



ECF gratefully acknowledges financial support from the European Commission.



# ECF Speed Pedelec Workshop

## ECF AGM

Kevin Mayne, Development Director  
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Rue Franklin, 28 1000 Brussels, Belgium Phone: +32 2 880 92 74 Fax: +32 2 880 92 75 office@ecf.com

[www.ecf.com](http://www.ecf.com)

# Workshop agenda

- Introduction and objectives
- Context
- About Pedelecs and Speed Pedelecs
- Detailed discussions – ECF proposals
- The future – new vehicles of all kinds
- Conclusions and next steps



# Discussion & information share

- What might the introduction of new hybrid vehicles mean for cycling and cycling in our country?

# Workshop Objectives

- To get specialist input into ECF policy process
- To allow members to share knowledge, expertise and opinions
- To strengthen the member group network through education

# Context

- Current ECF messages on e-cycling at EU/Global policy level
  - Emerging policy fields
  - Getting cycling in to the fields of SMART Cities, e-mobility, Connected Vehicles
  - Benefits and potential of e-cycling

# EU Policy context

- Halve the use of 'conventionally-fuelled' cars in urban transport by 2030
- Regulatory regime for vehicles
- ECF "Cycling as a New Technology" Study
  - 8 policy areas, 32 specific initiatives/directives/work plans could benefit from new cycling technologies
  - Transport, innovation, air quality, environment, low carbon development, health, economic growth & cohesion, industry
- ECF presenting cycling as the leading industry in the sector = jobs and growth

# Global policy context

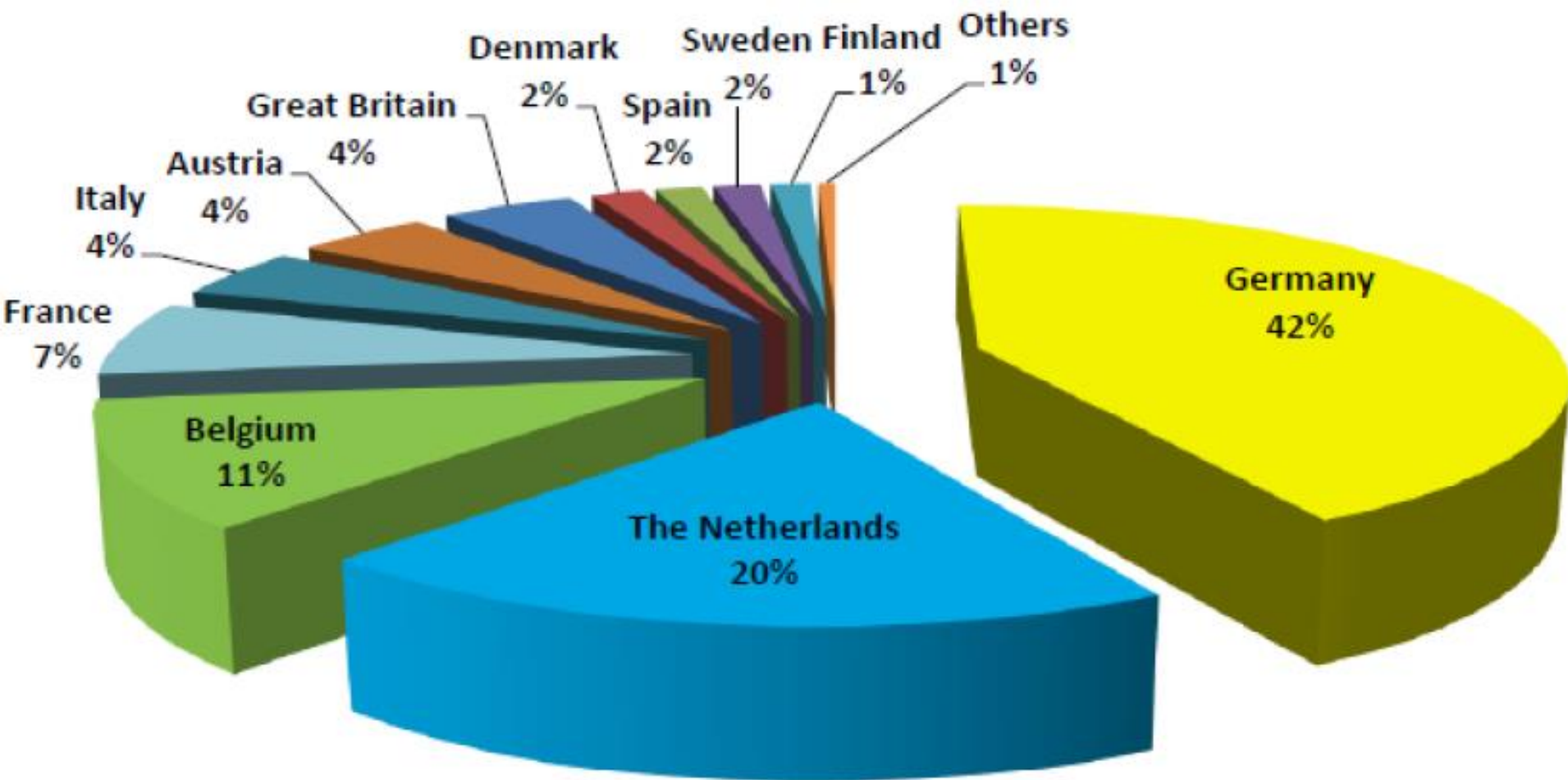
- Climate change – post 2015 commitments
  - Avoid, shift, improve
- Development/Habitat
  - Urbanisation – mobility that addresses greater urban scale
  - Access and exclusion – affordable mobility
- United Nations Electro-mobility Initiative (UEMI)
  - boost the share of electric vehicles in annual vehicle sales to 30% (2-3 wheelers and light duty vehicles)
  - integrate electric mobility into sustainable urban transport - achieves a 30 % reduction GHG emissions in urban areas by 2030



