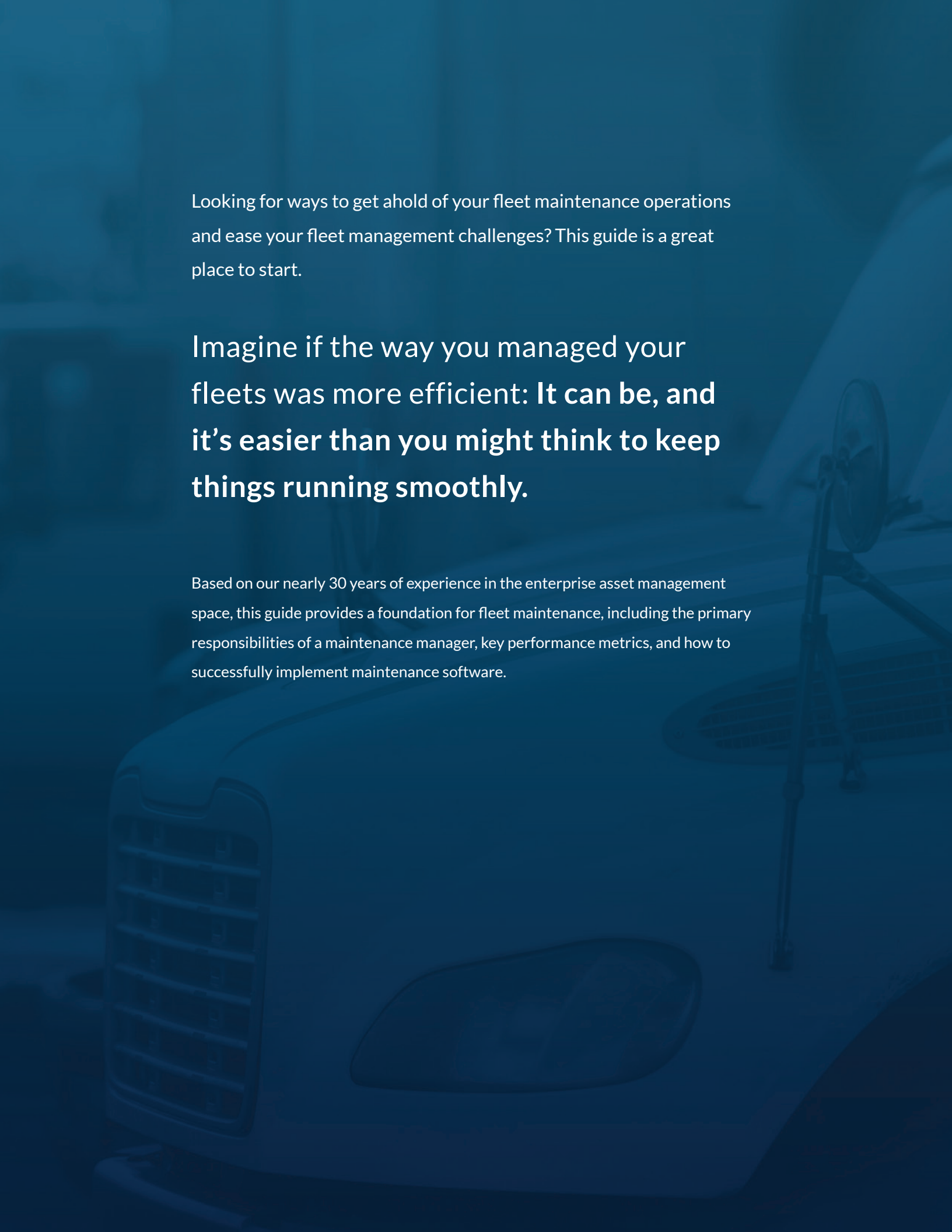




# Fleet Maintenance Toolkit



ManagerPlus®



Looking for ways to get ahold of your fleet maintenance operations and ease your fleet management challenges? This guide is a great place to start.

Imagine if the way you managed your fleets was more efficient: **It can be, and it's easier than you might think to keep things running smoothly.**

Based on our nearly 30 years of experience in the enterprise asset management space, this guide provides a foundation for fleet maintenance, including the primary responsibilities of a maintenance manager, key performance metrics, and how to successfully implement maintenance software.

