DEPARTMENT OF ENVIRONMENTAL SCIENCE
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# National mapping of GHG and non-GHG emissions sources

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# Acknowledgements

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› The project team at Aarhus University

› The Irish emission inventory team for sharing expert knowledge on the Irish emission inventory and national circumstances

› The Steering Committee for valuable comments and advice regarding methodology and data availability

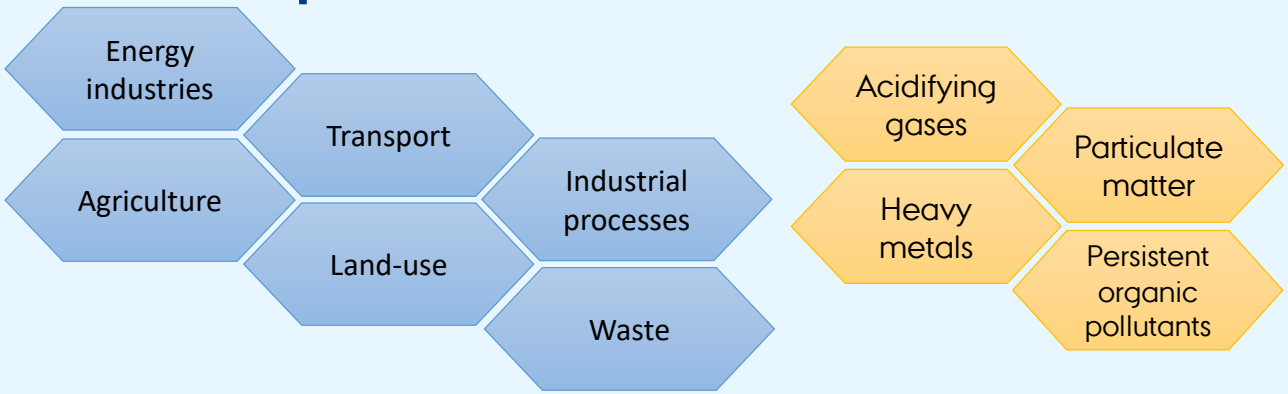
› Stakeholders and data providers for highly appreciated discussions, cooperation and sharing of data

# Motivation

- Important first step to quantify pressures in form of deposition of harmful substances to the environment and human exposure to air pollution
- High quality spatial emission mapping is crucial for the quality, applicability and reliability of modelled air pollution levels, estimated human exposure, incurred health effects and related costs
- Reporting of spatial emissions is a requirement under the LRTAP-convention and serve as input to EMEP Integrated Assessment Models

