Performance-Based Contracts: A Strategic Lever for Achieving Vision 2030 through Smart Asset Management

Anchored in its leadership in innovation and strategic transformation, the Kingdom of Saudi Arabia continues its decisive pursuit of Vision 2030—an agenda designed to elevate quality of life, open the Kingdom to the world, and deliver rich experiences across culture, sports, and tourism. These ambitions underpin the creation of a vibrant society and a prosperous economy through integrated and sustainable cities. In parallel, Vision 2030 places strong emphasis on financial sustainability and fiscal balance, establishing a resilient and adaptive financial system that strengthens financial planning, enhances transparency, and supports a more balanced and sustainable budget founded on fiscal discipline and spending efficiency.

Vision 2030's objectives extend beyond these dimensions to include empowering the private sector, enabling access to government assets, and achieving government excellence—thereby supporting infrastructure development, improving the quality and efficiency of services, strengthening economic diversification, and enhancing competitiveness both locally and globally. Within this context, the need emerged for advanced asset management and contracting models capable of translating these ambitious directions into sustainable operational reality. Consequently, performance-based contracts have become one of the pivotal pillars enabling this transformation.

Euro Group Engineering Consultants is recognized as a local and regional leader in the design, implementation, and supervision of integrated asset management systems, the development of performance-based contracts (PBCs), and the enhancement of operations and maintenance efficiency for government infrastructure assets and facilities. This position is supported by a proven record of national achievements and deep experience across diverse and critical sectors. Through its multidisciplinary and multinational team, the firm consistently delivers practical, strategic solutions aligned with global best practices and the highest national and international standards—maximizing value from public assets and supporting the realization of Vision 2030.

This leadership role emerges at a time when the concept of public asset management is undergoing a fundamental transformation. Asset management is no longer a limited operational function nor a traditional line item within operations and maintenance budgets. Instead, it has become one of the most critical enablers for achieving major national visions foremost among them Vision 2030, which places efficiency, sustainability, and value maximization at the core of its strategic direction. Within this framework, the shift toward performance-based contracts stands out as a deliberate strategic choice and a powerful execution tool capable of converting aspirations into results and plans into tangible impact.

The real challenge facing asset-owning entities today no longer lies in constructing or operating assets, but in ensuring sustained performance, maximizing asset lifespan, and achieving the highest possible value throughout the asset lifecycle. Accordingly, the transition to performance-based contracts represents not merely an evolution in contracting models, but a reflection of institutional maturity aligned with Vision 2030's objectives of improving government spending efficiency, enhancing service quality, and enabling organizational and digital transformation.

Under traditional contracts, success was measured by the number of tasks completed, the volume of executed works, and the speed of expenditure. In contrast, performance-based contracts fundamentally redefine the evaluation paradigm: sustainable performance, service levels, asset readiness, and beneficiary satisfaction become the true indicators of success. This shift reflects the essence of Vision 2030, which has repeatedly emphasized that public spending is not measured by its size, but by its impact—and that every public riyal must generate sustainable economic, social, and environmental value.

Asset management, in accordance with global best practices and ISO 55000 standards, is founded on balancing value, risk, performance, and cost—the same principle underpinning Vision 2030 programs such as the Spending Efficiency Program, the Quality-of-Life Program, and the National Transformation Program. Performance-based contracts are not separate from these initiatives; rather, they serve as their execution arm within the asset and infrastructure sector, translating policies and strategies into measurable and accountable outcomes.

When financial payments are linked to achieved performance rather than to the number of closed work orders or executed activities, a new contractual environment is created—one that incentivizes contractors to innovate, invest in prevention rather than corrective actions, and adopt modern technologies and smart asset management systems. Here, one of Vision 2030's most important objectives is realized: enabling digital transformation and enhancing the readiness of smart infrastructure to support data-driven decision-making and long-term operational efficiency.

This contracting model also aligns directly with Vision 2030's emphasis on transparency and accountability, as performance indicators, service levels, and quality standards become a shared and unambiguous language between asset owners and contractors. There is no room for interpretation or ambiguity, nor for traditional contractual disputes; instead, a clear framework prevails—one in which contractors are held accountable for outcomes, efficiency is rewarded, and risks are managed with institutional awareness.

From a deeper economic perspective, performance-based contracts contribute significantly to reducing total lifecycle costs of assets—one of Vision 2030's core financial sustainability objectives. By prioritizing preventive maintenance, managing asset deterioration, and intervening at the optimal time, organizations can reduce costly corrective maintenance, defer capital replacement, and minimize financial waste. As a result, operational expenditure becomes an investment tool rather than a recurring burden on public budgets.

The impact extends beyond financial considerations to encompass improvements in quality of life—one of Vision 2030's fundamental pillars. Assets managed under performance-based contracts exhibit higher readiness, greater safety, and enhanced reliability in service delivery. Well-maintained roads, properly managed parks, efficient stormwater systems, and reliable municipal facilities directly improve user satisfaction, strengthen trust in public services, and enhance the overall perception of cities and communities. Performance-based contracts also open wide horizons for private sector participation and concession and privatization models encouraged by Vision 2030. When performance requirements are clearly defined, risks are transparently allocated, and returns are linked to outcomes, public assets become more attractive for investment and more suitable for long-term partnerships that deliver mutual benefits while safeguarding service quality and sustainability.

This transformation redefines the contractor's role from a task executor to a partner in achieving national objectives, while the asset owner's role evolves from an operational supervisor to a strategic leader managing value rather than daily details. This shift in roles lies at the heart of the institutional transformation envisioned by Vision 2030 and sought across all sectors.

In conclusion, performance-based contracts are not merely an advanced contracting mechanism; they represent a comprehensive approach to asset management and vision realization. They embody a conscious transition from a culture of expenditure to a culture of value, from managing failures to managing sustainability, and from measuring effort to measuring impact. Those who recognize this transformation today and invest in it with strategic awareness are laying the foundation for more efficient infrastructure, higher-quality services, and a more sustainable economy—fully aligned with the ambitions of Saudi Vision 2030 and translating them into tangible outcomes on the ground.

True Value Begins with the Right Question

Between the vault and the gold lies the defining moment of truth in asset management.

The fundamental question is not merely operational, but strategic:

Do we manage the asset as we see it—or the value it is meant to create?

Before advancing further along this ambitious path, we must confront a simple yet critical reality: not every asset represents value, and not everything we own generates impact. The question that will shape the future of asset management is therefore not an administrative one, but a fundamental one: Are we managing the asset as a physical entity, or are we managing the value it produces?

A vault may be vast and secure—but it is the gold inside that truly deserves management. This distinction lies at the heart of modern asset management:

managing value, not components; managing impact, not activities; managing the future, not merely the present moment.

is here that the true difference emerges—between managing what exists and creating what matters. And from this point precisely begins our journey to the core of the issue: what truly matters—the vault, or the gold?

The Vault = The Enabling Asset

The Vault = The Enabling Asset Its function:

- Being in good condition protects value (gold).
- Reduces risks (theft, loss, damage), which represent service disruption or asset failure.
- Ensures the continuity of the ability to generate value from the asset.

Gold = Value

Gold = Value Because:

- It holds real financial value.
- It represents the purpose of investment and ownership.
- It generates economic value for the government entity.

Therefore: Gold is what we seek to protect and manage

From a value perspective: Gold is more important because it represents the value.

From a risk management perspective: The vault is important because it protects value and prevents losses.

From a comprehensive asset management perspective:

The key is the relationship between them to achieve a balance among:

- ✓ Value
- ✓ Risk
- ✓ Performance
- ✓ Cost

This is the essence of asset management:

"**Maximizing the value realized from assets throughout their lifecycle**".

Accordingly, the concise answer is clear: the gold—the value—is what truly matters; yet the vault remains essential, as it is the safeguard that preserves that value and must be maintained or replaced, when necessary, as a supporting asset.

Maintenance is no longer the goal—it is the means through which value is created and strategic objectives are achieved.

