



Monitoring the Life Cycle Impact of the Dutch Cash Cycle

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Why should we monitor environmental impact?

- **Paris Agreement: 50% reduction in 2030, 95% in 2050**
Reference year 1990

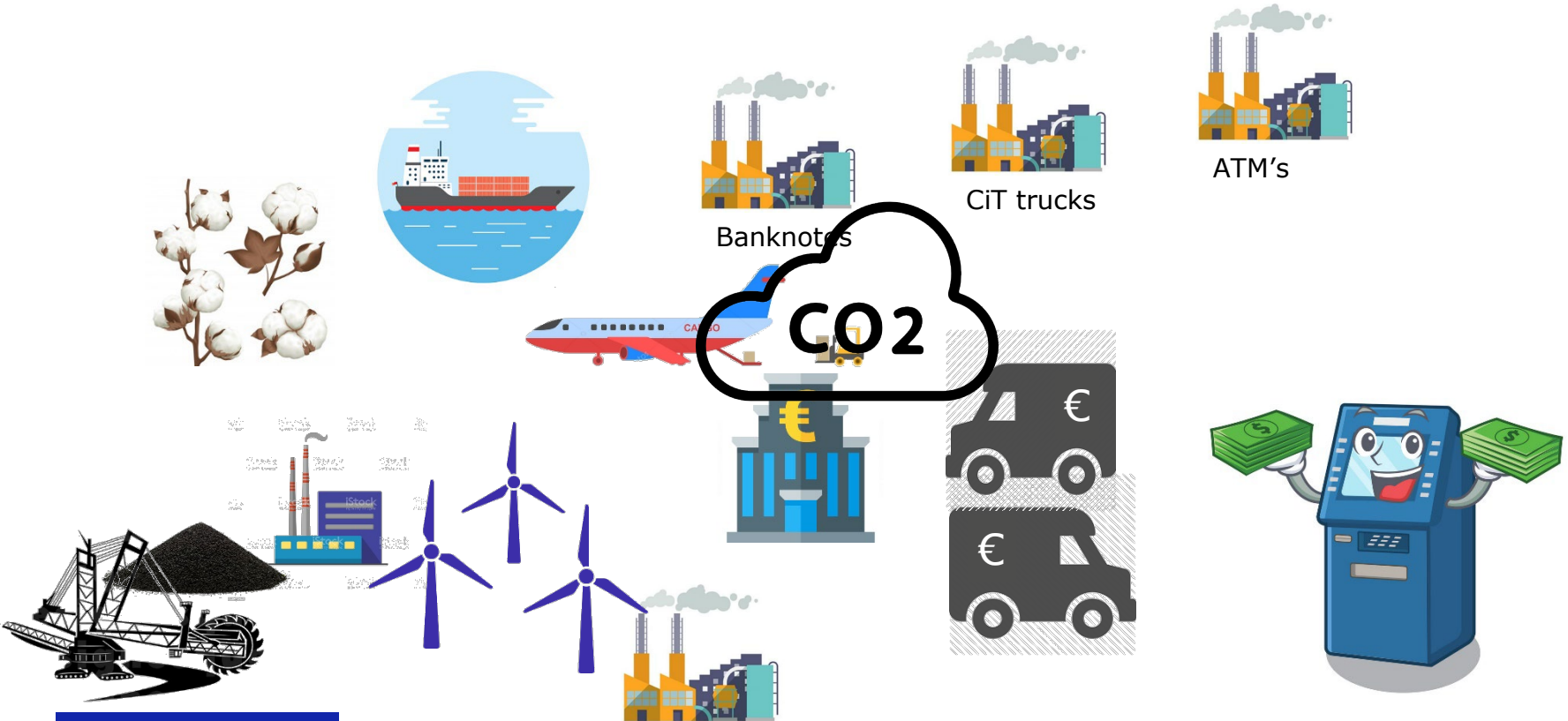
... but what does this imply...

