

New urban qualities

Cycling's (& e-bikes) role in the growing city region

Tony Grimaldi, Cycleurope AB

Our current model is not working It is not sustainable...



What world leadership looks like

- Cities are growing-urbanisation continues
- World class city centre and neighbourhood centres
 - ▶ Liveable cities
- Most efficient regional transport strategy
 - ▶ Efficient public transport investment
 - ▶ Parallel cycling highway network

What are the world's most livable cities doing?

- For trips under 8 km the answer is clear
 - ▶ Walking and cycling must be the answer – 50% or more share for cycling
 - ▶ Car free city centres, local centres
 - ▶ Quality public spaces, walking spaces
 - ▶ Cycle paths
 - ▶ 30 km/h speed limits

Now there is another choice -The E-bike.... A new dimension for cycling....

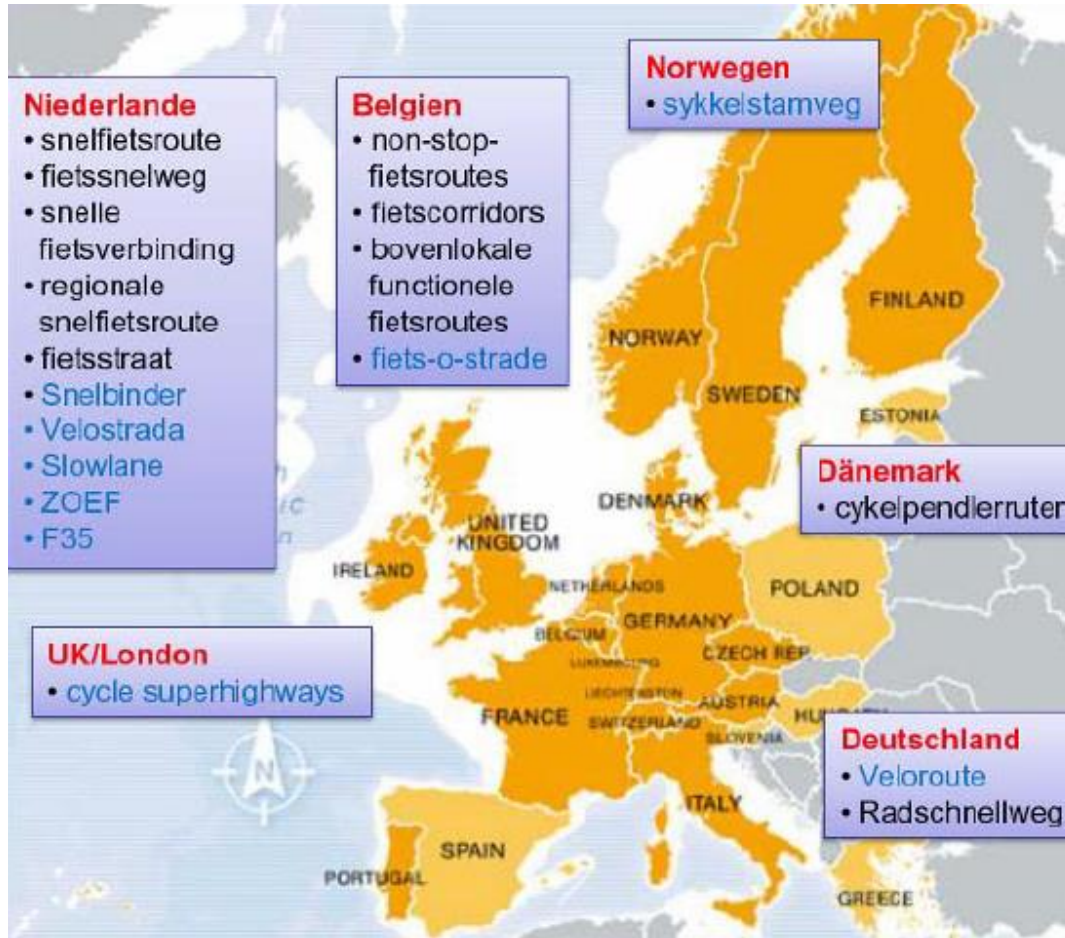
- Electrical Assisted bicycle
 - ▶ 25 km/h-Pedal assistance
- A massive new market
 - ▶ In Europe-over 1 million e-bikes
 - ▶ Germany – 15% of sales
 - ▶ Holland – 25% of bike sales
- Cycling super-highways – the 25 km trip solved
- E-bike sharing



E-Bikes coming in all segments....



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



● New network?

● Highways?