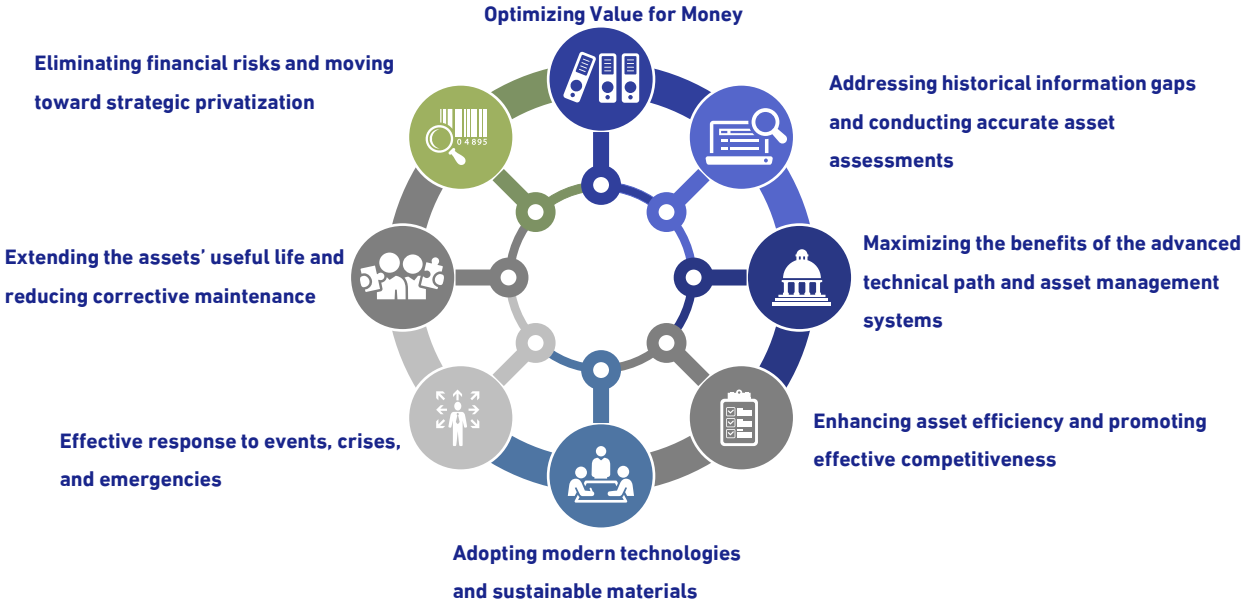
What is the value of transitioning to performance-based contracts?

Financial Value:

The fundamental shift toward adopting performance-based contracts represents a qualitative and strategic transformation in the way projects and services are managed. It moves beyond the traditional focus on inputs and volumes of completed work, firmly anchoring success in the achievement of tangible outcomes and sustainable, real value. This pivotal approach aims to maximize financial and operational efficiency, reduce potential risks, and stimulate innovation.

ISO 55000 Clause 2.4 (Value, Risk, Performance), IIMM Lifecycle Management Framework and IAM Concept: Enablers vs. Primary Assets.

Efficiency is not merely about reducing expenditure, it is about maximizing the value generated from every riyal invested. Accordingly, we adopt the following eight enablers to achieve financial efficiency:



Optimizing Value for Money

PBCs establish transparency and accountability by linking financial payments to the achievement of objectives and performance levels, ensuring real value for every expenditure while encouraging innovation and service quality.

Eliminating financial risks and moving toward strategic privatization

The maturity of PBCs reduces financial risks and opens the door to innovative financing models such as privatization, concessions, and private sector participation, generating returns from assets while maintaining services

Extending the assets' useful life and reducing corrective maintenance

Contracts focus on preventive and routine maintenance and set a maximum limit for corrective maintenance, which extends asset life, reduces emergency repair and early replacement costs, and ensures operational continuity

Effective response to events, crises, and emergencies

Contracts ensure rapid and effective response mechanisms for emergencies, reducing damage and financial losses from compensation and repairs, and enhancing the financial resilience of the organization

Adopting modern technologies and sustainable materials

Contracts encourage the adoption of innovation, modern technologies, and sustainable materials, leading to significant long-term reductions in operating costs and contributing to achieving sustainability goals

Enhancing asset efficiency and promoting effective competitiveness

Enhancing asset efficiency by adding a supplementary bill of quantities or a framework agreement directly linking it to the achievement of agreed service levels and the prices of their sub-items, which encourages contractors to compete in providing better services and prices, in return for their participation in executing work orders actually required by the entity.

Maximizing the benefits of the advanced technical path and asset management systems

The contracts rely on advanced Asset Management Systems (EAM) to accurately determine ownership costs and the asset's life cycle, enabling optimal preventive maintenance, reducing costly corrective maintenance, and enhancing financial efficiency.

Addressing historical information gaps and conducting accurate asset assessments

These contracts integrate data collection and analysis to provide accurate and up-to-date information about assets, eliminating the need for separate evaluation contracts, saving financial allocations, and improving resource allocation decisions

Quantitative Examples of the Impact of Smart Asset Management on Financial Efficiency

1. Without the implementation of smart asset management systems

This model illustrates the traditional asset management scenario in the absence of smart asset management systems and lifecycle-based planning methodologies. The chart shows how an asset initially starts at a high condition level (PCI), then enters a phase of accelerated deterioration due to delayed preventive interventions and the failure to perform maintenance at the optimal time. Once the minimum acceptable performance threshold is exceeded, maintenance costs increase sharply as the approach shifts toward corrective maintenance and major rehabilitation, in some cases leading to premature asset replacement.

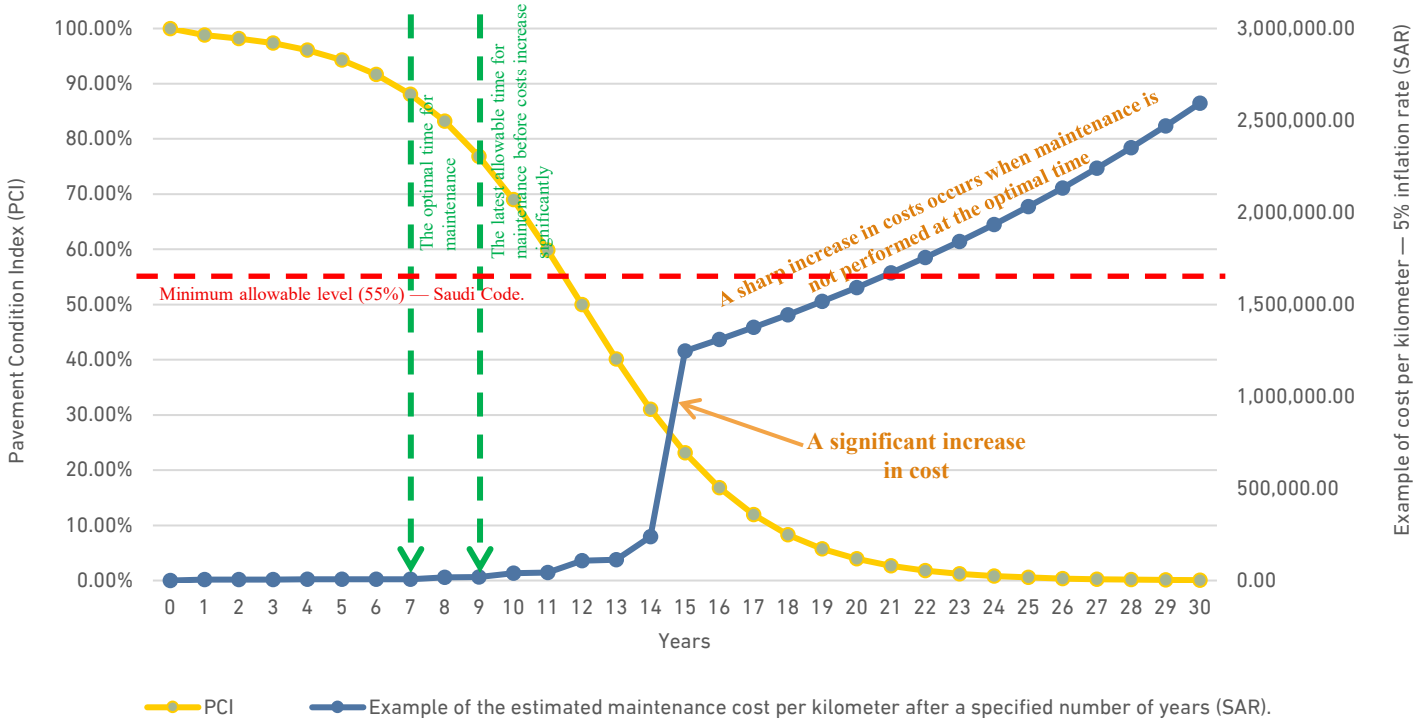
The curve clearly demonstrates that deferring maintenance does not reduce cost; rather, it postpones and amplifies it, as cumulative costs increase disproportionately relative to the decline in asset condition. This model represents a high financial and operational burden, resulting in loss of cost control, limited long-term planning capability, and a reduction in the value realized from the asset over its lifecycle.

The initial price or implementation cost does not necessarily reflect the true cost of acquisition or long-term investment. Therefore, Life Cycle Cost (LCC) analysis is an essential tool for estimating the actual costs of an asset from the moment it is created until the end of its useful life, including operation, maintenance, replacement, and disposal costs.