- COP 26 (Glasgow): DNB board (Elderson) pledge to monitor and reduce carbon impact of payment system
- DNB ESG goals – carbon & eco system impact reduction

Roadmap

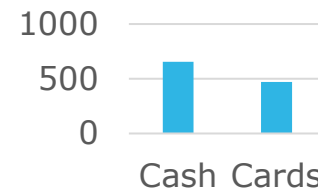


Environmental impact of retail cash payments

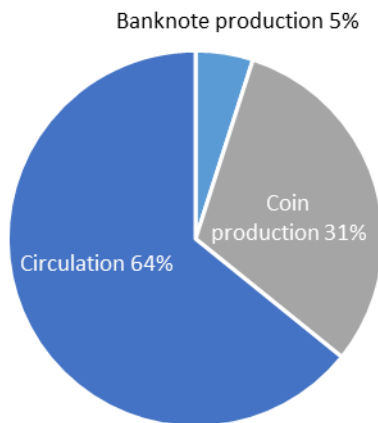


Previous studies of DNB over 2015

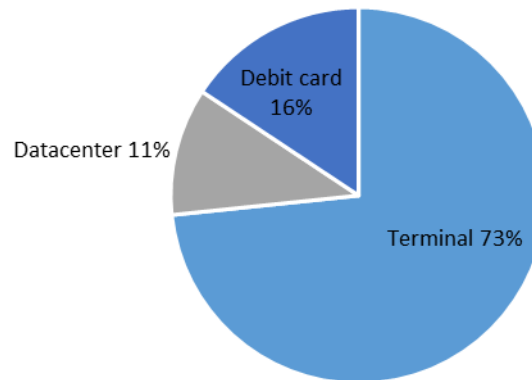
spoiler: ...there will come a correction!



Environmental impact cash payments
[% of total 654 μ Pt]

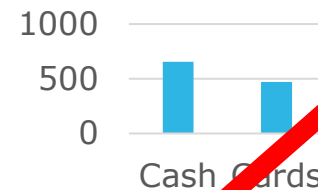


Environmental impact debit card payments
[% of total 470 μ Pt]

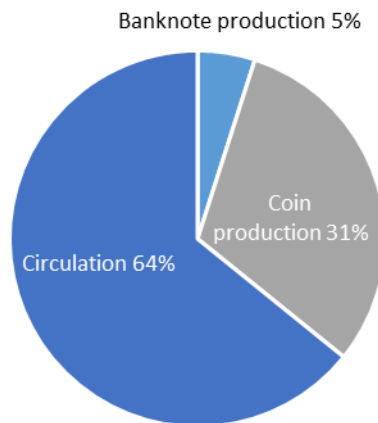


Previous studies of DNB over 2015

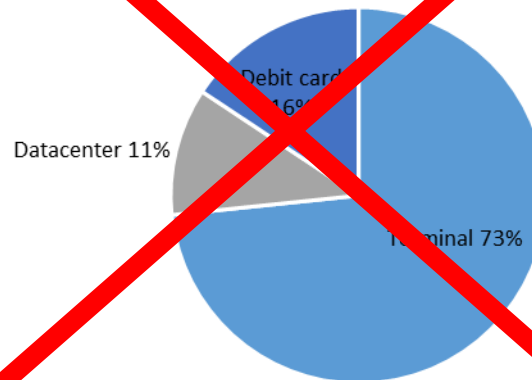
...typos in number of card payments made per year



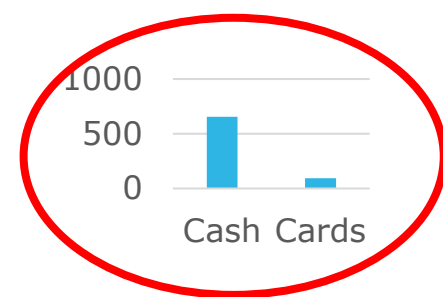
Environmental impact cash payments
[% of total 654 μ Pt]