# Cycling has technological leadership



# 2014 EUROPEAN EPAC SALES (EU 28) (1,000 units)





Collaborative systems

Circular economy

Digitalisation

Autonomous vehicles

Internet of things

Intelligent transport systems

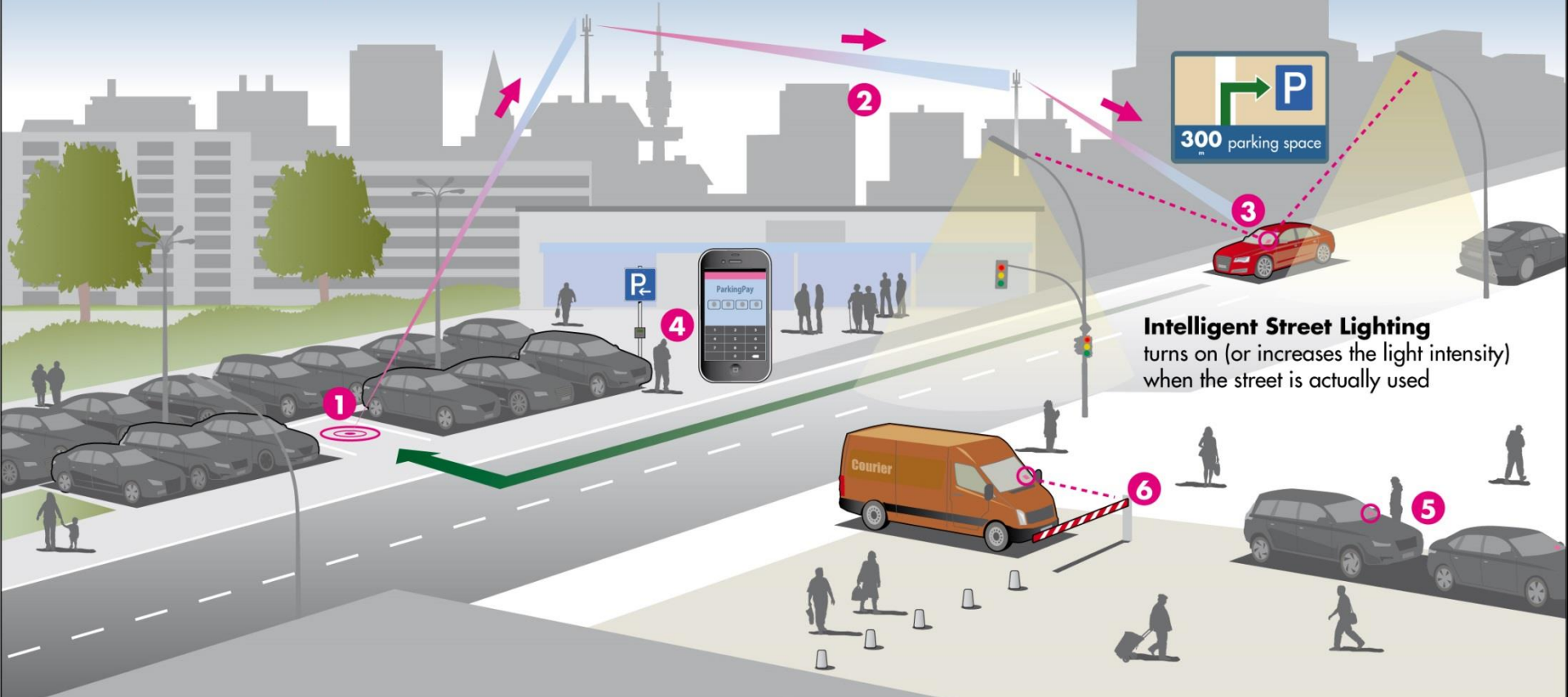
Sharing economy

Big data

Smart grids

# Help with finding a parking space

30 percent of drivers in cities are looking for a parking space.  
Intelligent machine-to-machine (M2M) solutions make life easier in the city.