Year	PCI	Estimated maintenance cost per kilometer based on current assumed prices (SAR)	Estimated maintenance cost per kilometer after a specified number of years, with a 5% inflation rate (SAR)
0	100.00%	0.00	0.00
1	98.79%	5,000.00	5,250.00
2	98.20%	5,000.00	5,512.50
3	97.34%	5,000.00	5,788.13
4	96.08%	5,000.00	6,077.53
5	94.27%	5,000.00	6,381.41
6	91.68%	5,000.00	6,700.48
7	88.08%	5,000.00	7,035.50
8	83.20%	12,000.00	17,729.47
9	76.85%	12,000.00	18,615.94
10	69.00%	25,000.00	40,722.37
11	59.87%	25,000.00	42,758.48
12	50.00%	60,000.00	107,751.38
13	40.13%	60,000.00	113,138.95
14	31.00%	120,000.00	237,591.79
15	23.15%	600,000.00	1,247,356.91
16	16.80%	600,000.00	1,309,724.75
17	11.92%	600,000.00	1,375,210.99
18	8.32%	600,000.00	1,443,971.54
19	5.73%	600,000.00	1,516,170.12
20	3.92%	600,000.00	1,591,978.62
21	2.66%	600,000.00	1,671,577.55
22	1.80%	600,000.00	1,755,156.43
23	1.21%	600,000.00	1,842,914.25
24	0.82%	600,000.00	1,935,059.97
25	0.55%	600,000.00	2,031,812.96
26	0.37%	600,000.00	2,133,403.61
27	0.25%	600,000.00	2,240,073.79
28	0.17%	600,000.00	2,352,077.48
29	0.11%	600,000.00	2,469,681.36
30	0.07%	600,000.00	2,593,165.43

Application to: Asphalt asset using the Pavement Condition Index (PCI), applying the deterioration curve equation and assumed current prices, and calculating the future cost with a 5% inflation rate.

ISO 55000 Clause 2.4 (Value, Risk, Performance), IIMM Lifecycle Management Framework and IAM Concept: Enablers vs. Primary Assets.



This model illustrates the traditional asset management scenario in the absence of smart asset management systems and lifecycle-based planning methodologies. The asset condition (PCI) begins at approximately **100%,** then gradually deteriorates during the early years before entering a phase of **accelerated decline around years 8–10.** Once the minimum allowable performance threshold is crossed **(55% in accordance with the adopted standard),** maintenance costs rise sharply and uncontrollably.

The data indicate that:

- •Maintenance cost per kilometer remains relatively low during the initial years; however,
- •It increases dramatically after approximately **years 12–15,**
- •Reaching nearly **SAR 2.5 million per kilometer by the end of the asset lifecycle (around year 30),** assuming a **5% inflation rate.**

This steep escalation in cost coincides with a severe decline in asset condition to below 30%, and eventually to less than 10%, reflecting heavy reliance on corrective maintenance, major rehabilitation, or premature asset replacement. The model clearly demonstrates that **deferring maintenance does not reduce cost—it merely postpones and multiplies it,** resulting in loss of operational value and long-term financial inefficiency.

2. With the implementation of smart asset management systems

This model illustrates the impact of implementing smart asset management systems based on condition assessment, deterioration curves, and proactive maintenance planning. The chart demonstrates how interventions are carried out at the optimal maintenance timing—prior to reaching severe deterioration—thereby maintaining asset condition within a stable performance range and preventing sudden service-level failure.

The results show that maintenance costs increase in a gradual and predictable manner, without the sharp cost spikes observed in the traditional model, while achieving greater long-term stability in asset condition. This

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approach maximizes the asset's useful life, defers capital replacement, and transforms operating expenditure into a planned investment that delivers sustainable value.

This model represents the practical foundation for performance-based contracts, where payments are linked to maintaining defined and measurable performance levels, lifecycle spending efficiency is achieved, and risks and costs are managed through an institutionally informed, data-driven approach.

The initial price or implementation cost does not necessarily reflect the true cost of acquisition or long-term investment. Therefore, Life Cycle Cost (LCC) analysis is an essential tool for estimating the actual costs of an asset from the moment it is created until the end of its useful life, including operation, maintenance, replacement, and disposal costs.

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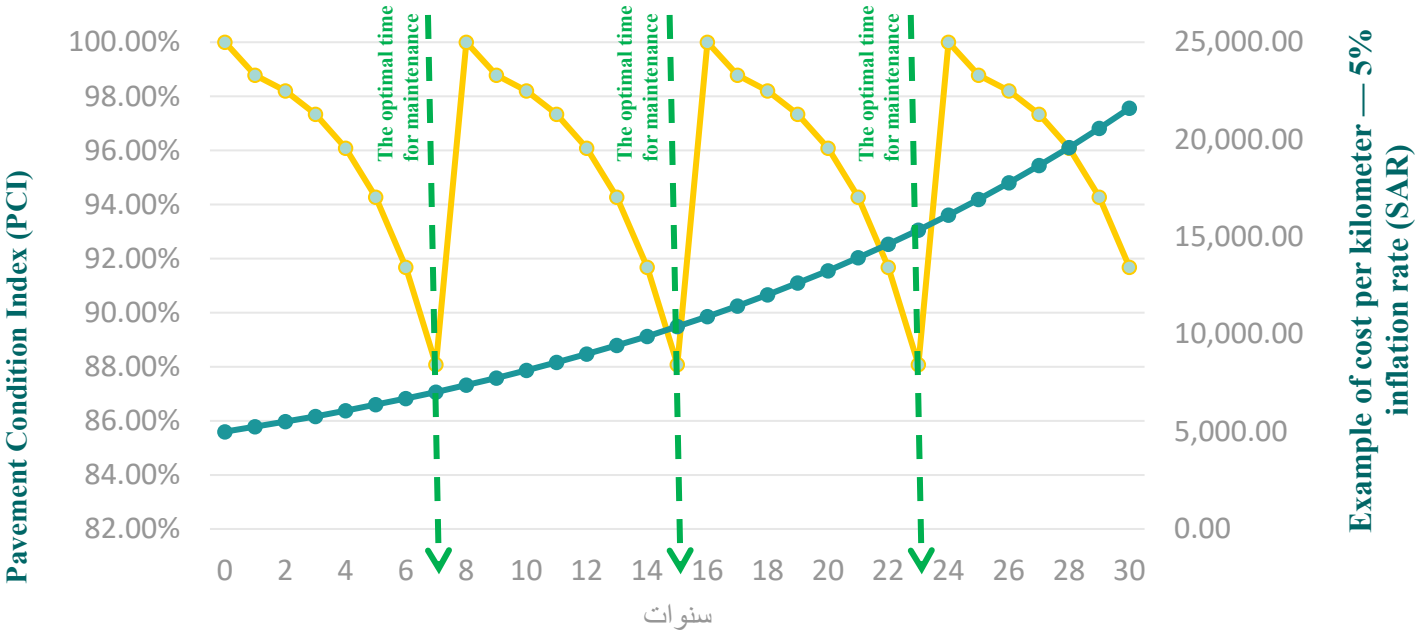
6	91.68%	5,000.00	6,700.48
7	88.08%	5,000.00	7,035.50
8	100.00%	5,000.00	7,387.28
9	98.79%	5,000.00	7,756.64
10	98.20%	5,000.00	8,144.47
11	97.34%	5,000.00	8,551.70
12	96.08%	5,000.00	8,979.28
13	94.27%	5,000.00	9,428.25
14	91.68%	5,000.00	9,899.66
15	88.08%	5,000.00	10,394.64
16	100.00%	5,000.00	10,914.37
17	98.79%	5,000.00	11,460.09
18	98.20%	5,000.00	12,033.10
19	97.34%	5,000.00	12,634.75
20	96.08%	5,000.00	13,266.49
21	94.27%	5,000.00	13,929.81
22	91.68%	5,000.00	14,626.30
23	88.08%	5,000.00	15,357.62
24	100.00%	5,000.00	16,125.50
25	98.79%	5,000.00	16,931.77
26	98.20%	5,000.00	17,778.36
27	97.34%	5,000.00	18,667.28
28	96.08%	5,000.00	19,600.65
29	94.27%	5,000.00	20,580.68
30	91.68%	5,000.00	21,609.71

Application to: Asphalt asset using the Pavement Condition Index (PCI), applying the deterioration curve equation and assumed current prices, and calculating the future cost with a 5% inflation rate.



PCI

Example of the estimated maintenance cost per kilometer after a specified number of years (SAR).

This model demonstrates the impact of applying smart asset management systems based on condition assessment, deterioration curves, and proactive lifecycle planning. Interventions are executed at optimal maintenance points (approximately every 7–8 years), preventing assets from entering rapid deterioration phases. As a result, asset condition (PCI) is maintained within a consistently high range of approximately 88% to 100% throughout the lifecycle.

The figures show that:

- Maintenance costs per kilometer increase in a controlled and predictable manner,
- Starting at approximately SAR 5,000 per kilometer per year,
- And reaching only about SAR 20,000–22,000 per kilometer after 30 years, assuming a 5% inflation rate.

Compared to the first model, the cumulative cost difference amounts to several orders of magnitude, while simultaneously achieving:

- Greater asset condition stability,
- Significant deferral of capital replacement,
- And sustainable value realization for every riyal invested.