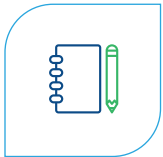
# Set a Clear Path Forward to Smarter Maintenance Management

The best place to start creating a strategy for more efficient fleet maintenance is to assign responsibilities. There needs to be a clear hierarchy to ensure each team member understands the scope of their accountability.

## Enable Maintenance Managers & Set Clear Expectations.

Maintenance managers take on the overall responsibility for maintenance policies and the documentation of all completed maintenance activities. They also have ownership of setting up practical maintenance processes.

### Maintenance managers:



#### Plan, Schedule, & Coordinate Corrective and Preventive Maintenance Activities

Maintenance managers are responsible for ensuring maintenance is proactive and deliberate—not strictly reactive when issues occur. Proactive maintenance is accomplished by analyzing future maintenance needs for each individual asset, scheduling preventive maintenance (PM), and assigning work orders for follow through.



#### Launch Processes With An Advanced Schedule That Others Can Access

Maintenance work should be scheduled in advance with a plan that can be shared across the enterprise. By letting your teams see what work is waiting on them and what work is next up on the agenda, expectations are clear. Keeping a forward-looking schedule increases collaboration and coordination.



#### Ensure The Integrity Of Your Asset Data

Maintenance managers must ensure the integrity of all maintenance data—regardless of where the data resides. They are challenged with creating system procedures and policies, and training mechanics, operators, and drivers to use them. By implementing procedures that ensure data integrity, organizations can maximize their effectiveness and efficiency.





### Monitor Inventory Levels

Work orders can't be completed without the needed parts and materials. Maintenance managers must have reliable inventory to prevent any delays in maintenance due to insufficient resources.

Likewise, they must avoid overstocking situations in order to prevent unnecessary costs.



### Quality Control

Managers set up your team for success with proper training. They establish clear guidelines and policies, implement quality control for completed tasks, and check that all information is being recorded properly.



### Manage Incoming Work Requests

While preventive maintenance requests should be autogenerated by your asset management platform, many other maintenance needs occur when someone notices an issue and schedules the appropriate response. It is the maintenance manager's job to monitor the alerts and manage all of the immediate requests that come through.



# Establish Expectations & Role Requirements for Operators/Drivers

The second level of responsibility lies with the operators/drivers of the vehicles. They should have a sense of personal responsibility for the vehicles and related assets they use.

**The operators' scope of responsibility includes:**



## Ensuring Compliance

Operators and drivers are the associates closest to operational compliance needs in the assets they use. Their job includes making sure their vehicles have the required licensing and are up-to-code with applicable laws for the regions they will be operating in.



## Performing Regular Inspections

Operators must report any problems they discover. Their job includes performing inspections on a daily basis, including Driver Vehicle Inspection Reports (DVIRs), which require them to be expertly acquainted with the exact condition of their vehicle.



## Reporting Needed Maintenance

Maintenance managers rely on operators to diligently and immediately report work requests. What hasn't been reported can't be repaired.

Once a clear line of responsibility has been established for both the maintenance managers and the operators/drivers, more specific maintenance items can be considered.

## Create a Checklist

Creating a basic inspection checklist is important for staying out in front of fleet maintenance. List the general observations that need to be performed for each asset in your fleet and decide when the checklist should be completed—at the beginning of each shift or at the beginning of each week, for example.

# Fleet Inspection Checklist

This is a conservative list. Add your own metrics based on your daily operations.

## CHECK ALL MAJOR FUNCTIONALITIES

- ☐ Fuel system
- ☐ Brakes
- ☐ Auxiliary brake
- ☐ Battery
- ☐ Exhaust
- ☐ Engine noise
- ☐ Engine cooling
- ☐ Axels and CV joints
- ☐ Hoses and connections

## CHECK CABIN CONTROLS

- ☐ Air conditioning/heat
- ☐ Defrost front/rear
- ☐ Cruise control
- ☐ Dash and interior lights
- ☐ Windshield wiper controls
- ☐ Directional signals
- ☐ Radio
- ☐ Mirrors and seat adjustment

