COMPETT

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Who are the EV owners and how do they travel?

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EV qualities, incentives and available cars

→ 50 000 EVs on Norwegian roads in 2015

40 000 owned by consumers

Made COMPETT surveys possible

Earlier studies gave little knowledge on:

- EV owners' travel habits
- EV owners' attitudes to newer EVs
- Overall picture of advantages and disadvantages

COMPETT → **options for comparing**:

- EV owners – ICE vehicle owners
- EV owners – the overall population (NTS-data)
- By car ownership, economy, attitudes…
- Importance of assets and challenges
- 2014 data with earlier studies

User groups and samples

Norway

- 1721 EV owners
- 2241 ICE vehicle owners in Kongsberg region
  - *30% (672) Considering an EV next time*
  - *28% (941) Do not know*
  - *42% (628) Not considering EV*

- 13695 in vehicle owning households (NTS)

Denmark

- 5152 Driving licence holders (part of NTS)
  - *6% (309) Considering an EV*
  - *13% (670) Might consider an EV*
  - *81% (4183) Not considering an EV*

Austria

- 396 Vehicle owners
  - *34 EV owners*

Several EV and potential EV owner groups

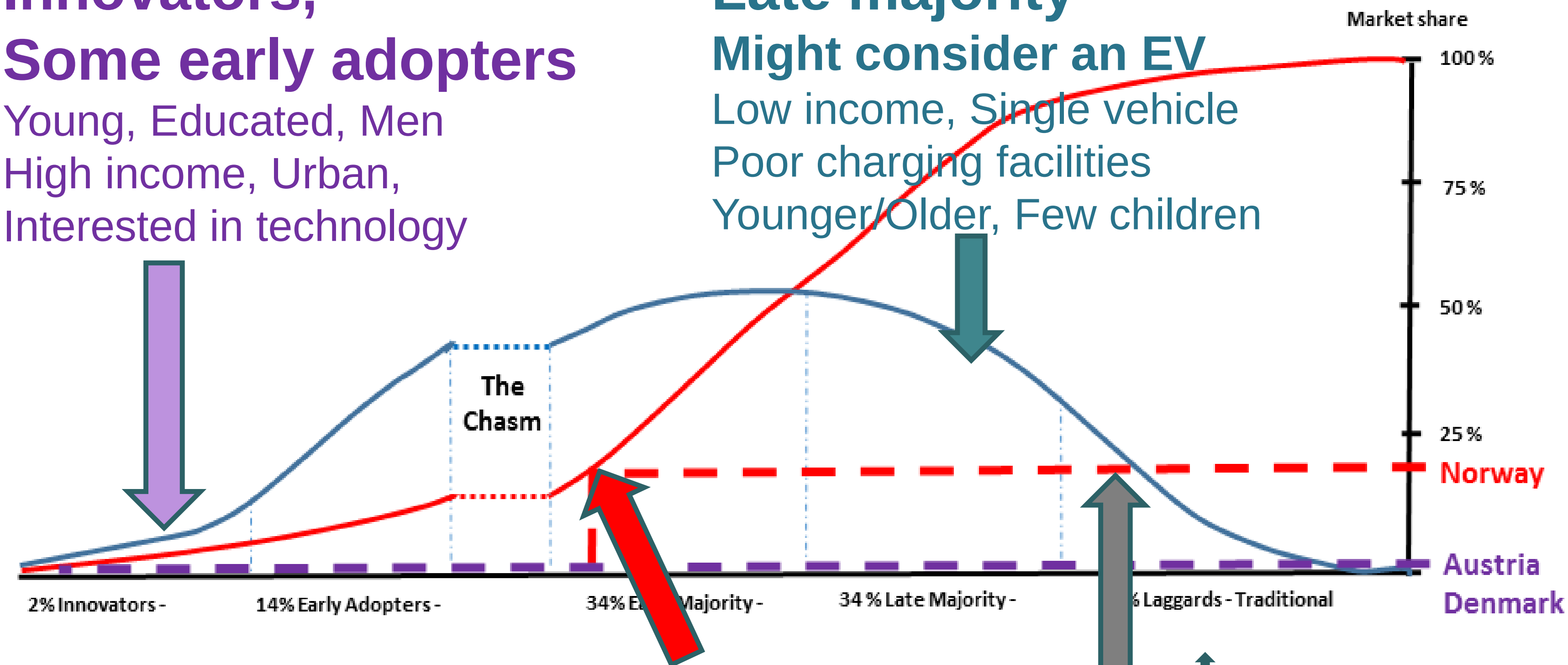
Innovators, Some early adopters

Young, Educated, Men
High income, Urban,
Interested in technology

Late majority

Might consider an EV

Low income, Single vehicle
Poor charging facilities
Younger/Older, Few children



Early adopters, early majority

Own or consider EVs

75% men, 33-55 years old, Work fulltime,
Educated, Active large households with children,
Urban region, Charging facilities,
72% M**ulticar owners**

