

Ammonia Assessment Report

- Available in English, French and Russian
 - [ECE EB.AIR WG.5 2021 7-2102624E.pdf \(unece.org\)](#)
- Ammonia contributes to PM-formation: it is not only a biodiversity issue, but also a health issue
- Only modest emission reduction reached; and modest future emission reduction ambitions
- 30-50% ammonia reduction needed in areas with high livestock density
- Costs of inaction exceed costs of measures
- A more efficient use of nitrogen offers co-benefits for air and water quality, climate, biodiversity and health.

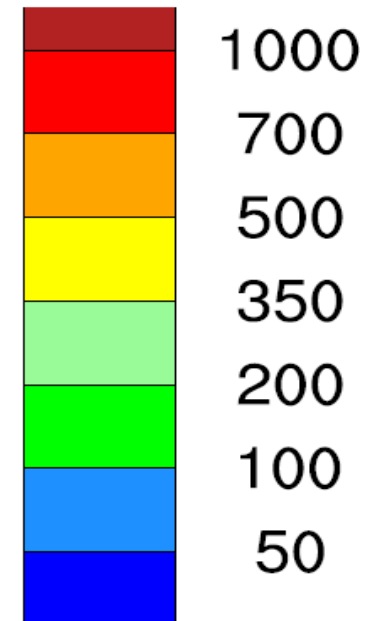
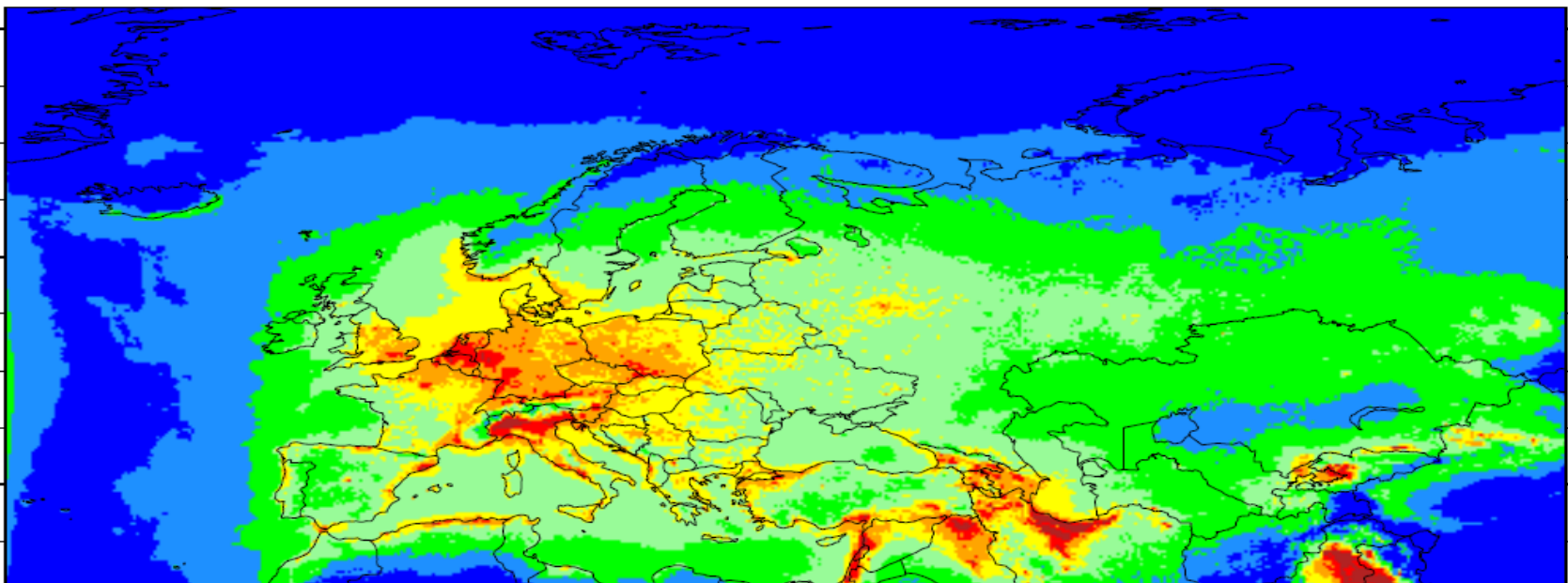
Costs of inaction vs action

