Supplementary Material
for
Contributions of Nordic anthropogenic emissions on air pollution and premature mortality over the Nordic region and the Arctic

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Table S1. Geographical information of the measurement stations used for model evaluation.

Station Name	Longitude	Latitude	Station Type
Denmark			
Anholt	11.52	56.72	Regional background
Ulborg	8.43	56.29	Regional background
Keldsnor	10.74	54.75	Regional background
Risø	12.09	55.69	Regional background
Odense Rådhus	10.39	55.40	Urban background
Aarhus Botanical Garden	10.19	56.16	Urban background
Aalborg Østerbro	9.93	57.05	Urban background
Copenhagen HCØ	12.56	55.70	Urban background
Finland			
Luukki	24.68	60.31	Regional background
Oulanka	29.40	66.32	Regional background
Sammaltunturi	24.11	67.97	Regional background
Uto	21.37	59.78	Regional background
Virolahti	27.67	60.53	Regional background
Virolahti_2	27.68	60.53	Regional background
Ahtari_2	24.19	62.59	Regional background
Kallio_2	24.95	60.19	Urban background
Kasarmipuisto	27.67	62.89	Urban background

Kisapuisto	25.65	60.99	Urban background
Norway			
Birkenesobservatoriet	8.25	58.39	Regional background
Haukenes	9.49	59.20	Regional background
Hurdal25	11.07	60.37	Regional background
Kårvatn	8.88	62.78	Regional background
Lommedalen	10.49	59.95	Regional background
Prestebakke	11.53	59.00	Regional background
Sandve	5.20	59.20	Regional background
Tustervatn	13.91	65.83	Regional background
Grønland	10.76	59.91	Urban background
Rådhuset	5.33	60.39	Urban background
Sweden			
Aspvreten	17.38	58.80	Regional background
Bredkalen	15.34	63.85	Regional background
Esrange	21.07	67.88	Regional background
Hoburgen	18.15	56.92	Regional background
Rorvik	11.94	57.41	Regional background
Raao	11.91	57.39	Regional background
Vavihill	13.15	56.03	Regional background
Grimso	15.47	59.73	Regional background
Norra_Kvill	15.56	57.81	Regional background
Norr_Malma	18.63	59.83	Regional background
Ostad	12.40	57.95	Regional background
Vavihill	13.15	56.03	Regional background
Vindeln	19.77	64.25	Regional background
Goteborg_Femman	11.97	57.71	Urban background
Malmo_Raadhuset	13.00	55.61	Urban background
Norrkoping_Rosen	16.19	58.59	Urban background
Stockholm_Torkel_Knutssongatan	18.06	59.32	Urban background
Umeaa_Stadsbiblioteket	20.27	63.83	Urban background
Vasteraas_Stadshuset	16.55	59.61	Urban background

Table S2. Exposure-response functions (ERF) used in EVA to calculate premature mortality.

Health effects (compounds)	**Exposure-response coefficient**	**Valuation, €$_{2013}$**
	(α)	**(EU27)**
Acute mortality[2,3] (SO_2)	7.85E-6 cases/ µgm^{-3}	1,532,099 per case
Acute mortality[2,3] (O_3)	3.27E-6*SOMO35 cases/ µgm^{-3}	
Chronic mortality[1,4], YOLL (PM)	1.138E-3 YOLL/ µgm^{-3} (>30 years)	57,510 per YOLL
Infant mortality[5], IM (PM)	6.68E-6 cases/ µgm^{-3} (> 9 months)	2,298,148 per case

[1] Pope et al. (2002), [2] Anderson (1996), [3] Touloumi (1996), [4] Pope et al. (1995), [5] Woodruff et al. (1997).

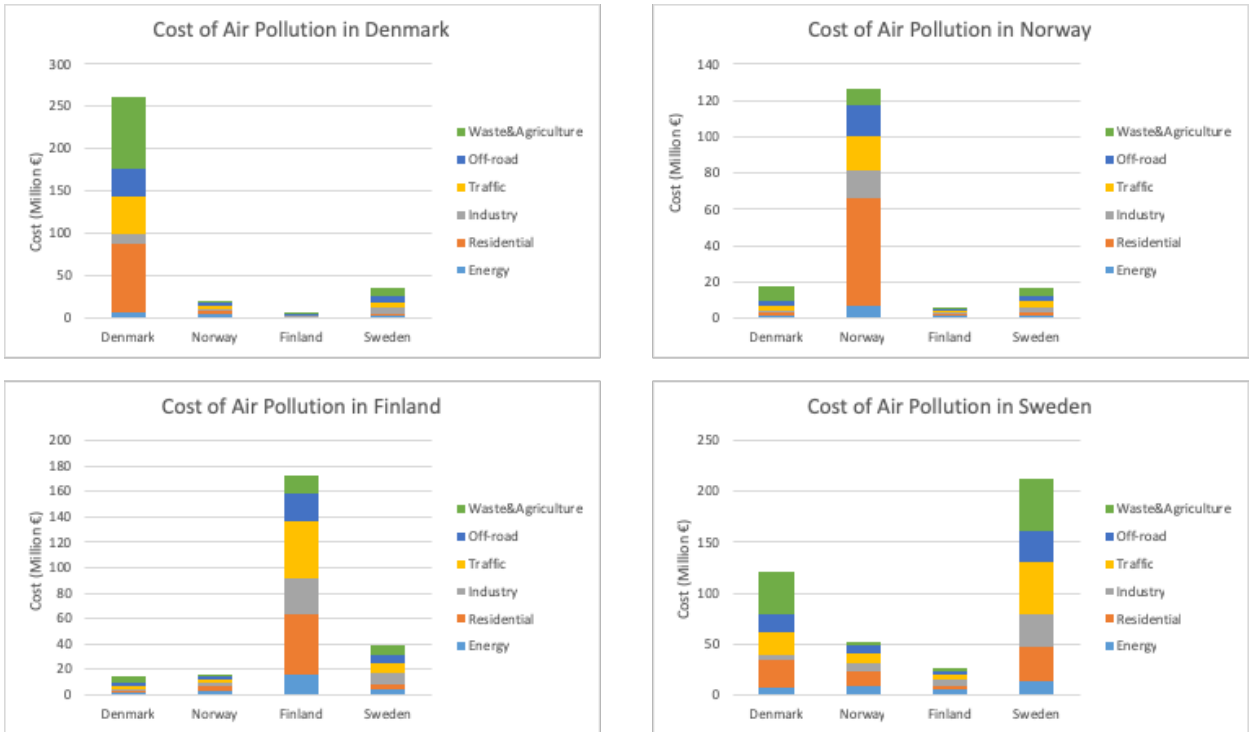

Fig. S1. Sectoral contribution of emissions to health-related costs in a) Denmark, b) Norway, c) Finland, and d) Sweden.

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