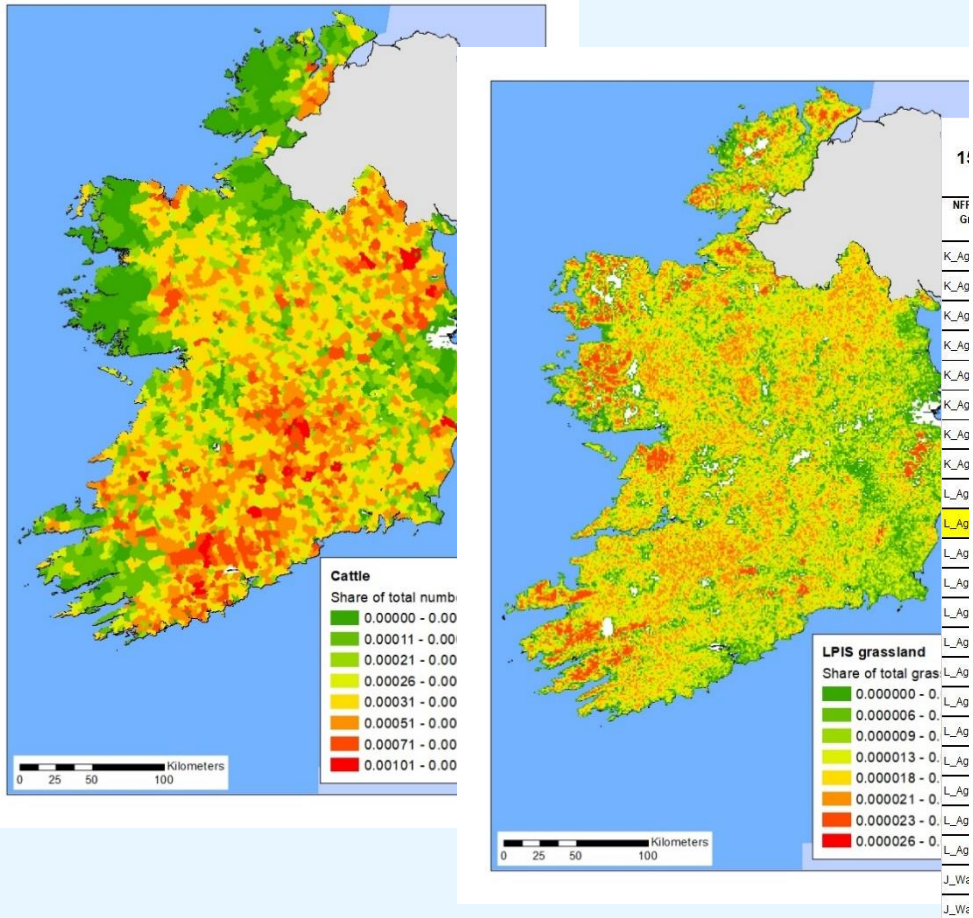
# The spatial emission model

- Complete spatial emission mapping on 1 km x 1 km resolution for the Irish Exclusive Economic Zone
- State-of-the-art integrated database system focusing on performance optimisation
- Includes all sectors and all pollutants in the Irish emission inventory
  - 177 sectors
  - 32 pollutants




- Integrates official statistics and spatial information

# Data integration



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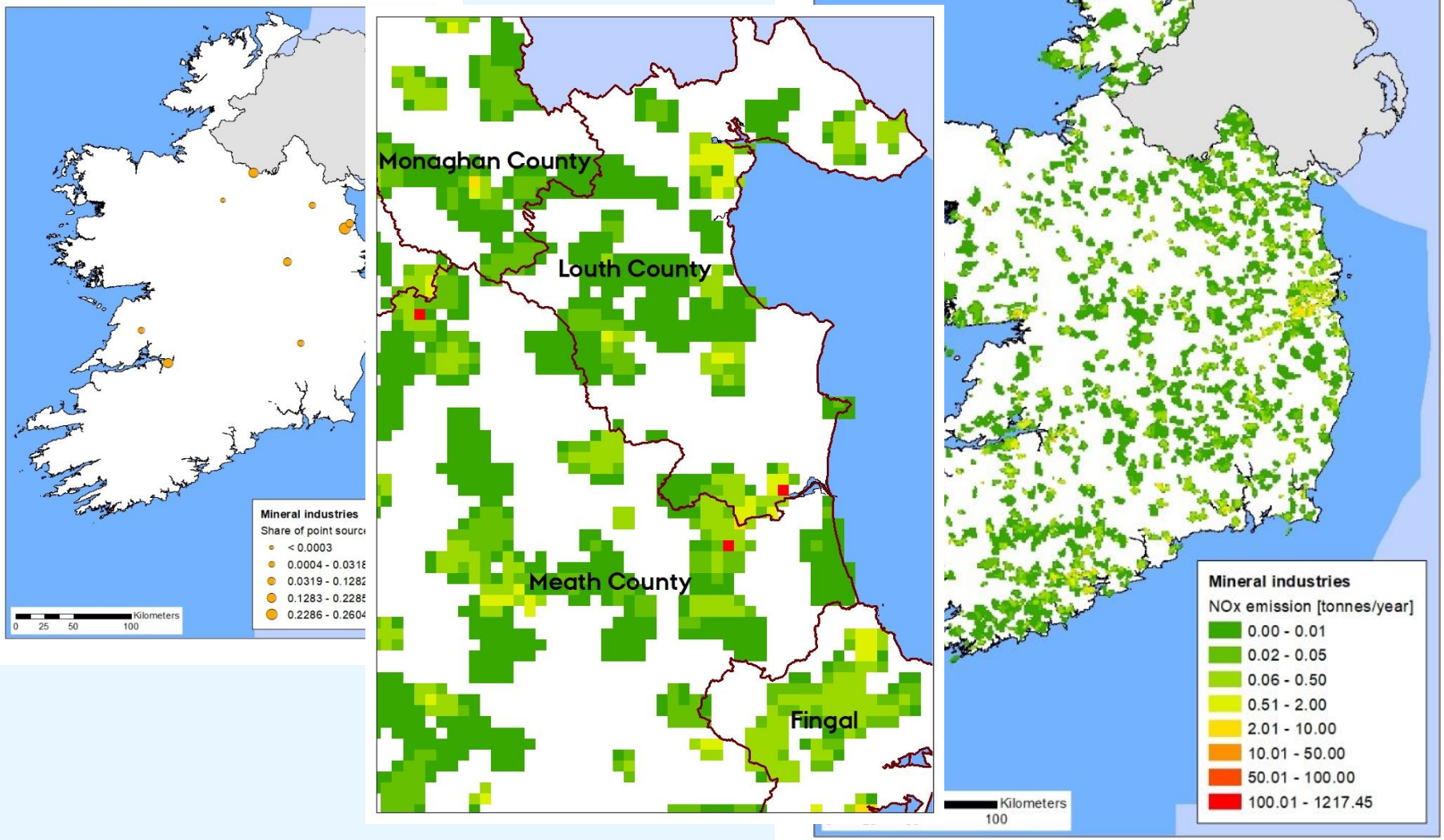

# Applications of the research

- Important information for policy makers in decisions of implementation of environmental policies and measures
- Allows for a more detailed regulation, implementing spatially differentiated measures, allowing for more cost-effective initiatives
- Project webpage
  - www.MapEIre.dk