Denmark (part 2)

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Timing of field operations

- **Needed for modelling N fluxes at high temporal resolution**
  - Manure and fertiliser applications
- **Need to predict**
  - Crop development stage
  - Trafficability (soil moisture, soil type)
- **Should be applicable across Europe**
  - Limited data = simple model

NitroEurope IP

Timing of field operations

- **Very simple crop model**
  - LAI, root depth based on temperature sum
- **Simple soil water model**
  - Tipping bucket approach
  - Partitioning of evapotranspiration
- **Collaborating with JRC**
  - EU wide data sets

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Landcape scale monitoring

- **Survey**
  - Land use and crop rotations
  - Timing of field operations
  - Fertilisation rates
  - Animal housing and manure storage
  - Livestock numbers and feeding
- **Monitoring**
  - Transect of passive NH_3 samplers
  - Periodic N_2O emissions
  - Stream and borehole N measurements
- **Similar measurements - UK, I, PL, F**

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Emission Inventory Guidebook

- **Major revision**
  - Reformat to NFR codes
  - Harmonisation with IPCC
  - Tier 1,2 & 3
- **Cross-cutting (QA/QC etc)**
  - Minor improvements
- **Combustion & Industry, Transport, Nature, Agriculture**

Guidebook (cont)

- **Tier approach**
  - Simple methodology now Tier1
  - Detailed methodology now Tier 2
- **Agriculture**
  - Main focus – Soils & Manure management
  - Biomass burning and Other
- **Pollutants**
  - NH_3, NO (N_2O for IPCC)
  - NMVOCs, PM

Guidebook (cont)

- **Nitrogen – Manure management**
  - Full N balance
  - NH_3, NO, N_2O and N_2
  - Distinction between organic N and NH_4-N
- **Nitrogen – Fertilisers**
  - Tier 1 and 2 for NH3
  - Probably also for NO
- **Drafts available 9 May**
- **Accepted end May (?) (Tallinn)**