



SHAREMAC



LECTURA

Status quo & challenges in fleet management

What over 8,000 professionals say



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TABLE OF CONTENTS

Introduction 1

Executive Summary 2

1 Organisation of machinery
is largely analogous..... 3

2 Responsibility for machinery:
It's all or nothing 5

3 Investments and sales of construction
machinery are often not data-based 7

4 Machine valuations
are action-based 9

5 Willingness to invest in
digital solutions exists 11

About the authors 13

Contact 14

Methodology & Sources 15



INTRODUCTION

The organisation of fleet management is a substantial issue in construction companies, and the effectiveness of the entire operation depends on it. How quickly certain construction machines are available, how often they need to be serviced and when the next large purchase of specialised equipment is due has a great impact on the success of the entire construction project - often on the entire company.

When looking more closely at the organisation of the machinery fleet, there are a variety of factors that play a role in developing an efficient organisation of the fleet.

What is the status quo in the construction industry? To what extent are the work steps in the daily routine of the employees as efficient as possible?

To find out, Sharemac and LECTURA joined forces, developed a survey and supported the results with qualitative interviews. More information on the approach and methodology can be found on page X. On the following pages, the current state of the construction industry in terms of organisation and efficiency is presented. The focus is placed on the following points in fleet management:

- General status quo of the equipment management
- Basis for decisions on investments and sales of machinery
- Regularity / frequency of machine evaluations
- Future willingness to invest in the companies

INTERVIEWPARTNERS

We would like to take this opportunity to thank the experts who were available for interviews and all users who participated in the online survey on LECTURA.



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EXECUTIVE SUMMARY

Even today, fleet management in most construction companies is not sufficiently digitalised and in line with current possibilities. However, many of the respondents show a high willingness to invest in operational, digital solutions. The reasons for this discrepancy often vary. Nevertheless, companies already recognise the advantages of digital fleet management. Other central processes are machine evaluations and new investments in machines, which are handled differently even among the interviewed experts. The key findings are summarised below and will be discussed in more detail in the rest of the white paper.

- Regardless of the core business and the size of the machine fleet, fleet management is still done manually in more than half of the companies. High acquisition costs, the size of the fleet and the time-consuming training period are often cited as decisive factors against digitalisation in this area.
- Decisions on the purchase and sale of construction machinery are often not based on data. The majority of respondents stated that they rely on their own gut feeling when making these decisions.
- The same picture is found with machine evaluations. These are extremely irregular. Moreover, they are usually not based on objective principles, i.e. with the help of external data.
- The willingness to invest in paper reduction and the introduction of digital processes is basically present in most companies. At the same time, there is a willingness to invest money in avoiding transport routes. The need to act with a view to sustainability has arrived.
- The experts interviewed see the shortage of skilled workers, the procurement of construction equipment due to supply bottlenecks and missing the time for the introduction of digital processes as major challenges.

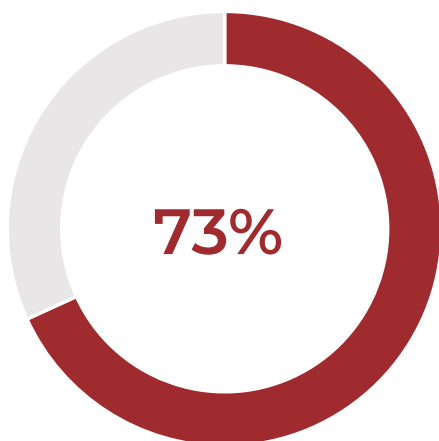


1 Organization of machines is largely analogue

However, the readiness for digital solutions is there.

Almost 40 % of the respondents stated that they organise their machinery with pen and paper. 22 % resort to an Excel document for this purpose, about 12 % work with manual filing systems such as binders.

In simplified terms, this means that 73 % of companies still use more or less analogue methods most frequently to organise their machinery.



