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## On the road to 100% circularity (2/3)

### Behind the scenes part 2; Optimizing the use phase

**Swapfiets encourages the world to adopt a new way of thinking and using – through circularity. Our first ‘behind the scenes’ blog in a series of three showed that [design plays a crucial role](#) in this process. The usage phase – a.k.a. when the bike is actually used - is also key. We think about e-ver-y. single detail and use data to optimize our business along the way. So... how can we make sure the bike repair is also 100% circular? When should we choose repair over replacement? And which innovative materials are best to use? Read more about our current way of working.**



## **Repair or replace?**

As you know, we're working towards a 100% circular Swapfiets (at this moment the Deluxe is 88% circular already). The longevity of our products is our top priority: for the bike itself and for the individual parts. However, with usage comes the risk of breakage. In terms of sustainability, repair is usually the best option. When deciding whether to repair or replace, we always make a tradeoff between safety, quality, productivity, costs and sustainability. For example, when looking at the thickness of the braking pads on the rim brakes; if the pads are still good but near it's minimal thickness, it is better to replace them in terms of safety, costs and transport impact. Otherwise the bike will be returned again shortly after. We do this in a sustainable way, of course. We often replace defective parts with secondhand items from other Swapfiets bikes. The defective parts are repaired by us or by a third party, to keep the circle flowing. This is what we call remanufacturing, which we will come back to in the next and final 'closing the loop' episode of this blog series.

## **Hiding in plain sight**

Unless you're a bicycle mechanic, you probably have no idea what kind of 'hidden parts' a bike contains. Think of lubricants and cleaning materials, for example. On the road to a 100% circular bike, these parts need to become circular as well. Most lubricants still contain toxins and plastics, which could eventually end up in the city's streets and waters. To prevent this, we are working with our suppliers to find circular solutions for these parts. Our bike cleaning material is already completely biodegradable. Next to these invisible parts, there are also many external parts that we take into account. Think of the energy used in all Swapfiets locations – and by that we do not mean the human energy of all the hardworking swappers. Our goal is to use renewable energy to power all our locations. This is already the case for all our retail locations across cities in Europe. The warehouses are already at 60% and will become 100% supplied by renewable energy soon, together with our headquarters! This means that the energy we use to repair our bikes has a low, almost climate neutral, footprint.

## **Data driven moves**

Ah yes, zeros and ones. It might seem abstract, but we know from experience that data collection can really help us move forward! The data tells us how you use your bike. It also tells us when and why repairs are needed. Basically, it's connecting the dots. The numbers give us insight and tell us why certain parts of the bike are failing. It also helps us to prevent this from happening in the future. We know the number of repairs needed per year, but imagine connecting this information to locations, the amount of miles cycled per year and how our users behave. This allows us to improve our processes and the individual bike parts even more! For example, our current data shows us that vibration is a larger source of defects in cities with rough cycling infrastructure. Meaning for example that we have to pay extra attention to tightening all the bolts for our bikes in the more rural area of Maastricht, in the south of the Netherlands.

## Track & trace

Some parts of our bikes are not ours to keep, but need to be considered as a service from others. Just like when you rent your Swapfiets with us! For our tires, for example, we use this Product As A Service (PAAS) model with 'Tyres as a Service' from Vittoria. We trace the parts that we use as PAAS. It shows us if certain parts are still in good condition or if they might need to go back to the responsible manufacturer for repairs. For example, when we notice the minimum amount of profile thickness on the tires is no longer sufficient, we'll return them to the Vittoria factory where they will be sustainably recycled. By choosing usage over ownership, we choose circularity in the use phase.

**Want to know more?** Stay tuned for behind the scenes part 3: the closing the loop phase, coming soon!

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### ABOUT SWAPFIETS

Swapfiets is 's werelds eerste 'bicycle as a service' bedrijf. Opgericht in 2014 in Nederland, groeide de scale-up snel uit tot een van de meest toonaangevende leveranciers van micromobiliteit in Europa, met inmiddels meer dan 250.000 leden in Nederland, Duitsland, België, Denemarken, Frankrijk, Italië en het Verenigd Koninkrijk. In het voorjaar van 2021 breidt Swapfiets uit naar Barcelona (Spanje), Wenen (Oostenrijk) en Lyon, Nantes, Straatsburg en Toulouse (Frankrijk).

Het concept van Swapfiets is vrij eenvoudig: voor een maandelijks vast bedrag hebben Swapfiets-leden altijd een werkende fiets. En zijn er onverhoopt problemen, dan wordt de tweewieler binnen 48 uur gerepareerd of direct vervangen zonder extra kosten. Swapfiets is in Nederland beschikbaar in meer dan 50 steden.



Swapfiets