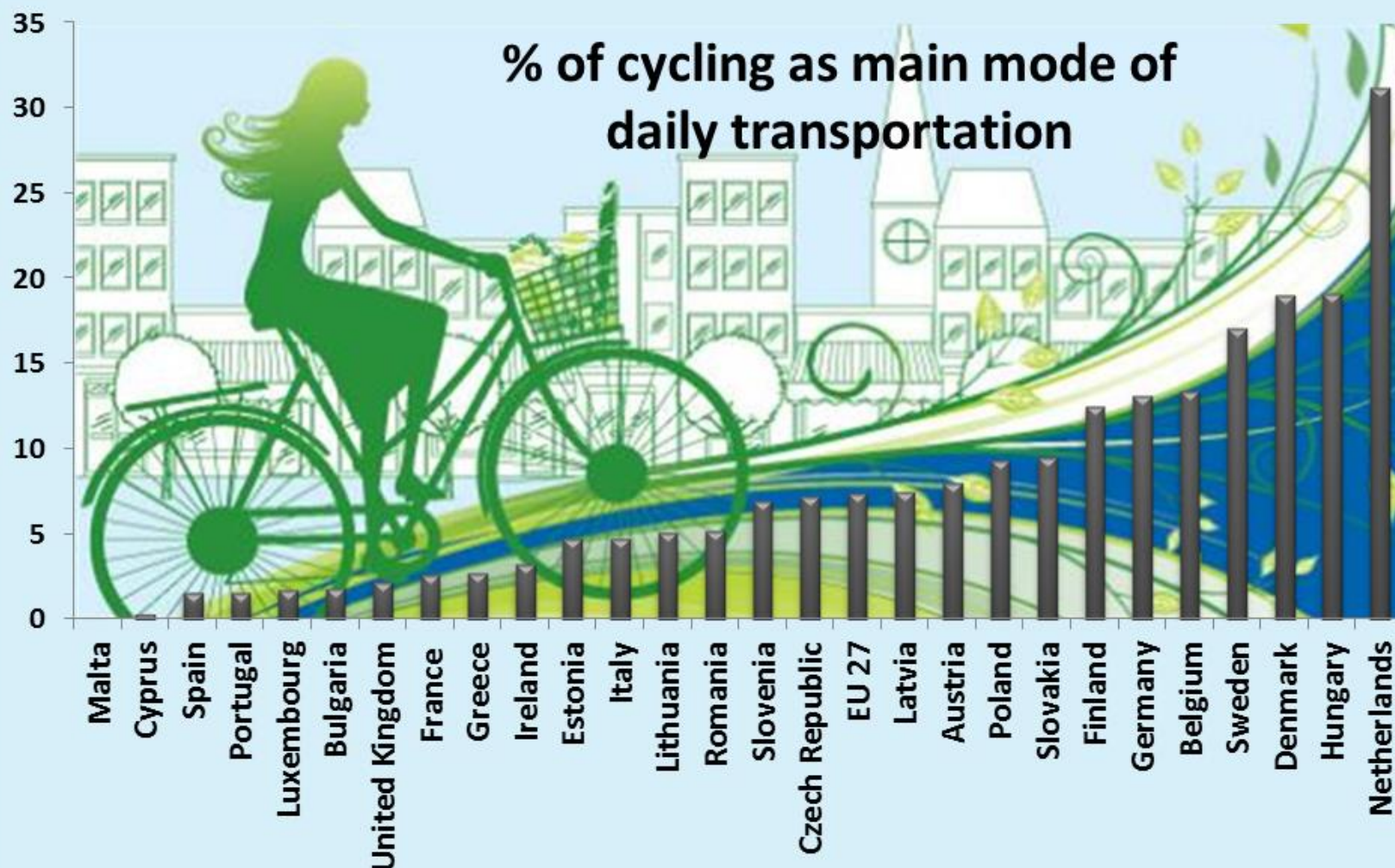
Greater Copenhagen: Cykelsuperstier



- 22 municipalities
- 26 cycle super paths planned
300 km/ (3 completed)
- Cycle Super Highway office
since 2009
- Costs: DKK1.2 Mio – 2.9/km
(€0.16 Mio – 0.39 Mio/km)