With a fleet size of more than 5,000 machines - i.e. construction machines such as excavators, cranes, graders, etc. - even around 1/3 reported still using pen and paper as a method. - even around 1/3 said they still use pen and paper as a method.

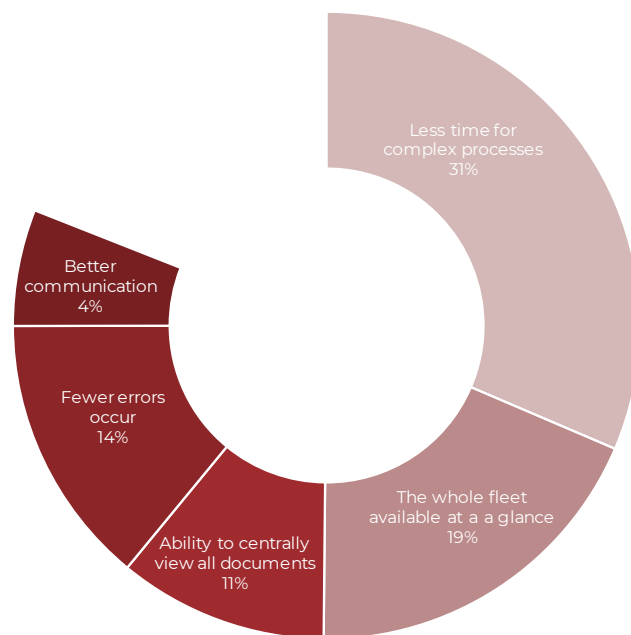
„I used to work with an Excel spreadsheet. That was always very tedious & confusing. Especially because the list is already out of date the moment I export it. With our current software, I have all the data in one go, which is much faster.“

- Lutz Riedel, HOCHTIEF Infrastructure GmbH

This largely non-automated way of working is particularly surprising because most companies that already use software have clearly recognised the advantages;

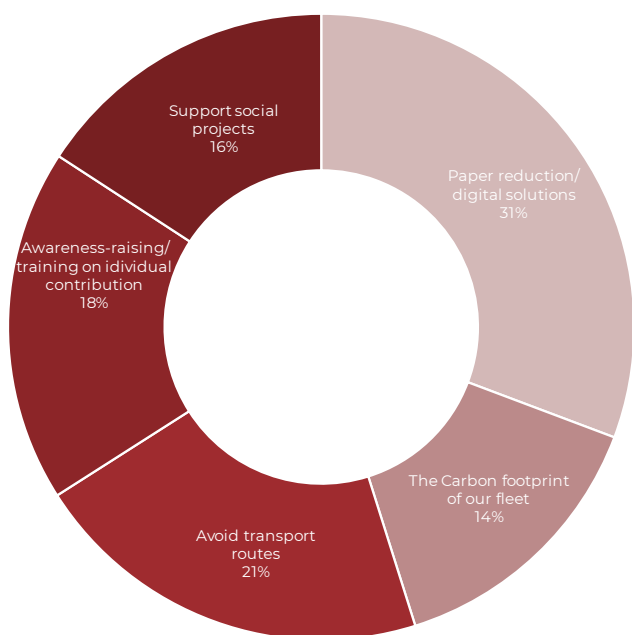
Time savings (31 %), overview (19 %), error avoidance (14 %) and transparency (11 %) are the key points that are obviously noticeable in everyday life.

In what areas has the existing system / software proven itself in your everyday work?



These findings are reflected mainly in the companies' willingness to invest: Digital solutions, together with paper reduction, was mentioned the most frequently (31%) when it comes to future investments.

On which of these topics is your company willing to invest?



Ultimately, it is striking that most construction companies still carry out fleet management in analogue form, but are definitely willing to invest in digital solutions and also recognise the future necessity.

“The construction industry has definitely advanced in digitalisation in recent years, but companies are still finding it very difficult to choose the right IT solution. There is no one provider at the moment that can overhaul everyone and offer a fully comprehensive package.”