Laggards

Do not consider EV

Retired, Older
Holiday house

EV owners' economy similar to other recent vehicle buyers

Vehicles	Household income 1000 €		
	24–94	95-118	>119
1 ICE car	33%	16%	**52%**
1 EV	**41%**	22%	37%
2 ICE cars	12%	12%	**76%**
EV + ICE	10%	19%	**70%**

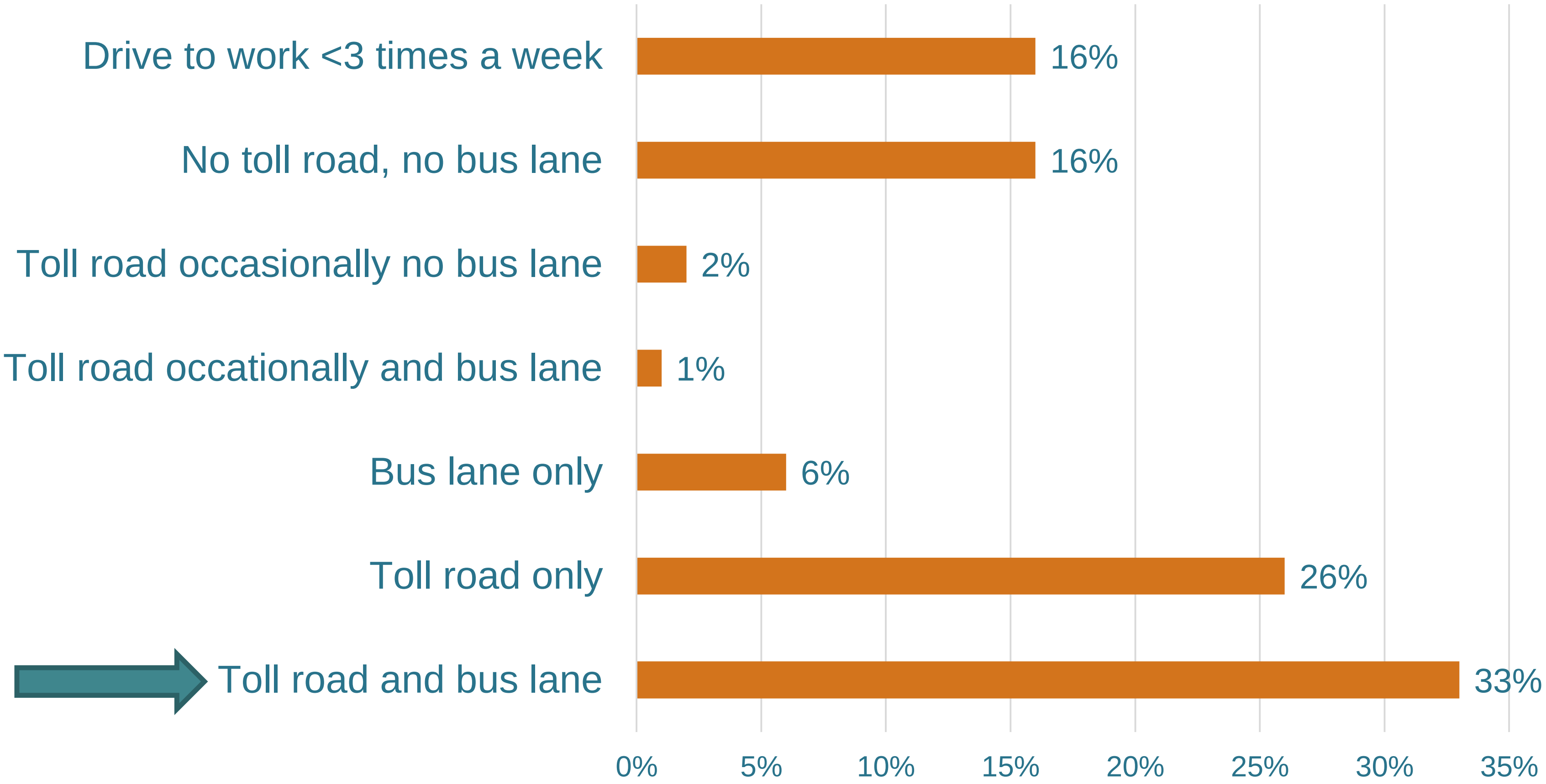
EV incentives - not subsidies for the wealthy
Give EVs **relative advantages**

