

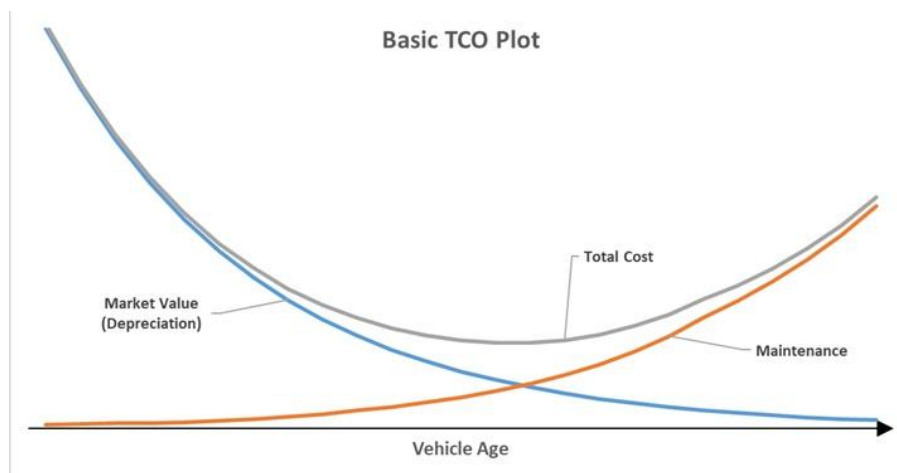
Why are some fleets running trucks for 800,000 km and others for 1,600,000 km?

Managing a fleet of vehicles isn't just about buying and selling trucks—it's about finding the right balance of use, maintenance, and replacement to keep costs down and uptime high. Some companies swap out trucks around 800 000 km; others push them past 1 600 000 km. Why such a gap? It comes down to financing choices, local rules, customer needs, and—most importantly—the skills of your maintenance team. This article examines a framework with practical tips and real-world examples to help you make smarter decisions.

Depreciation and Maintenance Costs

TCO in Plain English

Imagine plotting a truck's value versus its maintenance bills over time. Early on, depreciation bites hard, then flattens out. Meanwhile, maintenance costs start low and slowly creep up until major work kicks in. Seeing these curves together helps you spot your sweet spot.



Finding Your Replacement Point

The trick is swapping vehicles just when your repair bills start to climb faster than you're saving by holding on. Lots of fleets stick to a rule of thumb—say, 800 000 km—but with good data you might find yours hit that break-even closer to 1 200 000 km or more.

Industry stats

The 2025 Fleetio Fleet Benchmark Report, predominately US based, revealed some interesting fleet stats.

<https://www.fleetio.com/resources/white-papers/benchmarking-report>

The average fleet vehicle is 7 years old with 367,800 km completed.

When are these vehicles retired?

- When the odometer reaches a predetermined number – 17%
- When the vehicle breaks down or is no longer operable – 21%
- When the vehicle has been in service for a set number of years – 16%
- When the cost of operating the vehicle pass a threshold – 38%

Incentives and Rules Shape Decisions

Different Ways to Pay for Trucks

Buying outright, taking a loan, hire-purchase or asset-backed financing all change how much you pay each month and when you feel the pinch. Some deals push you to replace vehicles sooner; owning them outright gives you full say on timing.

Local Regulations and Their Impact

In Europe you've got strict operator licences; in South Africa, rules are much looser. The strict Operator Licence regimes mandate preventive-maintenance schedules, record-keeping and annual Periodic Technical Inspection (PTI), which includes an emissions test, which directly shape replacement timing. SA based vehicles, on the other hand, only require an annual road worthy inspection (COF), excluding any emissions testing. In SA, this hardly features in the replacement calculus.

OEM Incentives

Manufacturers often include warranties or guaranteed-buyback clauses that make certain mileage bands more attractive. Additionally, they may provide discounts on trade-ins. These incentives can shift your economic sweet spot—just be sure to model their true impact on your TCO.

Why Your Maintenance Team Matters

Going Beyond Break-Fix

Teams that use oil analysis, or thermal imaging can delay big repair bills. If you're stuck waiting for breakdowns, you'll often choose to replace vehicles earlier to dodge surprises.