- Jochen Hahn, Implenia Construction GmbH

KEY FINDINGS

1 Most companies use analogue methods most often to organise their machinery.

2 Analogue methods consist of: pen & paper, a local Excel spreadsheet or file folders.

3 Even with a fleet size of over 5,000 machines, about 1/3 of the respondents said they manage the fleet with pen and paper.

4 Companies that already use software for this purpose most often recognise the following advantages: time savings, overview, error avoidance and transparency.

5 This is reflected in the companies' willingness to invest: paper reduction & digital solutions were named most frequently here.

2 Responsibility for the machinery: Either all or nothing

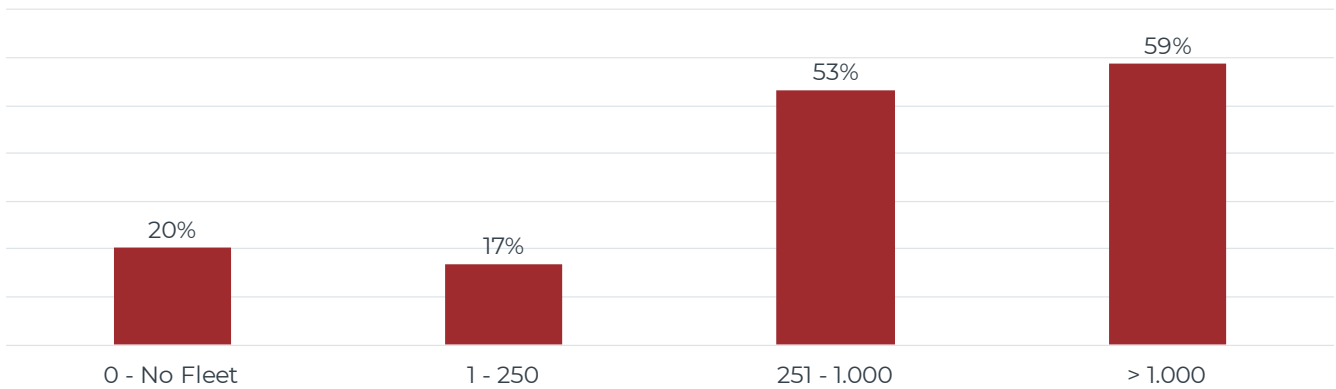
Often there is no dedicated person in charge of the machinery at all or a whole department.

Logically, the larger the fleet, the more important it is to have an overview and the more likely it is to have a person responsible for the machinery.

It is therefore self-explanatory that companies with a fleet size of more than 1,000 machines usually have a whole department for this.

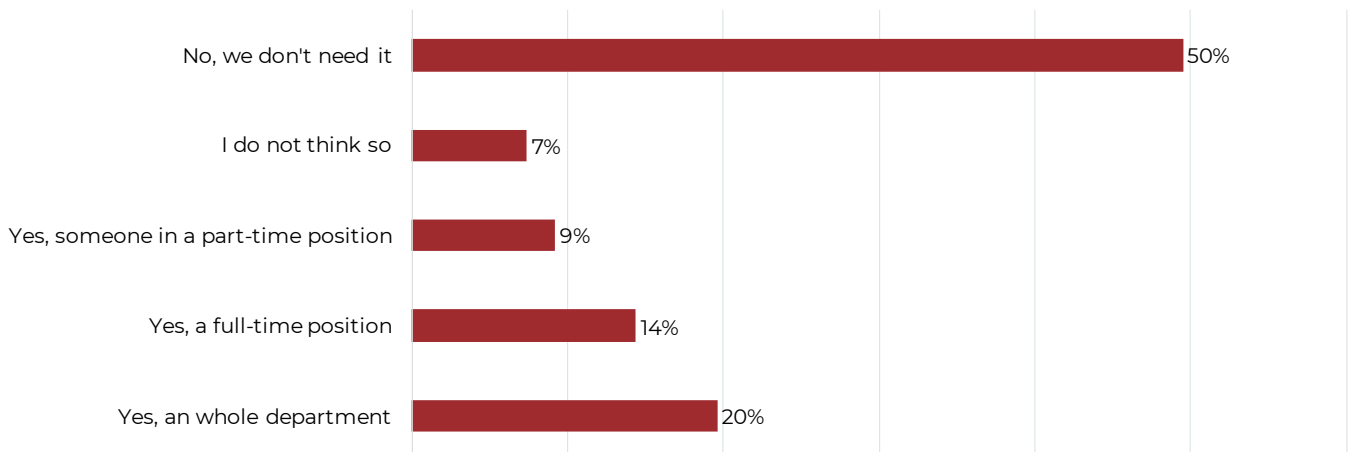
The need for this does not tend to exist with small equipment fleets.

