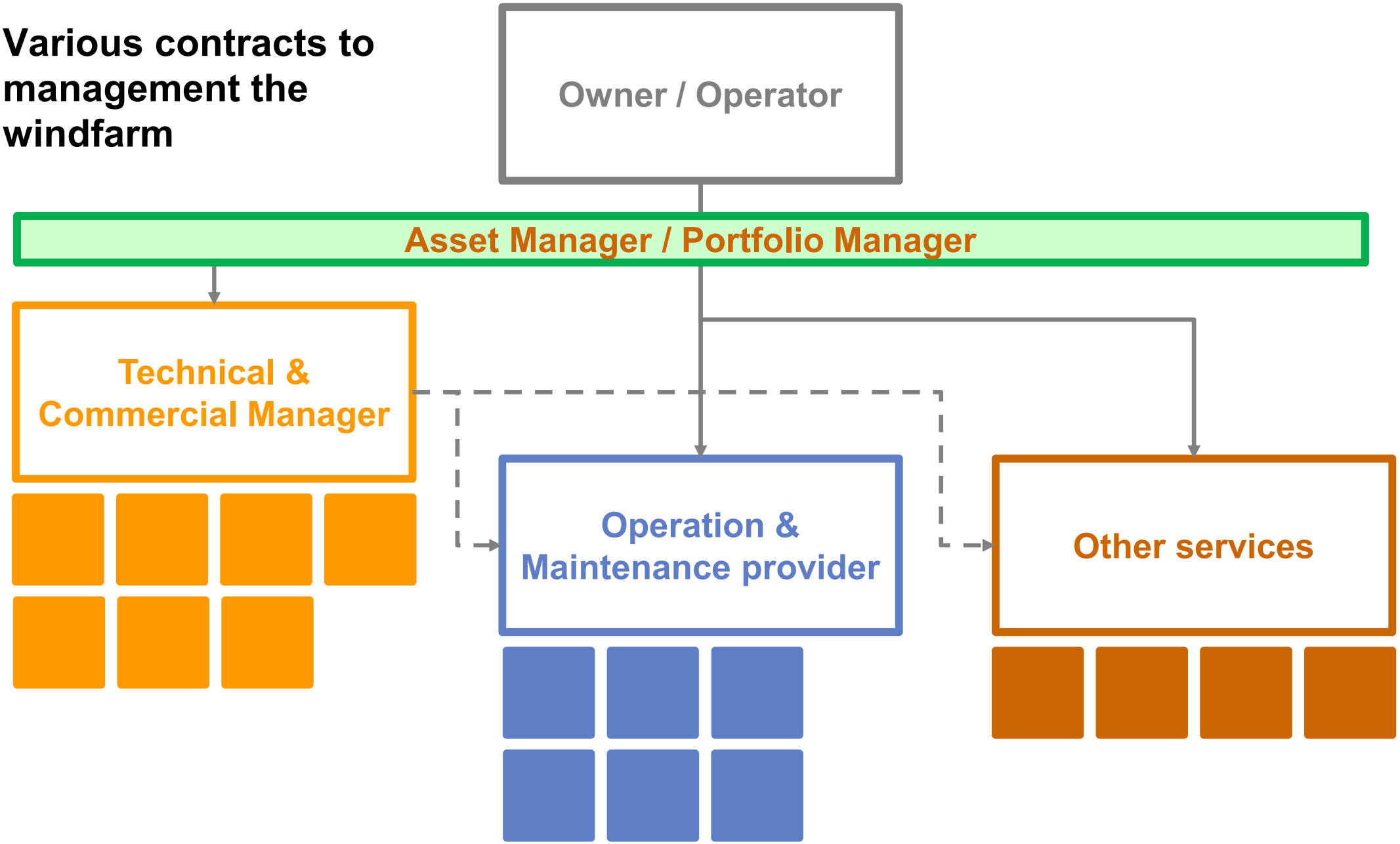
Integrated Concept of Operational Management