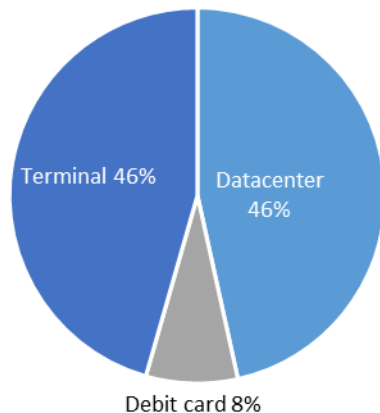
Environmental impact debit card payments
[% of total 470 μ Pt]



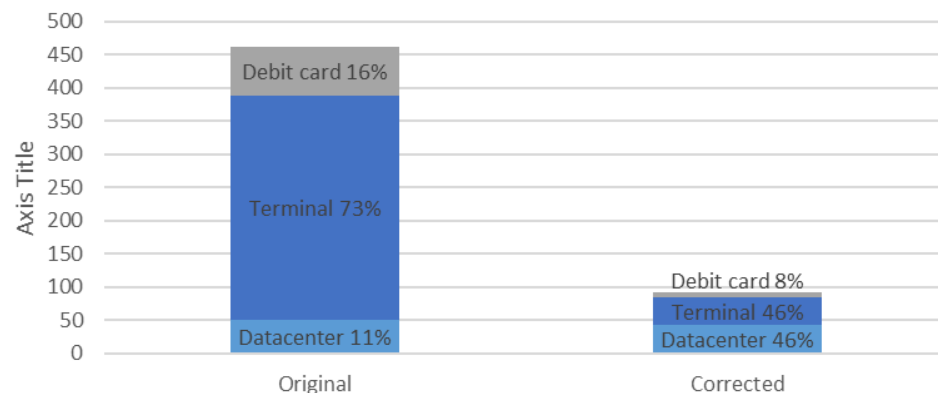
Corrected figures over 2015



Environmental impact debit card payments
[% of total 92 μ Pt]



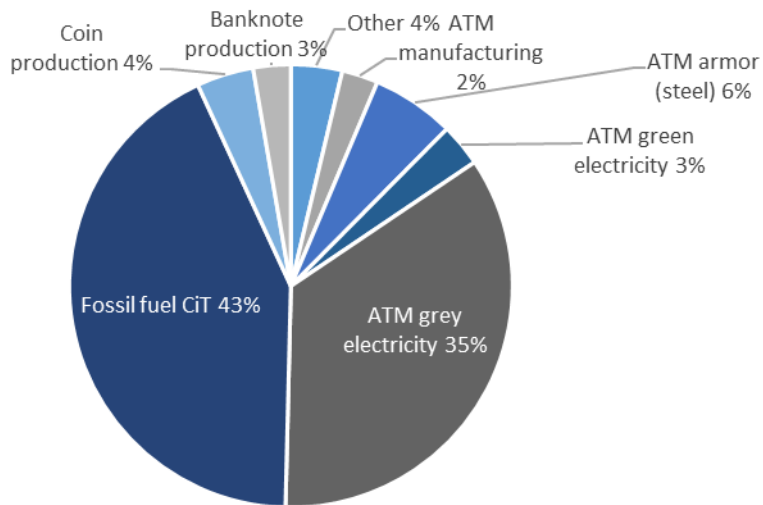
Environmental impact debit card payment
2015 study corrected



