



EVOLUTION OF SIMULATION TRAINING

Coordinated team training (Bridge Team)

Collaboration

- Communication
- Role play

(Pilot/Tugs) **Human** factors

- Communication
- **Decision making**
- Teamwork

Integrated

team training

- Leadership
- Situational awareness

Digital future use of simulation (Multi-dimensional) Trends of

- Anytime & Anywhere
- Augmented reality
- Simulator networks
- Automated assessment
- **Embedded simulations**
- Autonomous ships
- High fidelity models

Single

Simulator

(Individual)

Technical skills

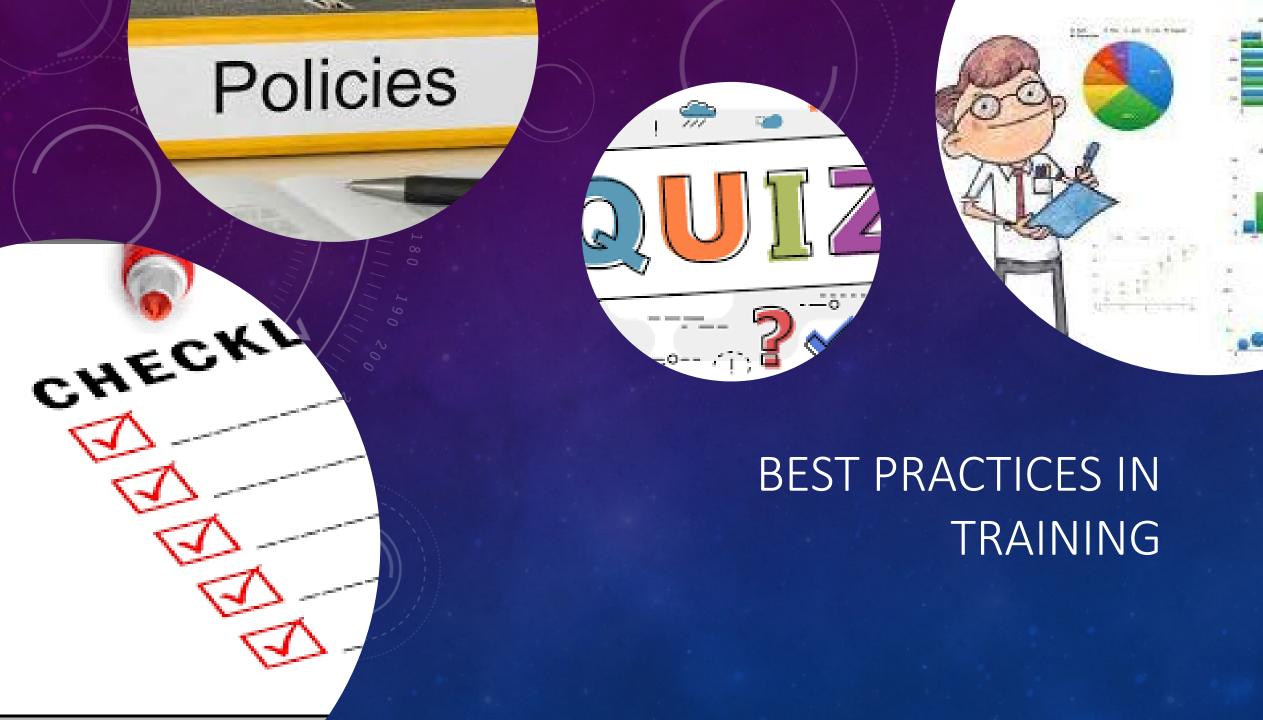
- **Familiarization**
- **Product training**
- Certification



PREVENTIVE TRAINING

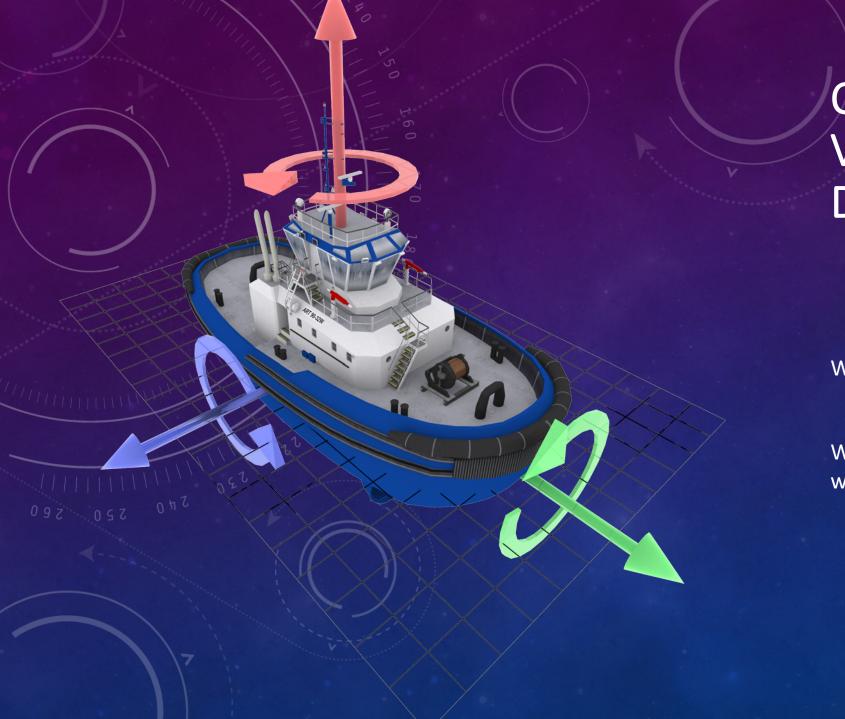
Example: Feasibility Studies

- Validate & optimize engineering projects
- Identify risks, and best practices
- Evaluate environmental limits
- Assess tug requirements
- Recommend improvements (dredging, ATONs, for all vessels)
- Evaluate future training needs



3D MODELLING TODAY

Ship design & Operations Maintenance Safety & environmental construction **Decision Support** Machine Learning Advanced Analytics Simulation & Training Digital Documentation

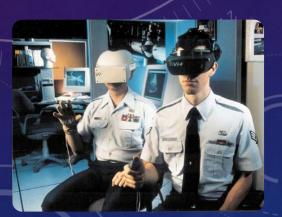


CUSTOMIZED 3D VESSELS & DATABASES

What if you could train on *your* vessel?

What if you could train in the area which you will be assigned to?







THE FUTURE OF TRAINING

Virtual Reality (VR) / Augmented Reality (AR)

Artificial Intelligence (AI) / Decision support tools

Remote vessel operations / Reduced manning

Sharing resources / models, databases, exercises