## CHECK SAFETY FEATURES

- ☐ Seat belt
- ☐ Horn
- ☐ Air bags
- ☐ First aid and emergency supplies

## INSPECT UNDERCARRIAGE FOR:

- ☐ Rust
- ☐ Corrosion
- ☐ Loose hardware

## CHECK ALL LIGHTS

- ☐ Headlights
- ☐ Fog lamps
- ☐ Daytime running lights
- ☐ Directional signals
- ☐ Brake lights
- ☐ Reverse lights
- ☐ Hazard lights
- ☐ License plate light

## CHECK FLUID LEVELS & LOOK FOR LEAKS

- ☐ Oil
- ☐ Radiator fluid
- ☐ Transmission fluid
- ☐ Power steering fluid
- ☐ Brake fluid
- ☐ Air conditioning coolant
- ☐ Washer fluid

## CHECK WHEELS

- ☐ Tires and rims
- ☐ Trailer tires and rims
- ☐ Spare tire and jack

## INSPECT BELTS

- ☐ Serpentine belt
- ☐ Fan belt
- ☐ V belt
- ☐ AC belt
- ☐ Timing belt

# Get The Right Technology

Manual fleet maintenance processes that rely on paper documents and isolated spreadsheets are prone to mistakes such as missed maintenance, lost paperwork, low accountability and slow-moving communication. Many companies have made the switch to fleet management software to automate time-consuming processes, reduce costs, enhance operations, and ensure greater accountability.

When it comes to mastering your maintenance process, automated features contained within software systems are your most important time saver.

By automating your maintenance with a modern platform such as [ManagerPlus Lightning](#), your capabilities expand in several ways:

## Assets



Your platform is oriented around your assets. Therefore, its value is based on having thoroughly detailed asset data for each asset that you manage. Automated processes can prompt teams to record the correct data. Asset descriptions, for example should include manufacturer, make, model, vehicle identification number, warranty information, and photos when available. They can be organized according to groups, categories, types, and location.

## Work orders



Work orders are the main cues for your maintenance department activities. Your platform should have the ability to automatically generate them when assets are in need of specific maintenance. For example, preventive maintenance work orders can be generated automatically based on triggers such as time, mileage, or hours of service.

## Strategic dashboard



Centralize access to your schedule within your work order and request management systems. Daily, weekly, and monthly views of the planning dashboard should be available to managers, operators and maintenance teams. Orders and requests should be accessible through mobile devices for teams that are frequently on the road.



## Inventory tracking

Maintenance often involves materials and parts. Tracking inventory is necessary. A single out-of-stock item can bring maintenance to a standstill. By integrating inventory with work orders, the parts used are automatically tracked. Additionally, your asset management platform should generate a notification when inventory gets low.



## Employee certifications

Part of maintaining your fleet is ensuring compliance with any regulations, standards, and policies. Managers should check to make sure that employee certifications, licenses, and training are up to date. Powerful asset management platforms track certifications and licenses and automatically send notifications when it is time to renew.



## Integrations

Asset management solutions should smoothly connect with your other software applications, such as GPS, fuel tracking, and behavior monitoring. These integrations enable a greater opportunity to leverage your automated processes.



## Data Organization & Analysis

Data needs to be accurately recorded and securely stored within your asset management platform. Your recorded data ultimately needs to be actionable in order for it to have impact on your business. Ensure the data is displayed automatically in real time and can be easily accessed through dashboards.





# Know Your Metrics

Enhancing your fleet maintenance strategy over the long term will come down to collecting valuable metrics, analyzing the trends your data uncovers, and identifying areas for improvement.

Below is a list of metrics to start with:

## Total Cost of Ownership (TCO)

To calculate the TCO, add all costs: initial purchase; customization; licensing; replacement parts and materials; preventive maintenance; corrective maintenance; and disposal costs. If appropriate, subtract the selling price of the asset at the end of its life.

## Miles Per Gallon (MPG)

MPG is used when calculating operating costs and fuel efficiency for each vehicle. You should also monitor MPG as a way to recognize engine health. Record MPG on a weekly basis, watching for trends.

## Preventive Maintenance Completion Rate

In an ideal world, everyone's PM completion rate would be 100%. Realistically, not all tasks are completed all of the time, and completion rates can vary from day to day and week to week. Tracking your PM completion rate can help you identify patterns and discover new opportunities to create process improvement.

