

Asset Management Service Portfolio for the Energy Industry

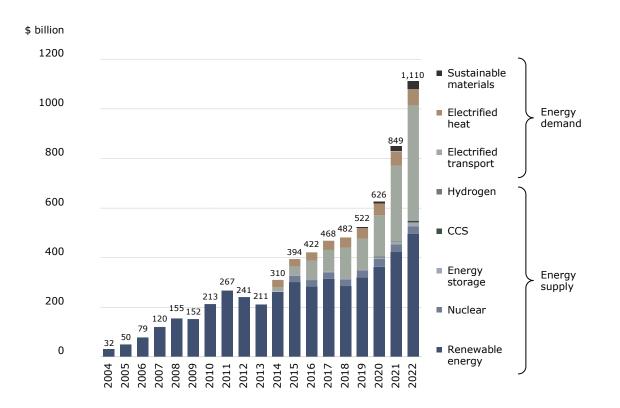
AFRY Management Consulting | AFRY Asset Management Systems

APRIL 2024



An end-to-end asset management capability anchored in the strategic planning process is gaining considerable importance in asset-intensive industries

GLOBAL INVESTMENT IN ENERGY ASSETS



TOP REASONS FOR ASSET MANAGEMENT

- Enabling Strategic Asset Portfolio Management
 Facilitating long-term strategies for optimising sustainable asset portfolios including their interdependencies
- Optimising Resource Allocation
 Efficient resource usage for cost-effective investments and project prioritisation
- Enhancing Grid Reliability
 Ensuring a stable and resilient energy supply through proactive grid maintenance and management
- Mitigating Risks
 Minimising uncertainties, managing volatility, and adapting to evolving market dynamics and regulations
- Meeting Environmental and Regulatory Standards
 Achieving sustainability goals, reducing emissions, and
 complying with stringent environmental regulations
- Supporting Data-Driven Decision-Making
 Leveraging data insights for informed choices, predictive
 maintenance, and operational excellence

Source: BloombergNEF, AFRY point of view

AFRY Management Consulting is active in all asset-intensive parts of the energy value chain and well aware of their different characteristics

DIMENSION	DSO / TSO	Wind / PV	District Heating	Gas / Hydrogen
Asset geography	Highly distributed	Clustered	Local Distributed	Local
Asset complexity	Medium	Low	High	High
Portfolio diversity	Medium	Very low	Very high	High
Asset lifetime	20 to 50 years	25 to 40 years	20 to 50 years	20 to 40 years
TOTEX focus	Historically CAPEX	CAPEX	Balanced	OPEX
Revenue regime	RAB, regulated	Partly regulated / partly market-based	Mostly non-regulated ¹⁾	Market-based
Market trends	TOTEX regulation, electrification, reinvestments	Insourcing of services, data analytics & automation	Decarbonisation ²⁾ , higher fuel prices, new asset types	Decarbonisation, less full-load hours, transition to H ₂

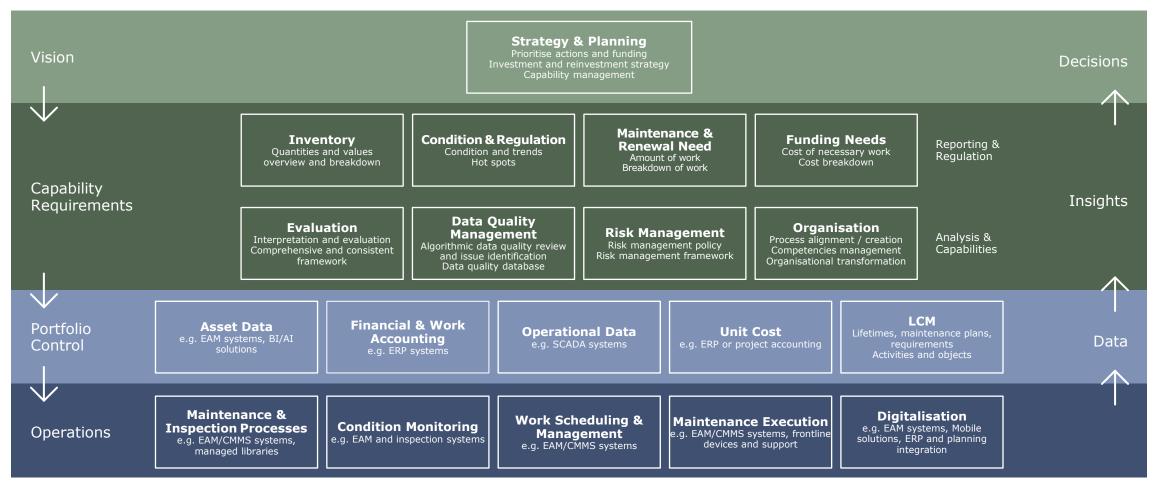
¹⁾ regulated in some countries, e.g. Norway 2) already close to fully decarbonised in some countries, e.g. Sweden



^{3 2024-04-12 |} COPYRIGHT AFRY MANAGEMENT CONSULTING | ASSET MANAGEMENT SERVICE PORTFOLIO FOR THE ENERGY INDUSTRY

ASSET MANAGEMENT PYRAMID

AFRY's asset management pyramid supports clients by turning companywide data into insights and ultimately decisions integrating all levels





ASSET MANAGEMENT COMPETENCE CENTRE

With 70+ experts, integrated services and our proprietary software, we cover the entire asset management spectrum across all relevant industries

OVERVIEW

EXPERTS WORLDWIDE

70+

(end of 2023)

KEY PARTNERSHIPS

IBM MAXIMO Gold Partner



ASSET VALUE MANAGED BY AFRY APPROACH

€ 700+ bn

AFRY'S SOFTWARE

MIAM 1)

CORE PILLARS OF OUR ASSET MANAGEMENT SERVICE PORTFOLIO

Comprehensive, data-driven approach for condition evaluation, CAPEX/OPEX/CO₂ forecasting and simulation

Proprietary MIAM¹⁾ software for **customisable approach**

Algorithm-based data quality management

Maturity assessments and certification schemes in line with ISO 55000 & IAM²) frameworks

Business case models for multi-year to multi-decade technology programs

Data-driven maintenance optimisation and digitalisation

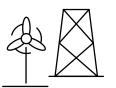
OUR CROSS-INDUSTRY EXPOSURE



Aviation



Railway



Energy



Industry



¹⁾ MIAM: Mobility Infrastructure Asset Management; 2) Institute of Asset Management

^{5 2024-04-12 |} COPYRIGHT AFRY MANAGEMENT CONSULTING | ASSET MANAGEMENT SERVICE PORTFOLIO FOR THE ENERGY INDUSTRY

AFRY MANAGEMENT CONSULTING

Contact us

Marcus Getta

AFRY Management Consulting Head of Organisational & Digital Transformation, Germany

+49 170 799 45 46

marcus.getta@afry.com



Dr. Hermann Orth

AFRY Asset Management Systems
Head of Strategic Asset Management

M: +41 77 474 58 99

hermann.orth@afry.com





Making Future

