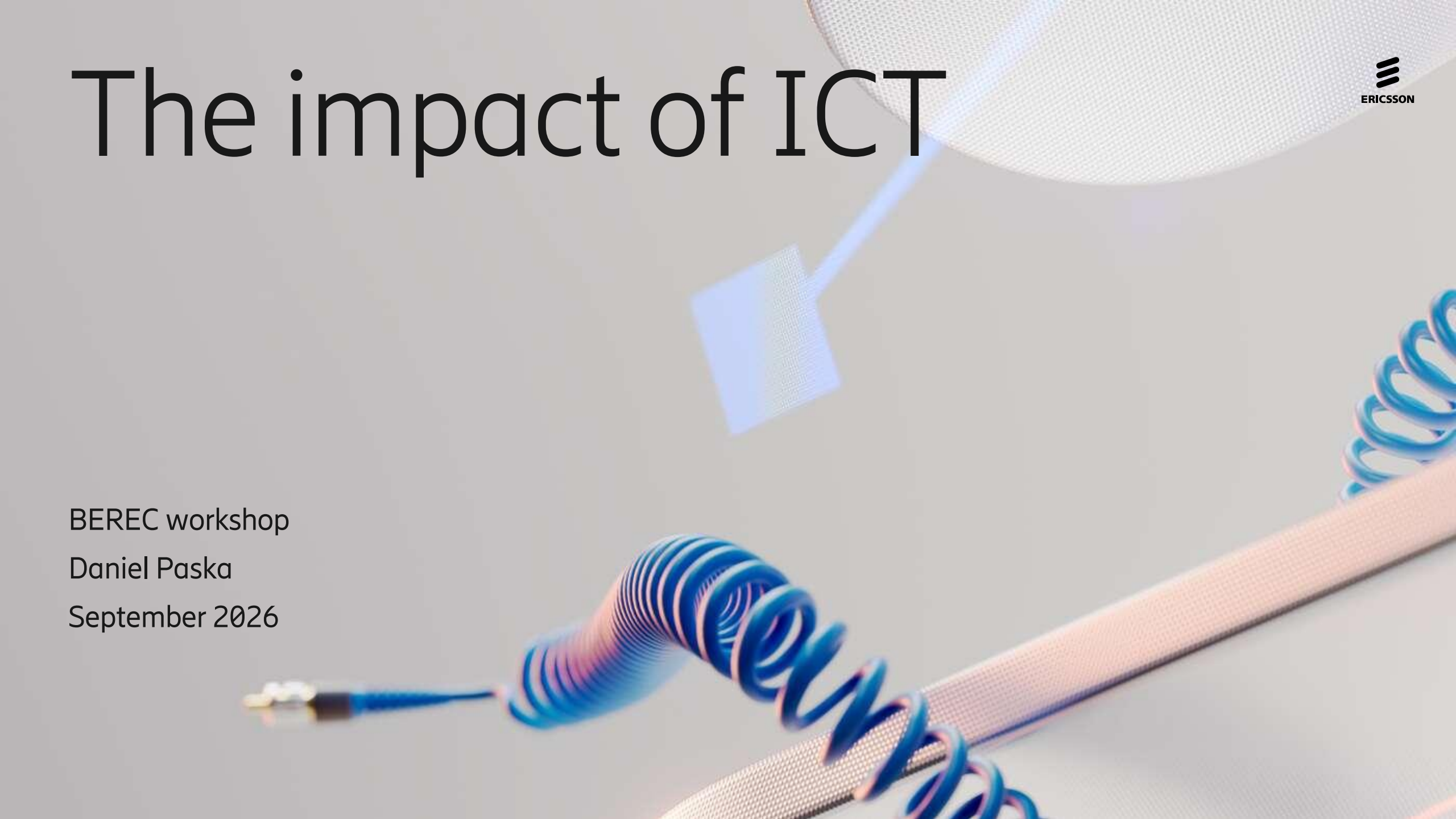
The impact of ICT

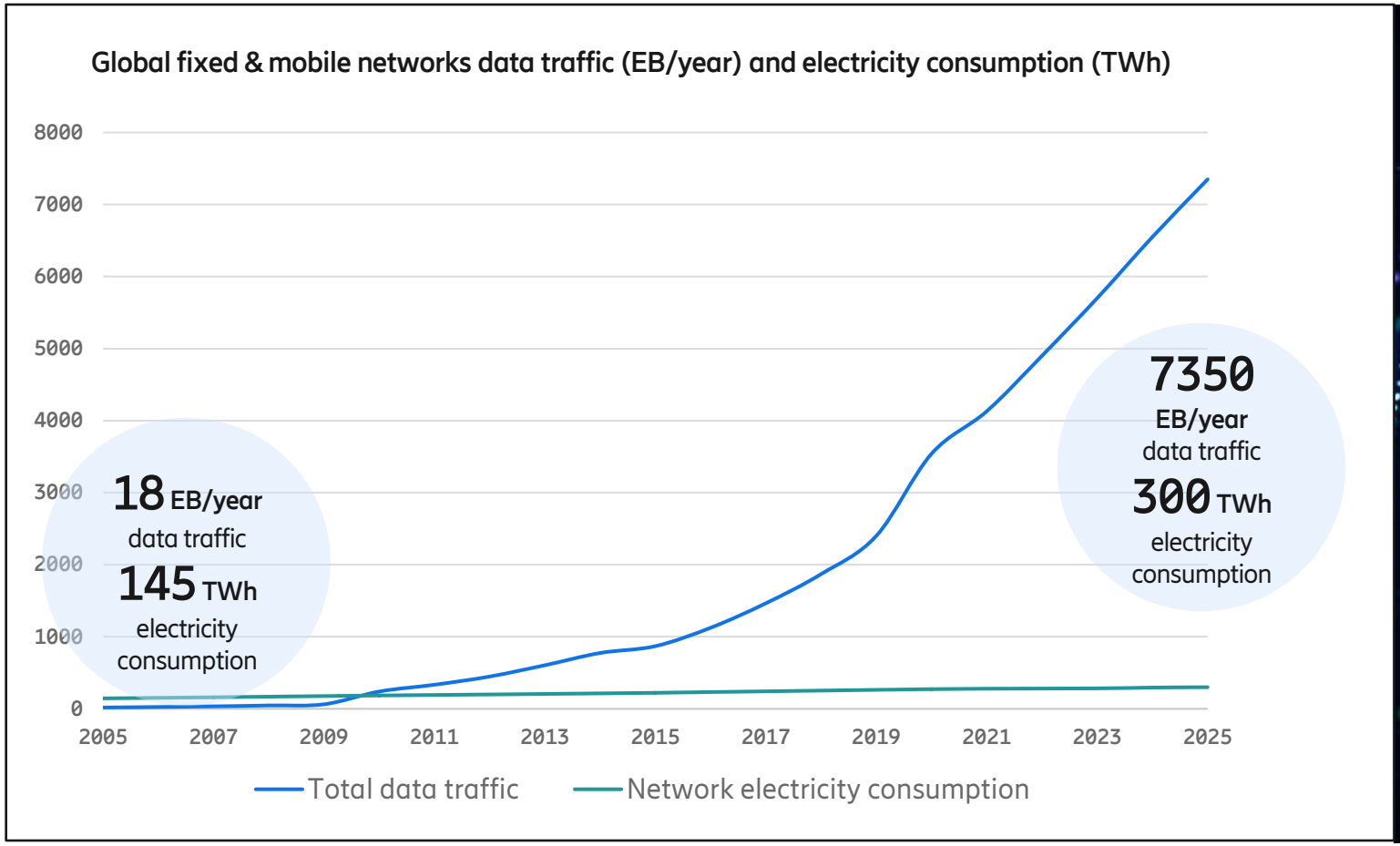


BEREC workshop

Daniel Paska

September 2026

Data traffic & electricity consumption

