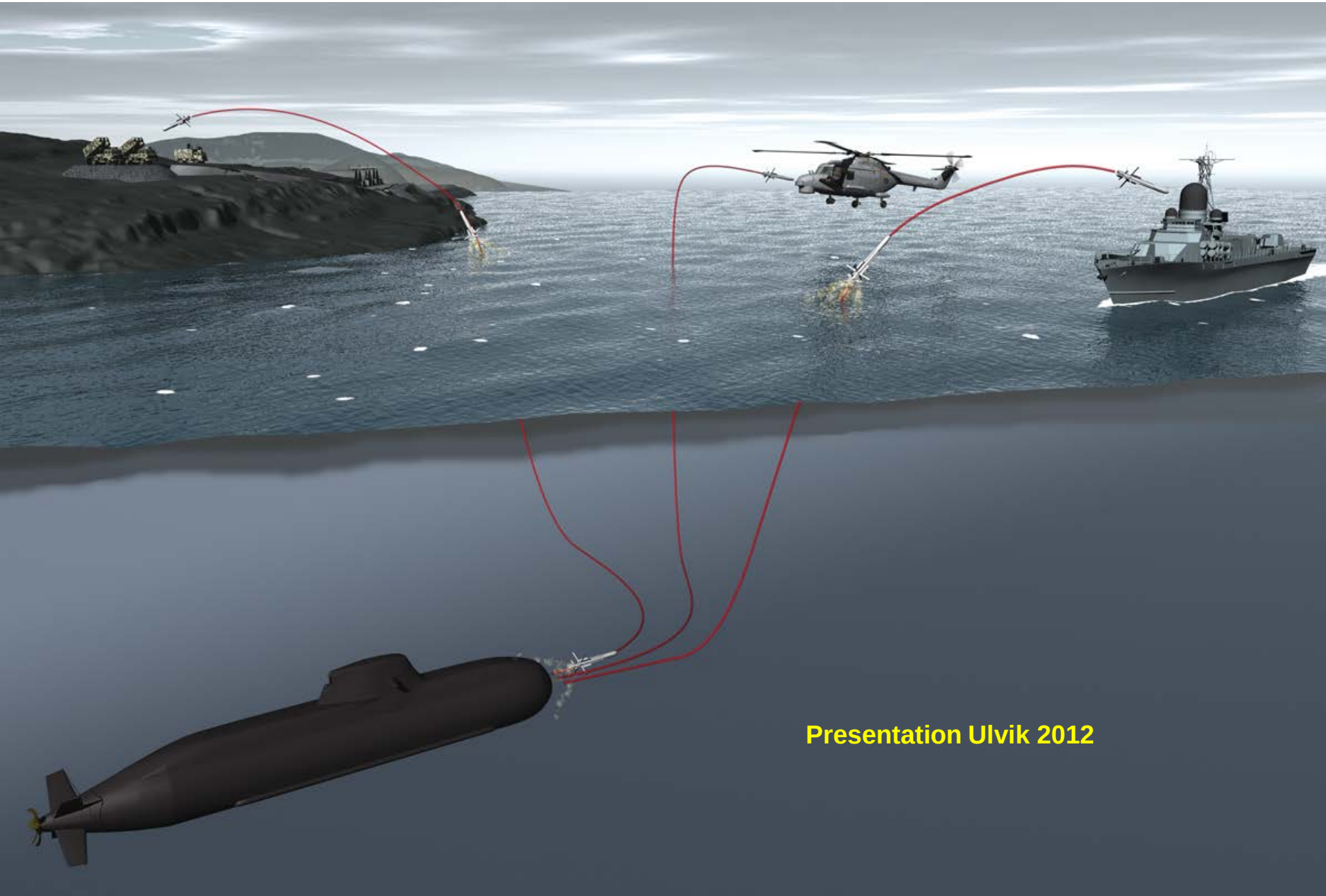
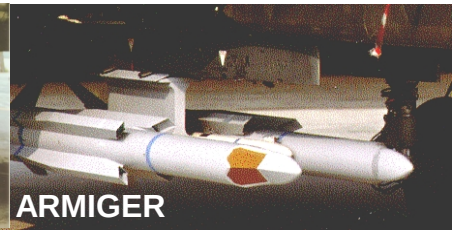
Interactive Defence & Attack System (IDAS)