Breakdown according to fleet size: Companies that use a whole department to manage their fleet



However, if you look at the absolute numbers, regardless of the size of the fleet in the company, you will see a general tendency not to assign a dedicated person for this.

Does your company have a dedicated machinery manager?



On the other hand, this fact is already reflected in figures, as a report reveals, construction workers spend only about 30 % of their working time on the main activity. Several factors are responsible for this, including the search for equipment.

“

„Only about 30% of a construction worker's working time is actually spent on his main activity. The other 70% is spent on routes and transport work, setting up and moving around, and searching for materials or equipment. It is thus understandable that many companies see a need for optimisation here.“

- Roland Berger GmbH, 2016

The fact that this is time-consuming is also confirmed by the expert interviews. On average, the experts interviewed need about 15 minutes to find out the current location of a machine. This process consists of researching various Excel lists and telephoning the responsible persons at various locations in the company. However, this only includes their own working time - and not the additional time spent by the people who are contacted to find the machine and organise transport.

KEY FINDINGS

1

The larger the fleet, the more likely companies are to have a dedicated person responsible for the machinery.

3

This lack of overview has a significant impact on the effort & time to locate a machine.

2

However, there is a general tendency not to have a specific position for this task.

4

This research takes an average of 15 minutes, but takes up the working time of several people.

3 Investments and sales of construction machinery are often not data-based

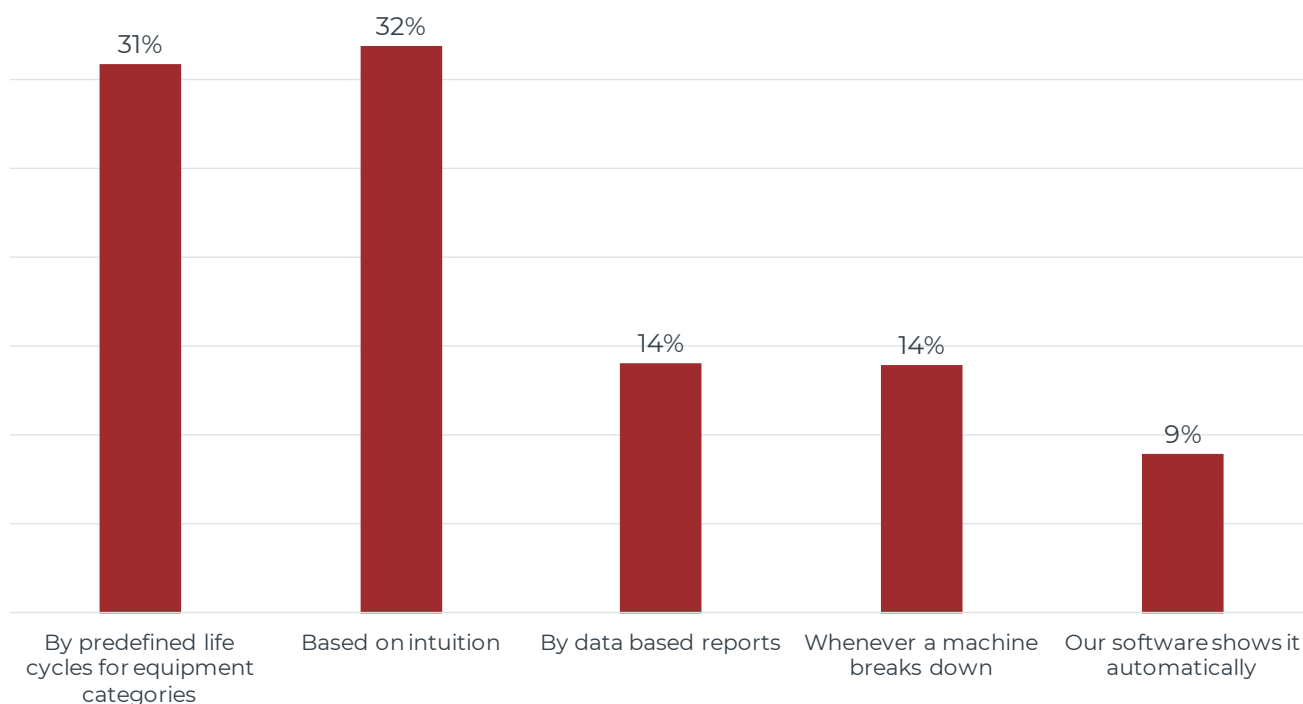
Instinct & experience are usually the deciding factors.

