

NO₂ Source Apportionment

Berlin: Street level

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Air Quality Planning

focus on emissions and air pollution modelling

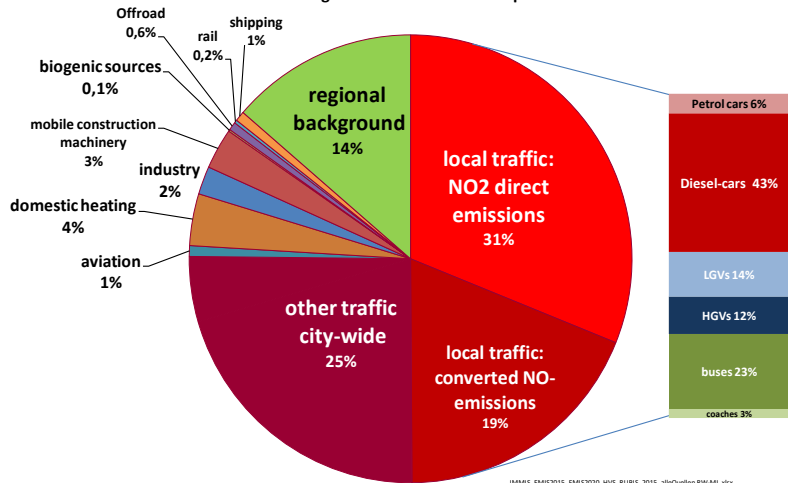


Air Quality in Berlin

👉 source attribution for NO₂

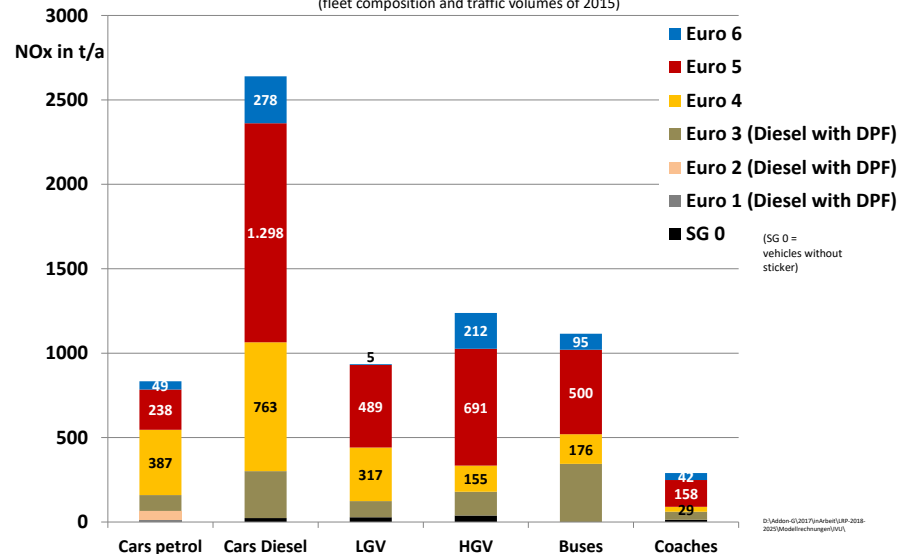
NO₂-source analysis 2015 based on modelling