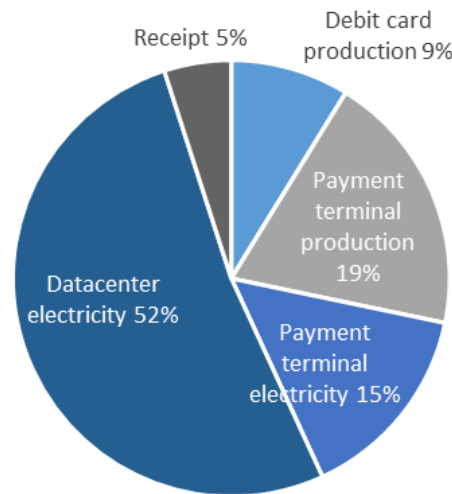
Corrected carbon footprint over 2015



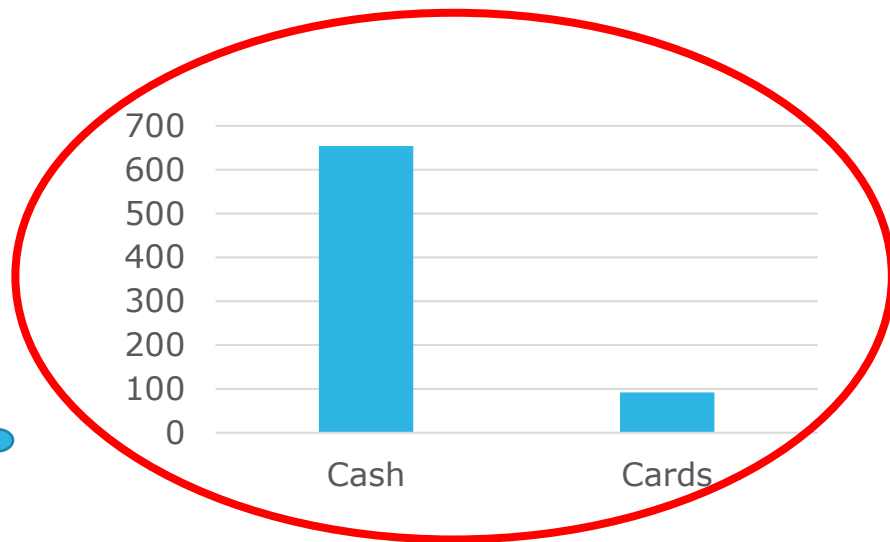
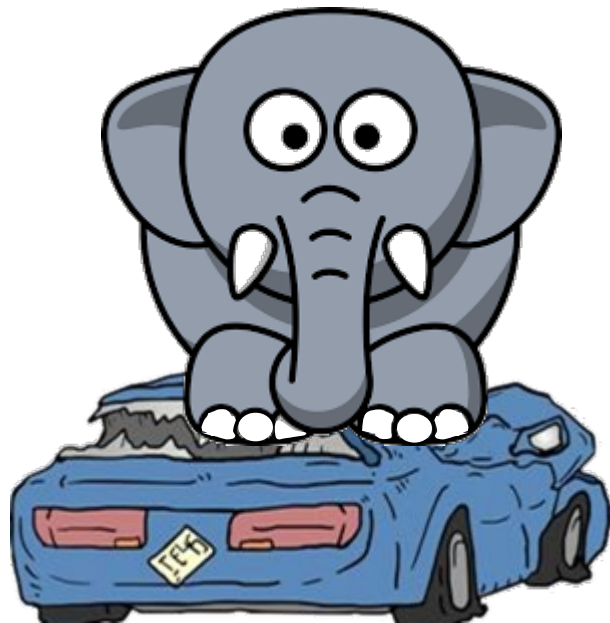
CO₂e Contribution [% of total 16,500 tonnes]



CO₂e Contribution [% of total 3,000 tonnes]