This model forms the technical and economic foundation for performance-based contracts, where payments are directly linked to maintaining asset condition within defined performance thresholds, and where costs and risks are proactively managed through data-driven, long-term planning.

Comparison between Capital Expenditure and Operating Expenditure

To understand the essence of spending efficiency in asset management, it is essential to clearly distinguish between capital expenditure and operating expenditure—not merely in terms of financial classification, but in terms of their long-term impact on asset sustainability, service quality, and the value realized across the asset lifecycle.

Capital expenditure relates to creating or improving new assets, while operational expenditure relates to maintaining the performance of these assets and keeping them operational on a daily basis.

	 Capital Expenditure-CapEx	 Operating Expenditure-OpEx
* Definition	**Long-term investments in fixed assets (construction/acquisition, rehabilitation/replacement) for the purpose of economic and social development.** * ISO 55000:2014, Clause 3.1.1 (Asset) – IIMM 2020, Section 2.3 (Capital Expenditure).	**Day-to-day operating costs necessary for business** * IAM Landscape 2015, Section 39 (Operational Activities) – IIMM 2020, Section 2.4 (Operational Expenditure)
Purpose	**Developing or acquiring assets that enhance long-term productivity, including maintenance and replacement decisions.** * ISO 55000, Clause 2.4 (Value Realization) – IIMM 2020, Section 3.2 (Lifecycle Investment Needs)	**To cover daily costs needed to maintain business continuity** * ISO 55000, Clause 3.2.2 (Asset Management Objectives) – IAM Landscape 2015, Section 41 (Operations & Maintenance)
Financial Treatment	**The cost is Capitalized and depreciated over the asset's useful life.** * IFRS / Accounting Standards linked in IIMM Section 2.3.5 – ISO 55010:2019 (Guidance on financial & asset management alignment)	**Deducted directly from revenue in the same year** * IAM Landscape, Section 43 (Budgeting) – IIMM Section 2.4.3 (Operational Costs)
Examples	**Purchasing assets, constructing new buildings, rehabilitating, or replacing an asset.** * IIMM Section 3.5 (Capital Projects Examples)	**Monthly rent, utility bills, employee salaries** * IAM Landscape, Section 41 & 42 (Operational Services Examples)

This approach aligns with the guidance set out in the National Asset and Facilities Management Guide and the National Project Management Guide, both of which emphasize that asset management is not a post-operations activity, but a strategic practice that must be embedded from the early stages of project planning, construction, or acquisition. This integration ensures that assets transition into the operational phase capable of delivering

National Guide for Asset and Facilities Management, issued by the Saudi National Center for Government Resource Efficiency and Projects (ECRA), Volume 4, Chapter 1, Guidelines for Financial Management, p. 11; Volume 4, Chapter 3, Principles of Budget Preparation, Section 6.2, p. 20 for Capital Expenditures (CAPEX), Section 6.1, p. 10 for Operational Expenditures (OPEX).

the expected value at the lowest possible lifecycle cost. This direction is directly aligned with the requirements of ISO 55000:2024, which explicitly mandate the integration of asset management considerations into planning, design, construction, and procurement decisions, as these stages critically influence performance, risk, cost, and value across the asset lifecycle.

Similarly, the Institute of Asset Management (IAM), through its organizational capability model and the concept of Lifecycle Value, confirms that construction and acquisition decisions represent key control points in value realization, and that separating project management from asset management leads to assets with high operating costs and limited manageability. This is further reinforced by the International Infrastructure Management Manual (IIMM), which stresses that asset success is not measured solely by delivering projects on time and within budget, but by the asset's post-handover ability to achieve required service levels, sustainability, reliability, and long-term financial efficiency.

Through this integration of national guides with international standards and practices, construction and acquisition phases are transformed from mere project delivery stages into the foundation for strategically managed assets. Decisions are made based on a lifecycle perspective, assets are prepared from the outset to operate within an effective asset management system, the application of performance-based contracts is enabled, and sustainable value and returns for the asset-owning entity are ensured

Operational and Technical Value Realized by the Entity After the Transition:

National Guide for Asset and Facilities Management, issued by the Saudi National Center for Government Resource Efficiency and Projects (ECRA), Volume 4, Chapter 1, Guidelines for Financial Management, p. 11; Volume 4, Chapter 3, Principles of Budget Preparation, Section 6.2, p. 20 for Capital Expenditures (CAPEX), Section 6.1, p. 10 for Operational Expenditures (OPEX).

What is the expected impact of a full transition to PBCs?

Enhancing the LoS and asset readiness

Maintaining asset performance at an excellent service level throughout their design life and enhancing quality of life, thereby improving user satisfaction.

Improving long-term expenditure efficiency

Reducing project costs by improving resource use efficiency and contract execution flexibility, minimizing costly repairs, and enhancing asset life cycle practices

Extending the assets' useful life

Shifting from 'reactive' maintenance to 'proactive' and 'predictive' maintenance, as well as performing preventive and routine maintenance, extends the operational life of the asset.

Enabling digital transformation

Records management is one of the main pillars of performance-based contracts for preserving historical asset data, thereby enhancing efficiency and enabling data-driven decision-making

Transparency

PBCs include clear standards for measurement and monitoring, which enhances transparency and enables authorities to hold contractors accountable for their performance, reducing corruption and waste

Encouraging innovation

Adopting new maintenance methods that are time- and/or cost-efficient, while meeting performance indicators

Enabling digital transformation

Records management is one of the main pillars of performance-based contracts for preserving historical asset data, thereby enhancing efficiency and enabling data-driven decision-making

Increasing the ability to attract investments

Implementing performance-based contracts reflects greater professionalism and transparency, making the entity more attractive for investments and partnerships with the private sector

What value is created in return for the expenditure, and how is it achieved through the transition to performance-based contracts?

Contracts today are no longer measured by the number of tasks carried out or hours worked, but by **the level of performance, continuity of service, and the value generated from every riyal spent**. Accordingly, **contractors are held accountable for delivering these values**—not for quantities, repairs, or activities. In this model, **achieving clearly defined, measurable performance outcomes becomes the basis for financial payment**. The contractor thus evolves into a strategic partner and an execution arm of the government entity's institutional and strategic objectives, rather than merely a service provider delivering volumes of work without measurable value, impact, or alignment with the asset-owning entity's goals.

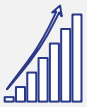
The value generated from assets relative to the payments made after a full transition to performance-based contracts can be summarized in the following five points:

وزارة البلديات والإسكان
Ministry of Municipalities and Housing

Value For Money

- **Economic value:** increasing return on investment, extending the operational life of assets, financial sustainability, privatization, and private sector participation.
- **Organizational value**: achieving compliance, enhancing transparency and accountability, and sharing risks.
- **Operational value:** improving functional performance and reducing failures and downtime
- **Knowledge value**: enabling data-driven decision-making, continuous training, and knowledge transfer.
- **Social and environmental value**: enhancing quality of life, reducing environmental impact, improving urban landscapes, and creating new job opportunities.

Why performance-based contracts?

Advantages	Traditional contracts *Once the quantities are consumed, the work comes to an end*	PBCs *Service continuity throughout the entire contract duration*	Benefits & Outcomes
 **Focus on Results**	Payments are linked to inputs (quantities, number of work items, labor hours, materials, equipment).	Payments are based on actual results and achievement of targets, linked to KPIs and performance indicators.	Ensures **value for money** and promotes innovation and efficiency.
 **Improving Quality and Efficiency**	Focus on task execution according to plan; optimal performance may not be a primary objective.	Linking compensation to outcomes incentivizes contractors to improve quality and achieve optimal performance.	Reduces waste of time and resources and increases execution **efficiency**.
 **Encouraging Innovation**	Predefined methods and approaches limit flexibility and innovation.	Freedom to choose methods, technologies, and solutions to achieve results.	Development of new **solutions**, process improvement, and adoption of more effective technologies.
 **Risk Management**	Most operational, administrative, and financial risks are borne by the contracting entity.	Risks are shared more fairly, with contractors assuming responsibility for achieving results.	Focus on performance monitoring rather than micromanaging activities, **reducing risks** to the contracting entity.
 **Alignment with International Standards and Financing**	May not comply with international standards or external financing requirements.	Comply with international standards such as World Bank requirements, ISO, IPMVP.	Facilitates access to international **financing** and reduces legal and contractual disputes.
 **Transparency & Performance Measurement**	Difficulty in accurately measuring actual performance.	Depend on measurable performance indicators, periodic reviews, and verification of KPIs.	Clear **performance evaluation**, **data-driven decision-making**, and fair application of incentives and penalties.

And the most important reason for performance-based contracts is:

An asset management system and performance-based contracts have the capacity to contribute effectively to achieving the objectives of the relevant Saudi Vision 2030 initiatives, as well as the institutional and strategic goals of the asset-owning entity. This is accomplished by linking these objectives to asset management enablers through which the targeted initiatives, goals, and required value are realized. These enablers constitute the backbone of the asset management system and form the foundation upon which performance indicators are developed and against which accountability is applied.