When it comes to profitability in the company, it is worth taking a look at two major areas: New acquisitions or the sale of construction machinery and machine evaluations. Not only the decision-making process itself, but also the subsequent process plays a central role. In the following section, we will first take a closer look at investments and sales.

Almost 46% of the surveyed users do not make decisions about new purchases and sales of machines based on data. The most frequently cited factor is the user's own gut feeling, together with the item 'Whenever a machine breaks down'.

This shows that many companies lack a reliable or meaningful data basis in this process. Only 14 % of the respondents make decisions through data-based reports, around 1/3 are guided by predefined life cycles for equipment categories.

How are decisions made about investments and sales of machinery and equipment in your company?



In addition, the persons interviewed frequently state that, in their opinion, second-hand equipment is often worth more than one assumes or depreciation indicates. Here, too, it can be seen that the decision-maker's own experience or intuition/ gut feeling is the decisive factor.

“*Both the purchase and the sale of machines are demand-oriented. It is mainly one's own experience that plays a role there.*“

- Astrid Breede, TWF Tiefbautechnik GmbH

KEY FINDINGS

1 New acquisitions and the sale of machines are not data-based for 46 % of the respondents.

3 In addition, decisions are often made on the basis of need - i.e. whenever a machine breaks down.

2 More value is placed in one's own gut feeling.

4

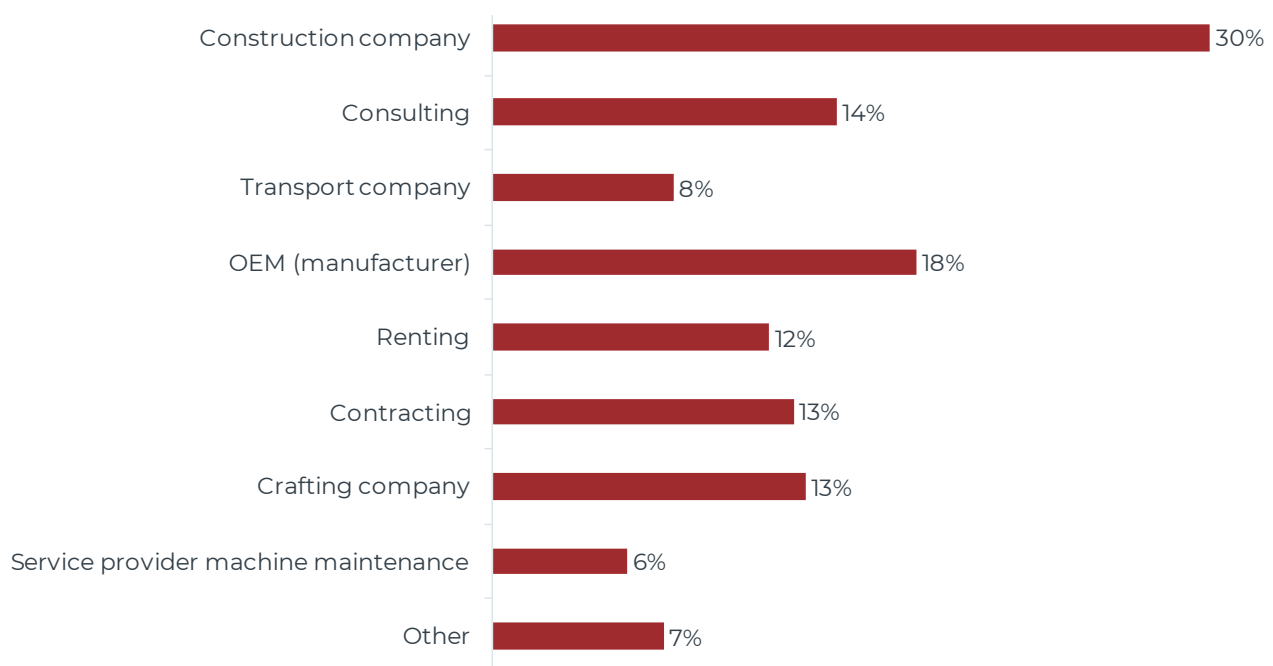
Machine valuations are action-linked

Assessments are made on a needs basis rather than on a macroeconomic basis.

A similar process can be seen in the machine evaluation. For the majority of the companies surveyed, this is done irregularly.