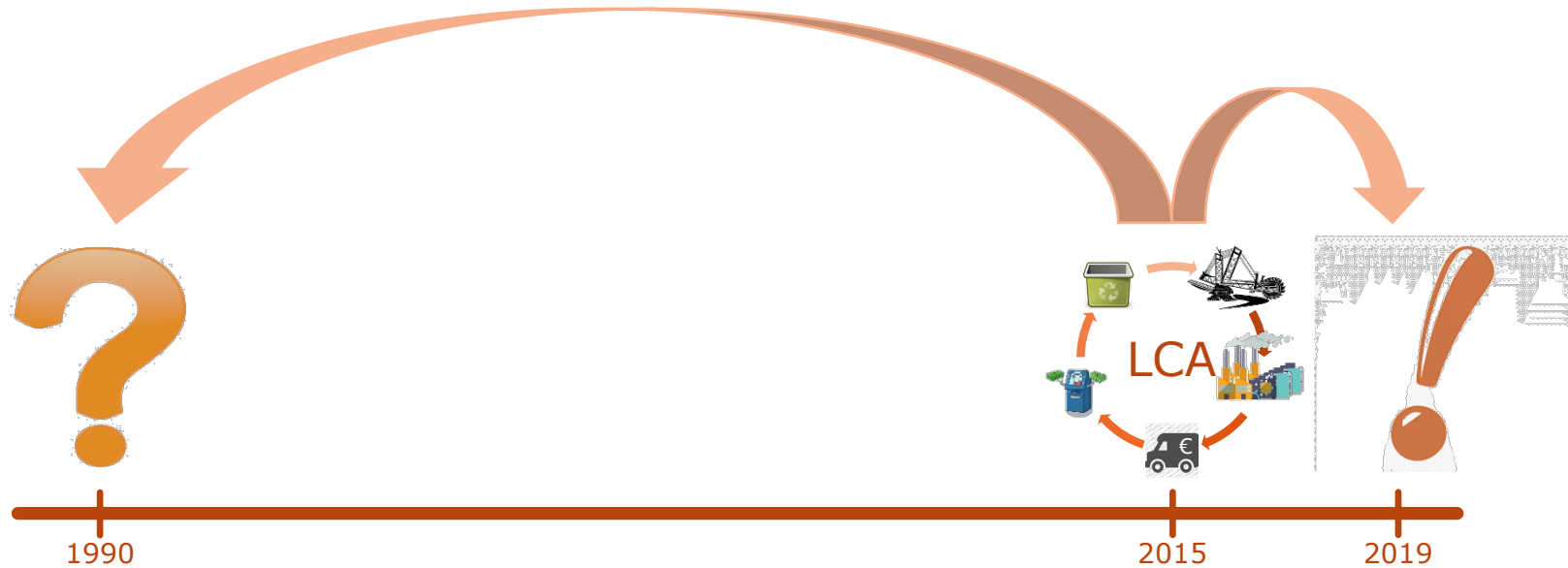
So we have our little accident on the table...



... and our environmental impact compared to card payments

From here things can only get better

Carbon footprint: Paris agreement



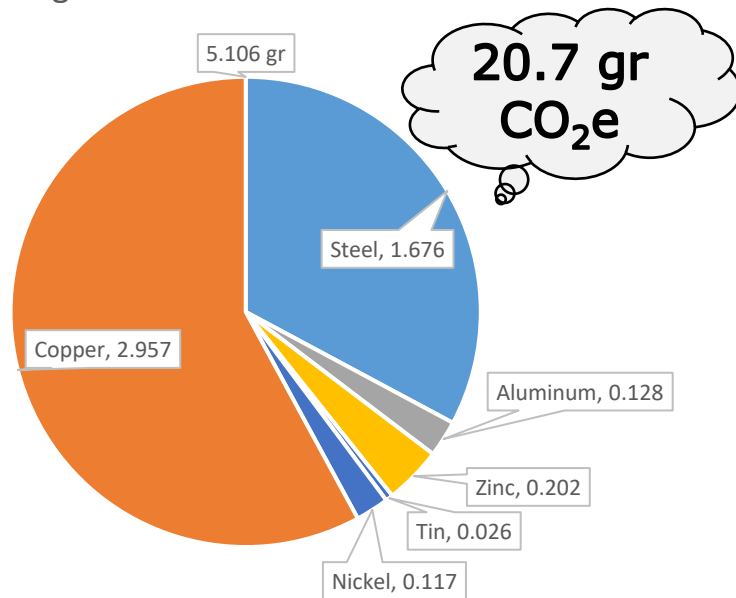
1990: some time ago...



