Für Mensch & Umwelt

Umwelt Bundesamt

37TH TASK FORCE MEETING, 28TH CCE WORKSHOP AND 2ND CDM MEETING

GPG Document Item 2.2 : Data input from CCE (CCE risk calculations, cooperation with EMEP)

Christin Loran, Thomas Scheuschner, Markus Geupel
Coordination Centre for Effects (CCE)
German Environment Agency

Web-Conference, 20 – 22 April 2021

Tasks and questions to be answered

QUESTION Nº 2.2 PREPARATORY DOCUMENT

- relating to changes in exceedance of critical loads for acidification and eutrophication since last decades and projected changes
- referred to in section "D. Measured and modelled atmospheric concentrations and deposition levels" of the core text.

QUESTION Nº 2.8 PREPARATORY DOCUMENT

- relating to expected impacts of new scientific findings on environmental and health effects assessments, e.g. on critical loads, critical levels of ozone, PM, NO2 and NH3, dynamic modelling of ecosystem recovery, interactions between air pollution, climate change, nitrogen fluxes and other stress factors for biodiversity
- referred to in section "E. Measured and modelled effects on natural ecosystems, materials and crops and assessment of human health effects" of the core text.

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Now

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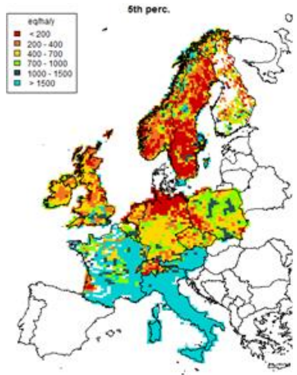
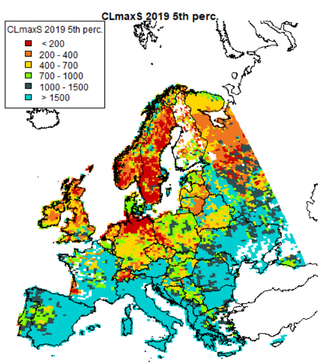
Tomorrow