The difference between the sectors is striking: around $\frac{1}{3}$ of the respondents from construction companies stated that the overall evaluation of the fleet takes place several times a year. The remaining sectors are clearly behind.

Breakdown of industries that carry out a machine evaluation several times a year



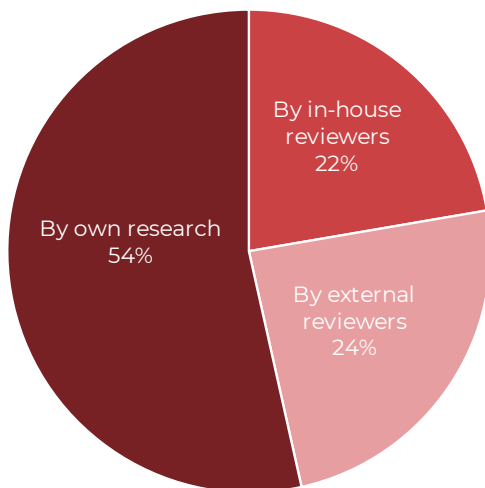
Overall, there is a tendency towards needs-oriented actions; only if a machine is to be sold or there is some other need, is a corresponding assessment made.

“Age, operating hours, overall condition, which winches are installed, is there a diesel engine in it, etc., etc.? All these factors are only looked at in more detail when it comes up.”

- Lutz Riedel, HOCHTIEF Infrastructure GmbH

In addition, it can be seen that, in the implementation, no data-based decisions are being made there either. Over 50 % state that they make an assessment through their own research. On a holistic basis in the form of an appraiser; 24 % rely on external appraisers, and around 22 % rely on internal appraisers.

How does the valuation of machines happen?



Here, too, it becomes clear that most construction companies tend to rely on experience and internal knowledge.

Yet an assessment on a regular basis would definitely pay off. This is confirmed in a survey of around 400 construction sector professionals from 2019. Effective maintenance based on regular assessment can significantly prevent unplanned costs and sudden machine breakdowns.

“For German construction companies, a long service life for their machinery, components and equipment is very important to keep operating costs as low as possible in this competitive market. Yet 46 per cent report unplanned costs due to machinery and equipment breakdowns.”

- M. Schröder, 2019

The Business Manager for Equipment & Technology Services Germany at Implen Construction GmbH takes a completely different approach to preventing machine failures.

