



VTS

VTS organisation



Equipment



Qualified operators





VTS

Mandatory training...

- 500 operators
- Shipping act
- Basic certificate
- Regional certificate
- Refresher

...Instructions



VTS

Training requirements...

- International standards
- IALA recommendation V-103
- Simulation wherever practicable





Simulation

Why simulation?...

- Quality**
- Practical skills**
- Operational experience**
- Application of knowledge**
- Showing competence**
- Emergency situations**





Simulation

Utrecht: Wijk bij Duurstede

Schepen Sector Sensor Kaarten Metingen Instellingen Alarm Registratie Afspelen Test

VHF 60 Ravenswaaij Boreas Vene Wijk bij Du

warnemunde

communicatie ON-LINE

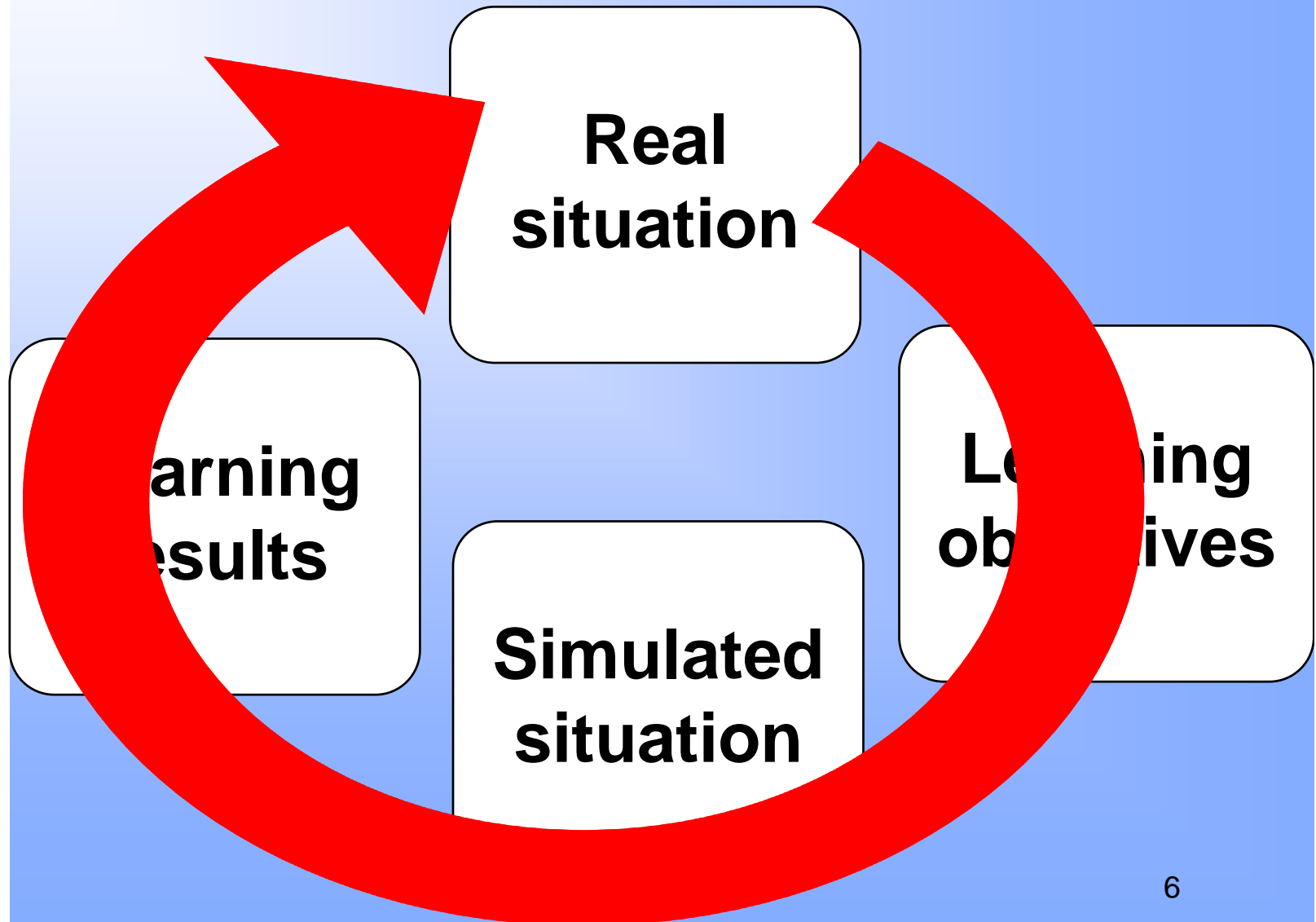


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MSR



Simulation





Simulation

*Learning
experience*



Reality





Simulation

Scenario...

- Analysis**
- Critical incidents**
- Scenario**
- Conditions**



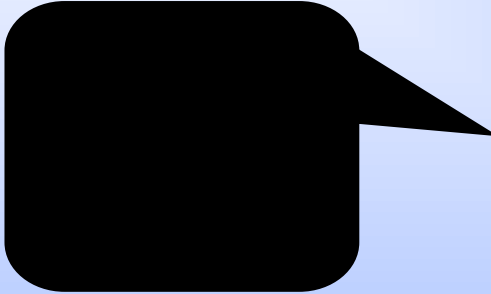
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Concentric training steps

Laws & regulations

Area
*Geography
Topography
Tide
Meteo
Exercise time*



Scenario

Traffic model
*Vessels
Patterns
Interaction*

Comm. procedures

Incidents & calamities

VTS procedures

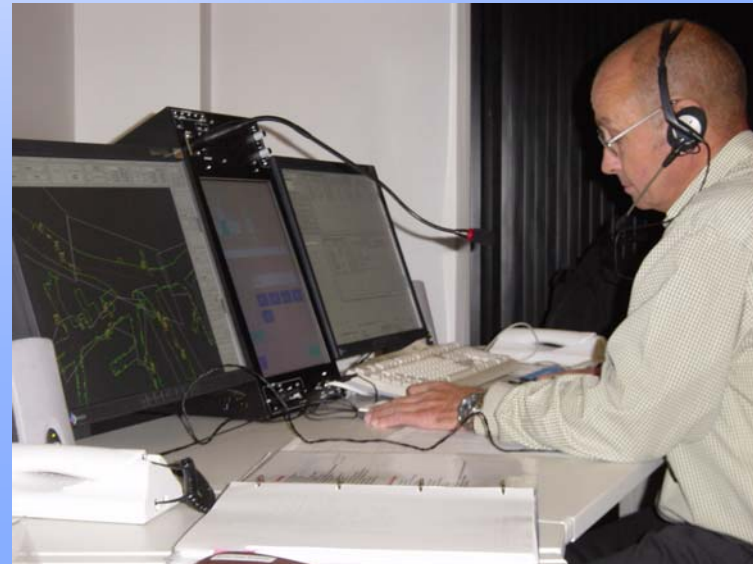




Simulation

Simulation also used...

- Assessment**
- Proficiency testing**
- Research**





Existing applications of simulators



for inland
navigation purposes