

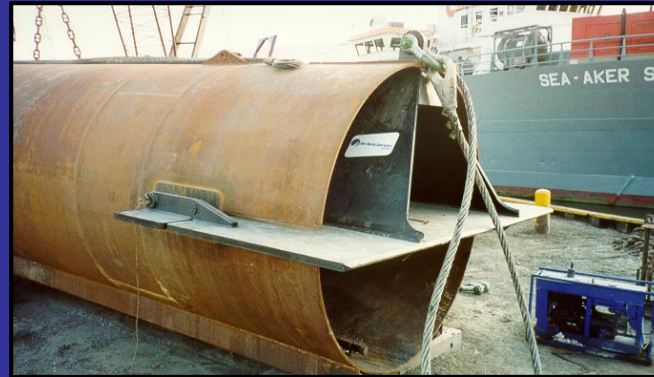
# Considerations for Selection of Anchors for Floating Structures

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# Sampling of Anchors



Driven Piles



Direct Embedment Plate



Dynamically Installed

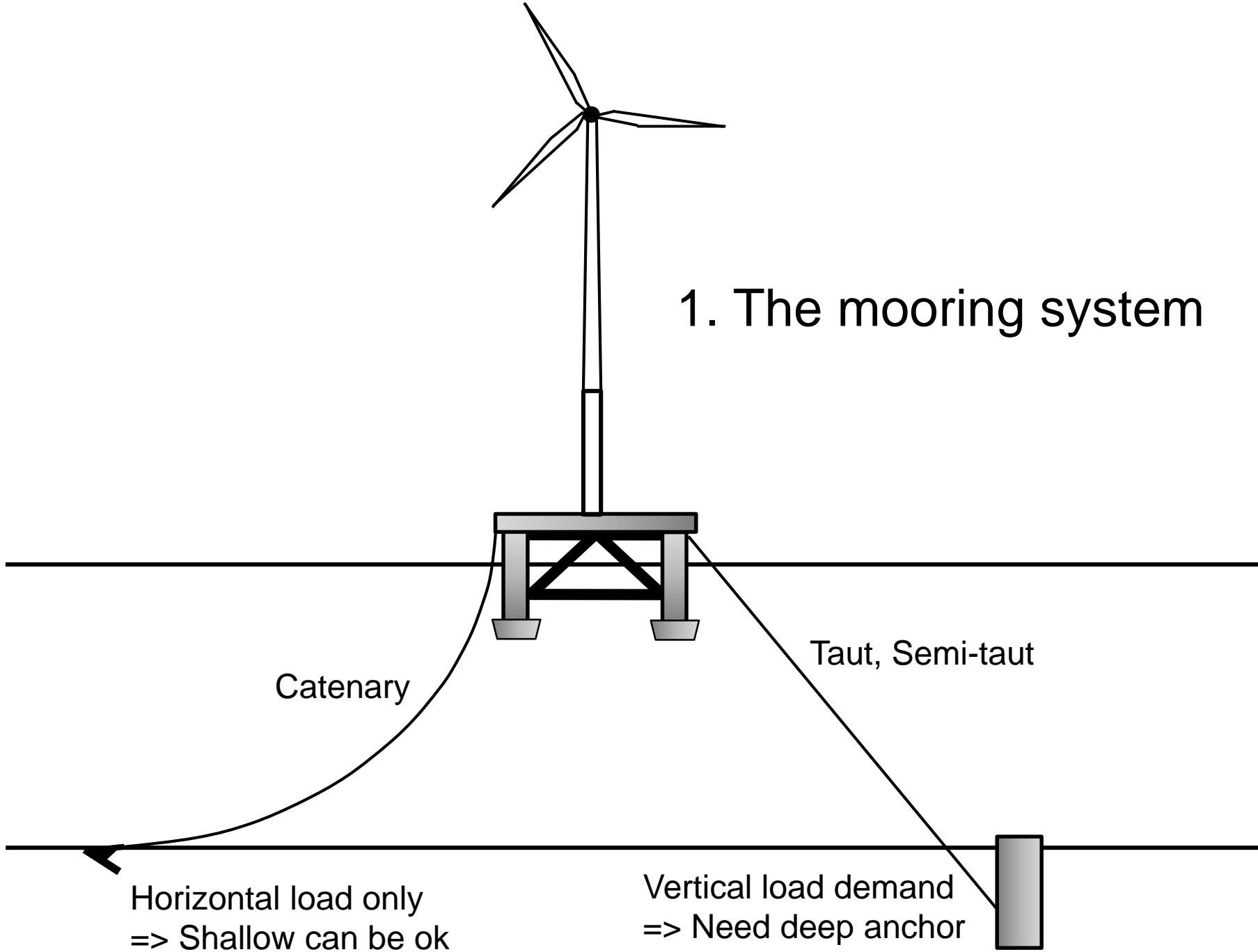


Drag Embedded Plate



Suction Caissons

# 1. The mooring system



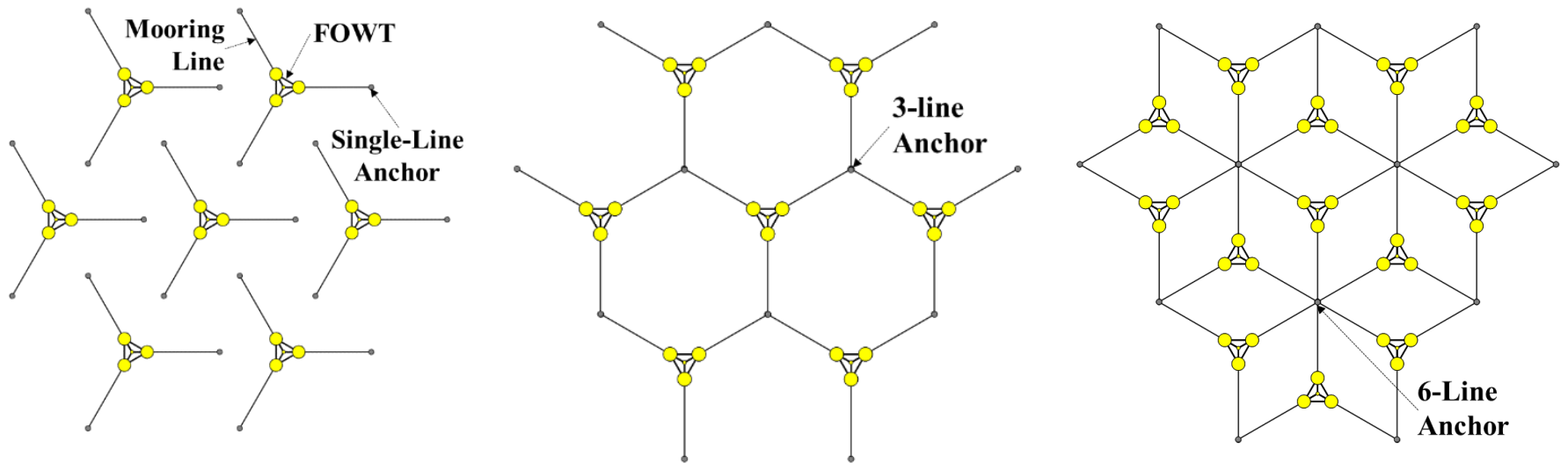
Catenary

Taut, Semi-taut

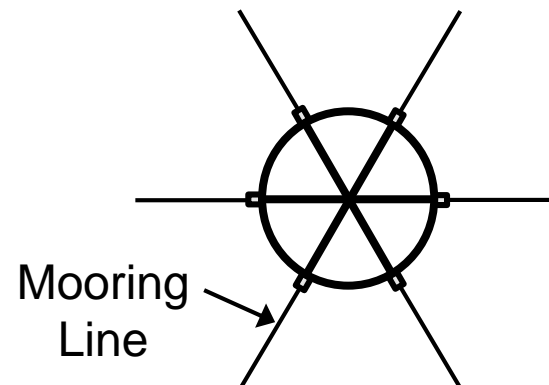
Horizontal load only  
=> Shallow can be ok

Vertical load demand  
=> Need deep anchor

## 2. Multiline Anchorage



- Reduced site investigations
- Fewer anchors
- Reduced transport/installation



# 3. Soil Conditions & Loading: Pile examples

Deep Embedment => High Vertical Load Capacity