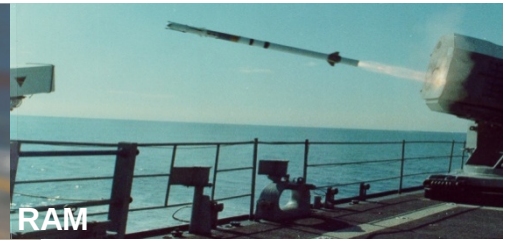


Contents

- Concept of IDAS Missile System
- Status of Program
- Initial Development Program (IDP)
- Integration into ULA Class Submarines

IDAS Consortium





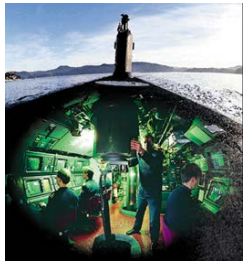
HDW

- Integration into the Sub
- Speaker of IDAS Consortium

DIEHL
BGT Defence

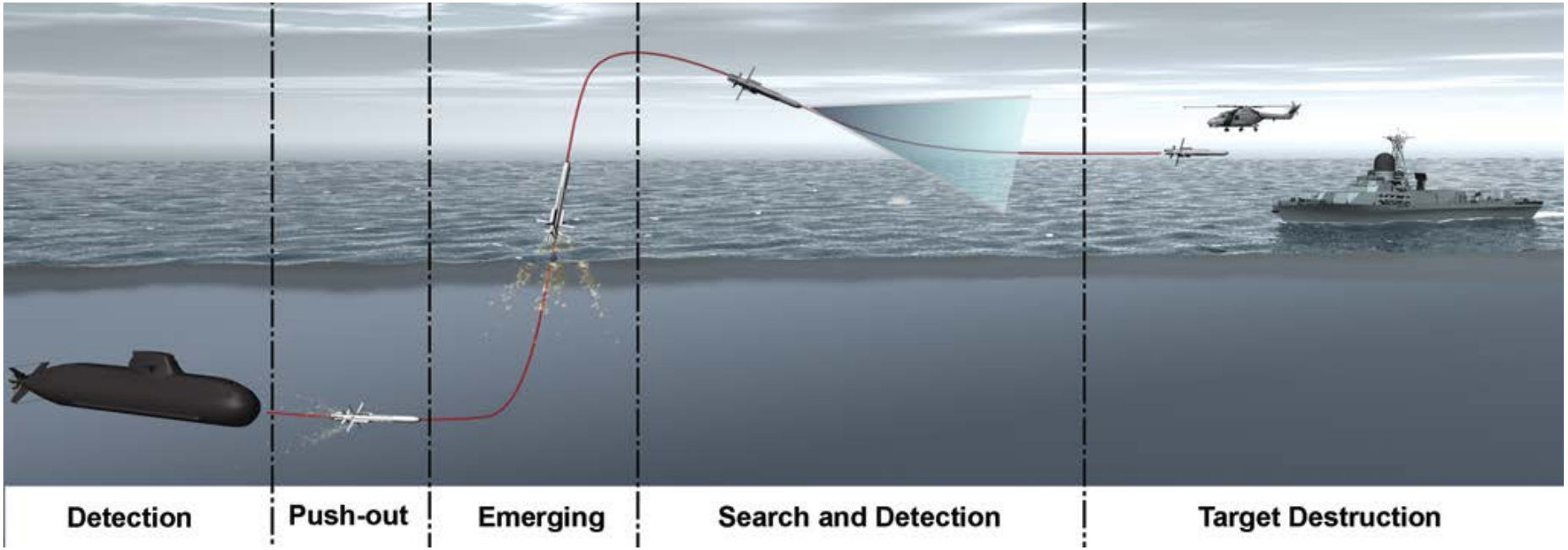
- Missile IDAS
- FO-System
- Missile Control Panel