An example of linking Vision 2030 programs to the entity's objectives and the asset management enablers associated with achieving those objectives:

Entity objectives related to asset management	Asset management enablers linked to achieving objectives
Enabling the highest levels of digital maturity and readiness in the government entity	1. Using smart asset management systems, including deterioration curves, to determine the optimal time for maintenance. 2. Digitizing asset records, operations, and reports
Enhancing transparency and accountability, and supporting payment for value	1. Reducing complaints related to poor asset conditions. 2. Narrowing the gap between beneficiary expectations and operational reality. 3. Focusing on value and impact for money spent, rather than quantities and activities
Promoting innovation and sustainability in operations	1. Enabling innovative and developmental initiatives in operations and maintenance. 2. Keeping up with changing asset demand. 3. Building qualified personnel and an institutional culture of continuous improvement
Enhancing beneficiary satisfaction levels through business oversight to achieve impact	1. Linking operational performance to contractor payments. 2. Integrating asset management with financial and capital planning. 3. Enhancing coordination and data sharing between different departments

Subsequently, Objectives and Key Results (OKRs) are developed to be achieved through performance-based contracts. These OKRs form the foundation for three types of Performance Indicators (PIs), structured across the following three levels:

1. **Strategic Performance Indicators:**

   Established within the asset management strategy to assess the organization's overall alignment and commitment to achieving its strategic objectives.

1. **Tactical Performance Indicators:**

   Defined within the scope of work to evaluate the effectiveness of the entity's enablers, capabilities, and resources in driving progress toward the targeted objectives.

1. **Operational Performance Indicators:**

   Embedded within the specifications of performance-based contracts to assess contractor performance as the execution arm responsible for delivering the required outcomes. These indicators form the basis for monitoring and payment mechanisms, whereby Key Performance Indicators (KPIs) function as high-level strategic metrics for oversight, performance monitoring, and decision-making, while Performance Indicators (PIs) are applied for operational measurement and financial payment calculations.

Types of Performance-Based Contracts

Performance-Based Contracts are not a single template, but rather an integrated set of models, all sharing one objective: '**achieving impact, not merely quantitative output**'

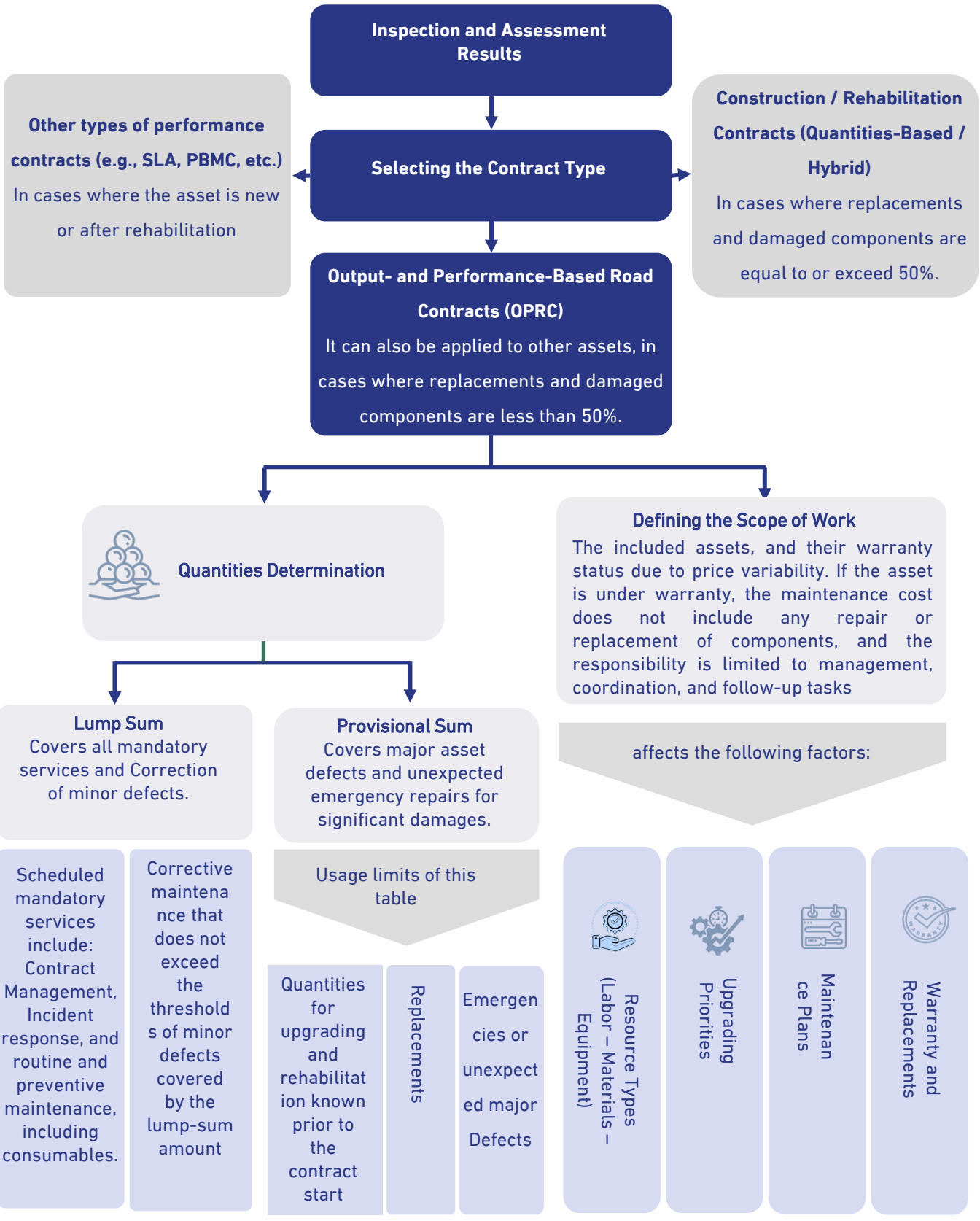
Activity	Output- and performance-based road contract (OPRC)	Service level agreement (SLA)	Performance-based maintenance contract (PBMC)
Management activities	★★★	★★★	★★★
Routine maintenance	★★★	★★★	★★★
Current repairs	★★★	★★★	★★★
Emergency maintenance	★★★	★	★
Winter maintenance	★	★	★
Periodic maintenance (midterm repairs)	★		
Rehabilitation (capital repairs)	★		

Item	Characteristics
Initial Repairs	• Repairs at the start of the contract to bring the road to the desired condition or standard. • Measurable volumes • Volume-based payments (unit rates or lump-sum)
Maintenance Services	• Maintenance and small repairs for full contract duration to keep the road at the desired condition • Volumes not measurable at the start of the contract, but easy to predict • Performance-based payments
Provisional Sum	• Repairs to unforeseen damages or other larger repairs • Volumes not measurable at the start of the contract, and difficult to predict • Volume-based payments under a provisional sum

1. Performance-Based Road Maintenance Contracts in the CAREC Region | Asian Development Bank – Page (7), Table #(5): Maintenance Activities Included in PBRMs, SLAs and OPRCs.
2. Guide to Performance-Based Road Maintenance Contracts – Appendix 1- page (49): Different Types of PBC.
3. PPSD-Procurement-Guidance-Feb-25-WEB.pdf – Page (52), Table # XIV Pricing and Costing Approaches.

EM = emergency maintenance
OPRC = output- and performance-based road contract
PBMC = performance-based maintenance contract
PBRM = performance-based road maintenance
PM = periodic maintenance
RH = rehabilitation
RM = routine maintenance
SLA = service level agreement
WM = winter maintenance.

Methodology for Selecting the Appropriate Type of Performance-Based Contract Based on Asset Condition



What is asset management?

Definition:

Set of interrelated or interacting elements of an organization (3.1) to establish policies (3.5) and objectives (3.6), as well as processes (3.8) to achieve those objectives, in a consistent manner across the organization (3.3.1), to realize value (3.3.28) from assets (3.1.1).

Characteristics:

- Direct alignment between asset management, policies, and the strategic direction of the entity.
- Adoption of a Holistic Approach.
- Data- and risk-based decision-making.
- Improving long-term sustainable performance of assets across their full life cycle.

Purpose:

01

Performance Improvement

- Ensuring assets operate reliably.
- Reducing unplanned failures.

02

Service Sustainability

- Delivering a stable and reliable level of service to beneficiaries.
- Balancing increasing demand with limited resources.

03

Decision Support

- Using data to support investment decisions.
- Developing long-term plans for asset renewal and replacement.

04

Alignment with Institutional and Strategic Objectives

Ensuring asset management is not merely a technical activity, but a key enabler of achieving **business objectives**.

05

Whole Life Cycle Cost Optimization

- Making informed investment and maintenance decisions.
- Deferring or accelerating replacement when it is economically justified..