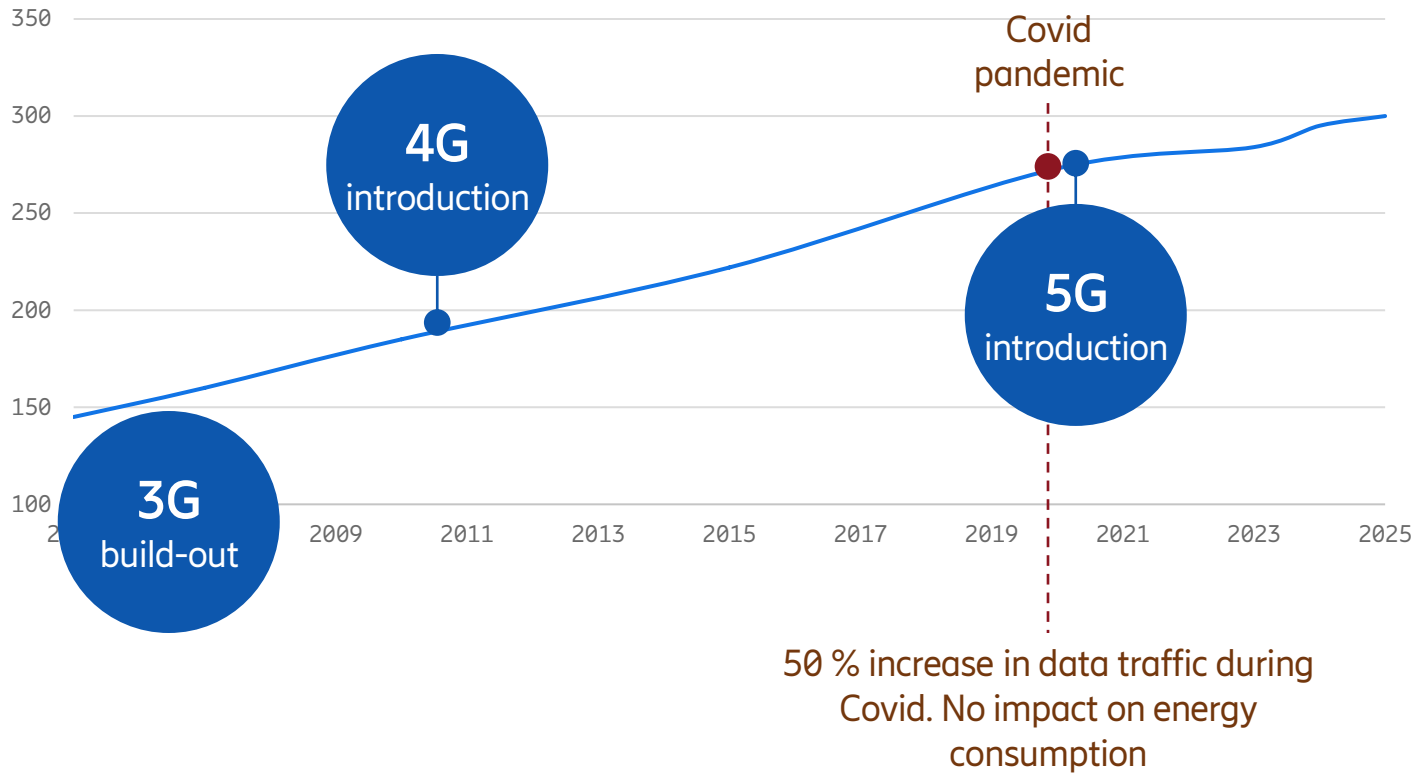




Sources: Ericsson, Cisco, ITU

Network evolution

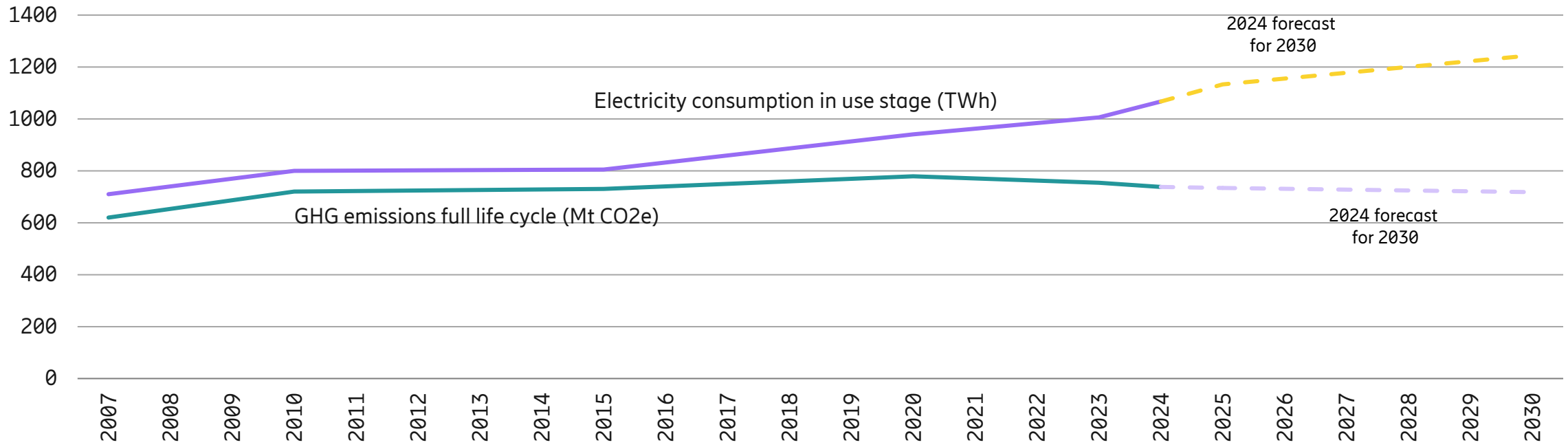
Global fixed & mobile networks energy consumption (TWh)





The impact of ICT

Global electricity consumption (use stage) and GHG emissions of the ICT sector (networks, data centers and devices), 2007 to 2024 with forecast to 2030.