Nammo Raufoss (NOR) ➔ **Cooperation Partner to IDAS Consortium**
Design & Construction of Rocket Motor

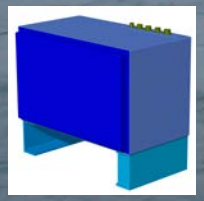


Kongsberg Defence & Aerospace (NOR) ➔ **Potential Cooperation Partner to IDAS Consortium**
Missile Design (Shares) / Missile Control Panel

Interactive Defence & Attack System (IDAS) - Concept



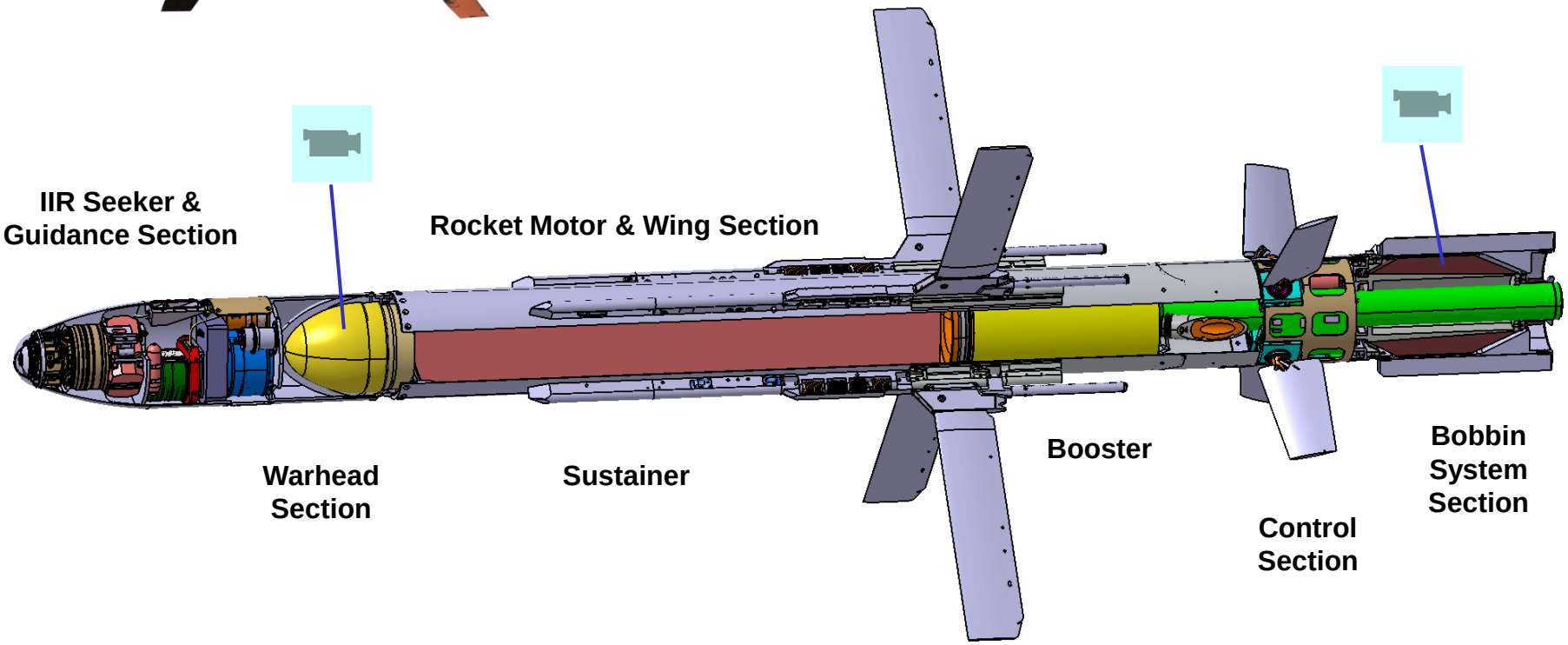
The IDAS Weapon System – Main Elements



The IDAS Missile

Technical Data:

