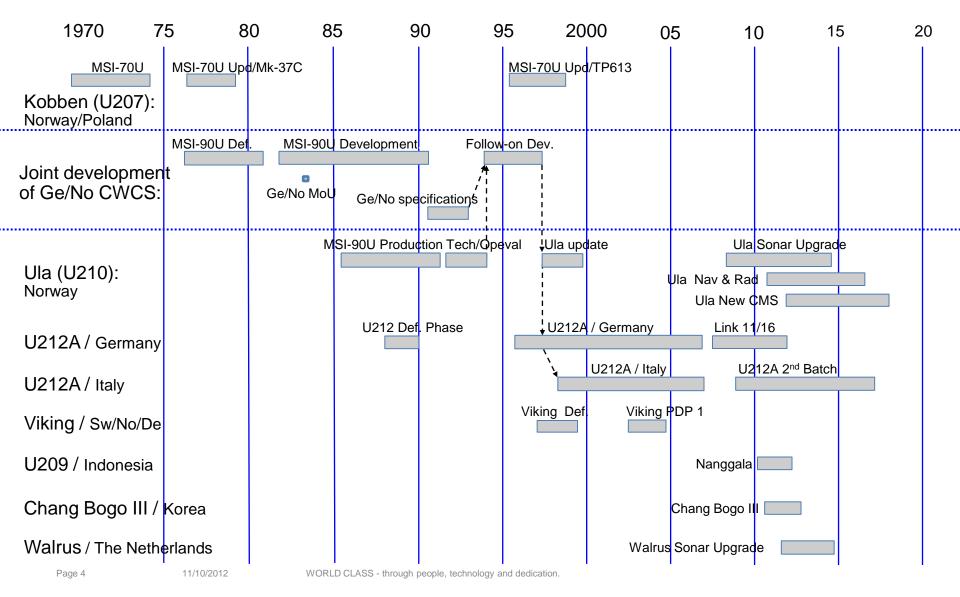
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KONGSBERG's Submarine History





MSI-70U for Kobben class

1980

- Prototype developed by FFI (1969-70)
- KONGSBERG delivered 15 MSI-70U (1971-1975)
- Automatic TMA

1970...

- Updates up to 1998
- 4 Kobben still in the Polish Navy



2010



1990

2000

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MSI-90U – Main Development

1980...

- German-Norwegian Cooperation
- MoU in 1983

1970

- MSI-90U a new Command and Weapons Control System
- Developed by KONGSBERG for Ula and U212A classes
- Delivery of 6 systems for Ula

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1990

2000



2010





MSI-90U "Follow-on" development and production

1990...

2000





1970

 Revised German-Norwegian Requirements

1980

- 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



2010



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MSI-90U for U212A to Germany and Italy

1990

 Deliveries to U212A in Germany up to 2006

1980

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

2000... 2010





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1970



From C2 to to Combat System

- Ula Upgrade Program
 - Sonar processing
 - Navigation and Radar

1980

- MSI-90U Mk 2 CMS
- Integrated systems solutions
- New international contracts
- Combat System Integrator



1990

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1970



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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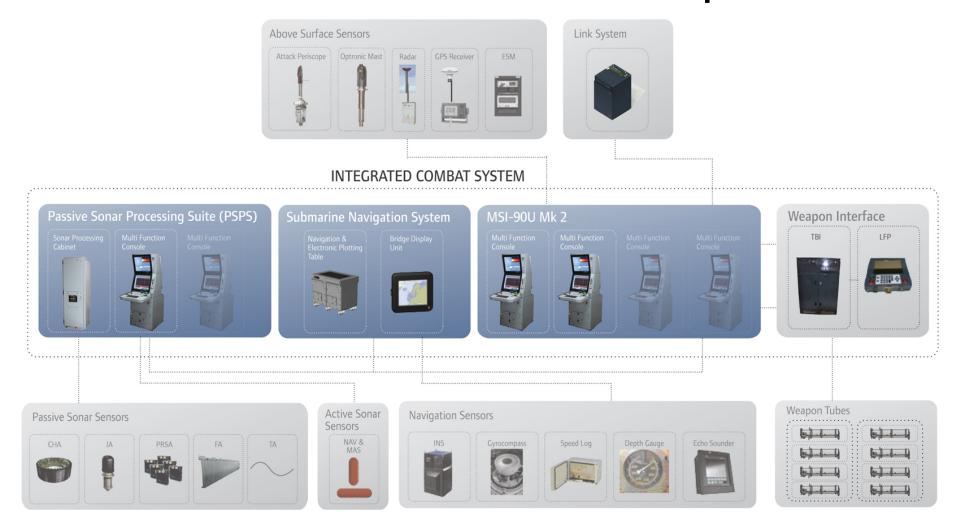








Summary-KONGSBERG Submarine Products and Capabilities



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Thank You



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