“The strategy at our company has changed in recent years. In the past, machines were used until they were written off and much longer after that. Today, it is more important for us to use new machines that are less prone to errors so that the construction process is less interrupted. This is definitely more lucrative than it used to be and also more sustainable, as efficiency improves with each generation of machines.”

- Jochen Hahn, Implen Construction GmbH

KEY FINDINGS

1 Machine assessments are usually carried out irregularly.

2 At 30%, construction companies are the most likely of all sectors to carry out an overall fleet assessment.

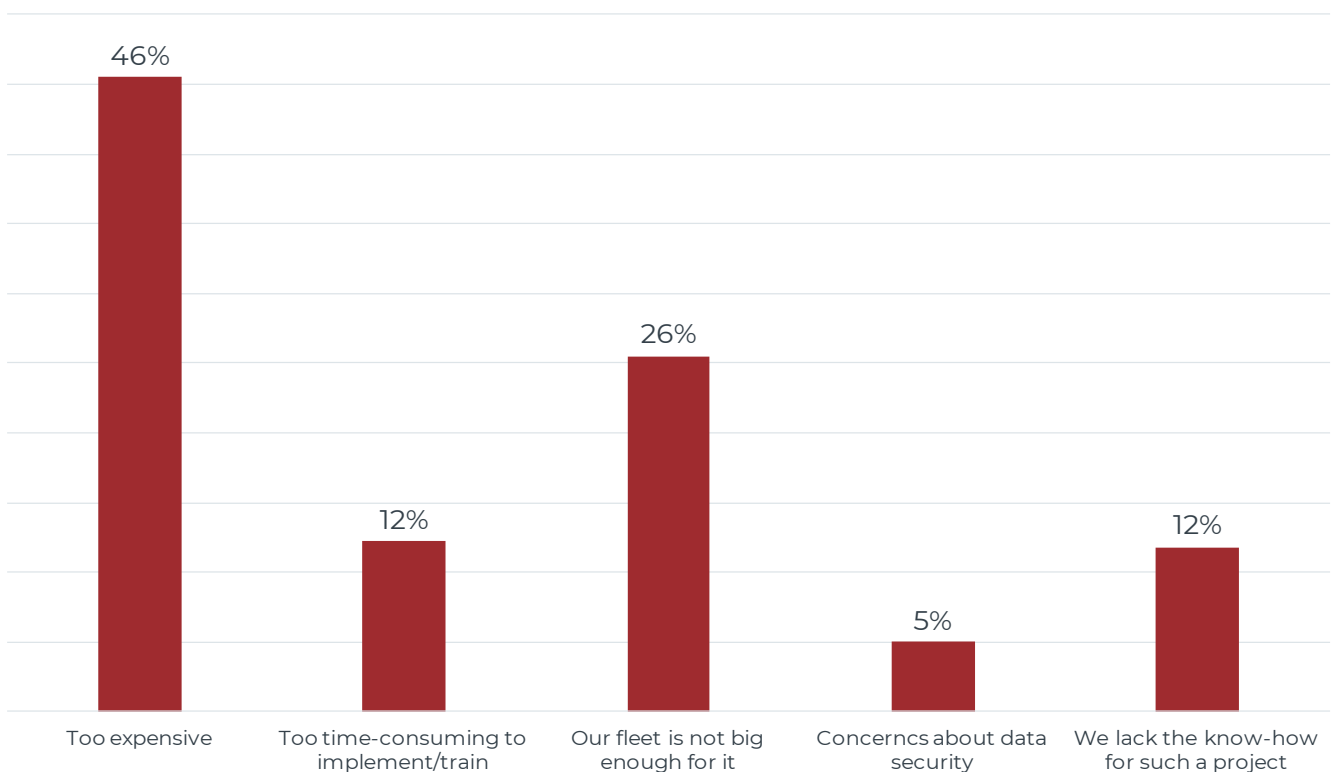
3 A machine evaluation is carried out by the majority of the respondents on the basis of their own research.