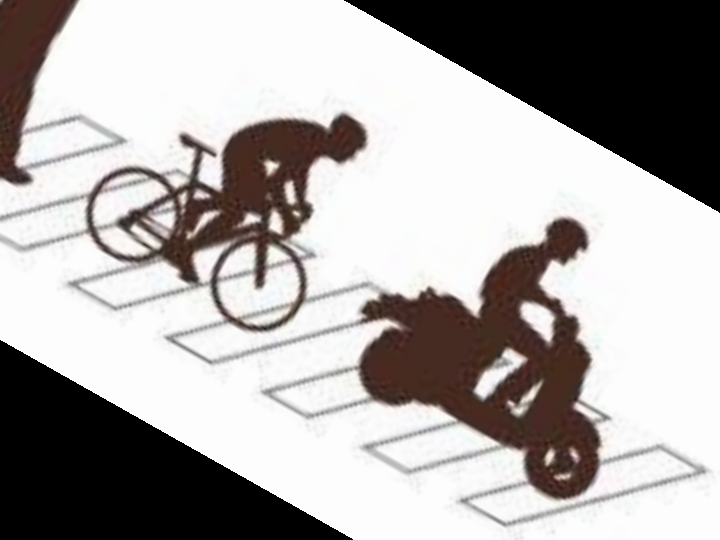
**1** **Sensors** "detect" whether a parking space is occupied or vacant and...  
**2** ... transmit **data** to the central **server**

**3** **Smartphone app** "requests" a parking space and guides drivers to the free space

**4** **Parking fee** is paid directly through the app

**5** **Special permit**  
Administration of  
- parking and local resident IDs  
- permits for taxis, coaches, deliveries

**6** **Legitimation**  
Access control to restricted traffic areas such as loading zones, residential parking



IMPROVING THE SAFETY AND MOBILITY  
OF **VULNERABLE ROAD USERS**  
THROUGH **ITS** APPLICATIONS



# Cycling in the SMART CITY era

- Affordable, accessible electro-mobility
- Proven collaborative sharing technologies
- Highest level co-benefits – economic and social
- Complement to public transport
- Industrial scale & innovation
- Development e-mobility/ITS skills & workforce
- Globally available solution
- Proven consumer take up

# ECF Policy Conclusion

- ECF has to work in the “new technology” and “new vehicle” fields
  - To ensure that decarbonisation “Avoid, Shift, Improve” always includes “Shift Mode”
  - To balance the input of car, motorcycle lobby
  - To avoid cyclists just being framed as “the problem” = Vulnerable Road Users
  - To release funding and policy support from EU new technology work plans
- AGM resolution
  - 2016 “We work on Speed Pedelecs”
  - 2017,18,19..... other technologies?

# Questions and comments



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# eBikes/pedelecs/S-pedelecs

