



# **LSTM for NO<sub>x</sub> Prediction in Stockholm**

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# LSTM

RMSE: 67.794

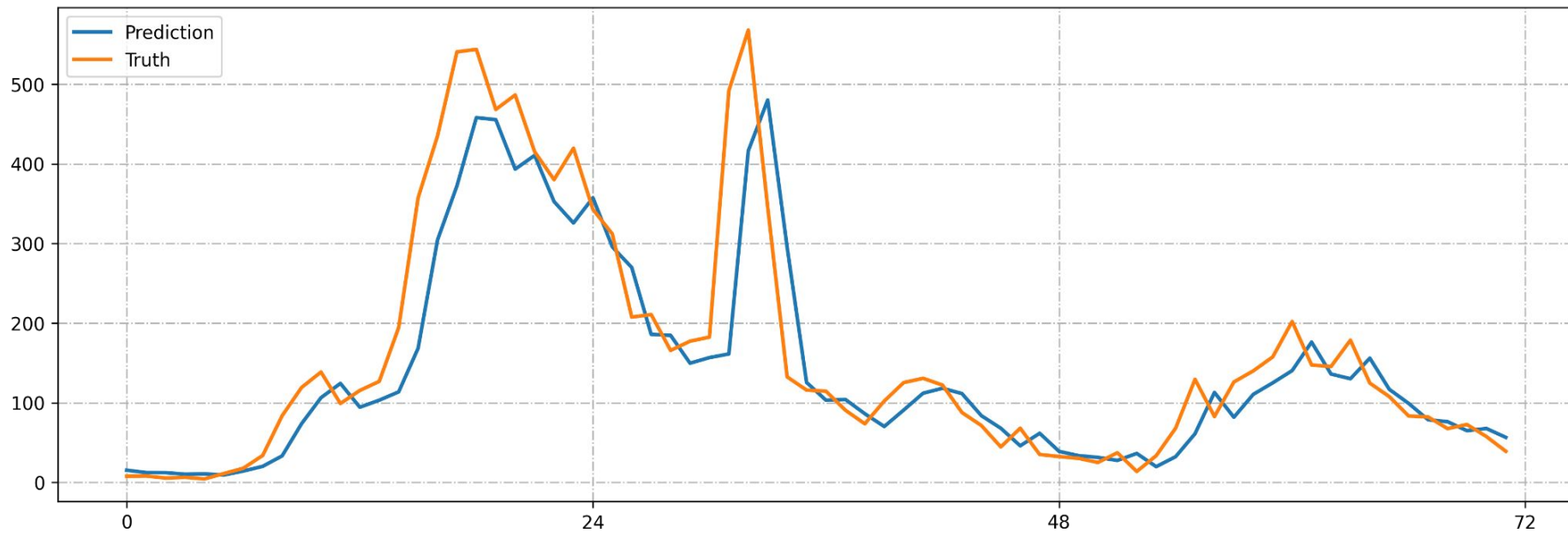
MAE: 40.301

MAPE: 33.012

MedAE: 23.025

r2 score: 0.794

explained\_variance\_score: 0.811





# Multi-LSTM

RMSE: 82.154

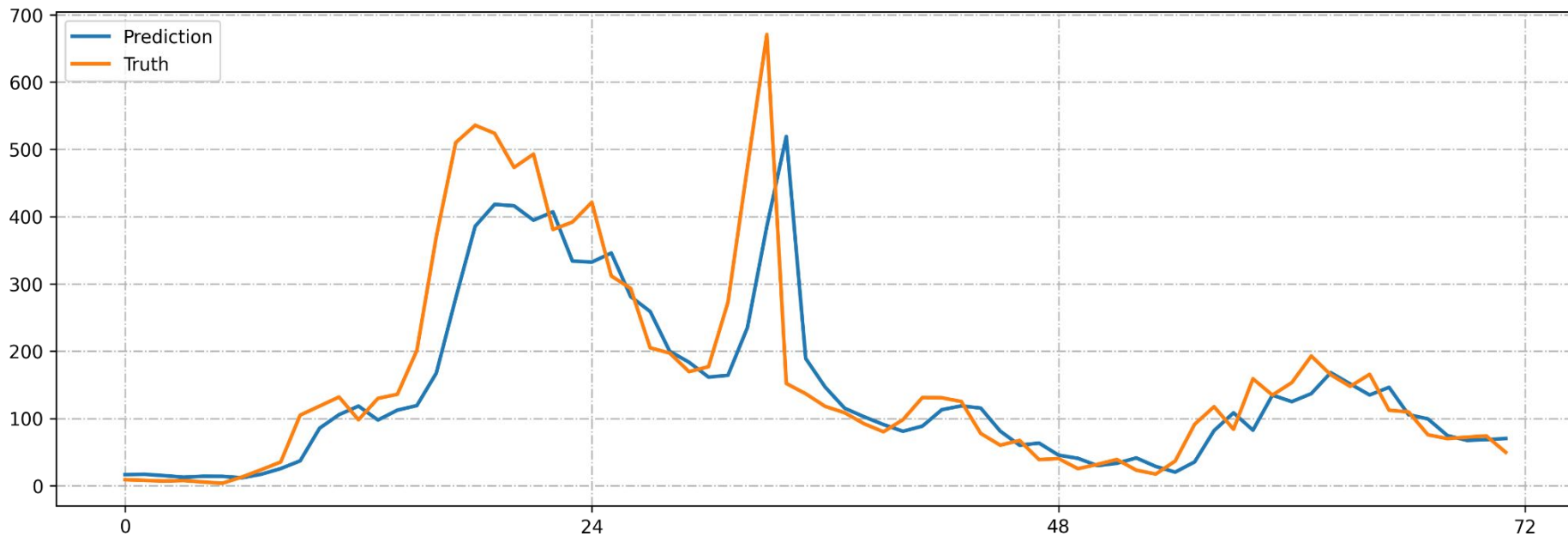
MAE: 45.409

MAPE: 37.925

MedAE: 20.731

r2 score: 0.712

