EURO CITIES

Vehicle noise
The city perspective

Introduction

Founded in 1986, representing cities of over 250,000 inhabitants

Some 133 full members in 34 countries, representing 120 million citizens

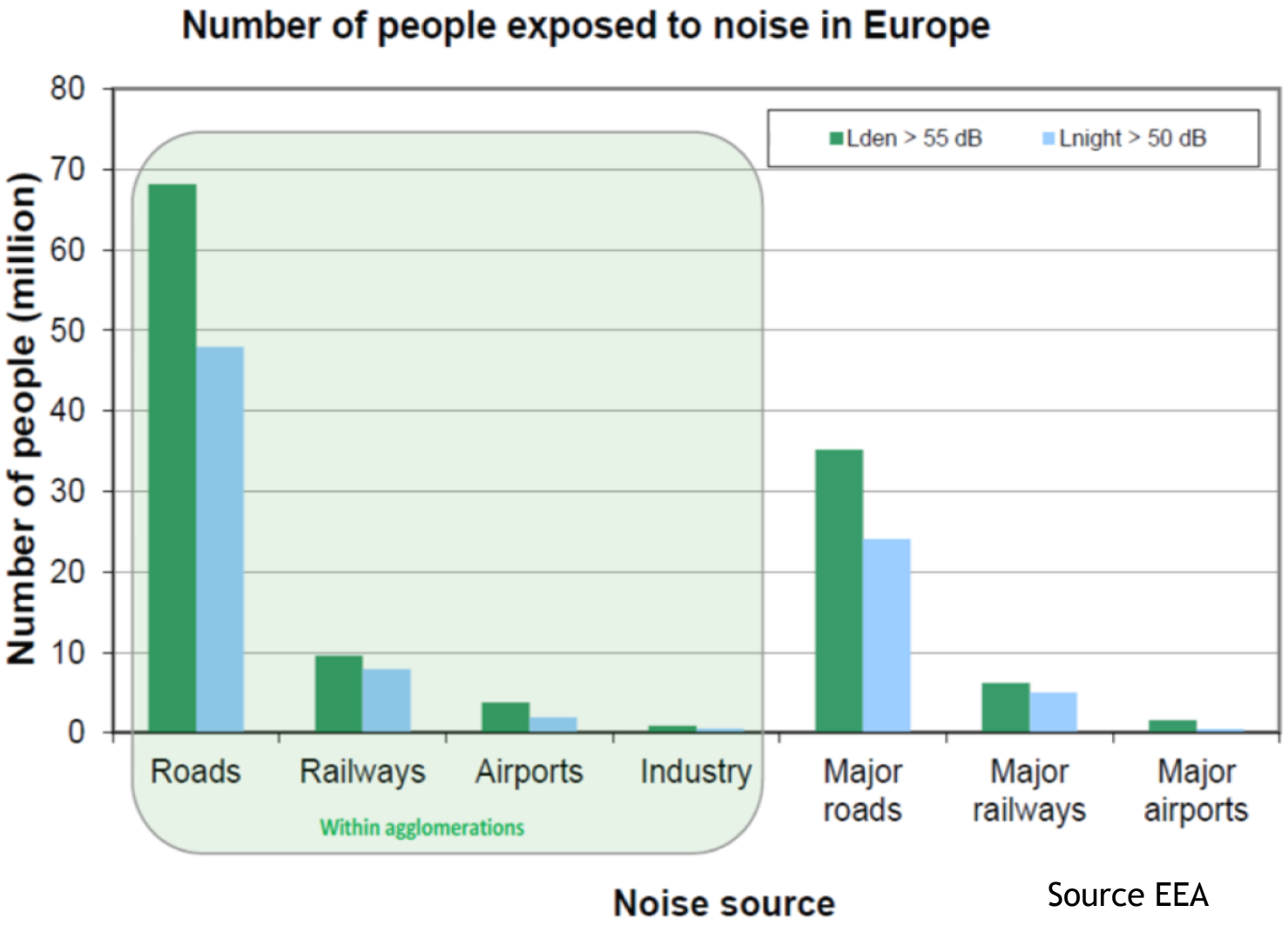
43 associate members and partners

Most European capital cities are members

More than 25 cities

- Sharing best practices & experiences among members
- EU projects
- Monitor & provide input to EU legislation
- Meeting, congresses & workshops
- Studies, papers & leaflets
- Support cities regarding Environmental Noise Directive