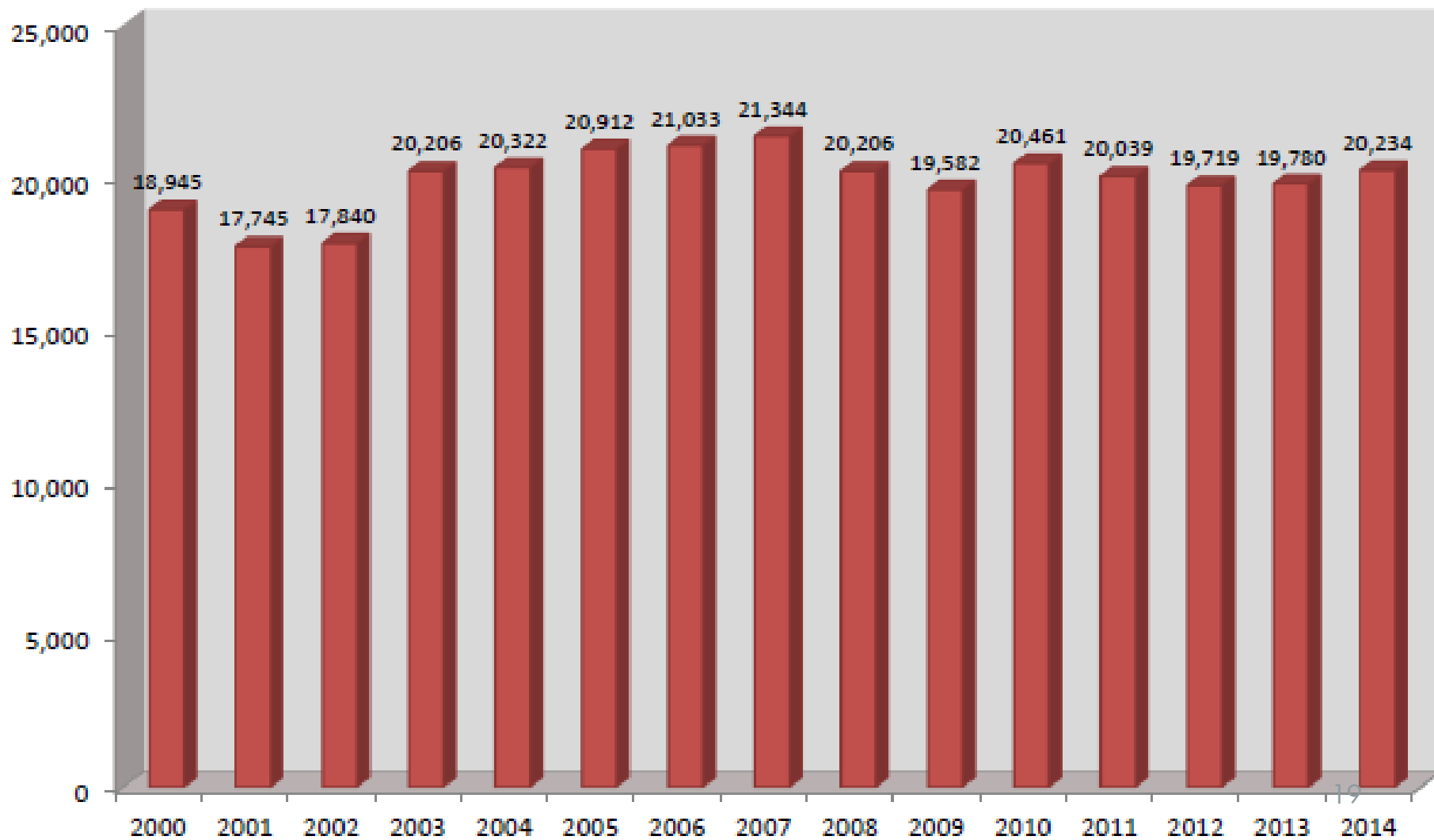


- eBike – all electric bikes
- Pedelec – an eBike with lower speeds
- Speed pedelec – an eBike with higher speeds
- Cargo eBike