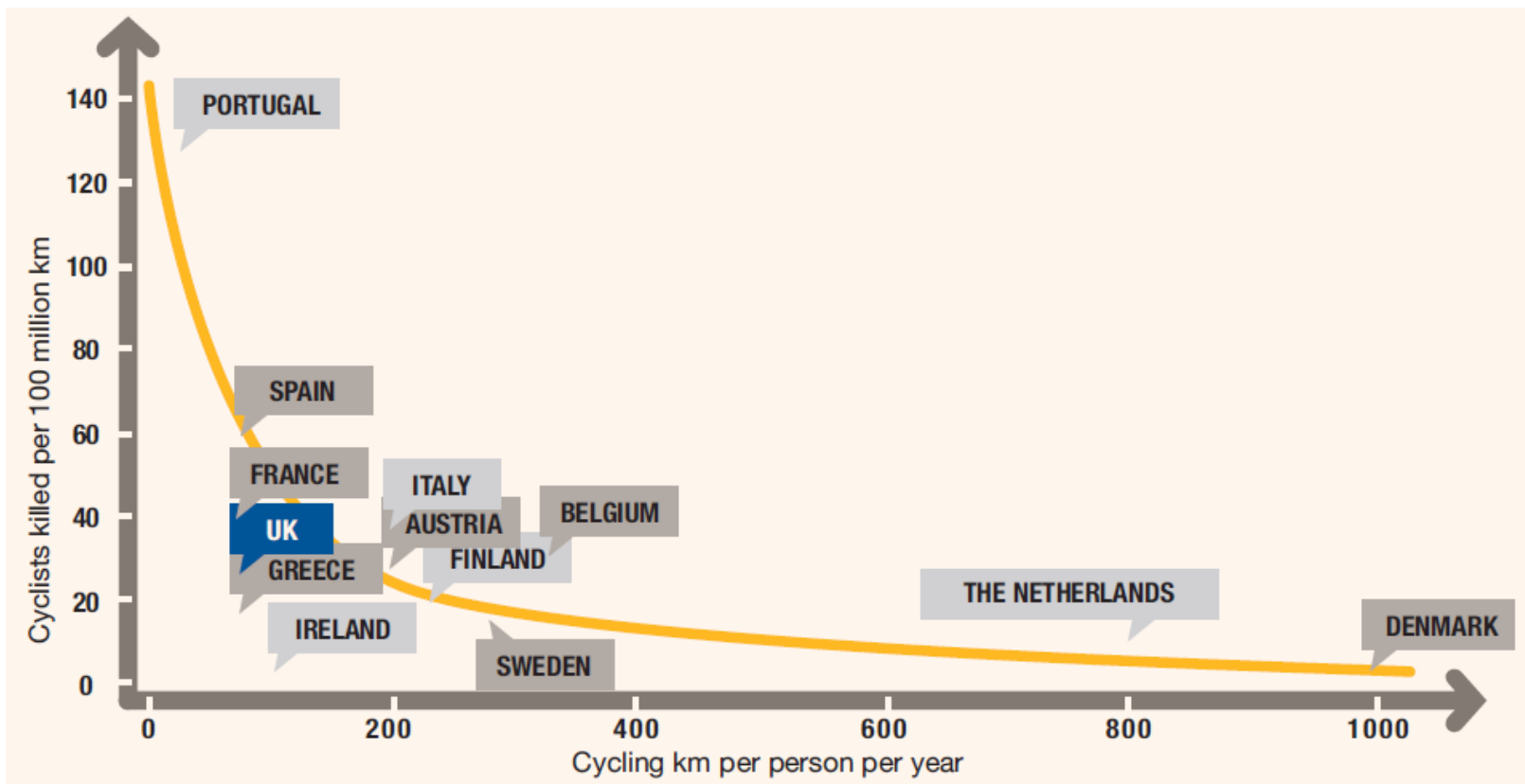
London in 2020?





source: Eurobarometer Future of Transport Oct 2010

Increasing cycle use and safety go together....



Which are our challenges for increasing the use of bicycles?

Reduce the number of seriously injured or killed in accidents (Sweden)

- Today, cyclists are the passenger group that comprises those individuals who are the most seriously injured, nearly 2000 of approximate 4500 in 2012

(Swedish Transport Administration)

- ▶ Each year some 20 – 30 are killed in accidents
- ▶ Serious injury single accidents, ca 44%
 - Operation and maintenance
 - Road design
 - Cyclist intersection with the bicycle
 - Fastened to part/object being transported, 6%
 - Fault in bicycle, 5%
 - Sudden stop owing to hand brake, 5 %
 - Braking 4%
 - Cyclist's behaviour and condition
 - Intersection with other road users, etc

Research areas

- Vehicle design for improved safety
 - ▶ Braking performance, ABS system for bikes?
 - ▶ E-bikes
 - ▶ Dynamic models how two-wheelers are operated
- Protective equipment
 - ▶ Helmet protection
 - ▶ Protective clothing with padding for shoulders and elbows
- Cycling safety
 - ▶ Cyclist behaviour
 - ▶ Accident causation
 - ▶ Interaction with other road users