**What’s the best drive solution for your business?**

Looking to upgrade your forklift fleet or order a new industrial truck? Then you'll find yourself spoilt for choice when it comes to choosing a drive unit. But sometimes more choice can just mean more confusion. Should you opt for a lead-acid battery or a lithium-ion one? And what about the fuel cell option? Time to take stock and get some answers.

Energy is precious. And when deciding on the best energy solution for your forklift, there are lots of factors to consider. There are economic and financial considerations, of course. But also the questions of infrastructure and future-proofing. For instance, Europe is aiming to go climate-neutral by 2050: What impact will that have on investment in drive technologies? And what will happen to electricity prices? According to a study released in May by Swiss consultancy XXX, electricity prices are expected to increase by around 50% by 2030. Moreover, customers are increasingly demanding that companies improve their green credentials. In today's market, a strong track record on sustainability issues can give you a real competitive edge. So you see, there's plenty to think about before making an investment. To make matters worse, this decision is made even harder by some suppliers and manufacturers coming down loudly on one side of the argument – often where it suits there own interests. In this blog post, we therefore want to take an open and honest look at all the different options. After all, with some many different factors to consider, the answer is anything but simple.

**Lead-acid batteries:**

**Is there life in this old technology yet?**

In many ways, lead-acid batteries are old news. These old faithfuls have been used by industry since the end of the 19th century. But now "the technology has reached the end of the road," says Fred Blogs, Product Manager at XXX. No one is going to be developing lead-acid technology in future, e.g. creating batteries with much shorter charge times or much higher energy density. And they're not exactly a sustainable option. Many of the materials used to produce them are both damaging to the environment and challenging to recycle –

although, as Fred Blogs is quick to point out, "we can now recycle more than 90% of these," which is one advantage of this technology having been around for so long.

In reality, it's probably too soon to write lead-acid batteries off completely. Why? Because they remain the best fit for some requirements. As A.N.Other, Energy Systems Product Manager and Battery Specialist at XXX, explains: "Lead-acid batteries are still by far the best choice when it comes to investment costs." They're extremely cheap, costing just EUR 150 per kilowatt-hour. But here again, it's worth taking a closer look at the numbers, as depending on how the batteries are used there can be hidden costs. For instance, partial charging is not an option with lead-acid batteries, so operators must build long breaks and battery changes into their schedules. This wastes time, increases the risk of accidents and, depending on the shift model, can mean that trucks aren't always available when they're needed. For some companies, the cost of these limitations on their productivity soon adds up. "If all the trucks need to be charged simultaneously at the end of the shift, this can really bump up a company's electricity costs," explains A.N.Other, because energy suppliers still calculate their tariffs based on peak usage. "Even if your peak electricity usage is a one-off annual event, you still pay the higher tariff." Overall, lead-acid batteries are best suited to operators with just a few trucks operating for a limited time. These operators can take advantage of the cheaper price without being impacted by the lack of flexibility.