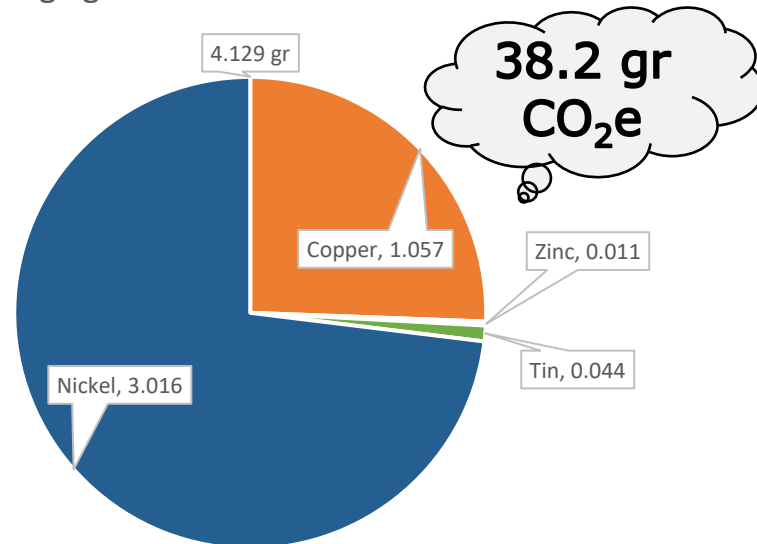
Euro versus Guilder



Average euro coin in circulation 2015

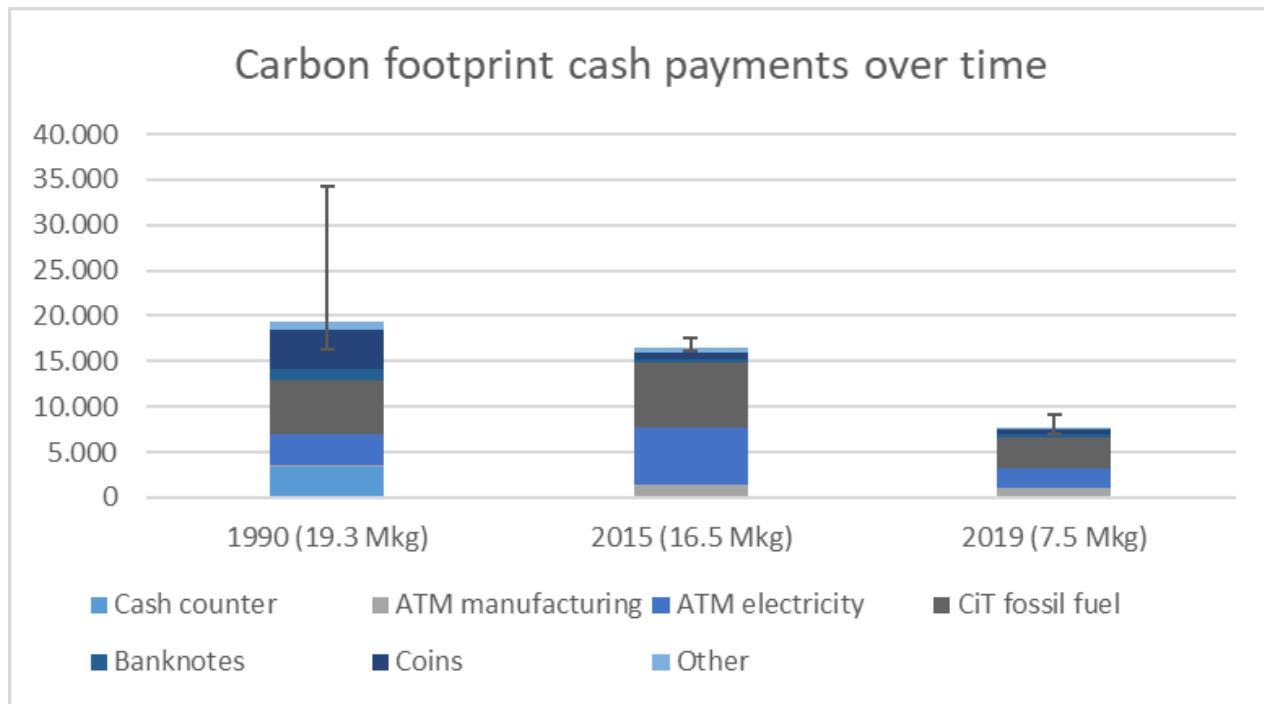