06

Risk Management

- Identifying asset-related risks.
- Implementing mitigation measures to reduce risk exposure.

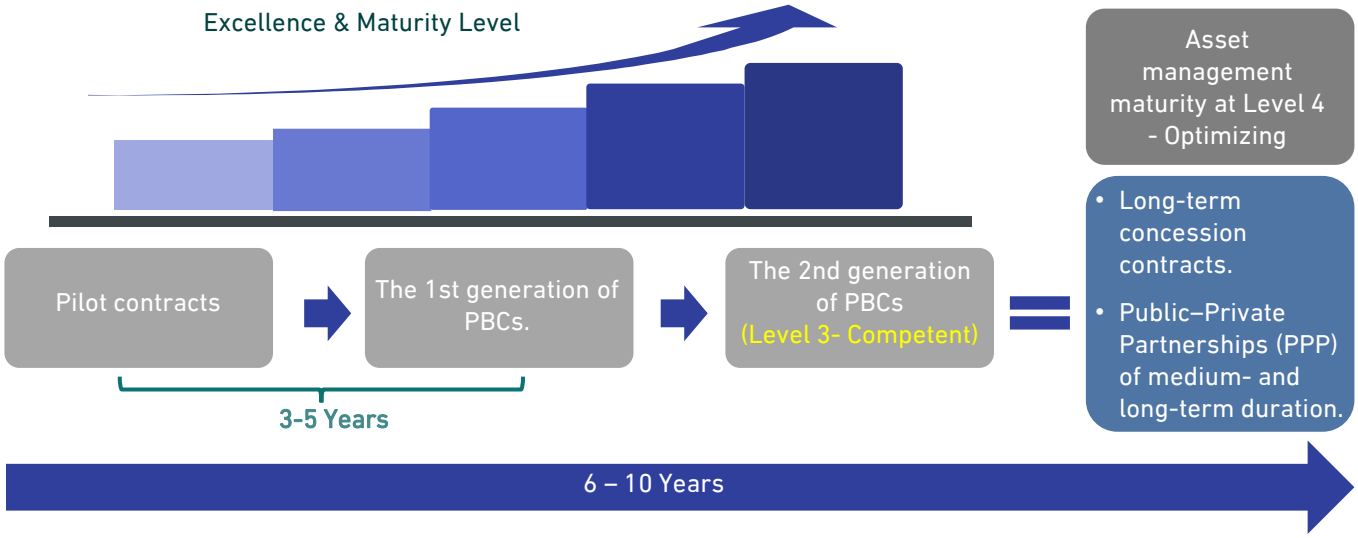
ISO 55000,55001:2024 (cl 3.4)

What is the ultimate objective of an asset management system and the transition to PBCs?

The strategic direction is founded on a gradual progression in maturity levels, ultimately reaching Level Four, through the adoption of performance-based contracts as an initial foundational step, followed by their integration in later stages with concession arrangements or public–private partnership (PPP) models. This approach seeks to maximize value derived from assets, enhance operational efficiency, and enable the sharing of operational and administrative risks, while progressively reducing the financial exposure and risk borne by the government entity. Upon the completion of the second generation of contracts, the government entity is able to transfer the majority of risks, generate financial returns from its assets, and sustain required service levels, thereby establishing a balanced win–win relationship with service providers.

Moreover, even where a government entity does not initially demonstrate a high level of asset management maturity, it can, through the development of a tailored asset management system and performance-based contracts aligned with its ambitions and current maturity level, progressively advance its maturity over time and achieve its medium-term objectives, as illustrated in the figure

below.



Maturity Level	Characteristics
Level 2 - Developing	• Processes begin to form with some consistency. • Documentation and resources are allocated, but implementation is still uneven. • Actions are planned and some systematic work begins.
Level 3- Competent	• Consistent, systematic execution of practices (e.g., IAM processes). • Performance meets expected requirements (such as ISO standards like ISO 55001 in asset contexts). • Behaviors are repeatable and integrated reliably into operations.
Level 4- Optimizing	• The practice is not just followed — it is measured and continuously improved. • Decisions are informed by performance data, risk, and context. • There's proactive refinement and tuning of methods.
Level 5 - Excellent	• Leading-edge practice relative to peers. • Optimization and innovation drive maximum value in line with objectives. • The organization has deeply embedded, context-specific, and highly effective practices.
Concession Contract	It is a long-term legal agreement under which a private entity (the operator or investor) is granted the right to develop, operate, or maintain a public asset, or to provide a public service, while assuming a significant share of the operational, administrative, and financial risks, in return for generating a defined financial return for the government entity in accordance with contractual terms and specified service levels, with ownership of the asset reverting to the government entity at the end of the contract.

Source of maturity level assessment: The Pathway to Excellence in Asset Management – IAM Maturity Scale and Guidance, issued by the Institute of Asset Management (IAM) – IAM Excellence & Maturity

What is the role of asset management?

Asset management represents the strategic framework for **maximizing the value realized from assets throughout their lifecycle**. Its objectives are derived as part of the Strategic Asset Management Plan and consist of aligned activities defined by the government entity, consistent with organizational objectives and the asset management policy, to achieve specific and measurable outcomes. Asset management provides the fundamental link between organizational objectives and the Asset Management Plan (AMP), which describes how these objectives will be achieved. Performance-based contracts serve as the execution tool that translates asset management objectives into measurable outcomes, ensures their achievement, and maximizes optimal asset value over the long term by balancing and aligning the following five dimensions:

The ultimate outcome of implementing asset management systems

1. **Data-Driven Decision Making**
   - Cost-Based Decision Making
   - Risk-Based Decision Making
   - Performance-Based Decision Making
2. **Maximizing Value and Profitability**
   - Asset management focuses on achieving the profitability objectives of the asset owner/investor.
   - Reducing the capital expenditures (CAPEX) of assets.
3. **Balancing Cost and Risk**
   - Balancing and prioritizing cost, risk, and performance throughout the entire asset lifecycle is at the core of asset management.

Why do performance-based contracts struggle to succeed in the absence of a robust asset management system?

The effort invested in building an asset management system is the same effort that strengthens performance-based contracts, and the **value generated by an asset is maximized when it is governed by strategic thinking and executed through a results-based contract**.

However, some asset-owning entities—despite their natural enthusiasm for transformation—move directly toward developing performance-based contracts without first establishing the professional foundations upon which such contracts depend, and without engaging specialized experts who understand the depth of the methodology and the requirements for success. The result is contracts labeled as "performance-based," yet lacking the essence of true performance: clear objectives, defined value to be achieved, measurable impact, and a direct linkage between payment and results.

Source of maturity level assessment: The Pathway to Excellence in Asset Management – IAM Maturity Scale and Guidance, issued by the Institute of Asset Management (IAM) – IAM Excellence & Maturity

How can a performance-based contract succeed if it is not built on a system that defines objectives, articulates value, and measures returns? And how can service levels be managed if they were never defined in the first place, or performance indicators be applied if they are not grounded in reliable data?

What fails in such cases is not the performance-based model itself, but its incomplete application, because these are **not truly performance-based contracts, but rather traditional contracts merely adorned with modern terminology without any fundamental change in substance**. It is here that the role of Euro Group's expert team becomes evident, delivering integrated, practical, and realistic systems, while transferring knowledge and building the asset-owning entity's internal capabilities to ensure the sustainability of the transformation, the success of the experience, and the establishment of genuine performance-based contracts that are managed with the same level of rigor with which they were designed.

Accordingly, the asset-owning entity requires a robust and genuine asset management system for the successful implementation of performance-based contracts, which must be:

1. Performance indicators are based on asset management data.
2. Service levels are derived from lifecycle management plans.
3. Risk allocation is driven by institutional risk analysis.
4. Operating and replacement costs are provided by maintenance records.
5. Governance is an integral part of the asset management framework, not merely a contractual component.

Comparison between Asset Management and Facilities Management

The National Asset and Facilities Management Guide, ISO 55000:2024, the Institute of Asset Management (IAM), and the International Infrastructure Management Manual (IIMM) all emphasize a fundamental distinction between asset management and facilities management. Asset management represents the strategic framework concerned with maximizing value across the asset lifecycle by balancing performance, cost, and risk, whereas facilities management operates at the operational level, focusing on asset operation and the delivery of day-to-day services in accordance with the policies and service levels defined by asset management. This distinction is essential to **avoid conceptual confusion and to ensure the successful implementation of performance-based contracts and the achievement of sustainable value**.

