

# QUANTIFY

## WP 3.2.1. Precipitation impact on sulphur and nitrogen compounds

### Specifications of simulations and output

#### Simulations

The preliminary simulations for the current impact will be extended with output for this workpackage. The output of the base run and the 5% perturbation runs provides information to assess the relative importance of removal processes for each transport mode. Only output for the year 2003 is requested.

#### Output:

##### a. Monthly mean fields of wet and dry deposition

What	Name of Parameter	Unit	Dimension of field
Longitude	lon	degrees_east	1D
Latitude	lat	degrees_north	1D
am hybrid coordinates	am	Pa	1D
bm hybrid coordinates	bm	-	1D
grid cell area	dxy	m <sup>2</sup>	1D
Date	date	YYYYMM	0D
Surface pressure	psurf	Pa	2D
Temperature	temp	K	3D
HNO <sub>3</sub> dry deposition	HNO <sub>3</sub> _dryd	gN/m <sup>2</sup>	2D
NO <sub>y</sub> dry deposition	NOY_dryd	gN/m <sup>2</sup>	2D
NO <sub>x</sub> dry deposition	NOX_dryd	gN/m <sup>2</sup>	2D
NO <sub>y</sub> dry deposition	NOY_dryd	gN/m <sup>2</sup>	2D
SO <sub>2</sub> dry deposition	SO <sub>2</sub> _dryd	gS/m <sup>2</sup>	2D
HNO <sub>3</sub> wet deposition	HNO <sub>3</sub> _wetd	gN/m <sup>2</sup>	3D
NO <sub>y</sub> wet deposition	NOY_wetd	gN/m <sup>2</sup>	3D
H <sub>2</sub> SO <sub>4</sub> wet deposition	H <sub>2</sub> SO <sub>4</sub> _wdep	gS/m <sup>2</sup>	3D

### **b. 3-hourly fields of wet and dry deposition fluxes at the surface**

<b>What</b>	<b>Name of Parameter</b>	<b>Unit</b>	<b>Dimension of field</b>
Longitude	lon	degrees_east	1D
Latitude	lat	degrees_north	1D
am hybrid coordinates	am	Pa	1D
bm hybrid coordinates	bm	-	1D
grid cell area	dxy	m <sup>2</sup>	1D
time since 00:00hr at 2003-01-01	time	s	1D
Surface pressure	psurf	Pa	2D + time
Surface temperature	tsurf	K	2D + time
HNO <sub>3</sub> dry deposition	HNO <sub>3</sub> _dryd	gN/m <sup>2</sup>	2D + time
NO <sub>y</sub> dry deposition	NOY_dryd	gN/m <sup>2</sup>	2D + time
NO <sub>x</sub> dry deposition	NOX_dryd	gN/m <sup>2</sup>	2D + time
NO <sub>y</sub> dry deposition	NOY_dryd	gN/m <sup>2</sup>	2D + time
SO <sub>2</sub> dry deposition	SO2_dryd	gS/m <sup>2</sup>	2D + time
total HNO <sub>3</sub> wet deposition	HNO <sub>3</sub> _wetd	gN/m <sup>2</sup>	2D + time
total NO <sub>y</sub> wet deposition	NOY_wetd	gN/m <sup>2</sup>	2D + time
total H <sub>2</sub> SO <sub>4</sub> wet deposition	H <sub>2</sub> SO <sub>4</sub> _wdep	gS/m <sup>2</sup>	2D + time

Note:

For the wet removal fields this means integrating the removal in the columns for each grid cell.

Provide monthly files.