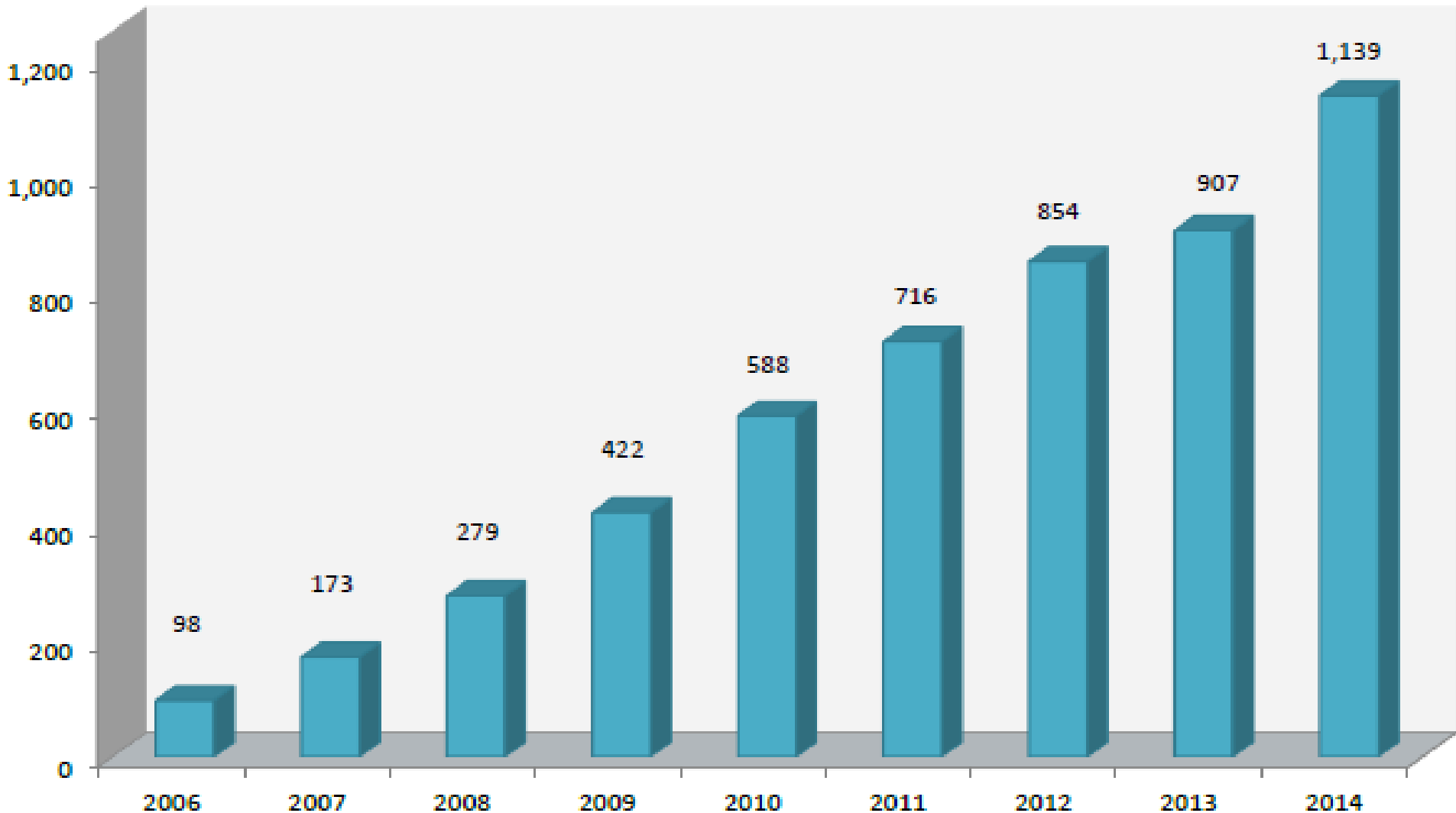


# EUROPEAN BICYCLE SALES (EU 28)

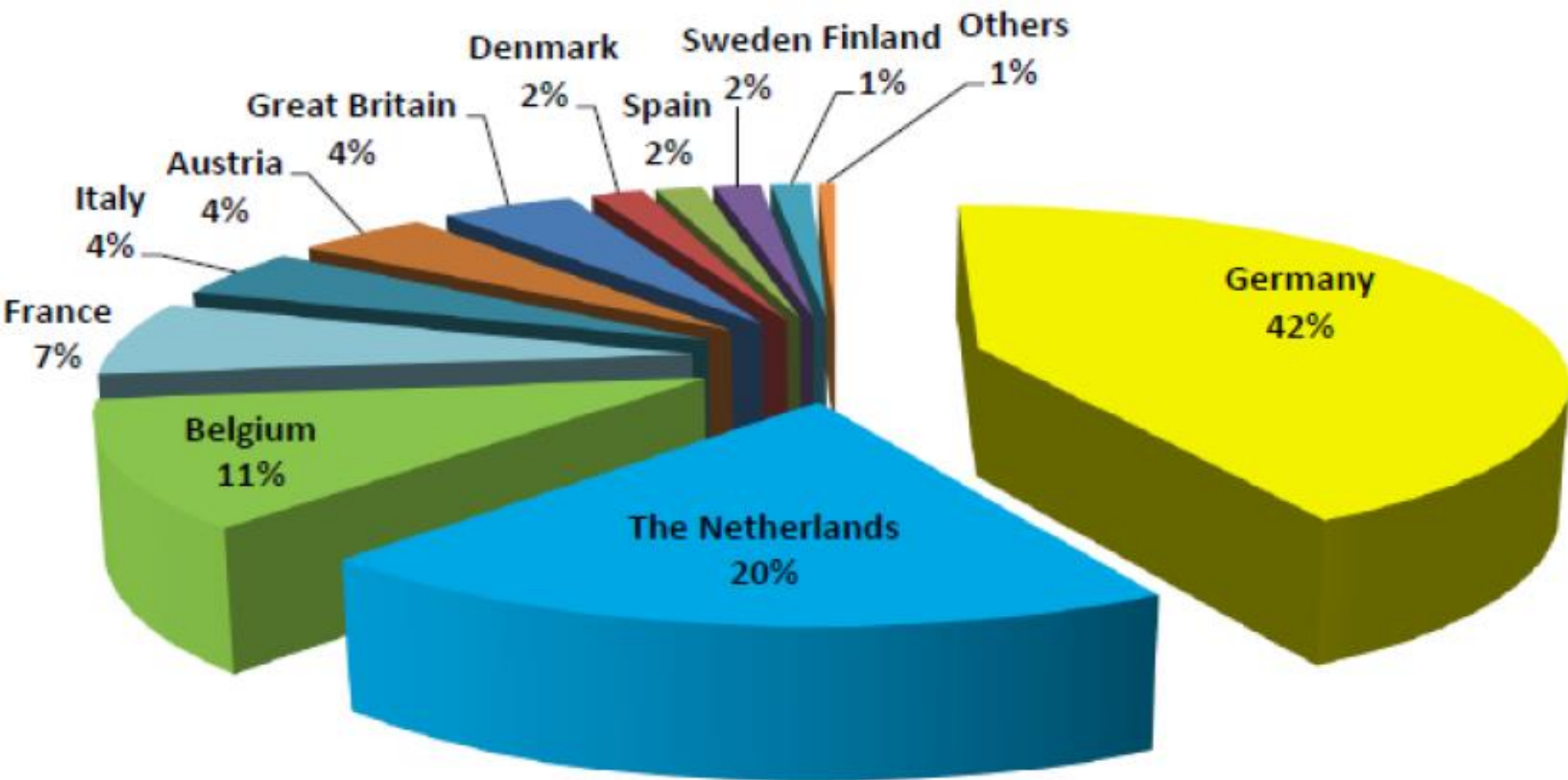
(1,000 units) 2000 - 2014



# EUROPEAN EPAC SALES (EU 28) (1,000 units) 2009 – 2014

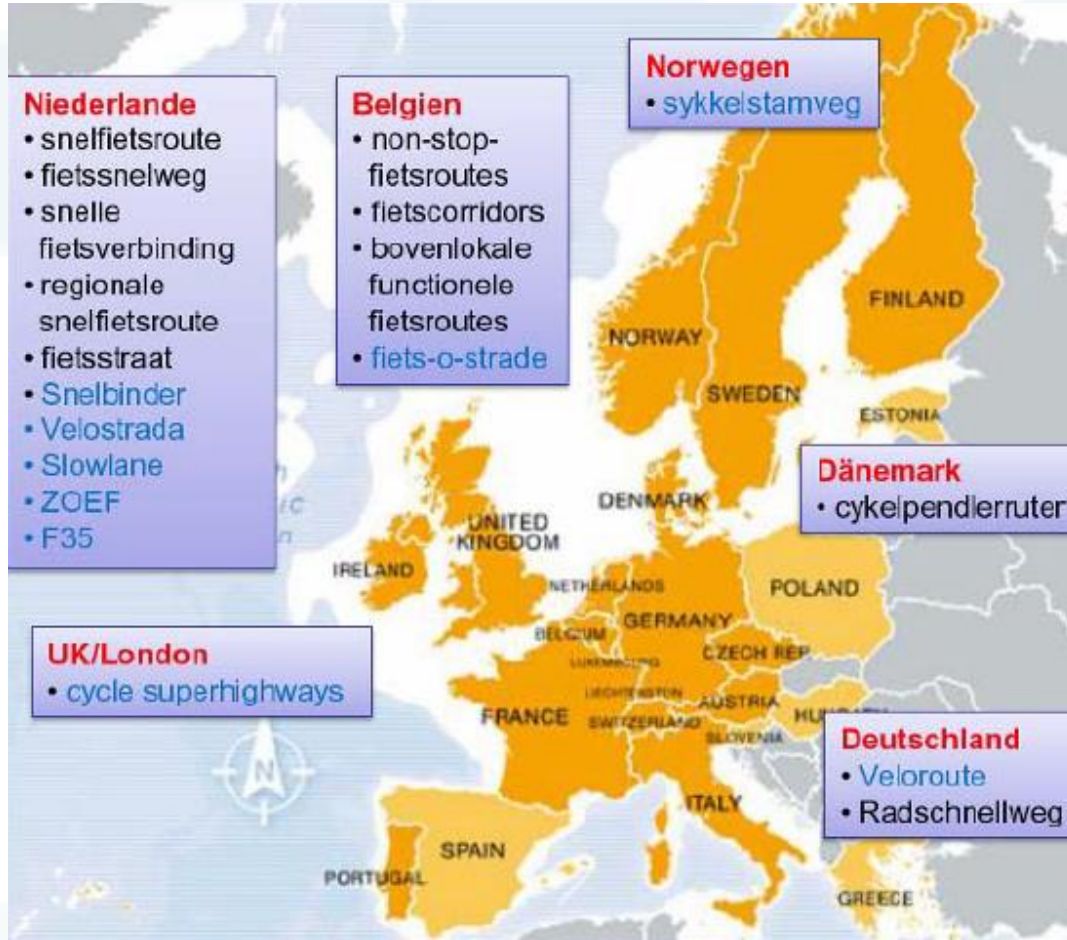


# 2014 EUROPEAN EPAC SALES (EU 28) (1,000 units)



	'000 units	Germany	EU
Sales	Bike sales (2013)	3,800	20,000
	Car registrations (2014)	3,000	14,000
	E-bike sales (2013) *	410	907
	E-car registrations (2014)	13	75
Ratios	Ebike sales:Ecar registrations	32:1	12:1
	E bike as % private car registrations	14%	6%
	E car as % private car registrations	0.4%	0.5%
	*different definitions		

