How to reach 40-60 Euro per MWh for floating offshore wind in 2030?

Arne Eik
Leading business developer floating offshore wind
Floating to be competitive – Equinor to remain a world leader

- **2009** - Hywind Scotland 30 MW
- **2017** - Hywind Tampen 88 MW
- **2022** - Hywind Tampen Next floating project 200-400 MW

**Utility scale projects**
- 500-1000 MW

**Fully commercial technology**
- 40-60 EUR/MWh

**Key markets:**
- South Korea, Japan, US, Scotland, France, Spain (Canary Islands), Greece, Ireland

**Technology development**
- 2001 – Idea and technology development
- 2009 - Hywind demo 2.3 MW
- 2017 - Hywind Scotland 30 MW

**Long term potential prospects**
- First wave of floating opportunities
- Key FOW projects
The road towards 40-60 EUR/MWh

- Cost reduction [CAPEX/MW] between ongoing and planned projects
  - Hywind Scotland → Hywind Tampen ~40%
  - Hywind Tampen → next project (200 MW) ~25-30%

- Costs can be further reduced by 20-25% for each subsequent larger project
  - **Scale effects**
    - Larger turbines: 5-10% reduced CAPEX
    - Large scale windfarms: ~5% reduced CAPEX if size of park is doubled
  - **Supply chain & technology developments (~5-15%)**
    - Efficient and standardised operations
    - Lower turbine cost
    - Optimised substructures, mass fabrication

Floating wind CAPEX dropping from project to project
More offshore wind in Norway - what would it take?

Collaboration between authorities, developers, supplier industry, other industries, NGOs, Universities/R&D

Scale
Competitive supplier industry
Well designed framework conditions