Dörte Nölting 25th of September 2018

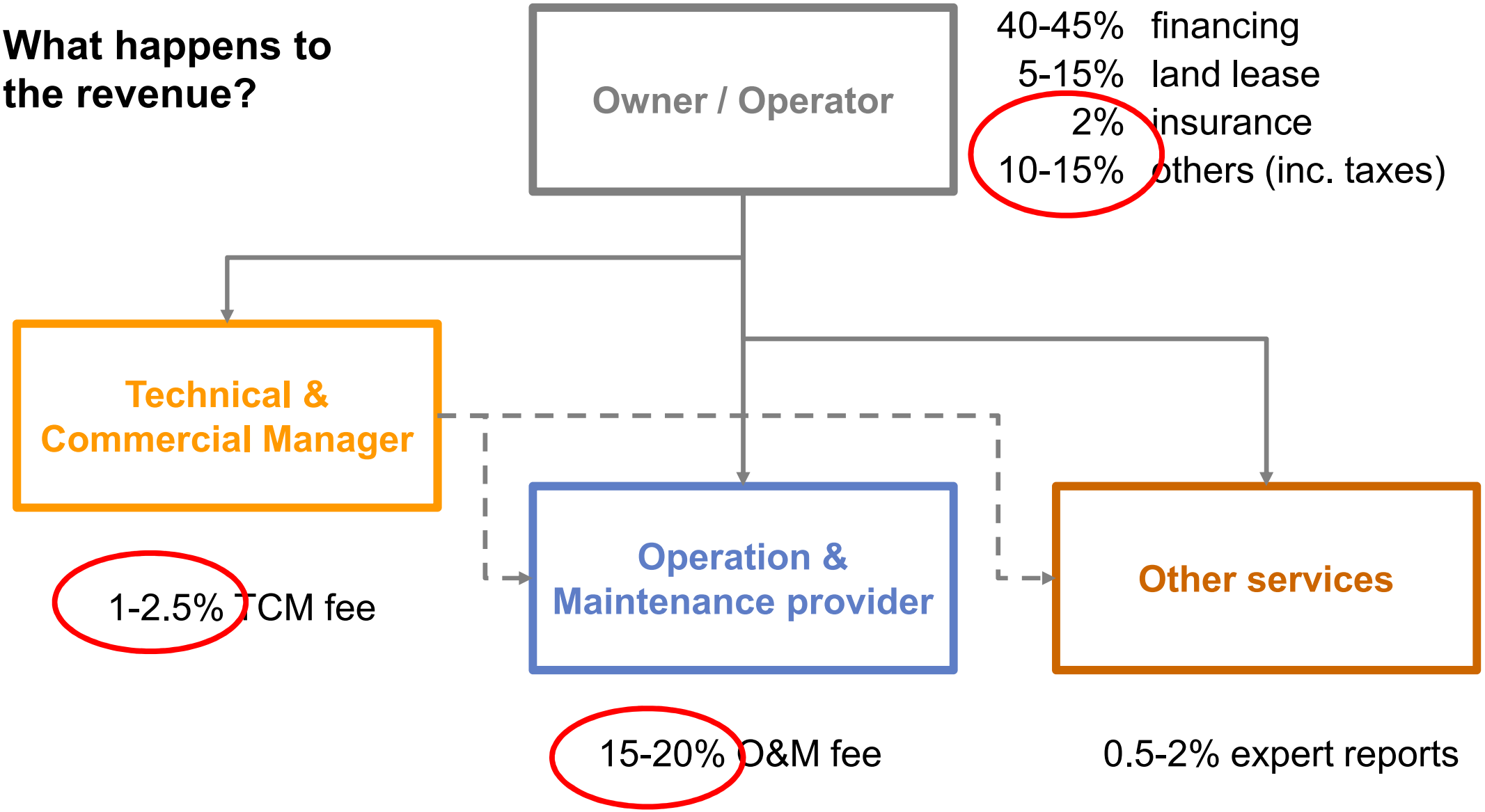
1. Technical services in a windfarm

Various contracts to management the windfarm



2. Changing market environment

What happens to the revenue?



