

# **Survey results:**

# Friedrichstrasse promenade air quality

## **Background situation:**

Since the end of August 2020, cars are no longer allowed to drive along Friedrichstrasse between Leipziger Strasse and Französische Strasse. Instead, a wide cycle lane has been created. The space for pedestrians has been expanded and the quality of time spent on the street has been significantly improved with new seating and plant containers.

The aim of the project is to improve the quality of life on the street in the heart of the city by improving air quality and reducing noise pollution. A study by Environmental Action Germany (DUH) now shows that the provisionally established car-free Friedrichstrasse in Berlin actually has a positive effect on air quality.



## **Measurements by Environmental Action Germany:**

Measurements north of the car-free section of Friedrichstrasse between Unter den Linden and Behrenstrasse:

- Friedrichstrasse 83 (east side of street)
- Friedrichstrasse 158 (west side of street)

#### Measurements within the car-free section of Friedrichstrasse:

Between Französische Strasse and Jägerstrasse:

- Friedrichstrasse 76 (east side of street)
- Friedrichstrasse 172 (west side of street)

Between Mohrenstrasse and Kronenstrasse:

- Friedrichstrasse 63 (east side of street)
- Friedrichstrasse 187 (west side of street)

Measurements south of the car-free section of Friedrichstrasse between Leipziger Strasse and Krausenstrasse:

- Friedrichstrasse 56 (east side of street)
- Friedrichstrasse 194 (west side of street)

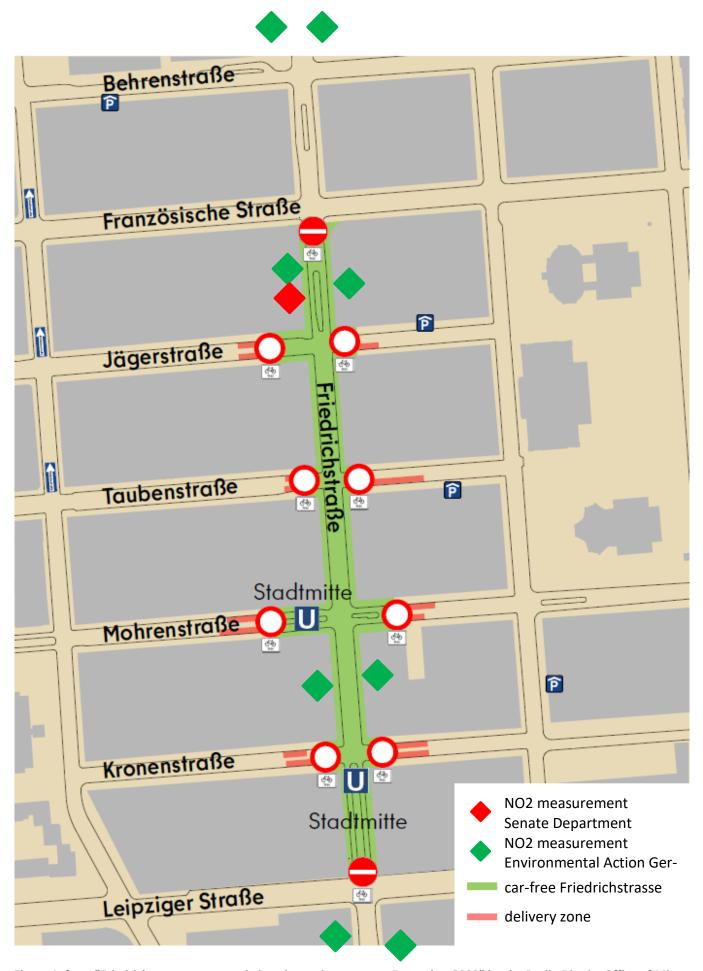


Figure 1: from "Friedrichstrasse promenade interim project report – December 2020" by the Berlin District Office of Mitte and the Senate Department for the Environment, Urban Mobility, and Climate Protection###. Editing by DUH.

#### **Results:**

## Before the introduction of the "Friedrichstrasse promenade":

The Berlin Senate Department for the Berlin Senate Department for the Environment, Urban Mobility, Consumer Protection and Climate Action (SenUMVK) has been measuring NO2 pollution at a point located at 172 Friedrichstrasse for many years, i.e. in a section that has now been redesignated as car-free. As recently as 2019, the last year in which cars were allowed to drive along Friedrichstrasse, the NO2 level there was 33  $\mu$ g/m³.

	Car-free?	NO2 pollution in μg/m³ in 2019
Friedrichstr. 172	No	33

#### After the introduction of the "Friedrichstrasse promenade":

	Car-free?	NO2 pollution in μg/m³ 22.10.2020 until 30.04.2021
Friedrichstr. 194	No	23.8
Friedrichstr. 56	No	21.4
Friedrichstr. 63	Yes	19.6
Friedrichstr. 187	Yes	19.7
Friedrichstr. 76	Yes	20.4
Friedrichstr. 172	Yes	19.6
Friedrichstr. 83	No	20.3
Friedrichstr. 158	No	22.1

### **Classification:**

According to the Senate Department for the Environment, Urban Mobility, Consumer Protection and Climate Action###, the annual average impact of the Corona pandemic on NO2 pollution in the air we breathe is only 2  $\mu g/m^3$ . The reduction in NO2 pollution of up to 13  $\mu g/m^3$  recorded in the current measurements thus clearly exceeds the effect of the Corona pandemic.

The partial closure of Friedrichstrasse means that it no longer has any function for through traffic. This also relieves those parts of Friedrichstrasse that have not yet been redesignated as car-free. In the adjacent street sections, NO2 pollution is higher than in the car-free section, but at a maximum of 23.8  $\mu g/m^3$ , it is also well below the pollution level recorded for 2019. The plausibility of the air quality measurements is confirmed by traffic counts conducted by the Berlin Senate Department, which show a significant decrease in traffic volumes on Friedrichstrasse "beyond the area of the promenade".

This means that the provisionally established car-free Friedrichstrasse has reduced nitrogen dioxide pollution by more than  $10 \,\mu\text{g/m}^3$  within six months.

## **About the project:**

DUH has been working since October 2020 on the project "Pop-up Republic: New Mobility Berlin", which is funded by the international association of cities ICLEI within the framework of the ICLEI Action Fund. The aim of the project is to collect, prepare and analyse environmental data in order to objectify discussions about the transition of mobility. The impact of new cycle lanes, with a special focus on pop-up cycle lanes, parking space management, neighbourhood traffic calming measures and 30 km/h speed limits on the volume and composition of traffic as well as on NO<sub>2</sub> pollution is investigated in order to be able to make informed statements about the impact on air quality and climate.



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### **Environmental Action Germany**

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