

The background of the slide is a photograph of a forest, looking up at the canopy of tall trees with vibrant green leaves. A large, semi-transparent blue shape covers the left side of the image. Three teal-colored circles of varying sizes are scattered in the upper right area of the blue overlay.

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The Environmental Impact of Digital Payments in Europe

*Results from a research project commissioned
by EDPIA to Oxford Economics*

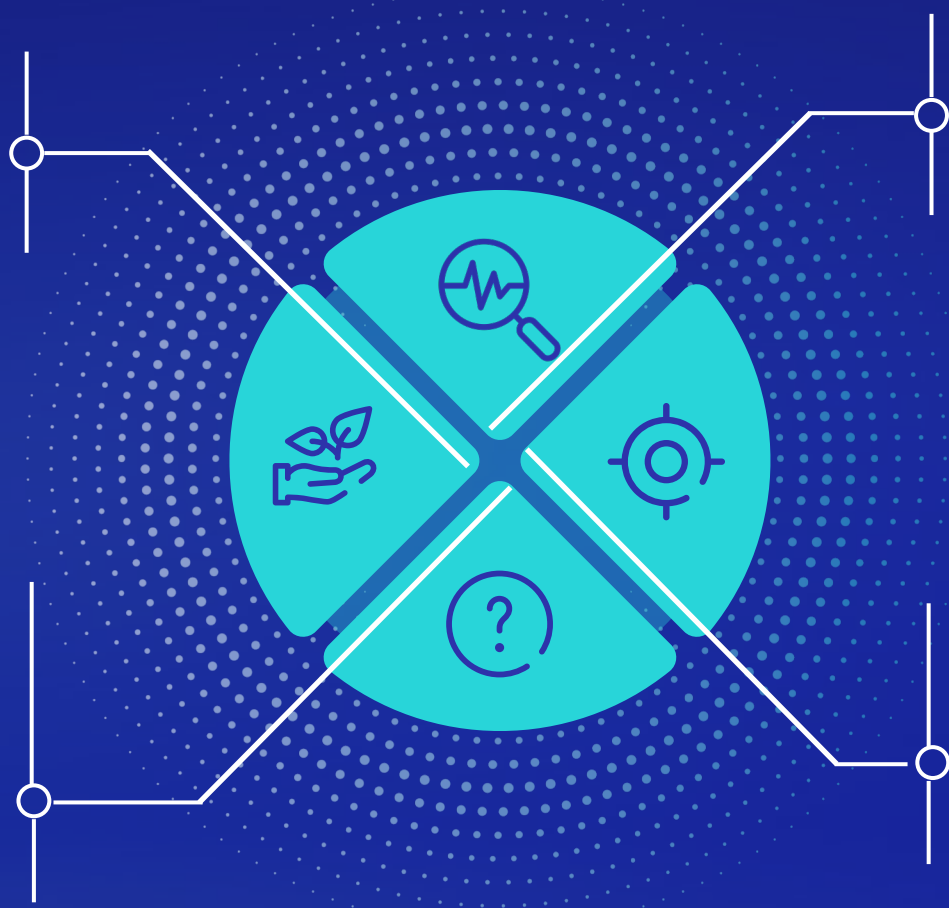
Il Salone dei Pagamenti – 27 novembre 2024

Objectives of the study by



Cash payments produce 38% more GHG emissions than digital payments in the Netherlands according to previous studies*

Gain quantitative insights into the environmental impact of digital over cash payments in Germany, Italy, and Finland



What is the environmental impact of digital payments over cash payments in other European countries?
What are the main drivers?
How can the system's environmental footprint be minimised?

Perform a comparative LCA study investigating the environmental impact of the cash and the digital payment systems in the three countries

*See Hanegraaf et al. (2018) and Lindgreen et al. (2017)

What is the environmental impact of digital vs. cash payments in Europe?



Reducing environmental impact with digital payments

How much does cash pollute?

In 14 out of 19 euro area countries, cash is still the most common payment method.

One cash payments in a shop emits

- 11.50g of CO2 = 2,1
- 18.07g of CO2 = 5,9
- 51.80g of CO2 = 23,5

(member of digital transactions)

Are digital payments greener?

