



How drone technology can impact SMEs in the near future

Explaining the basic use of drones and why it could be valuable for you

Drones are no longer confined to military use, the number of drones use cases have exploded over the years. The average social media feed is full of gorgeous views from way up high, something that in the past had to be captured by hiring an expensive helicopter, a pilot and a photographer but can now be obtained by any enthusiastic drone-hobbyist. But there is way more that these flying vehicles can offer, especially for businesses. This article explains the short-term impact drones could have and why this might be relevant for your business.

Drone technology explained

Drones are also referred to as Unmanned Aerial Vehicles (UAV), where the first part of its name already indicates why drones have such a vast number of possible use cases. Essentially, a drone is a flying robot that is either controlled remotely or flies autonomously based on onboard GPS sensors and a flight plan that is embedded in their system.

Being unmanned, drones are able to make tasks more efficient by replacing or assisting a human task, or perform tasks that could not be done before to begin with. Depending on the use case, drones can be equipped with cameras and all sorts of sensors, e.g. to measure distances or sources of heat. In that way, besides being able to fly from A to B, drones are a very interesting tool for data collection.

Logistics as the most obvious use case

By far the most well-spoken use case for drones is product delivery. Industry experts say that we're closer to a world with drone delivery than one with self-driving cars. Amazon strives to make same day deliveries the new normal. Their [Amazon Prime Air](#) service is on the verge of being rolled out in the United States. This service lets you order a package on Amazon and have a drone deliver it within 30 minutes.



Why should you care?

Well, apart from the awesome shopping experience it could save companies a lot of money, as the delivery using an average diesel truck costs about 1 dollar a mile while a drone only costs 3 cents a mile. This makes the concept highly interesting for SMEs when the technology becomes public knowledge, which is likely to happen in the future as Google and DHL are also already researching it.

Besides, it also opens up new possibilities for companies in *what* can be delivered. Delivery within 30 minutes might even allow for the delivery of coffee or other products for which delivery is very time sensitive.

On the other hand, commercialized drone delivery will pose yet another challenge for traditional brick-and-mortar stores. Immediacy, an advantage that such stores still have over online stores, might in near future also be obtained by drone delivery - possibly even improved compared to the time it takes to drive to your nearest shopping mall. This means that store owners would need to put even more emphasis on creating a good *customer experience*.

Drones in the remainder of the supply chain

Drones can also revolutionize the supply chain in other ways than just the final delivery of a product. They gained a lot of popularity as the technology is driven by possible improvements in the following areas:

- Cost reduction
- Optimized efficiencies
- Safety
- Environment

For example, a Dutch SME called Arox Logistics IT is using drones to count the current supply in their warehouses, which saves them a lot of money and increases the reliability of their inventory status: a drone can recount the stock at a higher frequency than humans can and possibly also with a higher accuracy. As drones might significantly reduce expensive, labor-intensive activities, incorporating them in your business process might yield a significant competitive advantage (or disadvantage if you're the only one lagging behind).

Now you might think, that's all great but did you even consider the substantial investment it requires to operate your own drone fleet? Of course this is something that you have to consider but great initiatives are arising to make this easier for SMEs. For example, the company 'Measure' offers drones as a service so that businesses don't have to deal with all the operational costs of implementing drones into their business. The 'as-a-service' type of business model is seen a lot lately, and often appears to be quite successful. In this case it allows companies that do not have the knowledge or money to set up a drone plan within their company, to still benefit from the opportunities that drones have to offer.

Existing Drawbacks

Although companies like Amazon would rather start flying around drones today than tomorrow, we still have to have a little patience. There are still some regulation hurdles to overcome before we can operate drones in the public space. There's still some tough questions to be answered. What if a drone is trespassing private property? Are you allowed to make pictures everywhere? What happens if a drone damages someone else's property or another drone - who is responsible for that?

However, there are a lot of initiatives pushing for developments in these regulations. The insurance industry is preparing new coverage options for commercial drone delivery and specific drone-test locations are set up. For example, an airport in the Netherlands that has been closed for multiple years became a base for a lot of drone oriented businesses, where knowledge is shared and all kinds of tests are being executed.



Other Use Cases for Drones

Automation using drones is also very relevant in other industries. For example, within the agricultural industry, farmers use drones to spray pesticides, water and fertilizers on the crops. This is a far cheaper alternative than using a crop duster, which is a small airplane that sprays a field of crops - something unaffordable for small sized farms.

But things get really interesting when drone technology is combined with Artificial Intelligence (AI). As mentioned, drones could collect tons of data if they are equipped with the right sensors and/or cameras. For example, by means of infra-red pictures taken by drones, farmers can assess whether more fertilizer is required or not - up until the level of an individual crop. This allows for the most efficient usage of expensive pesticides and optimal crop yield.

Several new businesses even emerge around the combination of drone data and AI. Analysing the images collected by drones can be used to survey damaged areas for insurance claims or maintenance. Especially for inspections that are either costly or unsafe for humans to perform, the added value is huge. For example, bridges, wind turbines and power lines.

Drones are the future

Order fulfillment, warehouse operations, inspections and product delivery will be revolutionized by drone technology. Big steps in automation can be achieved while technology is more affordable than it was before. Data that was hard to collect before can now be collected in large numbers. It seems inevitable that adoption will grow over time and the drone industry will have an enormous impact on the world as it is. Drones are the future, so make sure you stay up to date with any new developments that might impact your business!