CCE risk calculations

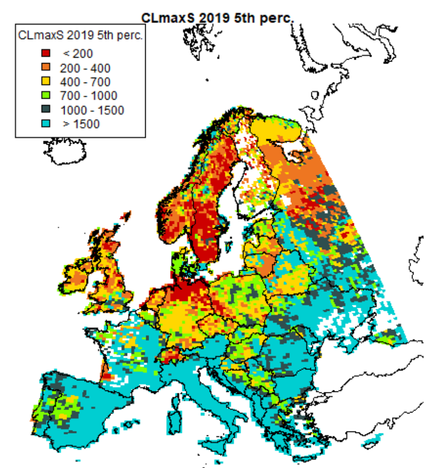
WORKFLOW – PREPARE THE CL



NFC Data



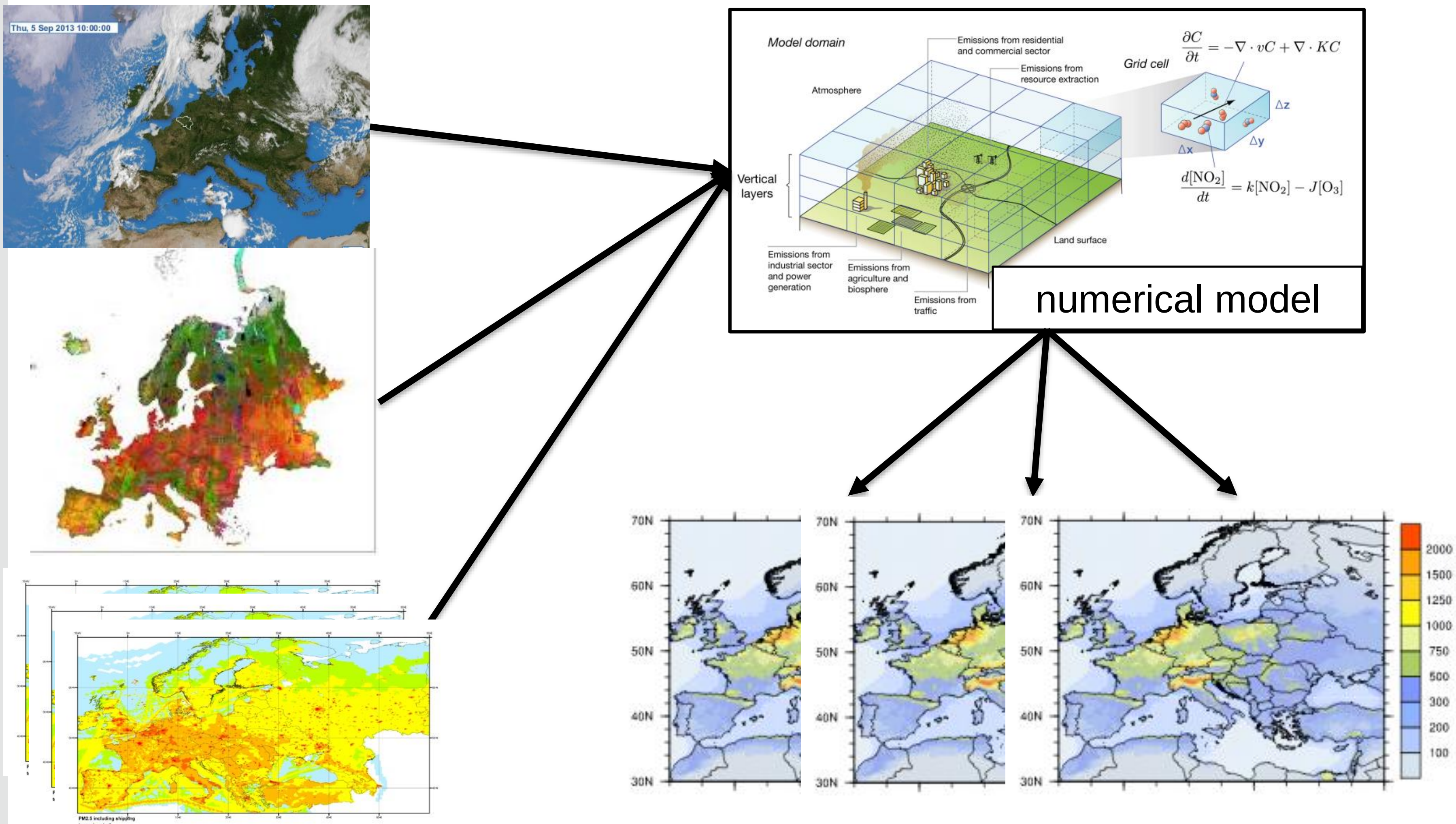
BG Database



CL Database

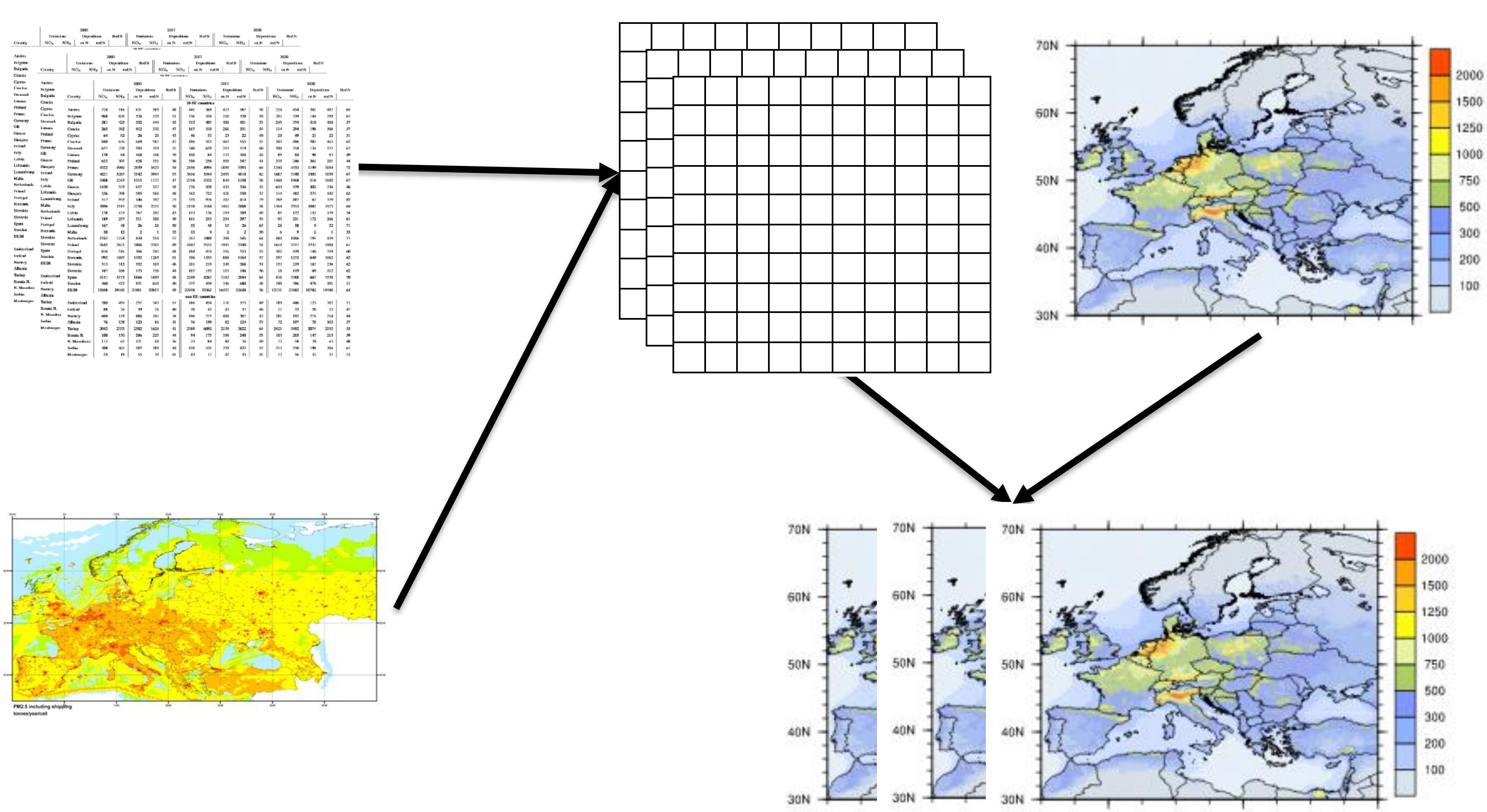
CCE risk calculations