	Asset Management	Facility Management
Primary Focus	Maximizing asset value and return on investment (ROI) throughout the asset lifecycle	Ensuring an optimal, safe, and comfortable physical work environment
Key Responsibilities	• Asset acquisition and disposal • Lifecycle management • Financial management of assets • Risk management • Performance optimization	• Operations and maintenance of facility • Space management • Health and safety compliance • Environmental sustainability efforts
Example of Work	Decides on purchasing new machinery, monitors asset performance, and plans for asset replacement to maximize efficiency and value	Manages building systems (HVAC, plumbing), organizes workspaces, and ensures safety protocols
Financial Focus	Capital expenditures (CapEx) related to asset purchases, upgrades, and lifecycle costs	Operating expenditures (OpEx) for facility maintenance, utilities, and daily operations
Stakeholders	Works closely with finance, operations, and executive teams to align asset strategies with business goals	Collaborates with employees, maintenance staff, and health & safety teams to meet facility needs
Risk Management	Identifies risks associated with asset ownership (e.g., equipment failure) and plans for mitigation	Manages risks related to facility operations, such as safety hazards or system failures
Objective	Maximize asset utilization and financial returns for long-term investment efficiency	Provide a productive and safe work environment that supports operational continuity
End Users	Stakeholders using high-value assets like equipment or real estate for production or business purposes	Occupants of the facility, including employees, clients, and visitors

This distinction is consistent with the provisions of ISO 55000:2024, which defines asset management as an **integrated decision-making system that balances performance, risk, and cost to achieve value**, while **facilities management is considered one of the outputs and execution tools of this system—**not a substitute for it. The Institute of Asset Management (IAM) further reinforces this view through its capability model, which positions facilities management within the operational execution domain, while asset management remains the authoritative reference that defines required service levels, maintenance policies, investment priorities, and performance criteria.

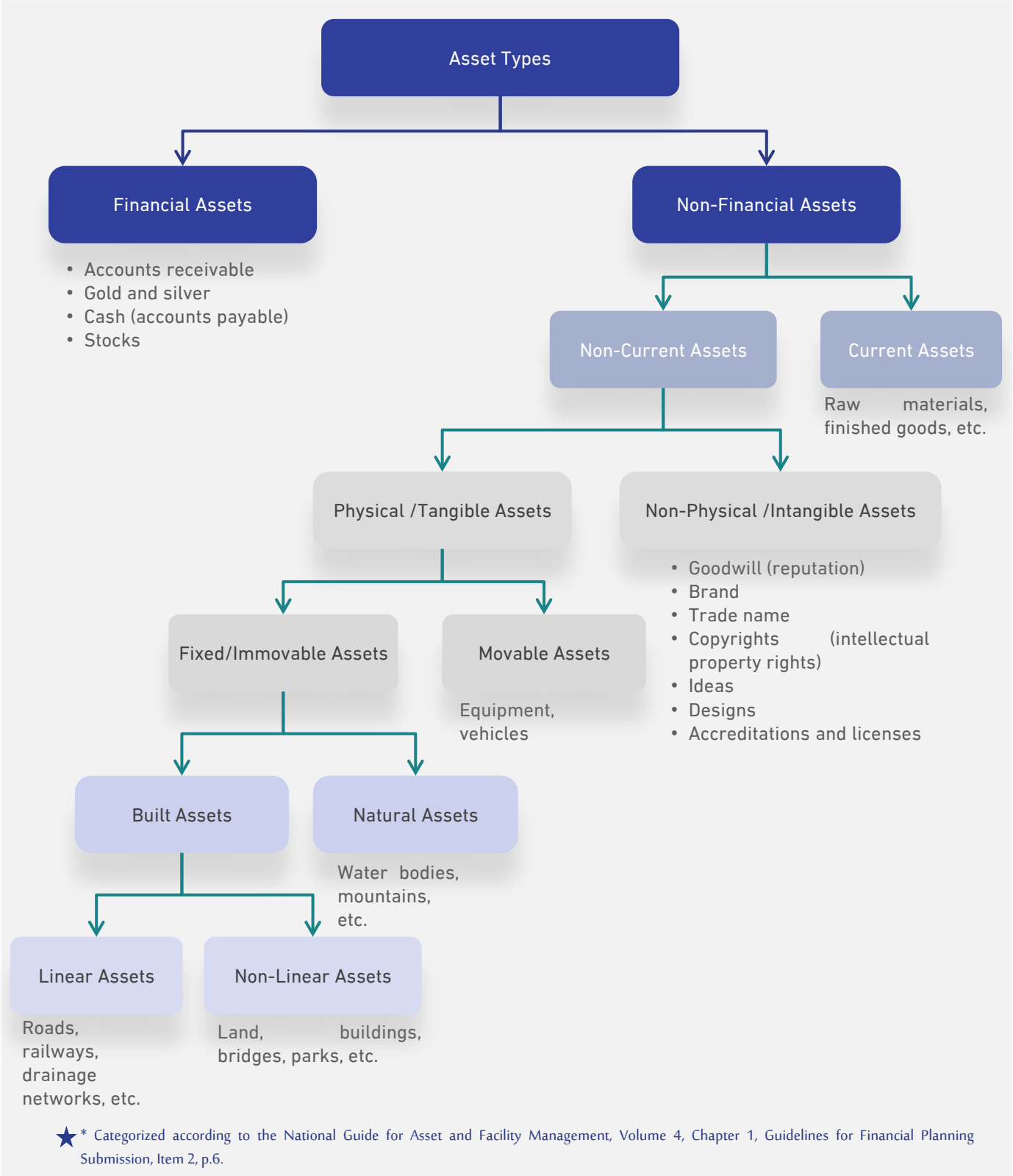
This understanding is further supported by the International Infrastructure Management Manual (IIMM), which emphasizes that **successful asset management is not measured solely by the efficiency of day-to-day operations**, but by an **organization's ability to plan for the long term, manage risks, and achieve financial sustainability—**responsibilities that do not fall within the remit of facilities management alone. The National Project Management Guide also reinforces this functional separation by stressing the need to align project management with asset management, ensuring that project success is not narrowly defined by the operational phase, and that facilities management is not burdened with strategic responsibilities beyond its operational role.

Accordingly, **confusion between these two concepts often leads to the failure of performance-based contracts, as such contracts are managed through a facilities-operation mindset**, while performance-based contracting requires a strategic asset management reference framework that defines objectives, value, performance indicators, and service levels. Hence, a **clear and deliberate separation between asset management and facilities management—**while integrating them within a unified institutional framework—**becomes a fundamental prerequisite for successful transformation** and for ensuring the sustainable realization of value from public assets.

What is an asset? And what are its types?

Definition: Any element, component, or entity that holds potential or actual value (3.3.28) for the organization/entity.

The following are the types of assets



* Categorized according to the National Guide for Asset and Facility Management, Volume 4, Chapter 1, Guidelines for Financial Planning Submission, Item 2, p.6.

Asset Lifecycle Stages

In asset management, **acquisition cost represents only the tip of the iceberg;** the true burden—and the true value—lies beyond it. Design and construction, regardless of their quality, **constitute just one phase in a long journey that ultimately determines the asset's fate**. The subsequent phases—operation, maintenance, and renewal—consume the majority of time and cost, and it is within these phases that the asset's real value is extracted, beneficiary satisfaction is measured, and objectives are achieved.

An asset's story does not end at acquisition; rather, it begins there. **Excellence lies not in building the asset, but in its ability to perform, remain sustainable, and deliver continuous value throughout its lifecycle**. Without conscious and effective management of these stages, an asset shifts from being a value-generating resource to a neglected liability and an operational and financial burden.

Planning

- Identifying the need for the asset.
- Conducting technical and economic feasibility studies.
- Assessing risks and expected benefits.
- Defining the required level of service.
- Preparing the asset investment plan, including options analysis, cost estimation, benefits calculation, value-for-money assessment, and recommendations.

Acquisition

Design

- Preparing detailed engineering designs.
- Calculating actual costs.
- Developing the implementation plan.

Construction / Procurement

- Executing the procurement and award process.
- Constructing or installing the asset.
- Verifying compliance with specifications.

Operation

- Operating the asset in accordance with defined standards.
- Carrying out the daily activities required to achieve the target level of service.

Maintenance

Its purpose is to preserve asset performance and reduce failures, and it includes the following:

- Routine Maintenance
- Preventive Maintenance
- Corrective Maintenance
- Predictive Maintenance (high level of maturity)

Renewal or Rehabilitation

- Improving or rehabilitating the asset to extend its service life.
- Replacing major components.
- Enhancing performance to meet future needs.

Asset Disposal

- Assessing the asset's suitability for decommissioning.
- Developing a safe disposal plan.
- Removing, selling, or recycling the asset.
- Documenting final data and lessons learned.

ISO 55000:2024 (EN) – Clause 3.3.1
Categorized according to the National Guide for Asset and Facility Management, Volume 4, Chapter 1, Guidelines for Financial Planning Submission, Item 2, p.6.

The Key relationship between the assets, asset Management activities and the organization.

The process of defining asset portfolios represents the foundational step from which the entire asset management system is established. It transforms assets from isolated holdings into an integrated system governed by a clear purpose, a well-defined strategy, and coordinated processes that ensure the realization of the highest possible value across the asset lifecycle.