Different motives for buying their car

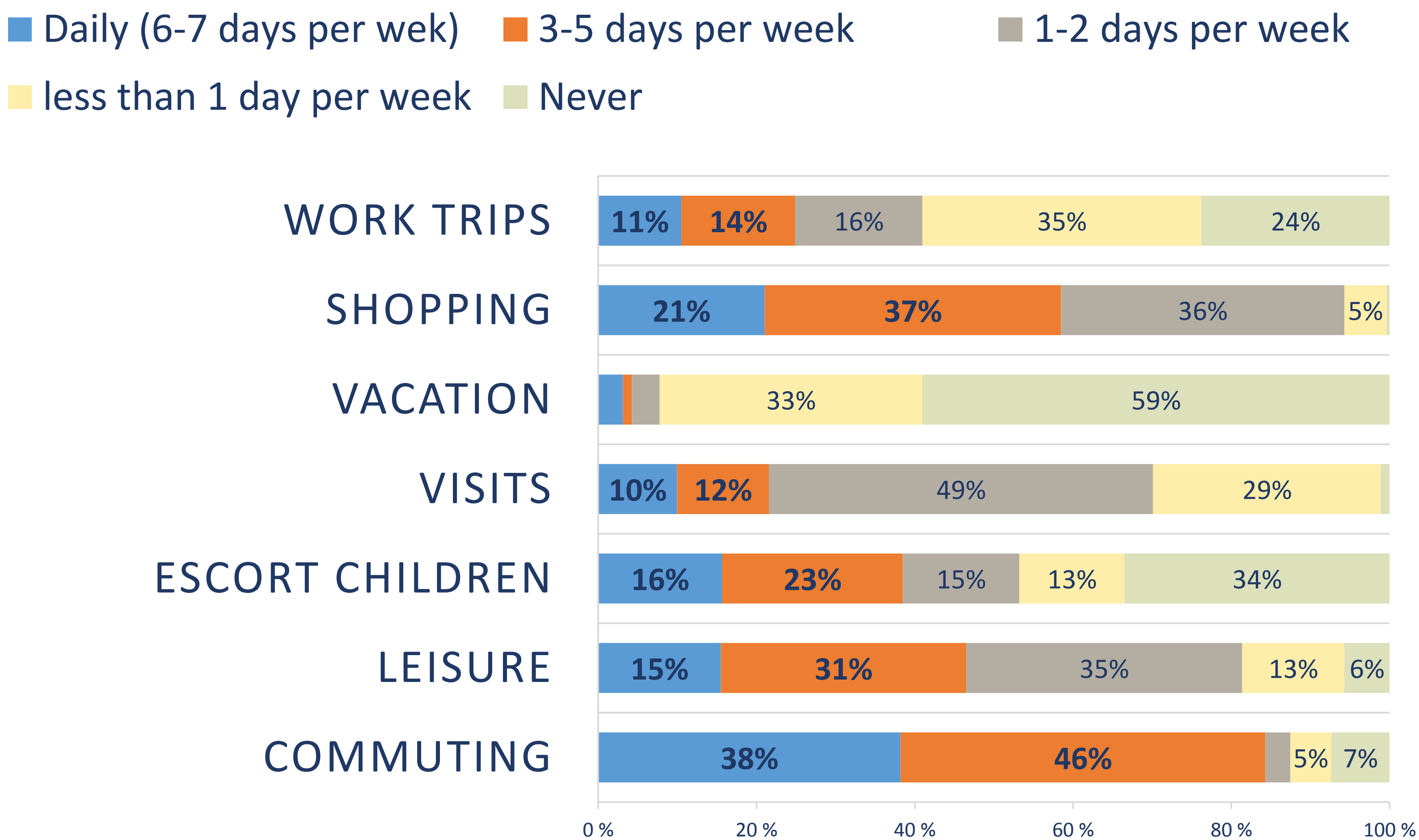
	EVs	ICEs
Practical		
▪ Best car for my needs	**68%**	**72%**
▪ Save time using bus lanes	30%	---
Economically favourable		
▪ Competitive price	55%	**48%**
▪ Free toll roads	66%	---
▪ Free accessible parking	40%	---
▪ Low operational costs/ Energy efficiency	**81%**	39%
Value/Interest		
▪ Environment	**64%**	25%
▪ New Technology	40%	22%
▪ The car's safety	29%	**63%**

