

EUROFLEETS

Guidelines and recommendations for ship design on work deck installation and operations of scientific equipment

Part 2

Regional class vessels

L=30m

L=60m

Light trawling

Auv

Light ROV

5m coring

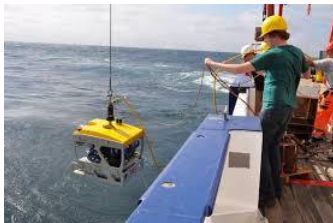
Trawling

Auv

Medium ROV

15m coring

Seismic HR



Ocean class vessels

L > 80m

Trawling

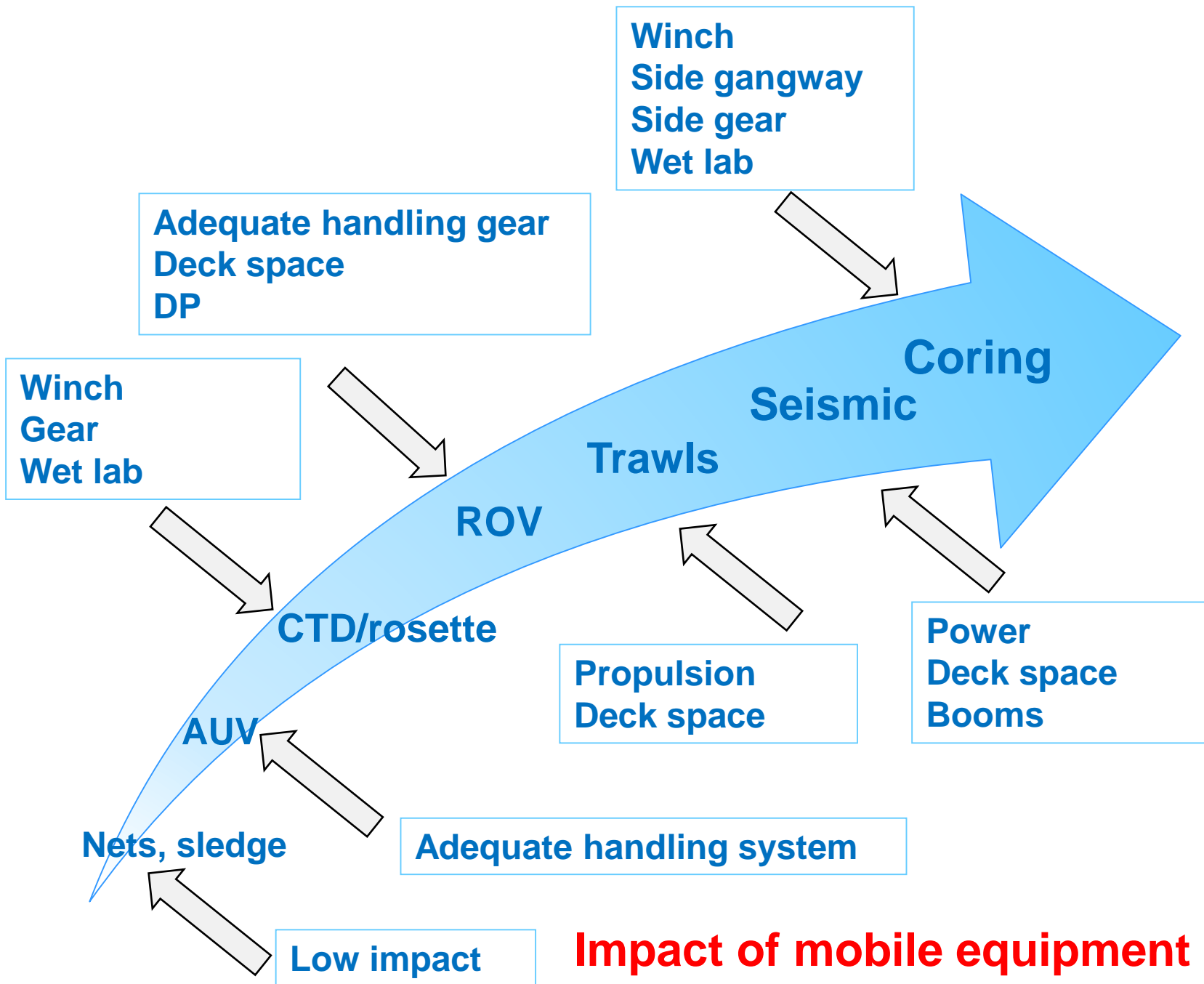
Auv

Deep work class ROV

>20m coring

Heavy seismic





Impact of mobile equipment on the ship design

Remotely Operated Vehicle



➤ Eyeball class

Surface Unit

No van

Light winch

System weight : 200 kg

ON EVERY SHIP



➤ Medium work class – 8h/24

2 20" vans

Medium Winch

4 operators

**SUITABLE FOR
REGIONAL CLASS
VESSEL**



➤ Deep work class – 24h/24-35 days

Depth 6000m

4 20" vans + transport vans

Deep sea winch

9 operators

Weight : 80-100t

**SUITABLE FOR OCEAN
CLASS VESSEL**

On-board installation Aft deck

➤ Integrated system

✓ LARS (Launch and recovery system)