# High volumes of cycling and E-bikes are creating a new infrastructure



# E-bikes: Key consumer benefits

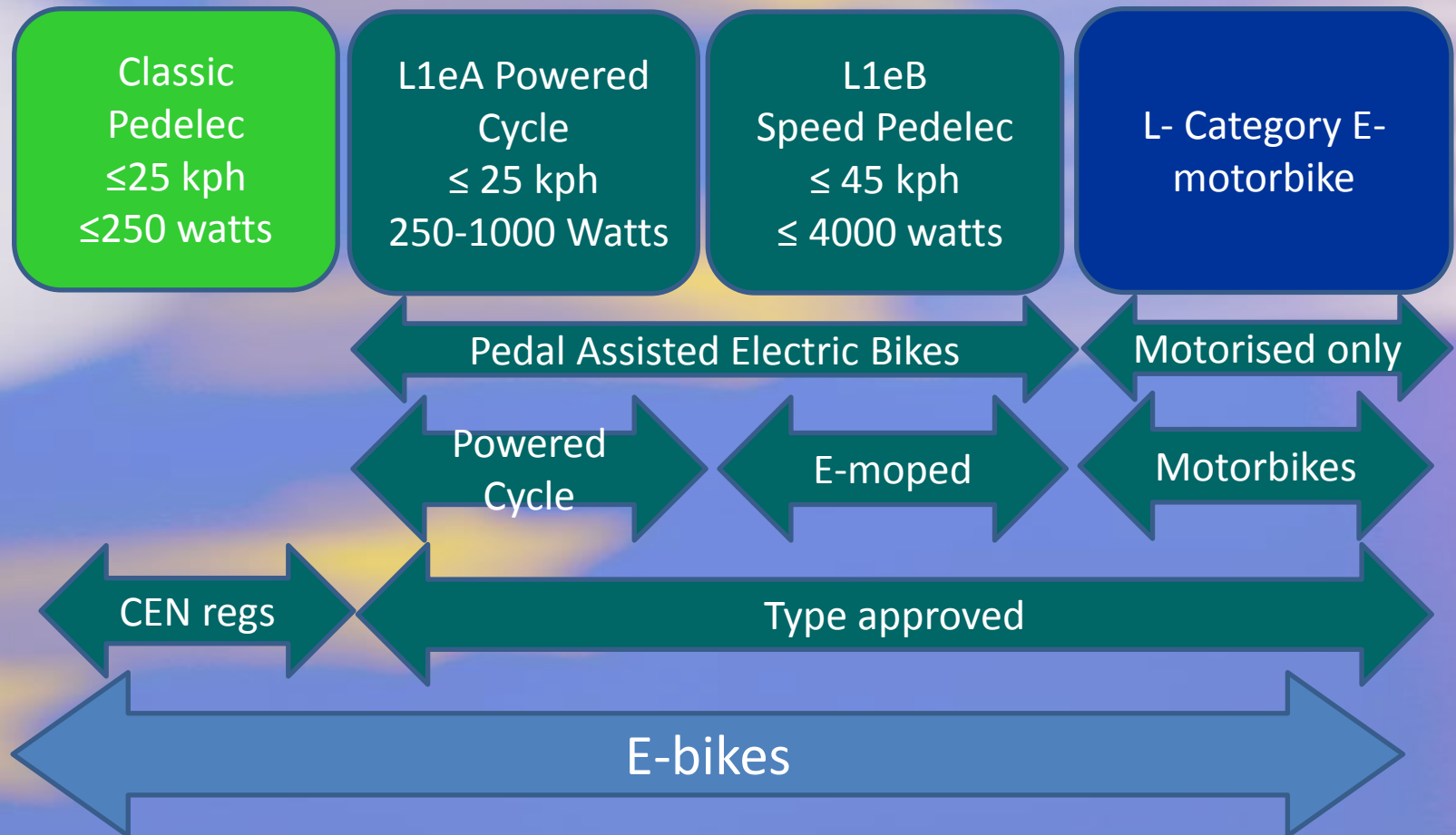
- Keep cycling benefits:
  - Health
  - Reliability
  - Congestion busting
  - Cost
  - Storage
  - Environment
  - Combined mobility
  - No licence
  - Use cycle infrastructure
  - Bike sharing infrastructure
- Remove/reduce some cycling barriers:
  - Range
    - Now 10-20km as standard
  - Hills
  - Heat
  - Strength concerns
    - Age, gender, disability
  - Perception of Safety
    - Safe start
  - Slowness
    - 25km/h – 45km/h
  - Loads/goods / passengers



# Different varieties

- Distinctive categories:
  - Pedelecs
    - seen as bicycles – active mobility - healthy, politically acceptable, lower speeds, enable cycling to reach less sporty users
    - Strong market growth and political support
  - E-bikes with no pedaling
    - Seen as scooters/motorbikes – passive mobility – dangerous, create problems for other users
    - Very limited growth
  - Cargo Bike
    - Higher power, bigger bikes, low speeds, freight replacement
  - Speed pedelec
    - New category higher speed pedelecs
    - Potential car replacement for longer journeys but higher risks?

# EU Electric Bike Regulations



# EU categories

## Pedelec

- $\leq 25$  kph
- $\leq 250$  Watt
- Pedal Assisted

Falls within bicycle  
CEN standards

## Speed Pedelec

- $\leq 45$  kph
- $\leq 4,000$ Watt (but usually around 500 – 750 watts)
- Pedal Assisted

Falls within EU motor  
vehicle regs

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# National consequences (if no action taken)

## Pedelec (Bicycle)

- No mandatory helmet
- Can use cycling infrastructure/bus lanes/turn right on red etc.
- No insurance/licence
- Etc...

## Speed pedelec (Moped)

- Mandatory helmet?
- Type of helmet?
- Cant use cycling infrastructure? (except NL!)
- Insurance/licence
- Etc...