explained\_variance\_score: 0.729





# DecisionTree

RMSE: 142.450

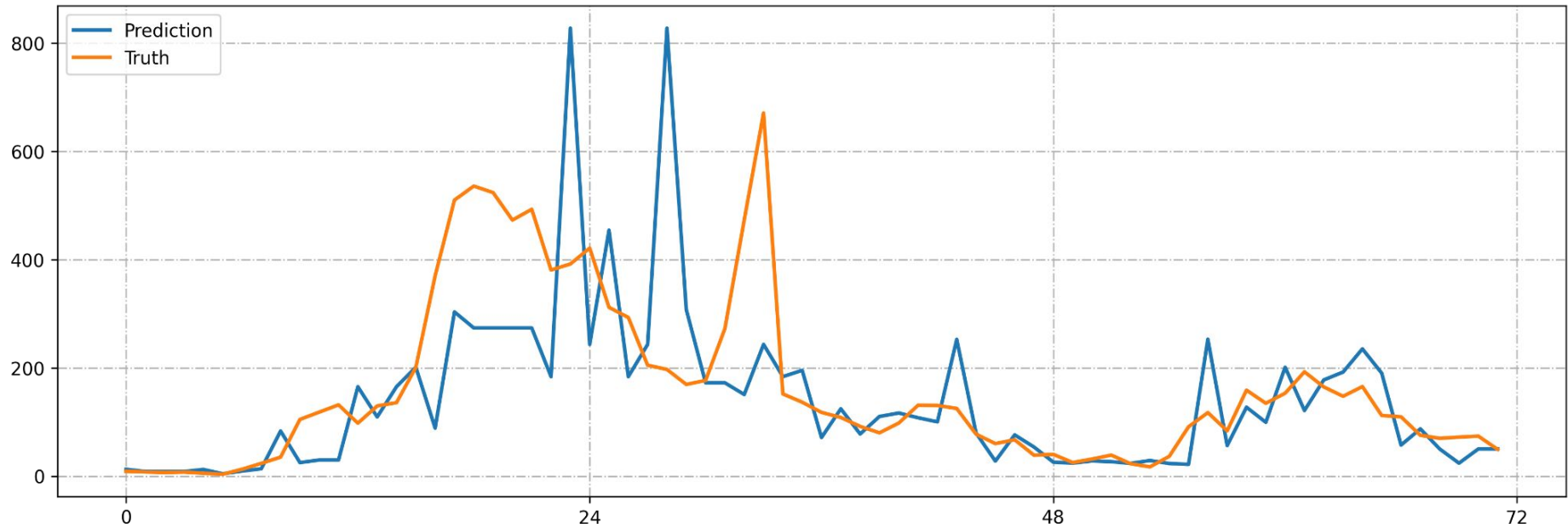
MAE: 81.908

MAPE: 45.435

MedAE: 32.094

r2 score: 0.134

explained\_variance\_score: 0.150





# XGBoost

RMSE: 76.456

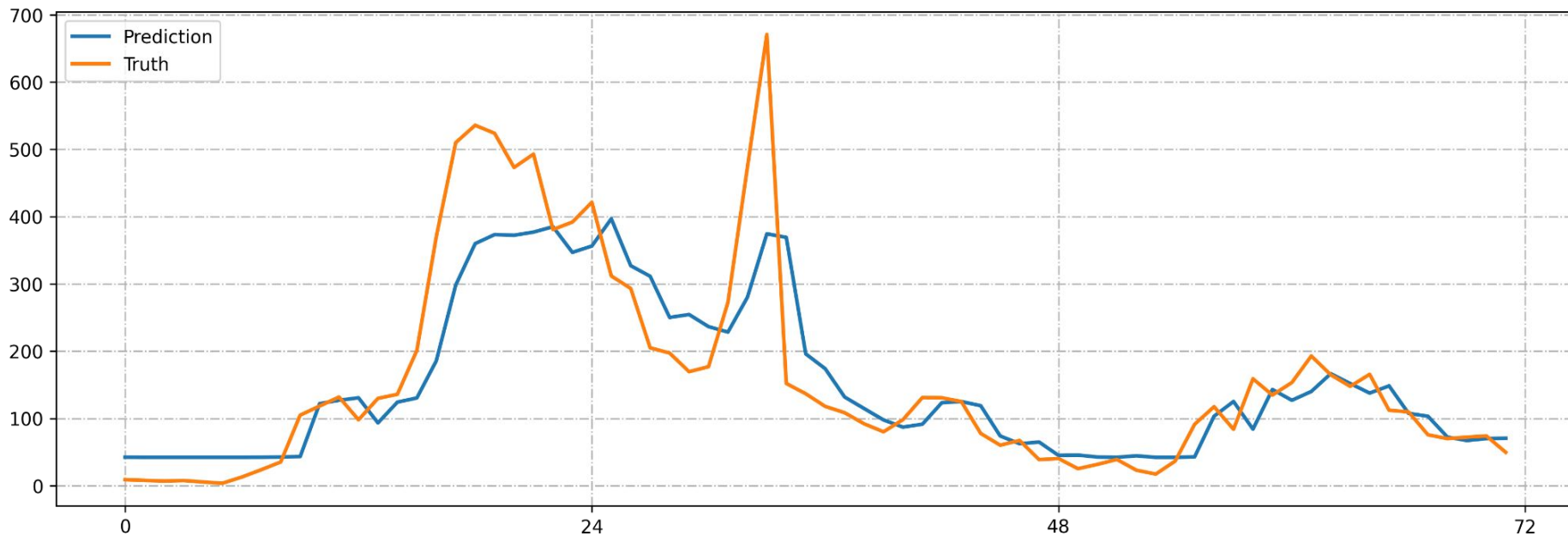
MAE: 49.016

MAPE: 80.629

MedAE: 33.027

r2 score: 0.751

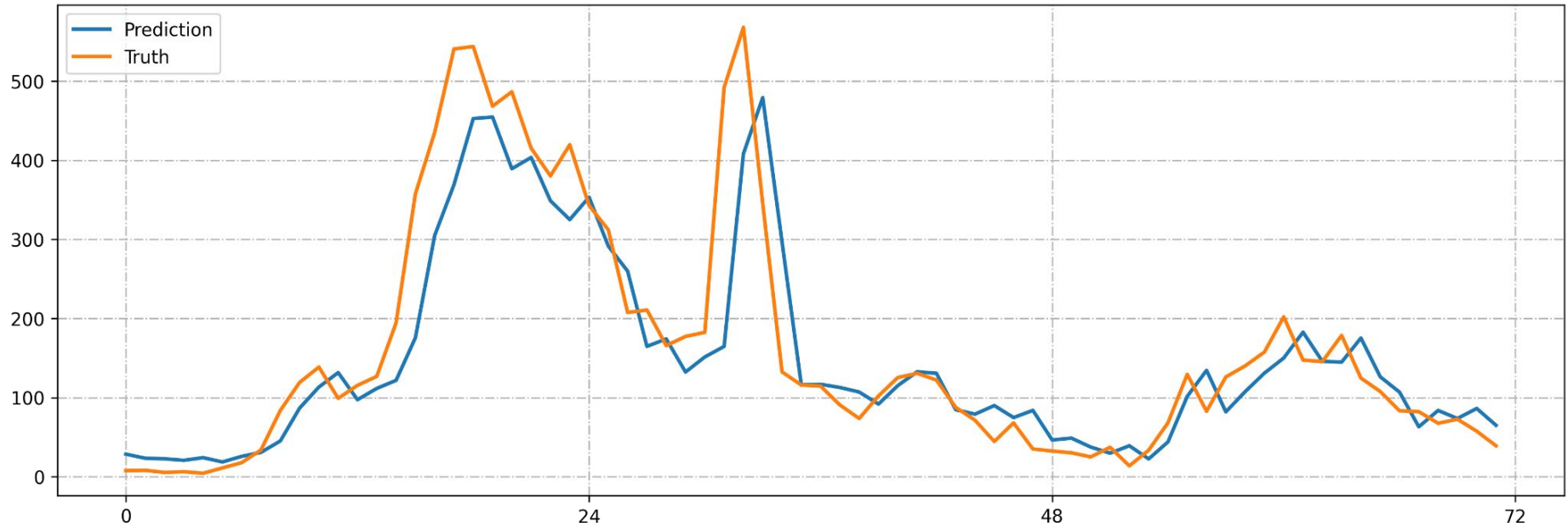
explained\_variance\_score: 0.754





# ARIMA

RMSE: 67.865  
MAE: 41.176  
MAPE: 49.607  
MedAE: 23.812  
r2 score: 0.794  
explained\_variance\_score: 0.802





# Comparison

	RMSE	MAE	MAPE	MedAE	r2 score	variance score
LSTM	67.794	40.301	33.012	23.025	0.794	0.811
Multi-LSTM	82.154	45.409	37.925	20.731	0.712	0.729
DecisionTree	142.450	81.908	45.435	32.094	0.134	0.150
XGBoost	76.456	49.016	80.629	33.027	0.751	0.754
ARIMA	67.865	41.176	49.607	23.812	0.794	0.802