

## SULPHUR DIOXIDE

Major precursor to acid deposition, which is associated with the acidification of soils and surface waters and the accelerated corrosion of buildings and monuments. Derived from the sulphur in **FOSSIL FUELS** such as coal and oil used in combustion activities.

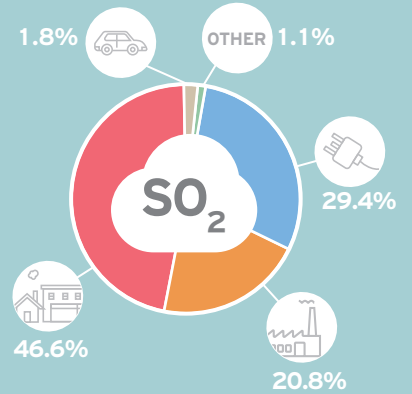


EMISSIONS HAVE **DECREASED** BY **93%** SINCE 1990

**FUEL SWITCHING AND REDUCED SULPHUR CONTENT OF FUELS RESPONSIBLE FOR REDUCTIONS**

EMISSIONS FROM **RESIDENTIAL & COMMERCIAL SECTORS** HAVE DECREASED BY **84%**

EMISSIONS FROM **ELECTRICITY GENERATION** HAVE DECREASED BY **96%**



## NITROGEN OXIDES

Contributes to acidification of soils and surface waters, tropospheric ozone formation and nitrogen saturation in terrestrial ecosystems.

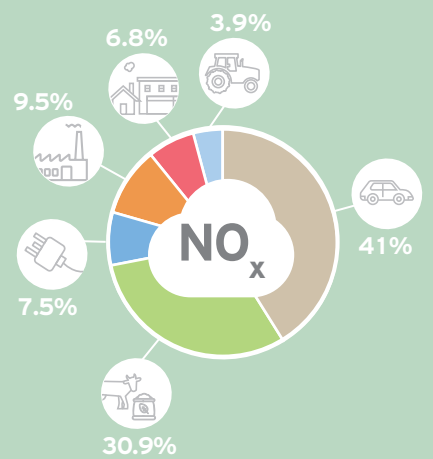


EMISSIONS HAVE **DECREASED** BY **38%** SINCE 1990

**ABATEMENT TECHNOLOGY IN ELECTRICITY GENERATION AND TRANSPORT HAS LED TO REDUCTIONS**

**AGRICULTURE** A SIGNIFICANT SOURCE DUE TO DUNG, URINE, MANURES AND FERTILIZER NITROGEN APPLICATION

**TRANSPORT** IS LARGEST SOURCE ACCOUNTING FOR **41%** OF TOTAL EMISSIONS



## AMMONIA

Associated with acid deposition and the formation of secondary particulate matter.

**THE AGRICULTURE SECTOR ACCOUNTS FOR VIRTUALLY ALL (99 %) OF AMMONIA EMISSIONS IN IRELAND.**

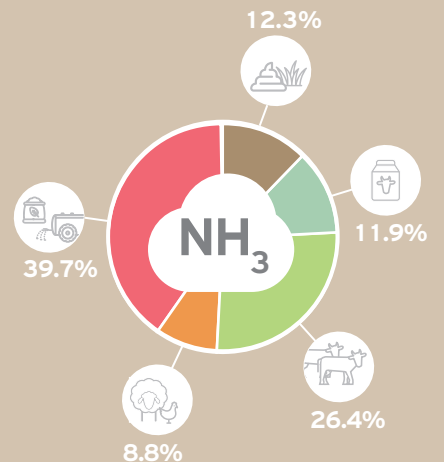


EMISSIONS HAVE **INCREASED** BY **8%** SINCE 1990

**NATIONAL EMISSIONS LARGELY DETERMINED BY CATTLE POPULATION AND NITROGEN FERTILIZER USE**

**ANIMAL MANURES** PRODUCE **90%** AMMONIA EMISSIONS IN AGRICULTURE

**CHEMICAL FERTILISERS AND ROAD TRANSPORT ACCOUNT FOR THE REMAINDER**



## NON-METHANE VOLATILE ORGANIC COMPOUNDS

Are emitted by a wide array of paints and solvents. Production of food and beverages, incomplete combustion of fuels and agriculture are also important sources.

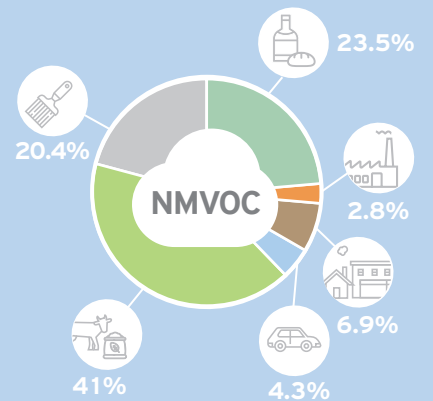


EMISSIONS HAVE **DECREASED** BY **22%** SINCE 1990



**AGRICULTURE** IS THE LARGEST SOURCE ACCOUNTING FOR **41%**

**PRODUCTION OF FOOD AND BEVERAGES (BEER AND SPIRITS)** ACCOUNTS FOR **23%**



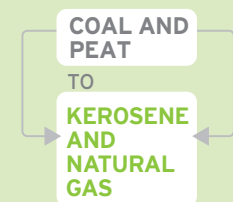
## PARTICULATE MATTER <2.5um

There are many sources, including the combustion of fuels for heating, vehicle exhausts, construction works and industry. Particulate matter can be formed from reactions with other pollutants e.g. ammonia. Particulate matter < 2.5 um is responsible for significant negative effects on human health. Emissions have reduced by 63.3% since 1990.

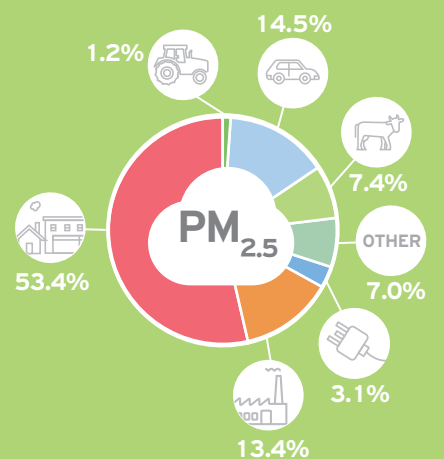
THE MAIN SOURCE IS **COMBUSTION OF FUELS** IN THE **RESIDENTIAL & COMMERCIAL SECTORS**



**FUEL SWITCHING FROM**



**HAS RESULTED IN A SIGNIFICANT REDUCTION IN EMISSIONS**



## KEY MESSAGES

IRELAND REMAINS **COMPLIANT** WITH EMISSION REDUCTION TARGETS FOR



FOR THE TIME BEING...

Current projections suggest compliance with both the NO<sub>x</sub> and NMVOC emission reduction targets for 2030 **WILL BE A CHALLENGE**

IRELAND IS **IN BREACH OF** **NH<sub>3</sub>** EMISSION REDUCTIONS TARGETS AND WILL REMAIN SO

**EXPANSION OF THE AGRICULTURE SECTOR HAS LED TO THE BREACH OF NH<sub>3</sub> EMISSION REDUCTION TARGETS**



IMMEDIATE REQUIREMENT FOR **ON-FARM ABATEMENT MEASURES TO REDUCE NH<sub>3</sub> EMISSIONS**

Energy efficiency measures across society, more fuel efficient vehicles, refit support schemes and smoky coal ban will have

**SIZEABLE IMPACTS ON REDUCING EMISSIONS INTO THE FUTURE**