# Actions so far...

	Infrastructure	speed	helmet	reg/license	category	signage
Denmark	Not allowed on cycling infrastructure		Moped helmet at the moment	Moped driving licence and registration	Called a "big moped" – matches SP category	
Germany	Ongoing discussion		moped helmet is compulsory	Moped driving licence and registration	Low powered mopeds	Separate signage will be created
Netherlands	Allowed on cycle infrastructure	Speed limit of 30 km/h on cycling infrastructure	moped helmet is compulsory, but S-pedelec helmet in development	Moped licence plate and registration, age limit of 16 yrs old	Light moped	
Norway	Not allowed on cycling infrastructure		moped helmet is compulsory	Registered and moped license for rider	Moped regulations	

# Questions and comments

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# AGM proposal 2016

- **This AGM agrees**
  - ECF should have a “Policy Position” on L1 e-vehicles
  - Present both
    - the positive benefits
    - the precautions to avoid risks
  - Updateable ECF Policy Position
  - Expert group of members and networks

# Policy Position May 2016

- Minor topics
  - Position on e-cargo bikes
  - Position on throttle controlled e-bikes
- Main topic
  - Speed pedelecs
    - Challenge
      - A vehicle concept only known in a small number of countries
      - Almost no evidence
      - Excitement and fear
      - A bike or not?

Mission objective	Issues	Benefits to cycling, environment, society	Risks to cycling, environment, society	Opportunity maximisation/ Risk mitigation possibilities	Conclusions [issues to resolve]
Doubling the mode share of cycling ( consumer behaviour)					
Doubling cycling by reducing real and perceived safety risks. Reducing KSI accidents by 50% Reducing the deterrence effects that make cycling seem unsafe.					
Doubling cycling by institutional support: Cycling supported in all policies (Nat and EU level)					
Doubling cycling by improving conditions for cyclists: increasing investments in cycling 10% transport investments in cycling					
Doubling tourism and recreational cycling: Investment in tourism & recreation cycling Tourism/ recreation policies					
Supporting the Federation and its members					

# ECF speed pedelec policy

## Consensus

- Policy should support SPs as a replacement for passive motorized transport
- Introduction of the vehicles as a new class must be managed
- Give priority to cycling investments
- Distinguish speed pedelecs from cycles on infrastructure

## Uncertainty

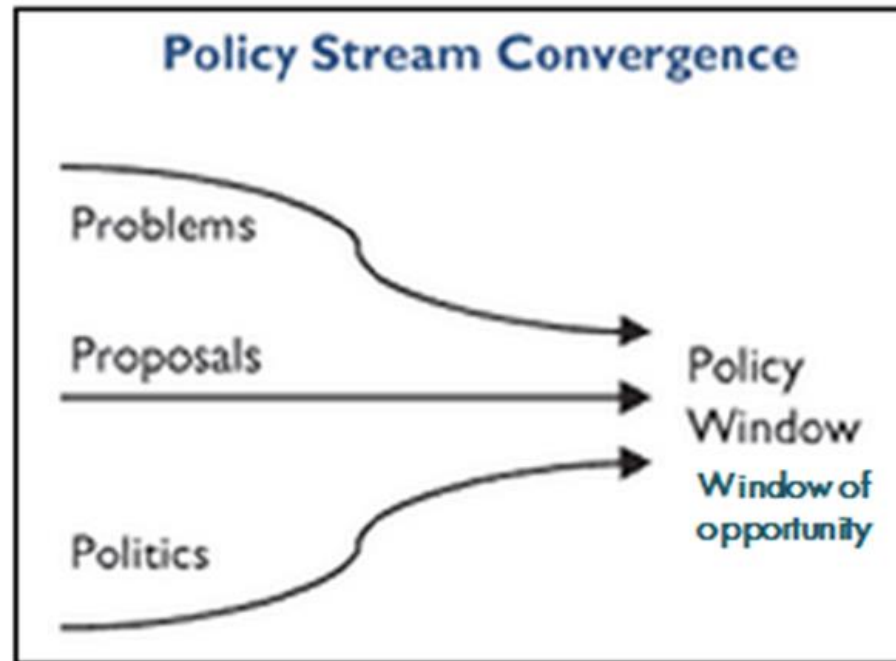
- Road use regulations
- Policy on mopeds
- Cycling speed limits
- Standards for “speed cycle routes” and “highways”
- Leisure, group and mountain biking use
- Membership
- Insurance
- Is the speed pedelec a bicycle?

# Discussion & information share

- What might the introduction of Speed pedelecs mean for cycling and cycling in our country?

# Organisation Development

## Kingdon's 'policy window' framework



# Feedback





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Supporting the Federation and its members					

# Conclusions, next steps

- AGM resolution
- Publicising our position
- Updating and revising the policy position
- Expert group(s)

# Feedback on Workshop

- What went well?
- What did not go well?
- What should we change?
- Anything missing?



ECF gratefully acknowledges financial support from the European Commission.



# Thank you

To find out more

[k.mayne@ecf.com](mailto:k.mayne@ecf.com)

[@maynekevin](https://www.instagram.com/maynekevin)

[www.ecf.com](http://www.ecf.com)

[@eucyclistsfed](https://www.instagram.com/eucyclistsfed)

Rue Franklin, 28 1000 Brussels, Belgium Phone: +32 2 880 92 74 Fax: +32 2 880 92 75 [office@ecf.com](mailto:office@ecf.com)

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