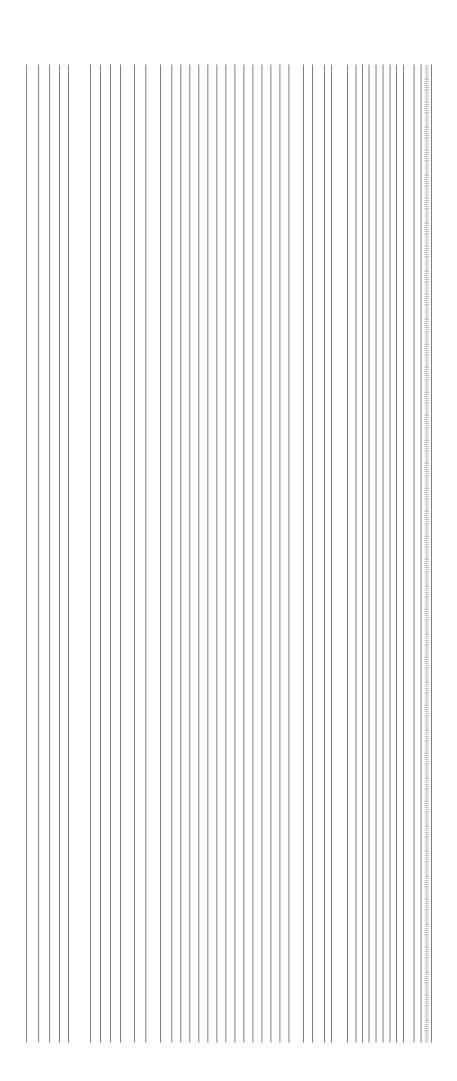
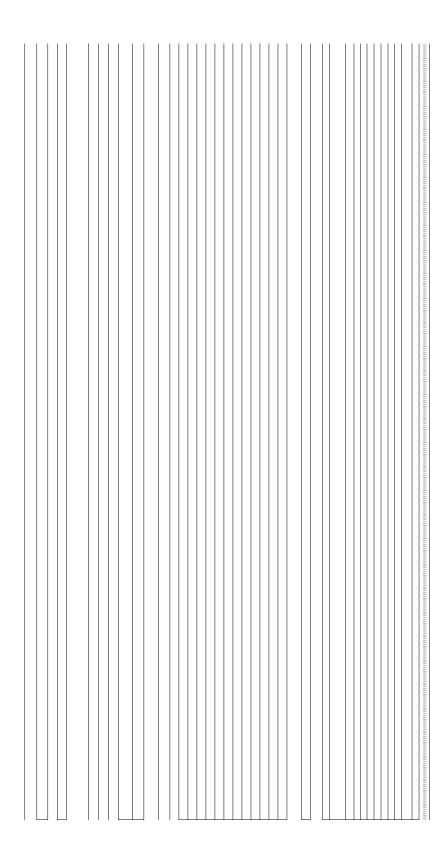
HOW WILL THE DATA IN THIS SPREADSHEET BE USED?

- Data in the 'Road link inputs' and 'General inputs' sheets will be used in the investigation stage of target determination (TD2)
 Data in the 'Euro standard inputs' sheet will be used in the investigation stage of target determination (TD2) and in the localisation of the road transport NAEI
 Data in the 'Fleet composition data' sheet will be used in the localisation of the road transport NAEI

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	Comment - base year	Comment - projected year(s)
NO _X to NO ₂ conversion	The Defra NOx to NO2 model was used. This method is based on road specific fractions of primary NO2, which was calculated on a link-by-link basis using the EFT version 9.1b for each modelled year, having entered local fleet inputs. As calculations were carried out for annual average concentrations, an average fNO2 was calculated for each road link, rather than separate values for each modelled	See base year
Line source parameters (height and width)	Varies by road - single lane taken to be 3.5m, most roads 7m total. All roads were mod	See base year
Surface roughness	Following sensitivity testing and model verification, a uniform surface roughness value	See base year
Meteorology	Modelling was conducted using the 2018 annual surface meteorological dataset measurements	See base year
Calibration approach	LAQM.TG(16) approach was followed. A global primary NOx adjustment factor (PAdj)	See base year
NO _X emission factors	EFT 9.1b	See base year

One table should be filled out for each modelled year and for each modelled domain (e.g. euro standard inputs may be different for A-roads and motorways) Please add rows to the tables if data on other vehicle types was collected during ANPR surveys

If data on a particular vehicle type was not collected during ANPR surveys, this row should be left blank in each table

The tables contain example data which should be deleted

Year 2022, non-compliant fleet component

	Pre-Euro	Euro 1	Euro 2	Euro 3	Euro 4	Euro 5	Euro 6 up to 2016	Euro 6 2017-2019	Euro 6 2020+	Check
Conventional petrol cars	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	TRUE
Hybrid petrol cars	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	TRUE
Plug-in hybrid petrol cars	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	TRUE
Conventional diesel cars	0.00%	0.00%	0.00%	2.62%	20.16%	77.22%	0.00%	0.00%	0.00%	TRUE
Full hybrid diesel cars	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	TRUE
Conventional black cab taxis										FALSE
Full hybrid black cab taxis										FALSE
Battery electric black cab taxis										FALSE
Conventional petrol LGVs	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	TRUE
Hybrid petrol LGVs										FALSE
Plug-in hybrid petrol LGVs										FALSE
Conventional diesel LGVs	0.00%	0.00%	0.00%	2.11%	26.61%	71.28%	0.00%	0.00%	0.00%	TRUE
Full hybrid diesel LGVs										FALSE
Rigid HGVs	0.00%	0.00%	0.00%	6.79%	24.39%	68.82%	0.00%	0.00%	0.00%	TRUE
Artic HGVs	0.00%	0.00%	0.97%	12.05%	20.98%	66.00%	0.00%	0.00%	0.00%	TRUE
Conventional buses	0.00%	0.00%	6.88%	37.20%	29.52%	26.40%	0.00%	0.00%	0.00%	TRUE
Hybrid buses										FALSE
Battery electric buses										FALSE
Methane/gas buses										FALSE
Coaches	0.00%	0.00%	6.88%	37.20%	29.52%	26.40%	0.00%	0.00%	0.00%	TRUE