Local incentives vary with living area

% EV owners using free toll road/access to bus lane

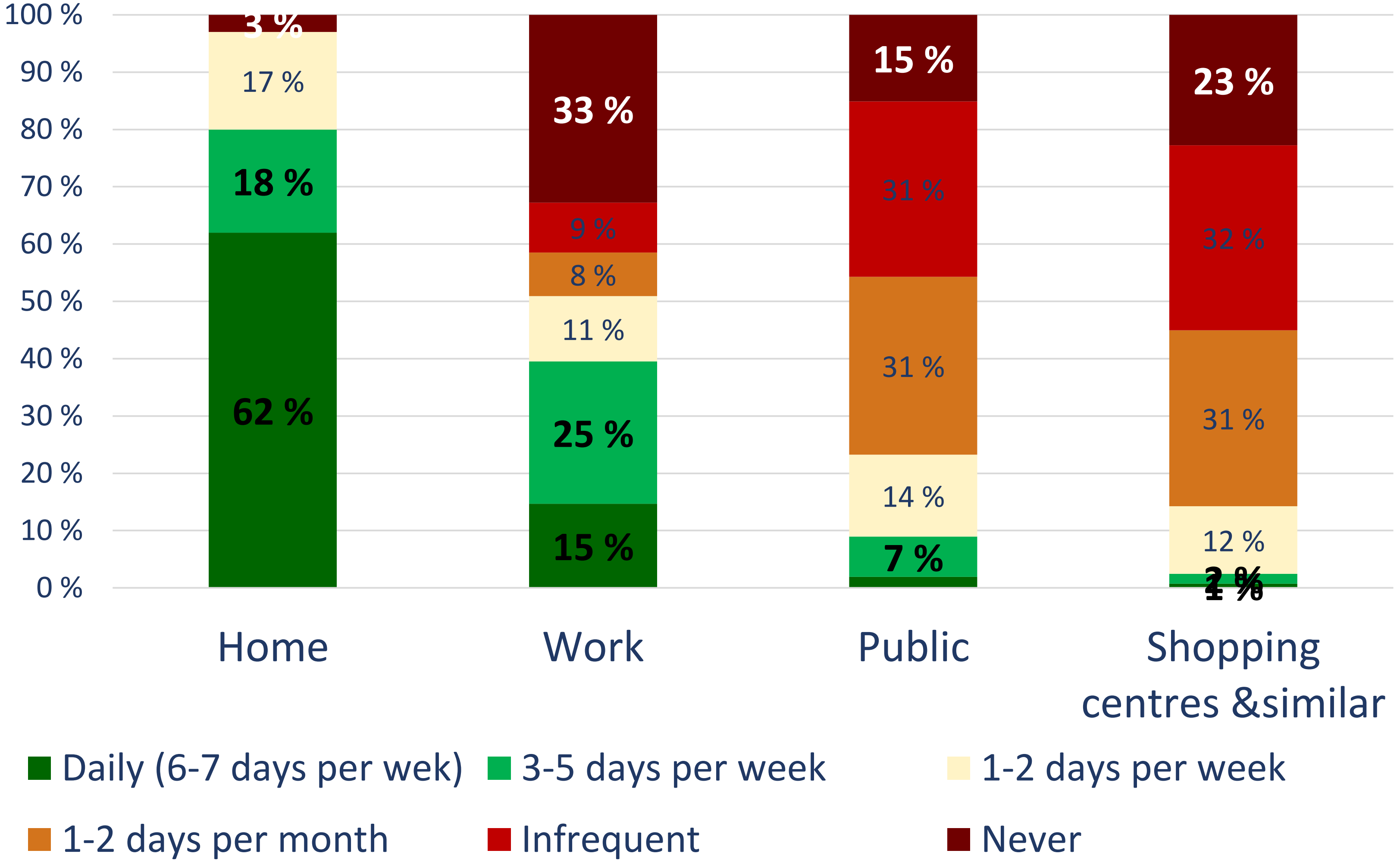


EVs match daily transport needs
Drive 15 000 km /year – like ICE vehicles