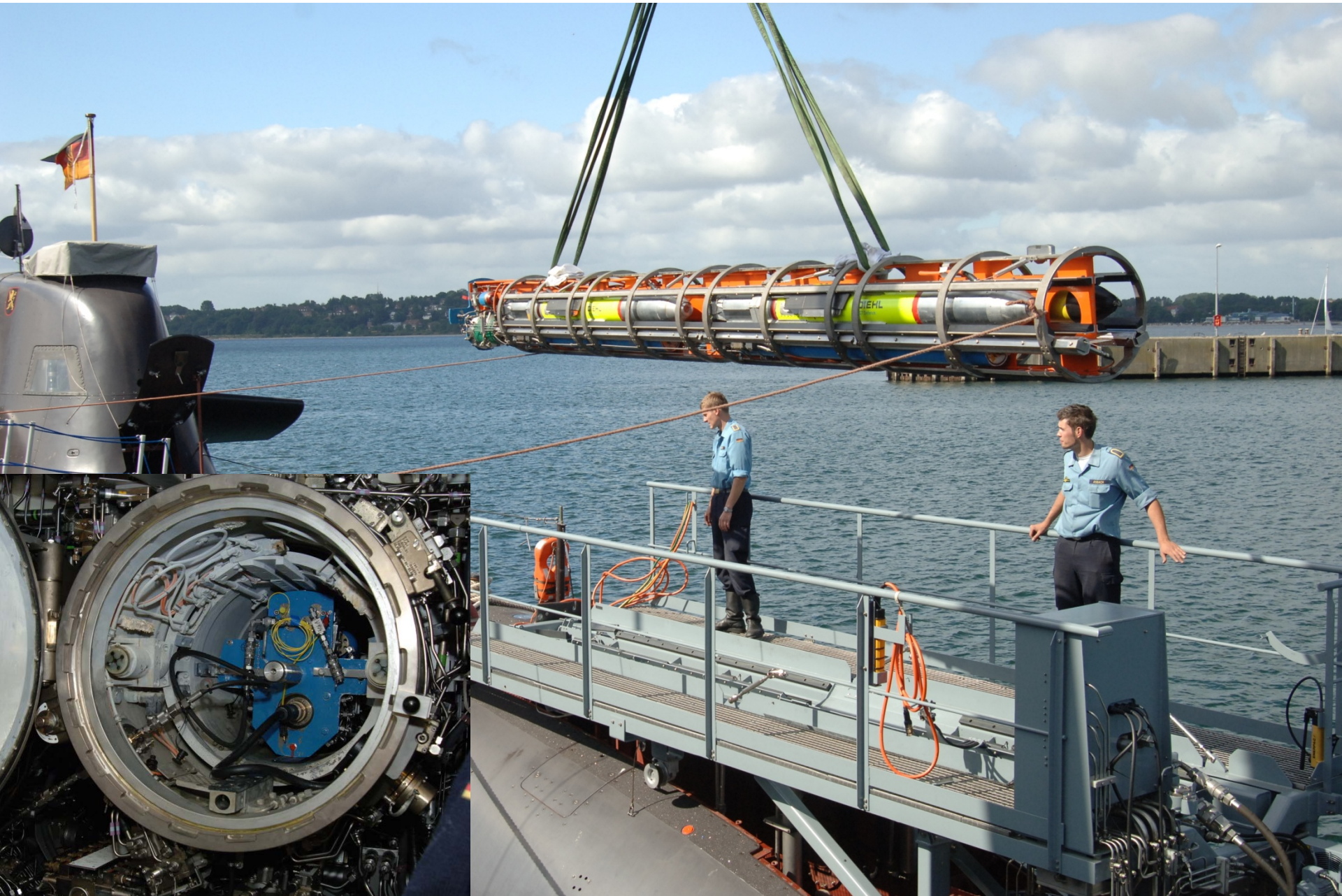
- **Launching Mass:** **138 kg**
- **Length:** **2800 mm**
- **Diameter / Caliber:** **180 / 240 mm**
- **Mass of Explosives:** **Ca xx kg**
- **Range:** **approx. 20 km**
- **Cruising Speed:** **240 m/s**