averaged over 24 roadside hot spots



NOx-emissions in Berlin for different vehicle categories and emission standards

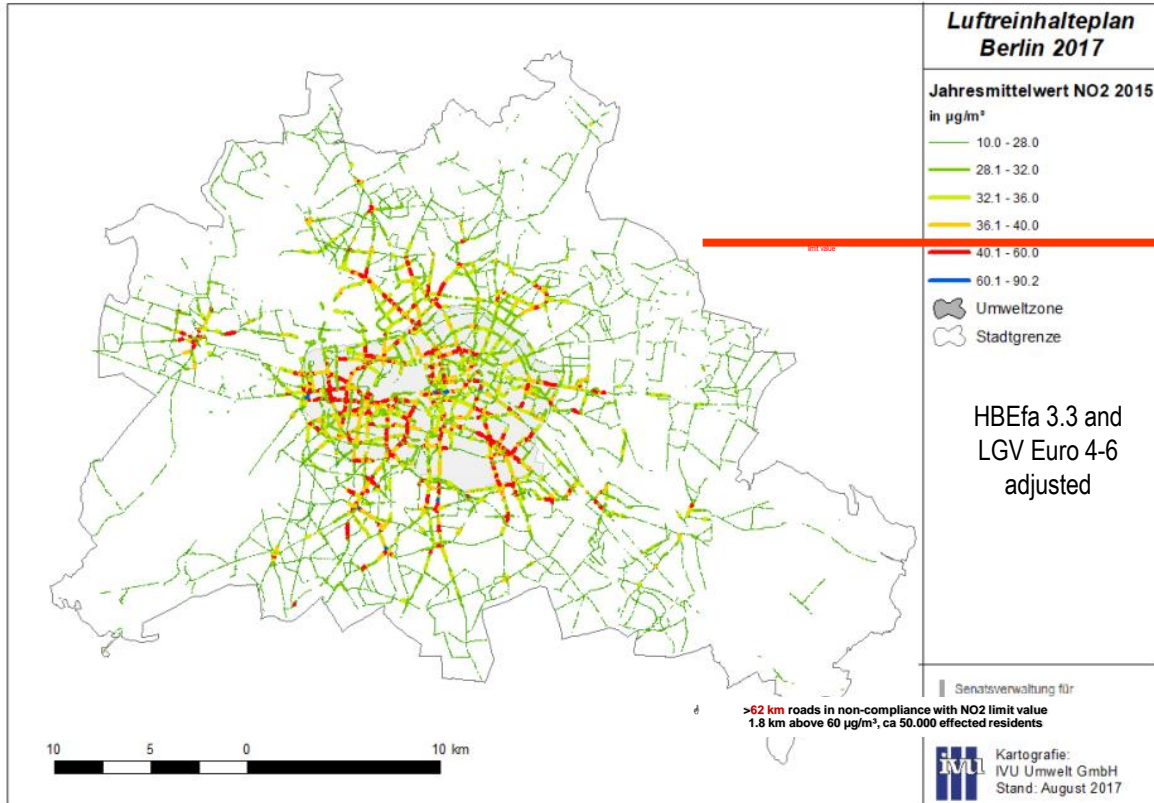
(fleet composition and traffic volumes of 2015)