## Empty Miles

Empty miles refer to the times when your vehicles are operating, but their use isn't tied to a project or revenue stream. For tractor-trailers, empty miles can average as high as 20% of operating time, and for smaller, private fleets, as high as 35%. Work to reduce your empty mile percentage through routing efficiencies whenever possible.

## Cost Per Mile (CPM)

CPM is usually calculated on a monthly basis by taking the total expenses associated with operating a vehicle and dividing by the number of miles driven. Make sure you factor in insurance, fuel, and maintenance costs. For long-haul fleets, meals or other travel expenses may apply here. The CPM can be calculated per vehicle, as an average, or a combined total for the entire fleet.

## Idle Time

Idle time refers to the hours your engines are running when the vehicle isn't moving. Although miles aren't being added to the odometer, the engine still experiences wear. Most of all, idling burns up a surprising amount of fuel—as much as 1 gallon per hour, according to the U.S. Department of Energy. Over time, this seemingly small cost adds up.

## Asset Utilization Rates

Utilization rates are often measured in terms of hours or miles. Compare each asset's utilization rates against your average to discover which assets are used the most or the least. Seek to increase your utilization to get the most out of your investments or consider paring down assets that are rarely used.

## Hours of Service (HOS)

HOS measures the amount of time that your asset is operating. Department of Transportation and Federal Motor Carrier Safety Administration regulations set benchmarks with the HOS metric to help prevent accidents caused by driver fatigue. Document your HOS for safety and compliance purposes.

# Adopting Technology for Fleet Maintenance

Smart businesses are shifting to computerized asset management systems to deliver their fleet maintenance more efficiently. But without a well designed strategy to underlie the system, even the most powerful technology won't be enough to produce a return on investment.

**As you consider your options for asset management systems:**

- Work through your list of maintenance-process must-haves and decide which software features are important to your business
- Ask your maintenance teams for input on what they need from a software platform to do their jobs well
- Meet with senior leaders to discuss the costs and benefits of a new or replacement asset management system
- Ask solution providers questions, schedule live demonstrations, and take advantage of free trials

Once you've made a decision to adopt a particular technology solution to manage your fleet maintenance, plan enough time to implement the software and the processes that go with it. The initial launch may take days or weeks, followed by ongoing refinement.



## The Implementation Process

### Onboard with Personal Assistance

Your solution provider should offer a personal contact to guide you through the onboarding process. As you learn how to use the software, this project manager will be your main point of contact and should be able to answer any questions you have. Ask for a walk-through during setup and configuration, based on your specific needs.

### Get Help Importing Data

Uploading your data into the asset management platform can be tricky. With any data management tool, the quality of the input determines the quality of the output. Choose a solution provider that offers support for complex data uploads.

### Progress with Supported Learning

Onboarding should include comprehensive education on how to get the most out your platform. It's important that your asset management solution provider offers support while you are getting acquainted with the new software and more detailed assistance as you put the features to use in the field for the first time.

# Ongoing Training and Support

During the onboarding process, you should have learned how to use your asset management platform to achieve your short-term and long-term fleet maintenance goals. As time goes on, you may want to refresh your skills or stay up-to-date on any new features. Either way, it's important to have ongoing support.

ManagerPlus offers a comprehensive learning center alongside unlimited, free support and education on new features when they're launched. It's the best way to get the most out of your fleet management investment.



## Self-Service Learning

If you want to find answers and solve problems on your own, you need to know where to look.

Support centers for the software platform should offer on-demand education videos, articles, FAQs, step-by-step instructions, and other learning materials.



## Access to Support

Customer support should be accessible via phone, email, online portal, or chatbot.