Costs of Inaction	euro/kg	
EU-average	10-25	CE-Delft, 2019
Belgium, Netherlands	30	CE-Delft, 2019
Germany	32	Matthey, Bünger, 2018
Denmark	20	Skou Andersen, 2019
UK	1,1-18	Ricardo, 2019
Spain	<10	CE-Delft, 2019
Ireland	0,8	EnvEcon, 2015
Finland	0,7-2,8	Kukkonen, 2019
Costs of measures	euro/kg	
Clean housing	0,5-1,5	Reis, 2015
covered manure storage	0,5-1,5	Reis, 2015
low-emission manure application	0,2-4	Reis, 2015
Air scrubbers	15	Wulf, 2017

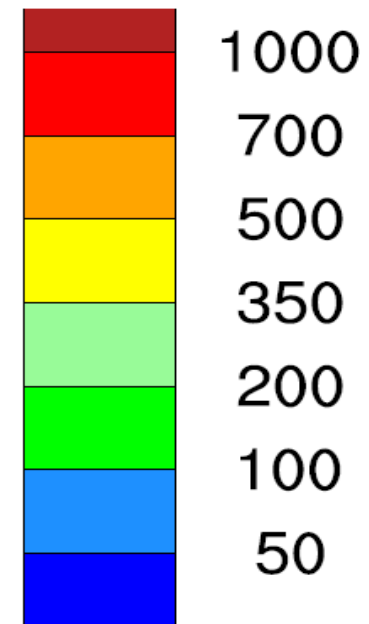
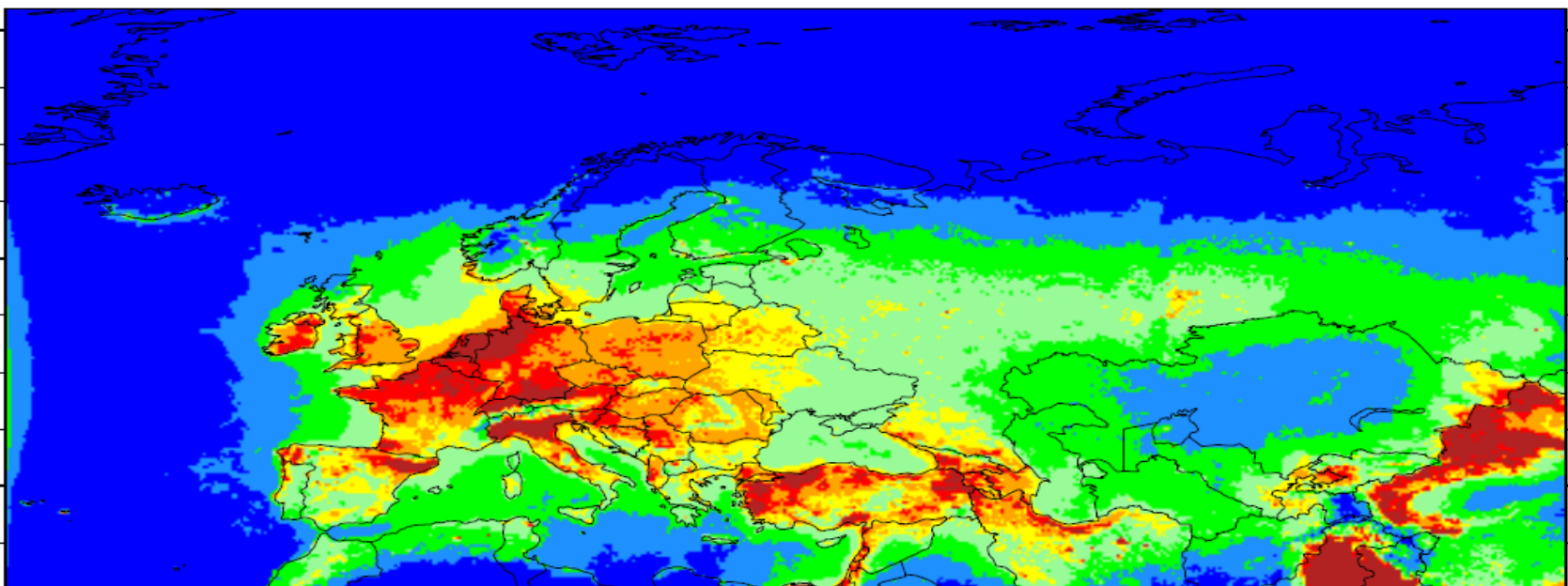
Damage cost approach

Nitrogen
deposition

kg N/km²



(b) oxidized N



(c) Reduced N

Emission of ammonia (tonnes/yr) per 10x10 km

2017