5 There is a willingness to invest in digital solutions but the willingness to pay is not.

As already mentioned at the beginning, the majority of the companies surveyed are willing to invest when it comes to introducing digital solutions to reduce paper in their operations. However, the implementation is faltering. There is a great deal of uncertainty with regard to digital solutions for fleet management, which is expressed in a variety of concerns.

The most common and simple answer is that software is expensive. Additionally, the time-consuming training process, the size of the fleet, concerns regarding data security and the lack of know-how within the company were also mentioned.

What do you think are the reasons behind your company not using software for fleet management?



A lack of digital competence, a shortage of available staff and the size of the machine fleet are decisive factors according to the interviews conducted with the experts.

Change brings work with it, which most companies initially see only as a cost factor. In the initial consideration, the focus is usually on the pure acquisition costs, without keeping an eye on the long-term cost savings.

“

„We are still in the early stages of software implementation in the construction industry. Any system is only as good as the people behind it. The structure in the company itself has to be built up first and the people trained.“

- Astrid Breede, TWF Tiefbautechnik GmbH

KEY FINDINGS

1

The most common reasons for not yet having fleet management software are in descending order: too expensive, fleet too small, too time-consuming, lack of know-how, data security.

2

In the expert interviews, the lack of know-how was named as a central factor.

ABOUT THE AUTHORS



SHAREMAC GMBH

Sharemac digitises and automates processes throughout the construction industry. Founded in 2018, Sharemac is now not only represented in Bremen, but also has a subsidiary in Tbilisi, Georgia. The solutions simplify central steps in construction companies. In doing so, Sharemac relies on three pillars: The SAM software, specially developed IoT devices and a rental platform for construction machinery and equipment. The telematics solutions, which are specially adapted to the needs of construction companies, transfer dynamic machine data to SAM, where it can be viewed clearly and centrally. Equipment and project management is thus possible at any time and from anywhere. This not only results in paper reduction and time savings, machines and equipment are also better utilised and ultimately efficiency in the company is increased.

Sharemac is driving the digitalisation of the construction industry and thus making construction sites more climate-friendly and sustainable.



LECTURA GMBH

Founded in 1984, LECTURA is a leading provider of machinery information on the world market. LECTURA reaches approximately 1 million professionals per month who use it to obtain (technical) information on heavy machinery. LECTURA's database contains over 150,000 heavy machinery models and offers mobile machinery assessments and more via online tools and other digital solutions. LECTURA's service offering includes technical specifications via API catalogues and data enrichment features as well as price and market analyses, country-specific price trends and a variety of other customised services related to asset & risk data in the mobile machinery sector. In addition, the LECTURA Press web portal offers the latest news from the heavy machinery industry and exclusive interviews with industry experts and market leaders. LECTURA also publishes the quarterly online magazine DigiMessenger and conducts surveys on a variety of current topics in the heavy machinery industry.

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METHODOLOGY

This publication is based on the results of a collaborative online survey between Sharemac and LECTURA. The survey was mostly conducted among professionals in the construction industry and is available and accessible on specs.lectura.co.uk for 5 weeks from 10 September 2021 to 17 October 2021.

A total of 8,433 people participated in this survey. Of these, 35.7 % are classified as traditional construction companies, 6.7 % as consultancy, 8.8 % as transport companies, 1.2 % as OEM (manufacturer), 18.9 % as a craft company. 6.6 % are involved in rental, 1.9 % in contracting and 9 % as service providers in machine maintenance. 11.3 % selected the item other when selecting their core business.

The sample size may vary for the individual questions.

SOURCES

Roland Berger GmbH (2016): Digitalisierung der Bauwirtschaft. In: https://www.rolandberger.com/publications/publication_pdf/roland_berger_digitalisierung_bauwirtschaft_final.pdf - Page 10 (viewed on 19.10.2021, around 2:30 pm)

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