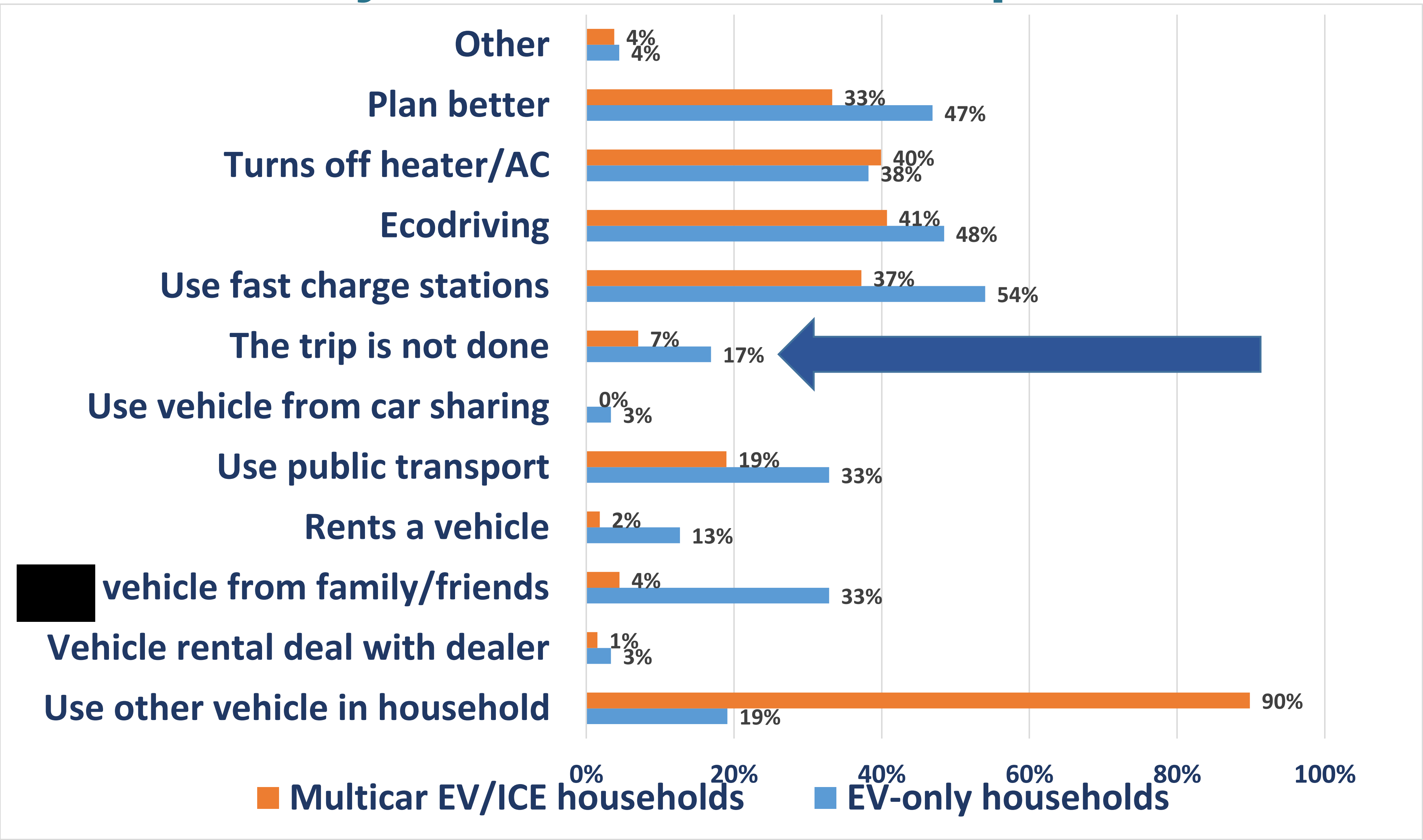


97% charge at home, 62% daily

85% comfortable using 80% of the battery capasity



EV owners learn to cope with range
1 EV only households - more problems



