Photo: Birger Elvestad

Impact of electromobility + parking measures in Trondheim

Sofia 16 June 2022

steinar.myhr@trondheim.kommune.no
mads.leonhardsen@trondheim.kommune.no

THE CIVITAS INITIATIVE
IS CO-FUNDED BY
THE EUROPEAN UNION

Description - EV´s parking history

Before 2017

No parking fee for electric vehicles

5 hours maximum parking duration

Problem

- **Low replacement**
- **Commuters to work by EVs leaving no spaces for visitors**
- **EVs just swap spaces**
- **Growing search traffic**

After 2017

Full parking fee for EVs and 3 hour maximum parking all vehicles

Impact

- **Commuter parking disappeared**
- **Visitor vehicles took on free spaces**
- **Less search traffic for a parking space**

THE CIVITAS INITIATIVE IS CO-FUNDED BY THE EUROPEAN UNION

Park4Sump and link to the SUMP objectives

CBA Framework: About parking & the use of public space

- 2016 Strategy, coordinated with "Miljøpakken"
- 2020 PARKPAD and adopted plan, scope for 2030
- 2021/22 Extend parking regulations and reduction of spaces

Stakeholder working groups concensous

- YES please: More zero emission mobility
  Increased share of off-street parking
- NO thanks: Commuting to work by cars
  Increased traffic by car into the CBA

THE CIVITAS INITIATIVE IS CO-FUNDED BY THE EUROPEAN UNION

EV parking + charging standards

2008: A QUALIFIED MUNICIPAL START

Photo: Birger Elvestad

- 2017: New national parking regulation:
- *Always 1 available charging space, but no obligation above 6 % of total spaces*

- 2018 – 2021 (Park4SUMP period) exponential growth of EVs
- Charging and parking gradually split. EV development required separate charging stations due to fast or ultra fast DC 50 kW – 350 kW

THE CIVITAS INITIATIVE IS CO-FUNDED BY THE EUROPEAN UNION

EV parking goes off-street

Off-street parking space for charging: 22kW

Euro 30 per month added to the subscription fee for a parking space

Photo: Birger Elvestad

THE CIVITAS INITIATIVE IS CO-FUNDED BY THE EUROPEAN UNION

EV parking + charging standards
CONCLUSIONS

- The growing demand of charging goes beyond the regular municipal on-street parking service.
- Do not challenge private sector on the price of charging. Private sector dominate the charging services
- Experience: 22kW charging attractive part of residential parking regulation in urban areas when lack of access to private spaces

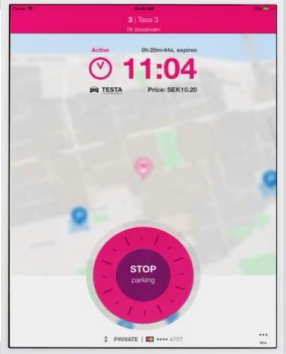
Photo: Birger Elvestad

THE CIVITAS INITIATIVE IS CO-FUNDED BY THE EUROPEAN UNION

Photo: Trondheim parkering

Vehicle to grid value chain - fierce competition

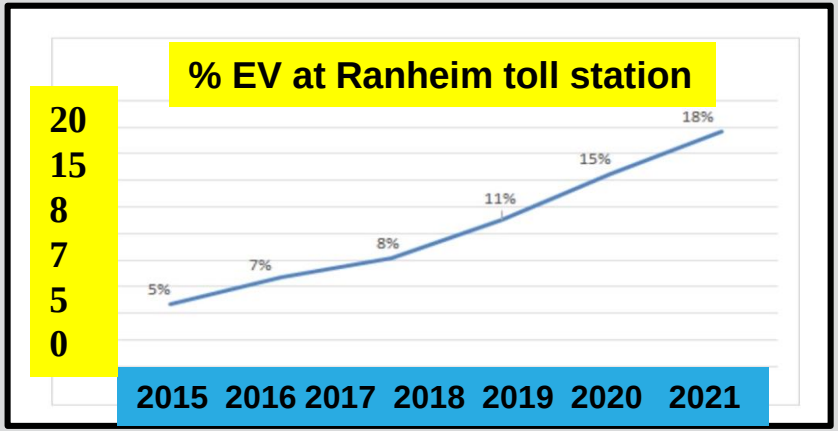
Main navigation



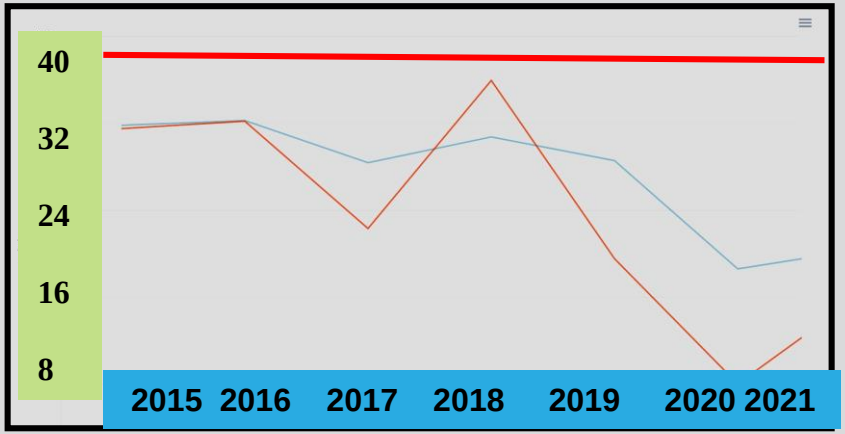
The magnitude of wireless user interfaces for payments, APP´s memberships and loyalty programmes is escalating. Standards required.

THE CIVITAS INITIATIVE IS CO-FUNDED BY THE EUROPEAN UNION

The Traffic Index, share of EVs and NO_2 pollution
Multiple correlations towards objectives likely



Graf: Miljøpakken



Micro g No_2 per
kbm air, annual mean

Graf: NILU

THE CIVITAS INITIATIVE
IS CO-FUNDED BY
THE EUROPEAN UNION

EV parking and lessons learned

- Power supply is a fast growing challenge
- Mobility hubs with EV option is part of early stage planning
- Free parking is an attractive incentive but not sustainable
- EVs take the same space as a fossile car

Photo: Miljøpakken

THE CIVITAS INITIATIVE IS CO-FUNDED BY THE EUROPEAN UNION

EV and Trondheim Park4Sump final results

- Among car users benefits of the EV are widely accepted
- Powergrid capacity is a matter of concern
- Smart charging applications in households and do support EV ownership
- EVs contribute to improve the air quality
- Technology push the standards for EV charging

Photo: Birger Elvestad

THE CIVITAS INITIATIVE IS CO-FUNDED BY THE EUROPEAN UNION

Thank you

Follow us

- Twitter, Facebook, LinkedIn, YouTube, Flickr, Spotify

Subscribe to our newsletter

- civitas.eu/newsletters

Email

- secretariat@civitas.eu

civitas.eu

This presentation has been produced by CIVITAS ELEVATE, a CIVITAS Coordination & Support Action. The CIVITAS ELEVATE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 824228.

CIVITAS 2030

Park4SUMP

THE CIVITAS INITIATIVE IS CO-FUNDED BY THE EUROPEAN UNION