Year 2022, compliant fleet component

	Pre-Euro	Euro 1	Euro 2	Euro 3	Euro 4	Euro 5	Euro 6 up to 2016	Euro 6 2017-2019	Euro 6 2020+	Check
Conventional petrol cars	0.00%	0.00%	0.00%	0.00%	11.57%	25.39%	15.46%	47.58%	n/a	TRUE
Hybrid petrol cars	0.00%	0.00%	0.00%	0.00%	7.99%	8.08%	10.06%	73.87%	n/a	TRUE
Plug-in hybrid petrol cars	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.51%	89.49%	n/a	TRUE
Conventional diesel cars	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.16%	49.77%	15.07%	TRUE
Full hybrid diesel cars	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.41%	50.49%	45.10%	TRUE
Conventional black cab taxis										FALSE
Full hybrid black cab taxis										FALSE
Battery electric black cab taxis										FALSE
Conventional petrol LGVs	0.00%	0.00%	0.00%	0.00%	20.88%	31.30%	21.31%	26.50%	n/a	TRUE
Hybrid petrol LGVs	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	22.50%	77.50%	n/a	TRUE
Plug-in hybrid petrol LGVs										FALSE
Conventional diesel LGVs	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	44.56%	55.44%	n/a	TRUE
Full hybrid diesel LGVs										FALSE
Rigid HGVs	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	n/a	n/a	TRUE
Artic HGVs	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	n/a	n/a	TRUE
Conventional buses	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	n/a	n/a	TRUE
Hybrid buses										FALSE
Battery electric buses										FALSE
Methane/gas buses										FALSE
Coaches	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	n/a	n/a	TRUE

Year 2022, compliant fleet component

	Pre-Euro	Euro 1	Euro 2	Euro 3	Euro 4	Euro 5	Euro 6 up to 2016	Euro 6 2017-2019	Euro 6 2020+	Check
Conventional petrol cars	0.00%	0.00%	0.00%	33.00%	7.75%	17.01%	10.36%	31.88%	0.00%	TRUE
Hybrid petrol cars	0.00%	0.00%	0.00%	33.00%	5.35%	5.42%	6.74%	49.50%	0.00%	TRUE
Plug-in hybrid petrol cars	0.00%	0.00%	0.00%	0.00%	0.00%	33.00%	7.04%	59.96%	0.00%	TRUE
Conventional diesel cars	0.00%	0.00%	0.00%	0.86%	6.65%	25.48%	23.56%	33.35%	10.09%	TRUE
Full hybrid diesel cars	0.00%	0.00%	0.00%	0.00%	0.00%	33.00%	2.95%	33.83%	30.22%	TRUE
Conventional black cab taxis										FALSE
Full hybrid black cab taxis										FALSE
Battery electric black cab taxis										FALSE
Conventional petrol LGVs	0.00%	0.00%	0.00%	58.00%	8.77%	13.15%	8.95%	11.13%	n/a	TRUE
Hybrid petrol LGVs	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	22.50%	77.50%	n/a	TRUE
Plug-in hybrid petrol LGVs										FALSE
Conventional diesel LGVs	0.00%	0.00%	0.00%	1.22%	15.43%	41.34%	18.72%	23.28%	n/a	TRUE
Full hybrid diesel LGVs										FALSE
Rigid HGVs	0.00%	0.00%	0.00%	1.22%	4.39%	12.39%	82.00%	n/a	n/a	TRUE
Artic HGVs	0.00%	0.00%	0.17%	2.17%	3.78%	11.88%	82.00%	n/a	n/a	TRUE
Conventional buses	0.00%	0.00%	4.20%	22.69%	18.01%	16.10%	39.00%	n/a	n/a	TRUE
Hybrid buses										FALSE
Battery electric buses										FALSE
Methane/gas buses										FALSE
Coaches	0.00%	0.00%	4.20%	22.69%	18.01%	16.10%	39.00%	n/a	n/a	TRUE

Both tables should be filled out for each modelled year and for each modelled domain (e.g. fleet composition may be different for A-roads and motorways) Please add rows to the tables if data on other vehicle types was collected during ANPR surveys

If data on a particular vehicle type was not collected during ANPR surveys, this row should be left blank in each table

The tables contain example data which should be deleted

YEAR 2022: Average across model domain

	Average fleet composition (%)
Conventional petrol cars	42.00%
Hybrid petrol cars	3.22%
Plug-in hybrid petrol cars	1.72%
Battery EV Cars	0.86%
Conventional diesel cars	35.47%
Full hybrid diesel cars	0.66%
Conventional black cab taxis	0.00%
Full hybrid black cab taxis	0.00%
Battery electric black cab taxis	0.00%
Conventional petrol LGVs	0.19%
Hybrid petrol LGVs	0.00%
Plug-in hybrid petrol LGVs	0.00%
Conventional diesel LGVs	11.18%
Full hybrid diesel LGVs	0.00%
Rigid HGVs	2.64%
Artic HGVs	1.17%
Conventional buses	0.40%
Hybrid buses	0.00%
Battery electric buses	0.00%
Methane/gas buses	0.00%
Coaches	0.16%
Motorcycle	0.33%
CHECK	TRUE

Buses	With DPF	With DPF and SCR	CHECK
Euro 3			FALSE
Euro 4			FALSE