Average guilder coin in circulation 1990

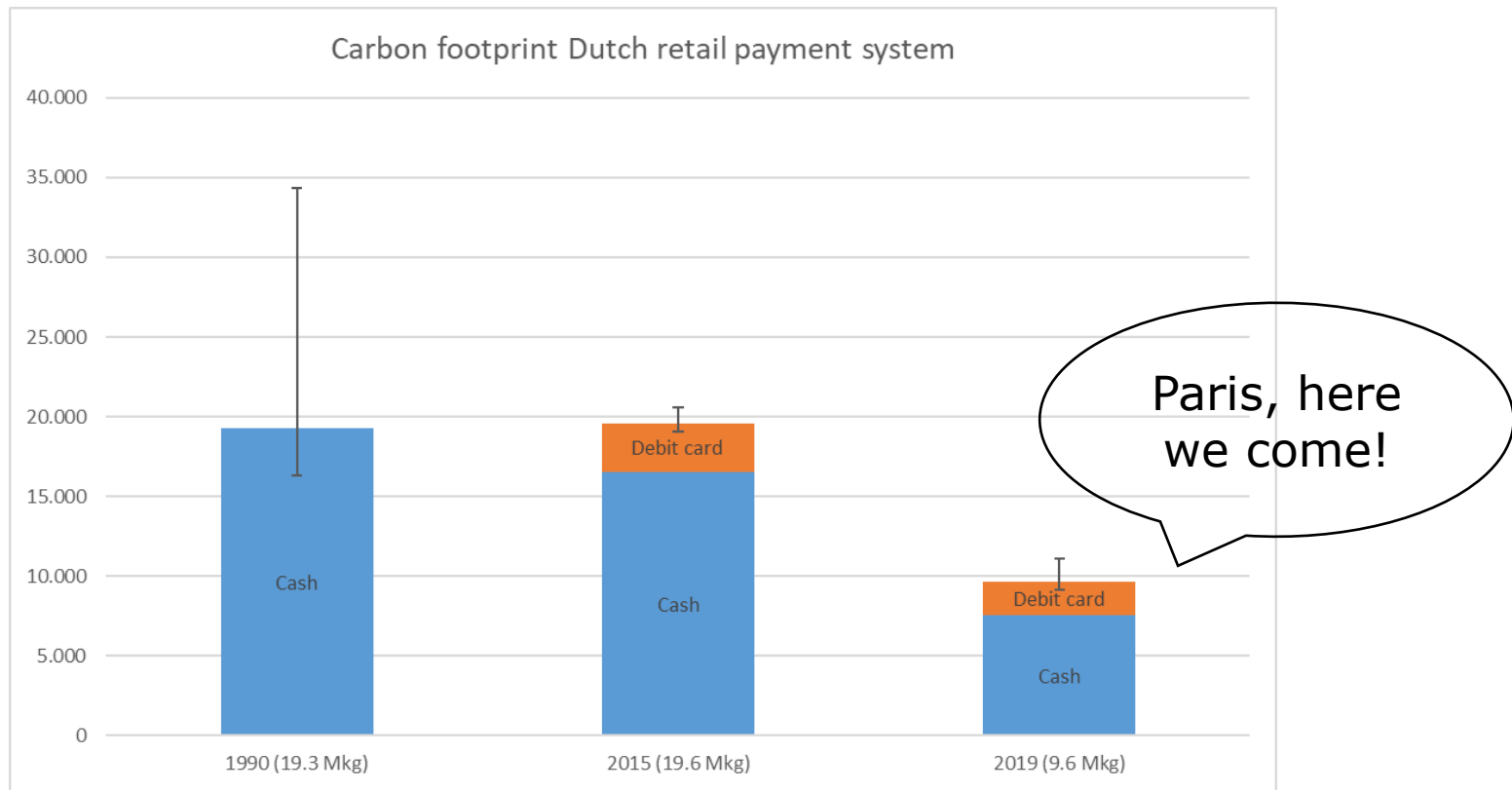


Now for the good – what shape are we in?