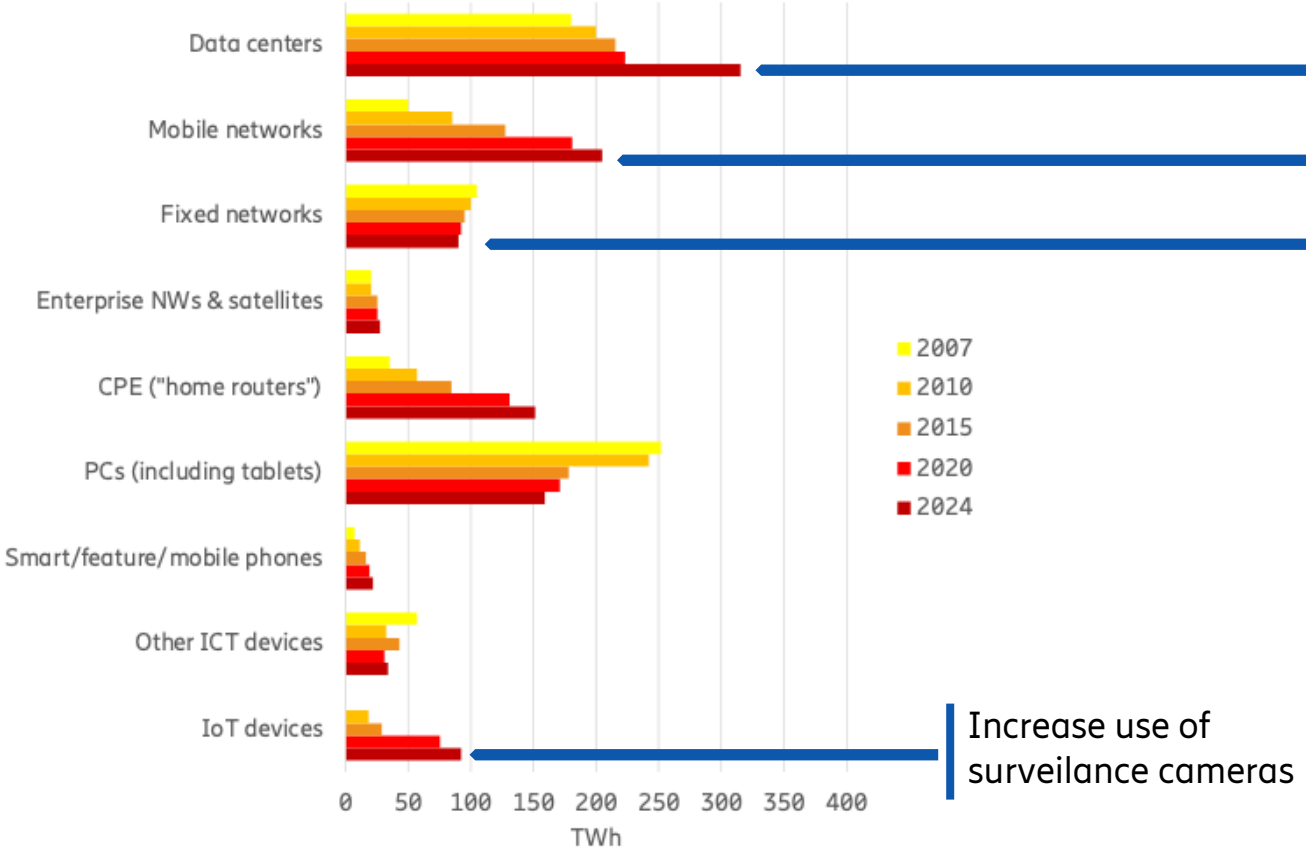
Including
data centers, networks, devices

3.9%
of global electricity usage and slowly increasing

1.4%
of global carbon emissions and shrinking share

Source: Ericsson Research

And the impact per user?



The impact of AI

8.7 billion mobile subscriptions
23.5 kWh/sub (2.7 W)

1.45 billion fixed subscriptions
160 kWh/sub (18 W)

CPE included and old PSTN excluded

Increase use of surveilance cameras

Data Center	Mobile network	Device	
1–2 W	2.7 W	0.4 W	**4-5 W** per user

Netflix electricity use 0.45 TWh (including AWS service)

300 million Netflix users, approx. 1.5 hours per day

1.5 kWh per user and year (3W)

Source: Ericsson Research



Telephone station ARM in Hong Kong. 1979.