- ✓ The goal of the ISO 55000 standards is to define the minimum requirements for the joined up whole life cycle asset management system.
- ✓ It is not to be a practices guide – the standard describe the good practices corresponding to evidence of the competent system of management.
- ✓ The standards can be applied to all types of assets, such as physical equipment and infrastructure, people, information, financial assets, intellectual property and reputation.

Relation between Asset Management and other entities

Asset Portfolio	Asset Management System	Asset Management	Managing the Organization
Assets that are within the scope of the asset management system	Set of interrelated or interacting elements to establish asset management policy, asset management objectives and processes to achieve those objectives	Coordinated activity of an organization to realize the value from assets	Managing the organization – the leadership and establishment of culture motivation and competences

Source: The Strategy Pyramid –Wendy McGuinness institute

ISO 55000:2024 (EN) – Clause 3.3.1
Categorized according to the National Guide for Asset and Facility Management, Volume 4, Chapter 1, Guidelines for Financial Planning Submission, Item 2, p.6.

Asset Management System Scope

Defining the scope of the asset management system is the foundational step upon which all components of the framework are built. It establishes the boundaries of operation, areas of influence, responsibilities, and resources, and ensures that assets are managed under a clear vision that encompasses time, location, function, funding, risks, services, and lifecycle considerations, thereby achieving full alignment between strategy and execution.

Scope	Details
Time Scope	•Asset life cycle: planning, procurement, operation, maintenance, replacement and disposal. •Time horizon covered by the plan (e.g., 5 years or 10 years). •Maintenance and replacement schedules.
Geographic Scope	Locations covered by the asset management system may include: a municipality, a governorate, an asset portfolio, or a network of assets (e.g., water or electricity networks).
Organizational Scope	Includes departments and entities involved in asset management such as planning, operations, maintenance, finance, quality, risk, crisis and emergency management, procurement, and human resources (training, knowledge transfer, and localization). In accordance with ISO 55001 Clause 4.3 – Boundaries and Scope of the Asset Management System.
Asset Scope	What assets are included within the asset management system
Financial Scope	• Asset budgets (CAPEX / OPEX).• Asset valuation. • Depreciation. • Budget forecasts. • Decision-making models based on cost, risk, and performance.
Risk Scope	• Types of risks covered by the asset management system. • Risk analysis methodologies. • Acceptable risk levels.
Service Scope	• Levels of Service (LOS). • Operational requirements for assets. • Expected quality and reliability.
Lifecycle Scope	• Covers all life cycle stages: planning, construction or procurement, operation, maintenance, renewal/replacement, and disposal. • This scope aligns with IIMM principles.

- ISO 55001 — Clause 4.3: Determining the scope of the asset management system
- ISO 55000 — Sections 2.4, 2.5: Which explain lifecycle, organizational functions, and boundaries.
- IAM – Asset Management Landscape (Subjects S1, S2, S4, S7, S8): Identify strategic, operational, and organizational scopes.
- IIMM (Chapters 2–8): Specifically describes lifecycle scope, service scope, financial scope, risk scope.

Government Asset Disposal Process

The procedures for disposing of government assets in the Kingdom of Saudi Arabia are subject to specific regulations issued by the Ministry of Finance to ensure transparency, efficiency, and proper use of government resources. These procedures are governed by the Unified Regulations for Government Asset Management (Properties), issued under Ministry of Finance Circular No. 15730 dated 12/2/1440 AH, along with its subsequent updates.

Methodology for Developing an Asset Management System and Performance-Based Contracts

The development of an asset management system and the implementation of performance-based contracts (PBCs) represent a single, integrated pathway. The former serves as the strategic system that governs how assets are managed and how their value is realized, while the latter functions as the execution mechanism that translates this strategy into measurable outcomes across the asset lifecycle. True integration between the two can only be achieved through the application of a comprehensive methodology that is directly aligned with the ten elements of the Institute of Asset Management (IAM) and simultaneously incorporates the natural stages that any asset-owning entity undergoes when establishing its institutional model.

Outlined below is the comprehensive methodology adopted by Euro Group Engineering Consultants, in which the ten asset management domains (the IAM 10-Box Model)—the organizational capability model issued by the Institute of Asset Management (IAM)—are used as the foundation for developing the asset management system elements. This methodology is aligned with the National Asset and Facilities Management Guide issued by the Expenditure and Projects Efficiency Authority (EXPRO), the international standard ISO 55001:2024, and the International Infrastructure Management Manual (IIMM). Together, these references integrate the core development stages with the natural implementation pathway to ensure the establishment of a robust, executable, and continuously improvable system

Unified Regulations for Government Asset and Property Management, Ministry of Finance, Relevant Ministry of Finance Circulars (e.g., Circular No. 15730 dated 12/2/1440 AH) and aqarat.mof.gov.sa
iam-anatomy-version-4-final.pdf, Page (31).

Strategy | **Framework** | **Action Plan**

Purpose & Context

- Organizational Purpose and Context
- Stakeholder Management

Leadership & Governance

- Asset Management Leadership.
- Asset Management Policy.
- Asset Management System.
- Asset Management Assurance And Audit.
- Technical Standards and Legislation>

Organization & People

- Organizational Arrangements.
- Organizational Culture.
- Competeance Management.
- Organizational Change Management.

Life Cycle Delivery

- Asset Creation and Acquisition.
- Systems Engineering
- Integrated Reliability.
- Asset Operations.
- Maintenance Delivery.
- Incident Management & Response.
- Asset Repurposing & Disposal

Information Management

- Asset Management Data and information Strategy.
- Knowledge Management.
- Asset Management Data and Information Standards.
- Asset Management Data and Information Management.
- Asset Management Data and Information Systems.
- Configuration Management.

Strategy & Planning

- Demand Analysis
- Sustainable Development.
- Asset Management strategy and objectives.
- Planning.
- Shutdown & Outage strategy & planning.
- Contingency planning & Reslience Analysis.
- Resource Strategy and Management.
- Supply Chain Management.
- Life Cycle Value Realization.
- Asset Costing and Valuation.

Asset Management Decision- Making

- Decision- Making

Risk

- Risk Management

Review & Continual Improvement

- Monitoring
- Continual Improvement
- Management of change

Value & Outcomes

- Outcomes and Impact

Unified Regulations for Government Asset and Property Management, Ministry of Finance, Relevant Ministry of Finance Circulars (e.g., Circular No. 15730 dated 12/2/1440 AH) and aqarat.mof.gov.sa iam-anatomy-version-4-final.pdf, Page (31).

Eng. Wael Helmy Badawy is a prominent regional leader in infrastructure strategy, asset management, and performance-based delivery, with over two decades of driving transformative national programs across Saudi Arabia, Qatar and Egypt. His distinguished portfolio spans multi-billion-riyal highway construction and rehabilitation, asset modernization, and strategic infrastructure development, positioning him as one of the key contributors to the Kingdom's contemporary transformation landscape.

In collaboration with the Ministry of Transport and Logistics Services (MoTLS), Eng. Wael served within the expert team behind the Ministry's groundbreaking MMAP and PBC transformation program, a national milestone that earned the prestigious CIPS UK "Highly Commended Public Procurement Project of the Year 2022."

Recognized by Euro Group Engineering Consultants as one of their strategic leaders, he currently serves as Technical Manager and Asset Management Expert at the Ministry of Municipalities and Housing (MOMAH). In this role, he leads a team of multi-experienced experts in driving integrated municipal transformation across municipalities. He spearheads the development of national policies, strategies, and frameworks, conducts maturity assessments, and implements performance-based maintenance systems aligned with ISO 55000, IAM, IIMM, and EXPRO standards. His work spans urban roads, bridges and structures, municipal buildings, parks, stormwater systems, and street lighting, delivering measurable improvements in municipal asset management.

His leadership footprint extends further across the Kingdom, having served as Regional Manager in the Eastern Province, overseeing multi-billion-riyal road rehabilitation and maintenance programs, and contributing—on a selective basis—to major national initiatives including projects under the Royal Commission for AlUla, as well as large-scale infrastructure programs in Al-Jouf, Riyadh, and the Eastern Province.

Internationally, he has managed EPC and civil works for Qatar Petroleum and delivered Aramco-affiliated infrastructure projects as Projects Manager, reinforcing his expertise across both government and industrial sectors, and earlier in Egypt, he led major projects within the National Roads Plan, including key segments of the Cairo Regional Ring Road, the Cairo–Suez Road, and multiple strategic corridors.

A recognized voice in professional development, Eng. Wael has delivered over 40 high-level workshops in strategic transformation, project management, asset management, and quality systems, contributing to national capacity-building and institutional advancement.

Today, he remains an active contributor to national transformation initiatives, particularly those focused on asset management modernization and performance-based contracting (PBCs) cementing his role as an influential figure shaping future-ready infrastructure across the region.

Together... we build a higher-quality environment, greater financial efficiency, and more sustainable services.