Let's focus on carbon impact



Carbon footprint 1990 till 2019 (pre-Covid)

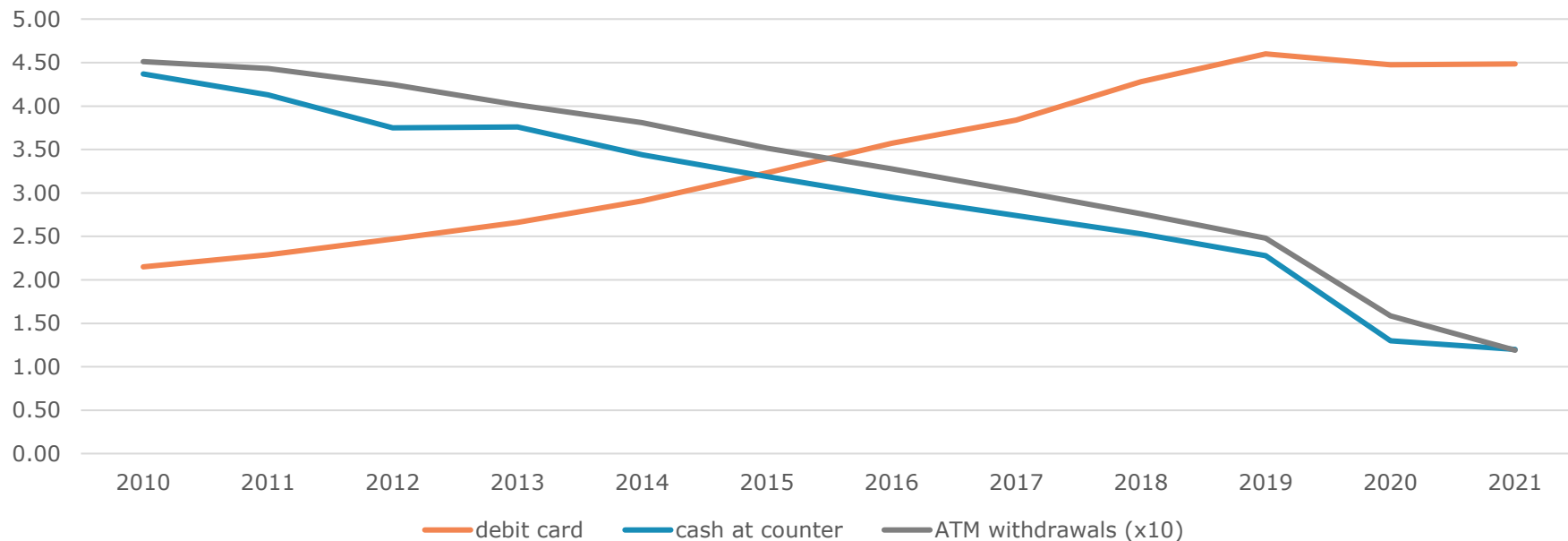


Main game changers so far



Relative impact...

Number of retail payments in the Netherlands



What's at stake?

Card payments compare **very** favourable against cash when talking about environment
Make sure our carbon footprint reduces to that of card payments

For CiT: being a fossil fuel intensive sector, you might run into financing issues
Commercial investors/banks might increase interest rates for sectors highly depending on fossil fuel

Main game changers coming years...



Conclusions

- Dutch retail payments system reached the Paris 2030 goal of a 50% reduction in carbon emissions already in 2019
- Cash payment 5x more impact than card payment
- Current carbon footprint of cash can be reduced to that of cards
- HVO viable alternative to diesel