Preventive and predictive maintenance effectiveness

Skilled staff are better at collecting accurate failure-mode data and interpreting trends. With reliable CMMS data and condition-monitoring, they can optimise inspection intervals and parts-change schedules to delay the steep rise in wear-out failures. In fleets lacking those skills, maintenance usually defaults to reactive fix-on-failure, and operators choose shorter replacement intervals to avoid unpredictable downtime.

In the Fleetio benchmark report the following split was reported:

- Scheduled (planned) maintenance: 54.5%
- Unscheduled (unplanned) maintenance: 39.3%
- Emergency work (breakdowns): 6.2%

The ideal split being 70% (Scheduled) / 30% (Unscheduled).

Quality of Overhauls

A properly done mid-life overhaul can reset wear and extend life. Cut corners, and you'll just speed up failures—and costs.

Early-life failures and “infant mortality”

Poorly trained technicians or weak procedural controls often show up as a cluster of failures right after a rebuild or service event. High-skill teams mitigate these early failures by following best-practice commissioning, proper torque-and-torque-sequence, correct parts selection, and thorough post-service checklists.

Effectiveness of overhauls and life-extension tasks

When you send a truck for its mid-life engine or driveline overhaul, the quality of that work determines how close you come to “resetting” the wear-out curve. Re-using fatigued (salvaged) parts or doing incomplete remanufacture means each successive overhaul may actually shorten time to next failure.

Technicians with deeper diagnostic expertise (e.g., oil-analysis interpretation, precision machining tolerances) can reliably rebuild to OEM or better standards, keeping trucks beyond 1 200 000 km rather than replacing at 800 000 km.

The Human and Industry Side

The Disappearing Fleet Engineer

Outsourcing and fewer dedicated roles mean less in-house know-how. When you lose that expertise, you rely more on outside advice—and that can get expensive.

Shift to service-provider models

Manufacturers, leasing companies and outsourced maintenance providers have structured their offerings around turnkey “full-service leases” and “complete maintenance solutions.” They bundle in scheduling, repair, parts sourcing, warranty handling and reporting. With that, the classic in-house Fleet Engineer—who'd plan preventive maintenance, do root-cause analysis, set up on-site workshops—has often been supplanted by a few “vendor management” or procurement specialists.

Fleet Engineer - IRTE: <https://www.soe.org.uk/our-sectors/irte-professional-sector.html>

Getting Ahead with Standards

Achieving certification through programs like RTMS offers significant advantages, particularly in promoting consistency across operations. It outlines processes for daily roadworthy checks, tyre management, speed-limit monitoring and more.

These operators leverage their structured systems to optimize resource allocation, enhance reliability, and improve overall efficiency, giving them a competitive edge. Formalizing procedures is not just about compliance—it's a strategic move toward sustainable growth and industry leadership.

RTMS/SANS 1395-1 <https://rtms-sa.org/>

Duty Cycles and Their Effects

Highway vs City Use

Highway trucks tend to last longer—gentler cycles. City trucks face constant stops, starts, and idling, which wear parts faster.

Heavy Loads

Running at or near max weight puts more stress on engines, brakes, and tyres. Without matching maintenance, you'll find yourself replacing earlier.

Actionable Steps You Can Take Today

1. **Build Your Own TCO Model:** Clean and integrate your odometer, maintenance and depreciation data so you can plot real-life curves rather than relying on rule-of-thumb mileage cardata.co
2. **Invest in Predictive Skills:** Train staff on condition-monitoring tools and CMMS data-analysis to move from reactive to proactive maintenance.
3. **Reinstate Fleet Engineering Roles:** Appoint a lifecycle-planning lead to own the data, coordinate overhauls and liaise with service partners.
4. **Engage in Standardization Forums:** Participate in RTMS, industry associations or international working groups to influence practical, context-appropriate standards.
5. **Track Your Compliance Metrics:** Aim for > 75% scheduled maintenance compliance—fleets above that threshold report 35% lower emergency-repair rates.

Conclusion

There's no single "right" odometer reading. Your economic sweet spot sits at the intersection of depreciation, repair-cost escalation, financing terms, OEM incentives and regulatory realities. By plotting real curves, upskilling your team and engaging with standards, you'll unlock extended lifecycles—often well past a million kilometres—while cutting total costs and boosting uptime.