Digital payments emit significantly less CO2 than cash payments:



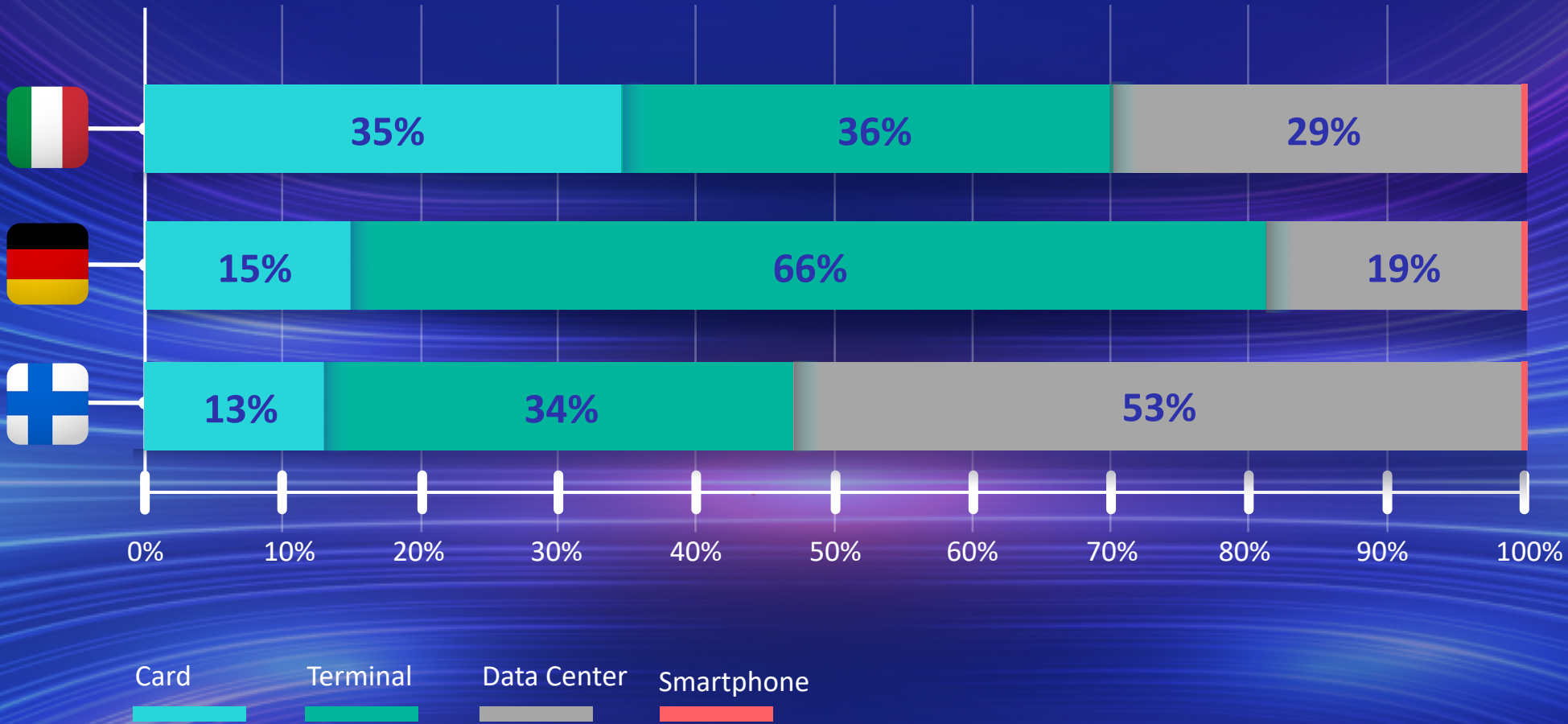
How much CO2 do you save?

Every year, those who pay digitally save CO2 equivalent to dozens of plastic bags:



Hotspot analysis – Global warming potential digital payment system by subsystem

Share of contribution to overall GWP



Our recommendations

Moving towards digital payments

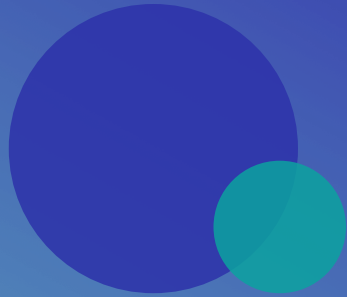
- Encouraging the development of electronic payment infrastructure
- Increasing the focus of EU funding on supporting SME's in accepting digital payments
- Ensuring tax benefits for SMEs in accepting digital payments and subsidizing merchant costs for terminals
- Reducing environmental impact of cash payments by enabling cash withdrawals in shops

Making digital infrastructures more sustainable

- Making sure all players in the value chain, including data centres and cloud infrastructure, become more and more energy efficient
- Increasing the lifespan of payments cards and terminals
- Continuing efforts to recycle payment cards and terminals
- Promoting the use of digital receipts over paper receipts across Europe

Supporting businesses and consumers green behaviours

- By Running public awareness campaigns



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