2. Changing market environment

Project profitability falling & uncertainty rising

1. Investment profitability decreased

2. FITs replaced by competitive bidding & flexible market prices

but also…

3. Project complexity increasing

4. Management accounting & transparency expectations increase, enhanced reporting and data management requested

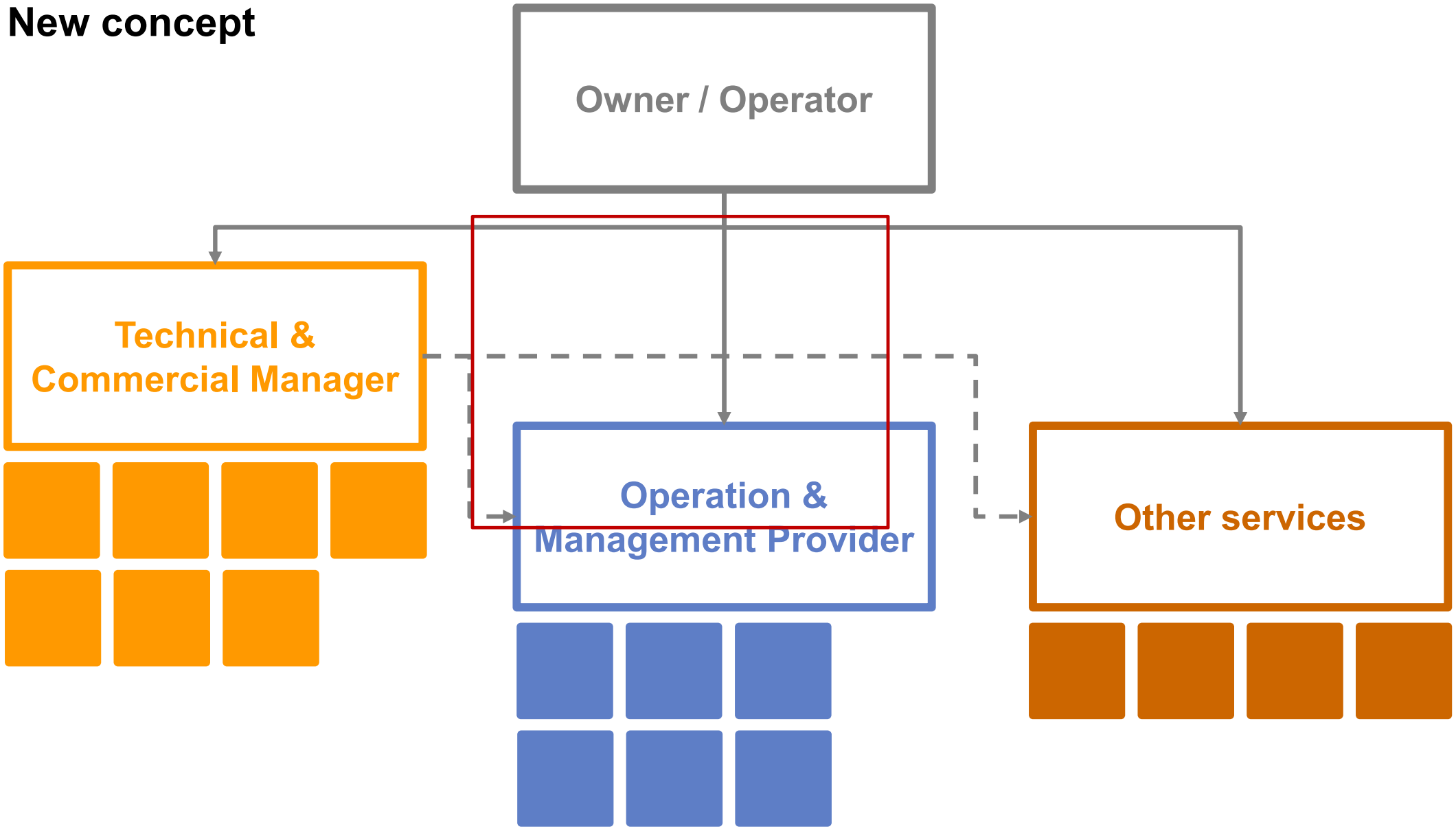
→ Projects ideally deal with higher expectations at a lower cost level

Customers need to adapt

- Risk vs. costs vs. flexibility
  - → Accepting risks
  - → Decreased level of comfort
  - → Short/medium contract terms
- Supervision vs. co-operation
- Reporting vs. problem solving
- Increased data analysis
  - → All data in different places

3. Integrated modular service contract

New concept



TCM and O&M need to adapt

- **Existing wind farms**
  - Reduce scope of work
  - Shift responsibilities and interactions towards owners/operators
  - Partial maintenance contracts
  - Combine services of different service providers
- **New wind farms**
  - Flexible, performance-based pricing
  - Co-operative maintenance: Technical Manager and Maintenance service provider/OEM cooperate and combine activities
  - Framework agreements for other services
- **All**
  - Transparency via web based systems and data analysis
  - Transparent KPIs replace control function
  - Certified systems & processes
  - Digitalised processes and data systems

Thank you for your interest – any questions?