Launching Container

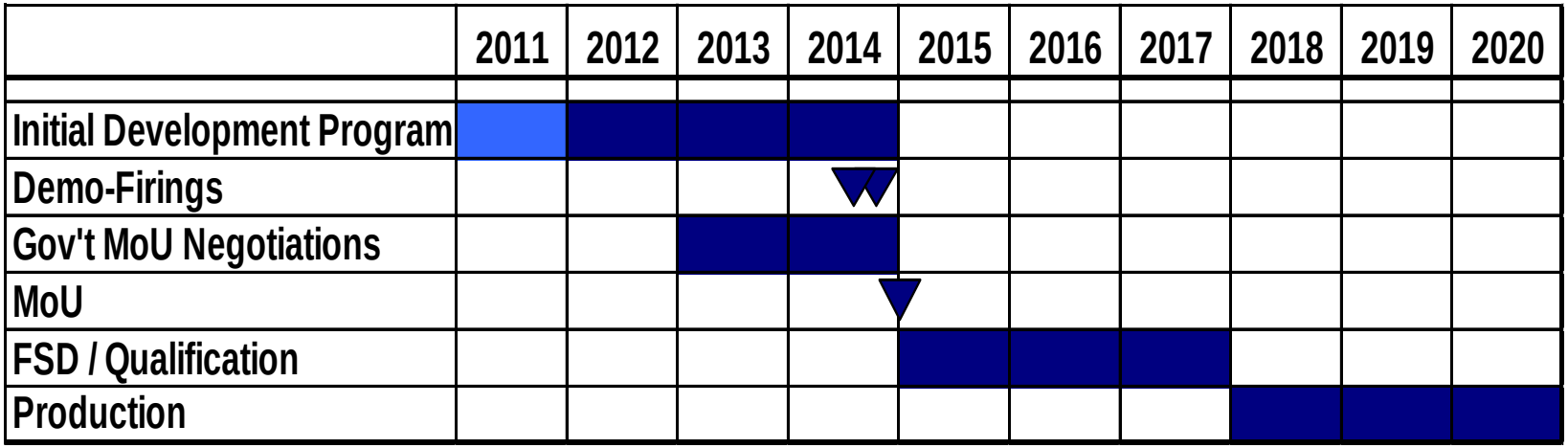
- **Four (4) Missiles per Launching Container**
- **Compatible to all Standard Torpedo Tubes**
- **Torpedo Tubes still can be used for other Weapons**

Taking-over of a Launching Container (Class 212A)



Flight Tests October/ November 2006

IDAS Roadmap



- Initial Development Program financed (mainly) by industry
- Goal: Reach a significant milestone (firing from submarine against a real target, proving the entire functional chain)
- Time used to establish international cooperation (MoU)
- Qualification to be funded by Governments

Offer for Cooperation

- Cooperation Programs between Norway and Germany have a long and successful tradition.
- The Norwegian companies NAMMO and KONGSBERG are significantly involved in the IDAS Program
- The Norwegian Government and Industry are invited to take part in the IDAS Program on basis of the principle “work share = cost share”
- An IDAS firing test from an ULA Class submarine could be carried out within the framework of the Initial Development Phase

Survey on ULA Class Submarines

On request of the Royal Norwegian Navy, specialists of the companies HDW and DBD as well as Nammo Raufoss carried out a survey aboard HNoMS **Utvær** on 10 May 2012.

It was the aim of this survey to investigate the effort to be necessary for preparing the submarine for an IDAS firing test. Thereby we looked for solutions, to keep this effort as low as possible.

Conclusion: **ULA class can easily be prepared for an IDAS firing test (Durable modifications not necessary)**

Questions are welcome!