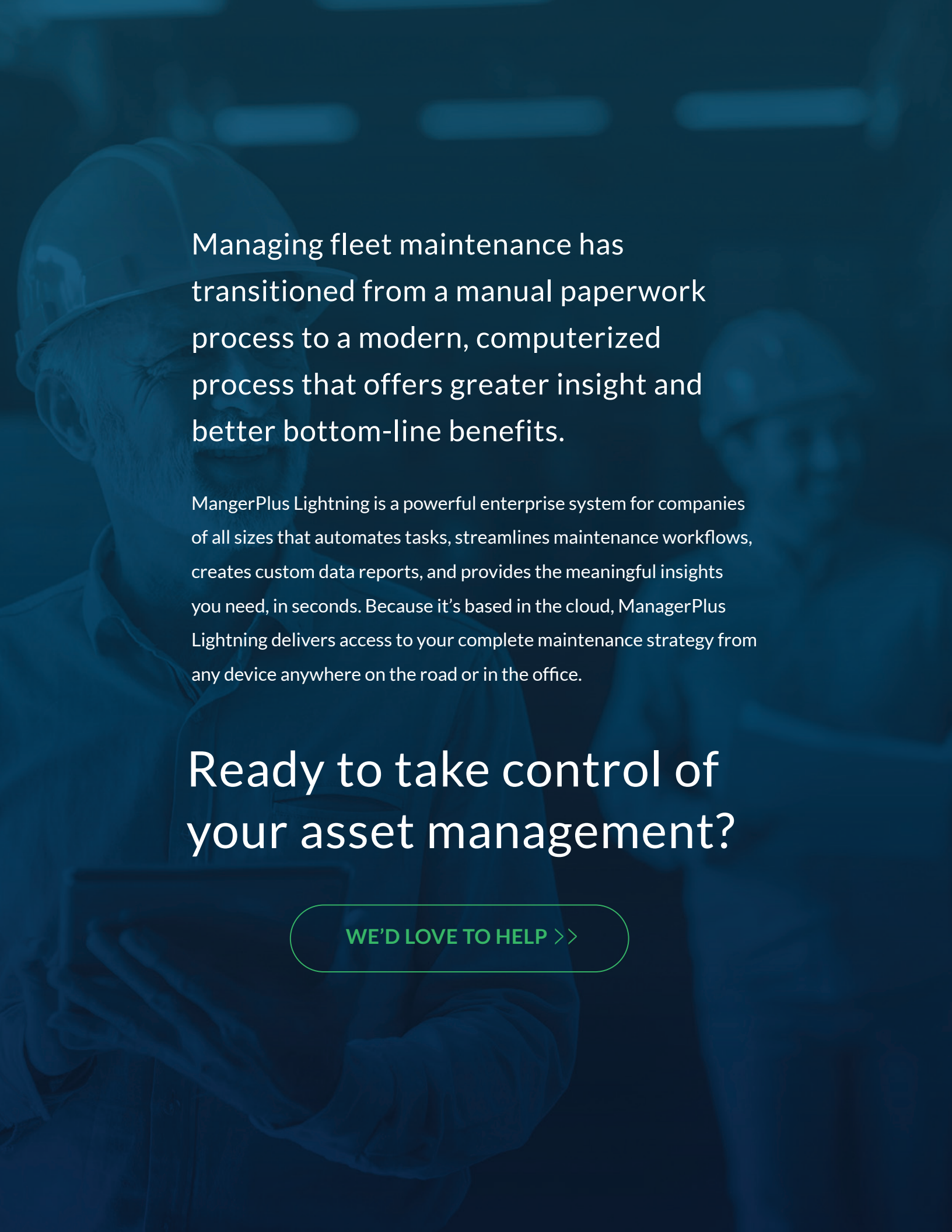
This method of support is ideal when you need to speak with an expert with extensive product knowledge, or when you have a very specific question that requires more in-depth consideration.



## Additional Training

As time passes, it is also important that you continue your training to ensure that you're getting the most value from the platform.

Annual training is often a best practice, but it might not be enough for some users. Seek support whenever you need it.



Managing fleet maintenance has transitioned from a manual paperwork process to a modern, computerized process that offers greater insight and better bottom-line benefits.

ManagerPlus Lightning is a powerful enterprise system for companies of all sizes that automates tasks, streamlines maintenance workflows, creates custom data reports, and provides the meaningful insights you need, in seconds. Because it's based in the cloud, ManagerPlus Lightning delivers access to your complete maintenance strategy from any device anywhere on the road or in the office.

Ready to take control of  
your asset management?

[WE'D LOVE TO HELP >>](#)