Air Quality management in Berlin

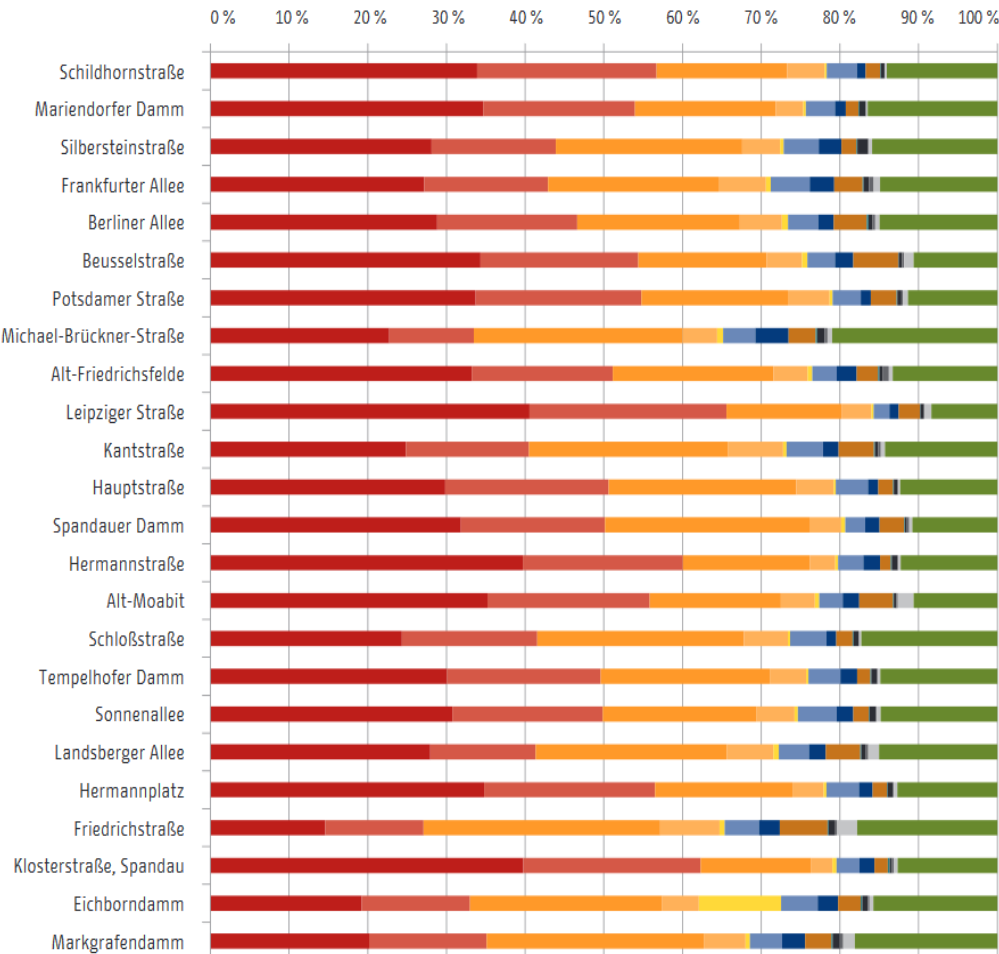
👉 **NO₂** model results for 2015

Calculated annual mean levels of NO₂ in main roads



Air Quality in Berlin

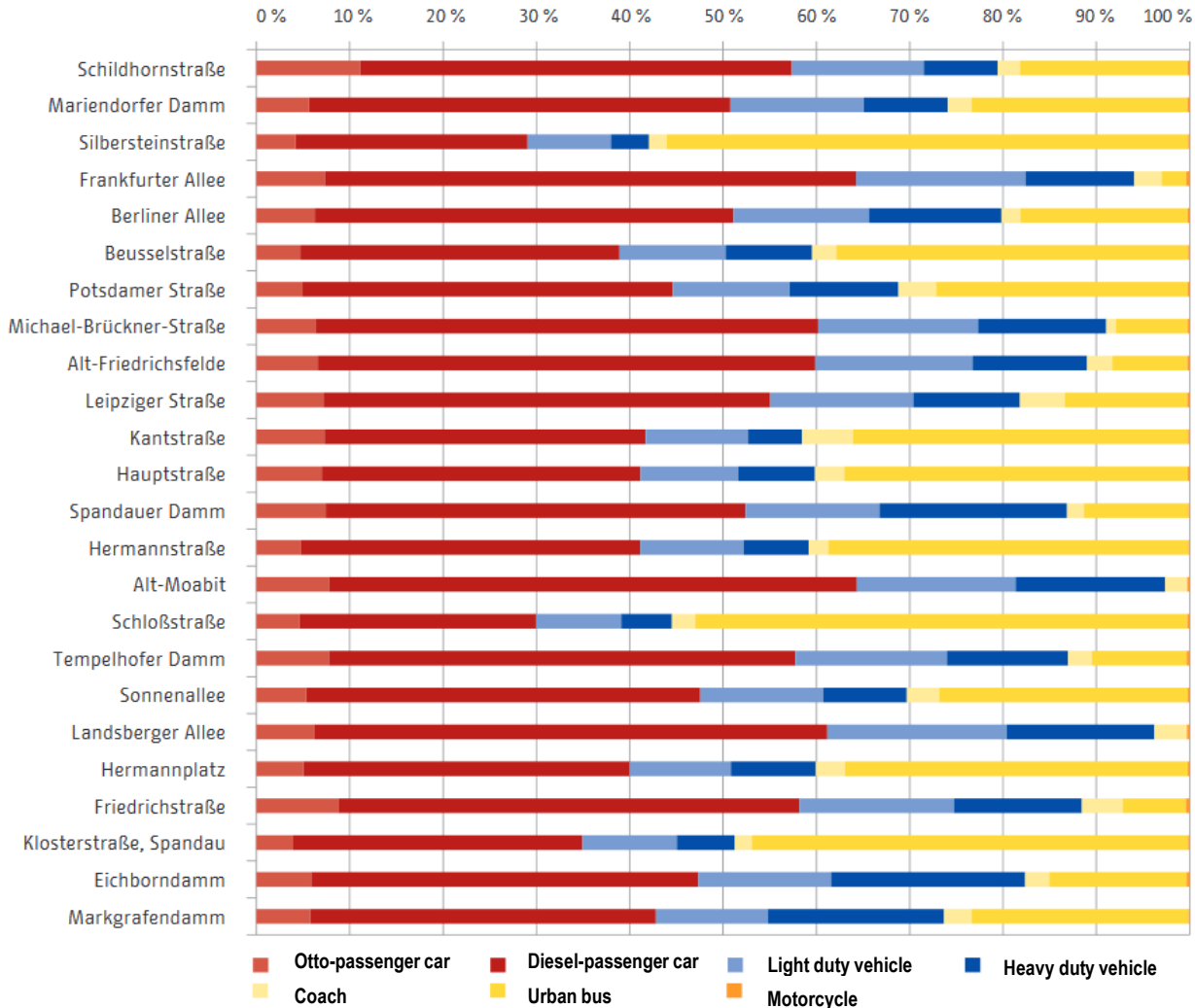
👉 **source attribution**
for **NO₂**



- Additional pollution from local road traffic / directly emitted NO₂
- Other main roads
- Aviation
- Industry
- Biogenic sources
- Railway transport
- Regional background
- Additional pollution from local road traffic / formed from NO
- Other minor roads
- Domestic heating and small business
- Construction sites
- Off-road
- Navigation

Air Quality in Berlin

👉 **source** attribution
for **NO₂**



NO₂-Source apportionment on street level for **action planning** purposes

- Goal: implement polluter-based proportionate measures
- **Good knowledge about local traffic related emissions**
 - Detailed information about traffic intensity / traffic situation (stop&go) / mileage
 - Detailed information about local fleet composition
 - Reliable traffic emission factors
- **Reliable traffic model & emissions model**
- **Reasonable local chemistry transport model**
- **Nested models approach (regional -> urban -> street level) **desirable****



Thank you for listening!

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The problem: NO₂-at street level