Dimension : 20 foot

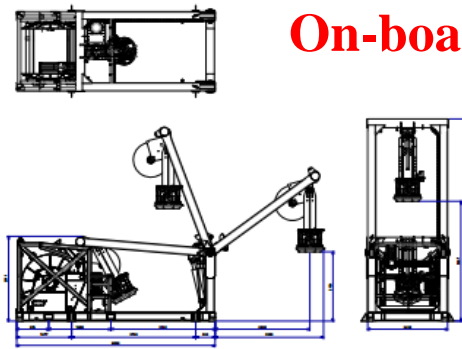
Height : 6 m max

Outreach (m): Up to 3.5 m

Weight : 20 t including 3000m steel cable

✓ 1 * 20" Control van

✓ 1 * 20" Work shop van



✓ **Single package, easy to mobilize**

✓ **Compactness**

✓ **No protection under hangar**

✓ **Clear throuht A frame needed**

➤ Multi bodies system

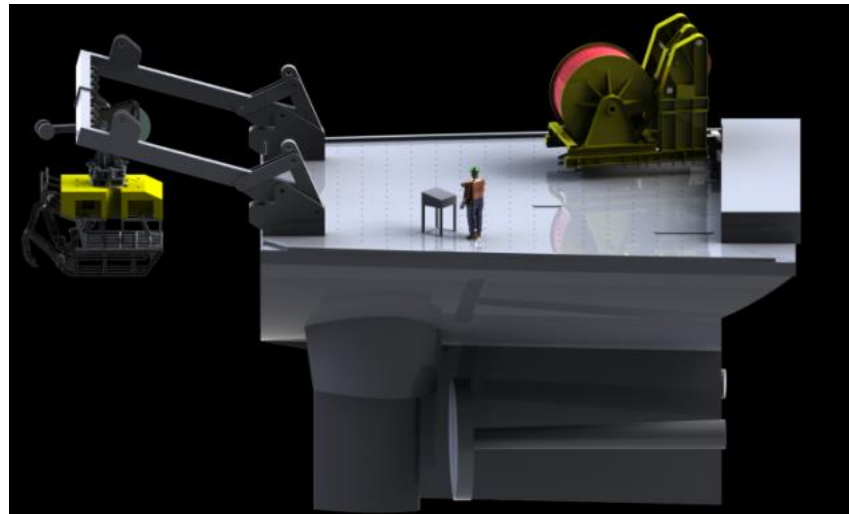
✓ Winch : 1,5 * 1 * 1 – 10t

✓ Vehicle

✓ 1 * 20" Control van

✓ 1 * 20" Work shop van

➤ Transport vans



✓ **Appropriate A frame or crane**

✓ **Protection under hangar possible**

On-board installation - Side handling from hangar

- ✓ Protection under hangar
- ✓ Deployment at the quiet position

But

- ✓ Has to be planned at the construction
- ✓ No adequate to ROV's of opportunities



Deployment

➤ Tether Management System

- ✓ Ease of handling operations
- ✓ Cable snap loads to manage

Needing

- ✓ Active heave compensation winch or
- ✓ Passive ram tensioner or
- ✓ Limited sea state

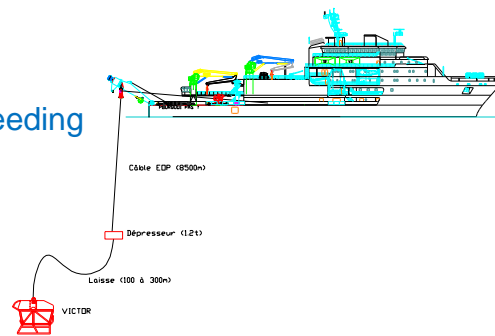


➤ Handling requirement

- ✓ Constant tension lifting winch
- ✓ Shock absorber
- ✓ Rotatable Docking head

➤ Live boating

- ✓ More complex recovery needing
- ✓ Lifting winch + latch lock



Remotely Operated Vehicle

➤ Class I : Eyeball - Camera/lights and sonar.

Weight : few tens of kg

Depth < 1000 m

Volume < 0,5 m³

Small drum + control unit



➤ Class I : Light work ROVs

Weight = few hundreds of kg

Depth < 3000 m

Volume < 5 m³

1 control/maintenance van

1 medium winch



➤ Class III : Work Class ROVs

Weight > 2t (3 to 5t for deep ROV)

All depths

Volume > 10 m³

2-3 or plus 20" vans

1 * 20" winch