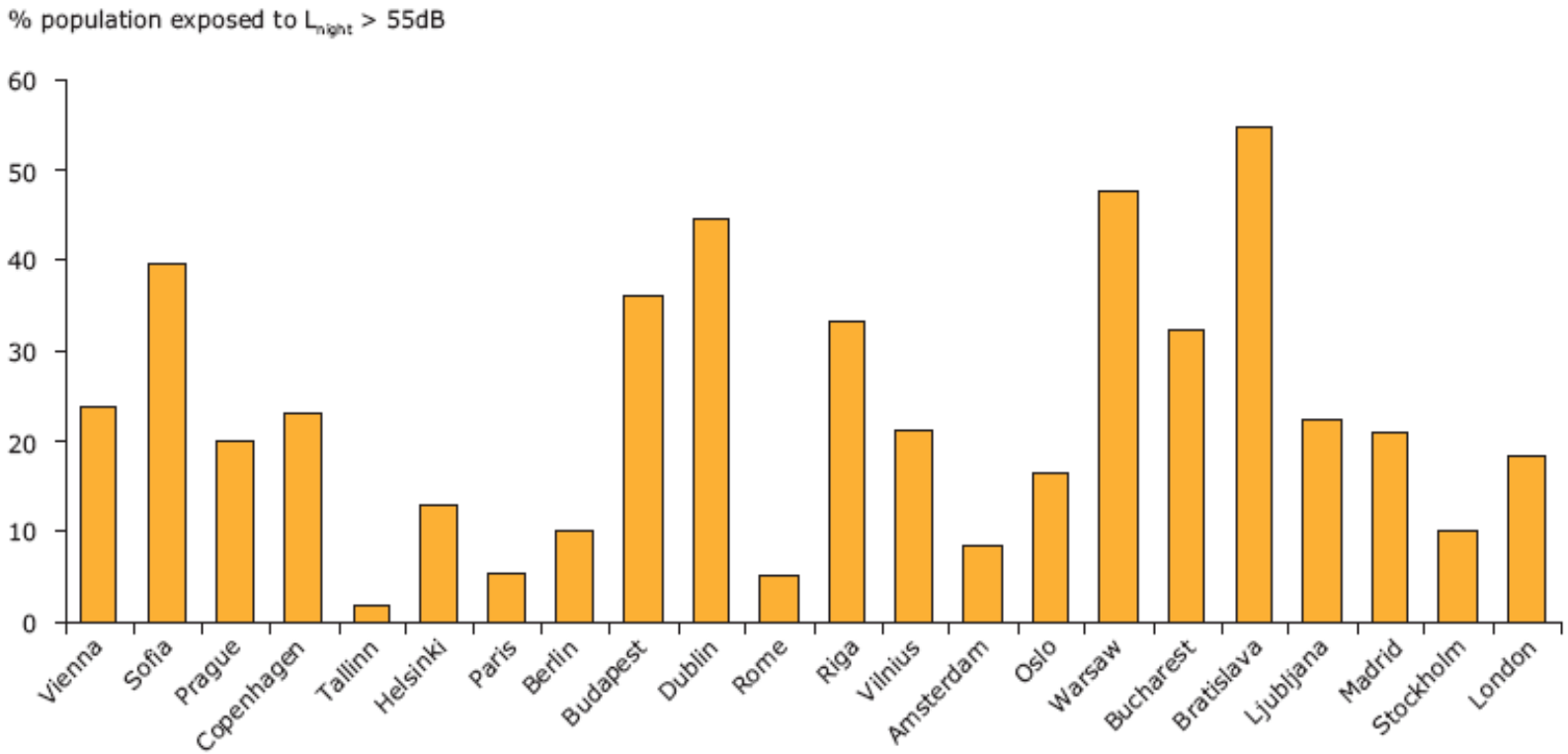
Recent data by the EEA (1)



Source EEA

Recent data by the EEA (2)

Figure 2.2 Percentage of people exposed to levels above the WHO interim target for night-time noise in Europe from road transport (> 55 dB L_{night})



Source EEA

Data based on

First round

- ± 160 agglomerations with more than 250 000 inhabitants

Second round

- ± 420 agglomerations with more than 100 000 inhabitants

Delivered data is not complete yet!

Different Models, Software, Adjustments and Methods

First conclusions

- Urban areas/cities are hit hardest
- Traffic noise is the main problem
- Long term exposure >> irreversible health & economic damage
- Traffic is expected to increase
- ± 70 million > 55 dB L_{DEN}
- ± 50 million > 50 dB L_{NIGHT}

In urban areas

As a result from the second round of noise mapping and of bridging the data gap:

- ± 220 million people suffer during daytime
- ± 150 million at night

Some statements

- Noise should be seen as a silent killer and it is the most forgotten environmental factor. It eats away the quality of life. (Mr Jo Leinen)
- It's expected that noise should be reduced with 10-20 dB (QUIESST event, Mr Walter Mauritsch, DG Research, Surface Transport Unit)
- Noise limits on source are outdated (Towards A comprehensive Noise Strategy, DG Internal Policies)

Factors influencing traffic noise

demographics

- globalisation
- population growth
- individualisation
- ageing
- prosperity
- intensification
- computerisation
- ‘informalisation’
- labour participation women
- Increased free time

societal

- improved infrastructure
- spatial spread of work-living- services
- desire to be independent in time and space
- Flexibility at work

- psychological factors
- sociological factors

What can public authorities do? (1)

- Traffic Management Solutions
  - Speed reduction
  - Smoothing traffic flow
  - Dedicated lanes/restricted zones/parking space
- Barriers*, bundling **
- Road design
  - Lay-out
  - Quiet road surfaces

- < 1 dB
- < 1 dB
- Relieves only locally
- *Only along ring ways ** Air Pollution
- 0,5-1,5 dB depending on space
- < 1 dB
- 3-5 dB (thin layer)

What can public authorities do? (2)

▪ Financial/fiscal measures	▪ 0,5 dB by 10% decline volume
▪ Shift soft modes, car-sharing	▪ 0,5 dB by 10% decline volume
▪ Public Transport	▪ 1 dB by 20% shift to Public Tr.
▪ Only access e-vehicles	▪ 2,6 dB by 50% share 2030
▪ Insulation of façade	

What can public authorities do? (3)

Highest technically possible reduction through non-source measures: around **4-6 dB**

However

- Higher **cost** to society than source policies
- Should the **user/polluter not pay**?

Shared responsibility (local, national, EU)

- Local measures
- Quieter tyres
- Quieter vehicles
  - Electric vehicles
  - Hybrid vehicles
- Quiet mark for low noise vehicles
- Discourage car use
- Encourage public transport
- Encourage soft modes

No solution without measures at source

Invitations to:

- **EU**: for EU Noise Action Plan comprising stricter emission limit values for sources
- **Car industry**: for dispelling their aversion against quieter vehicles.
- **Cities**: to come up with SMART action plans with those measures that are doable to lower the noise and being a shining example (green procurement)
- **Citizens**: to behave less noisier

thank you for your attention!

Contact

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