A greener vehicle fleet
but ca. 10% increase of cars

67% changed cars

28% bought new car
3% bought first car

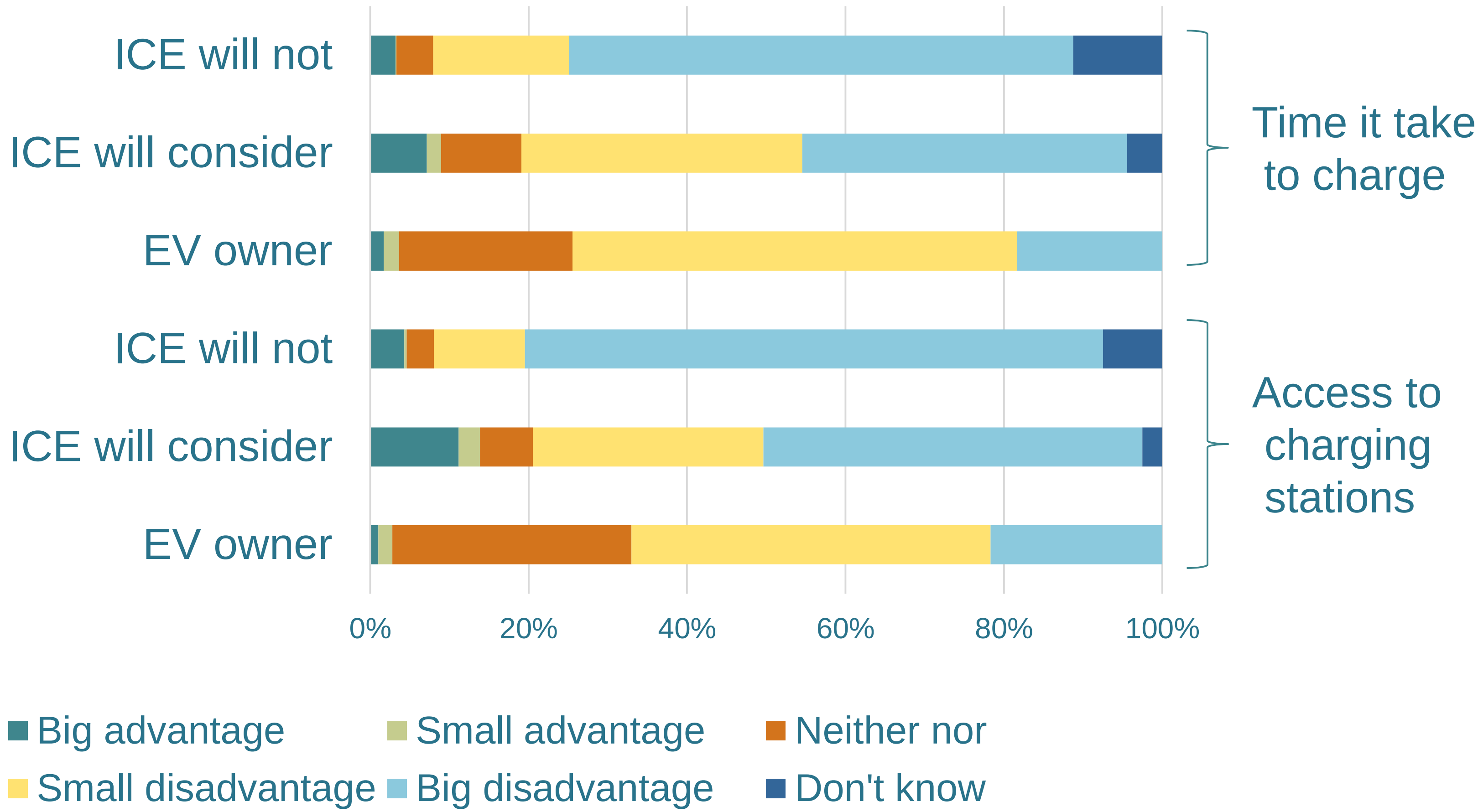
94% from petrol/diesel
= 1084 cars
2/3 instead of ICE cars
= 355 cars