Piles



Deep  
Any soil

Suction  
Caissons



Soft Clay:  
Deep



Stiff Clay,  
Sand:  
Shallow

Dynamic



Deep: Soft Clay  
Shallow: Sand, Stiff Clay



## 4. Efficiency & Transport:

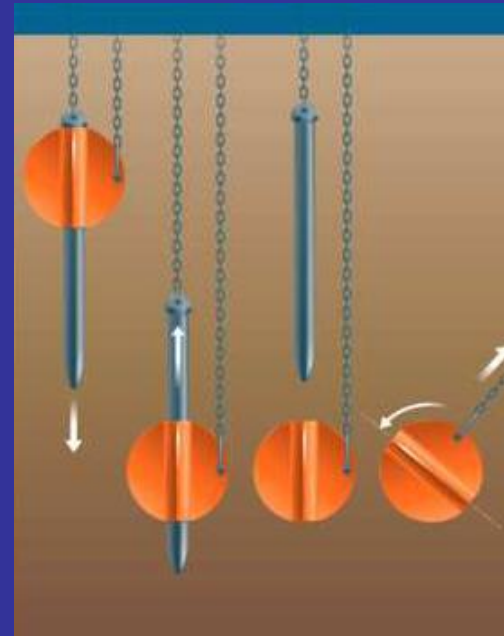
- Material requirements
- Vessel size
- Number of trips
- Handling equipment



## 5. Installation



- Platform/vessel needs
- Installation time
- Environmental



Keying – orient anchor  
Proofing – uncertainty in capacity

# Motivation for Collaborations

- Government/regulatory Agencies
  - Site investigation requirements
  - Reliability, safety factors
  - Environmental constraints
- Industry
  - Costs
  - Realistic installation models
  - Logistics
  - Experience, case histories
  - Installation & performance data