84% got greener cars
6 % changed an EV

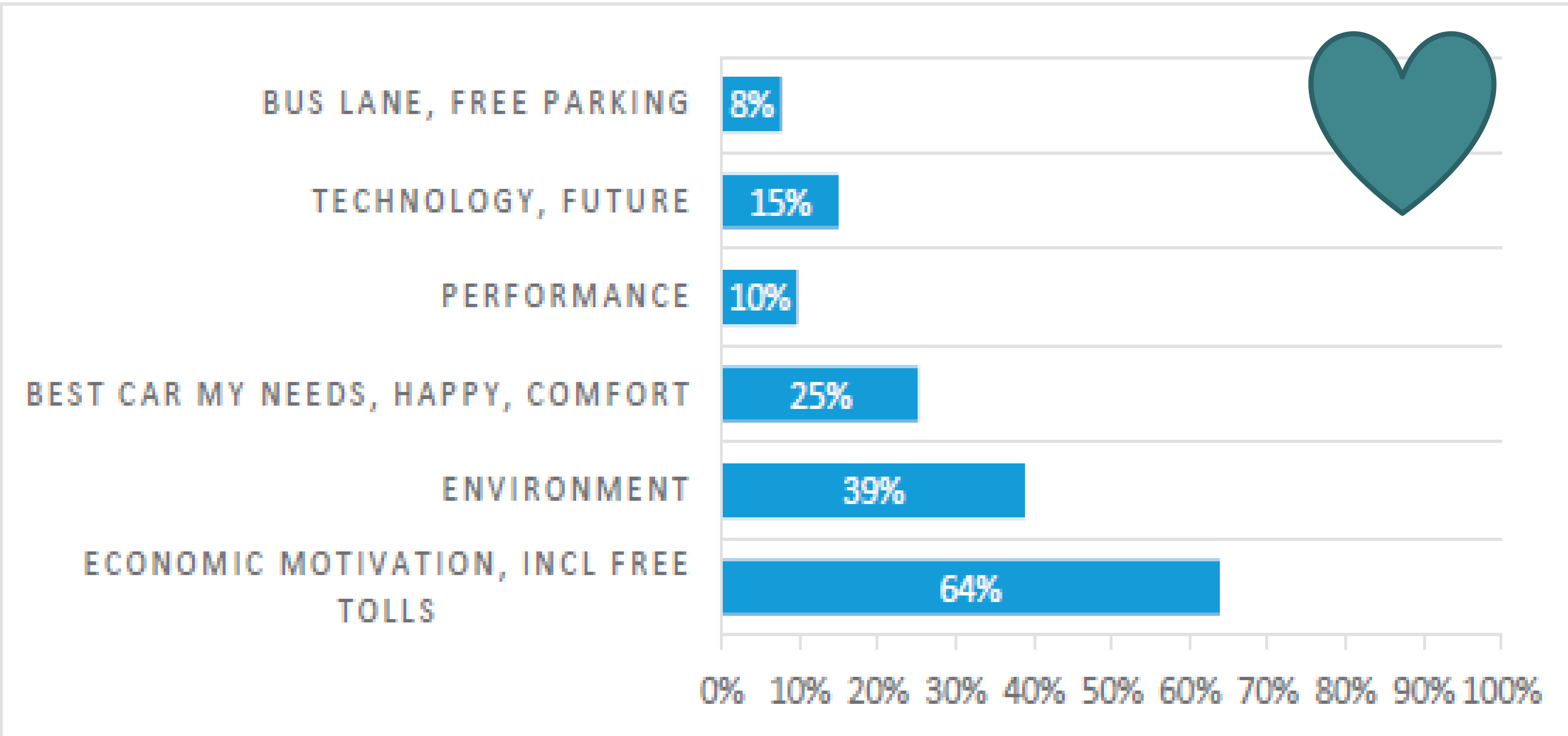
62% don’t change insured length
60% don’t change travel pattern

16% less public transport
4% more public transport
23% drive more
7% drive less

Experience → More positive attitudes to EVs - even when problems



90% of EV owners will stay electric



The challenge is to change ICE owners attitudes - EV owners – are good ambassadors

- 67% in Norway have friends who have already bought or consider an EV next time
- 97% of Austrians would recommend EVs

- 30% of average car owners in Norway will consider an EV while 44% of those with EV friends will
- 6 -19% of Danes will consider an EV

Information, experience and networks are important for diffusion

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Thanks for your attention!!!

More information on EV users in:

Figenbaum, E., Kolbenstvedt, M., Elvebakk, B. (2014). *Electric vehicles – environmental, economic and practical aspects – as seen by current and potential users*.

TØI, Report 1329/2014.