WORKFLOW – PREPARE THE DEPOSITION DATA #1 USING DEPOSITION MODEL



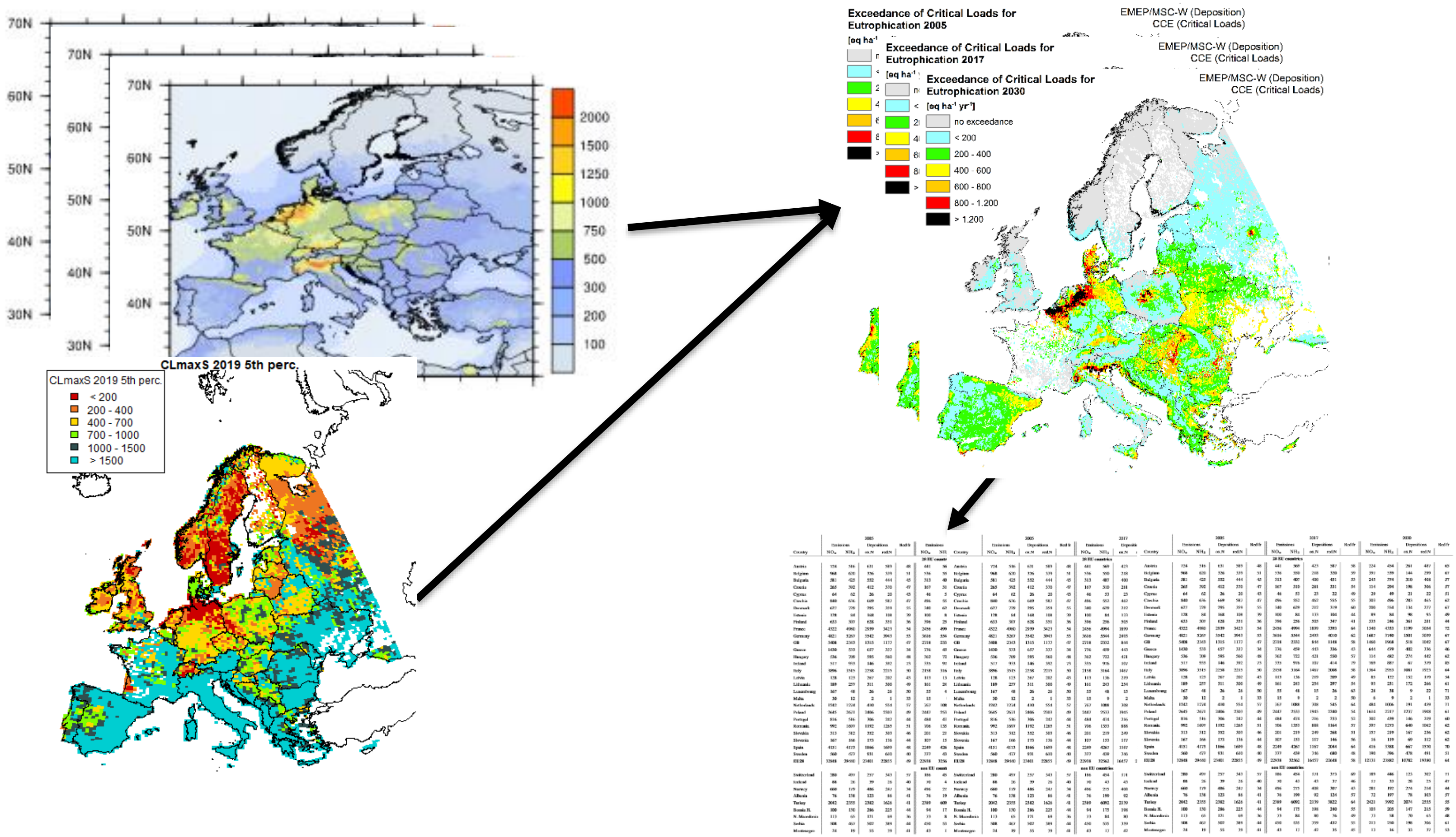
CCE risk calculations

WORKFLOW – PREPARE THE DEPOSITION DATA #2 USING TRANSFER MATRICES



CCE risk calculations

WORKFLOW – CALCULATE CL EXCEEDANCE



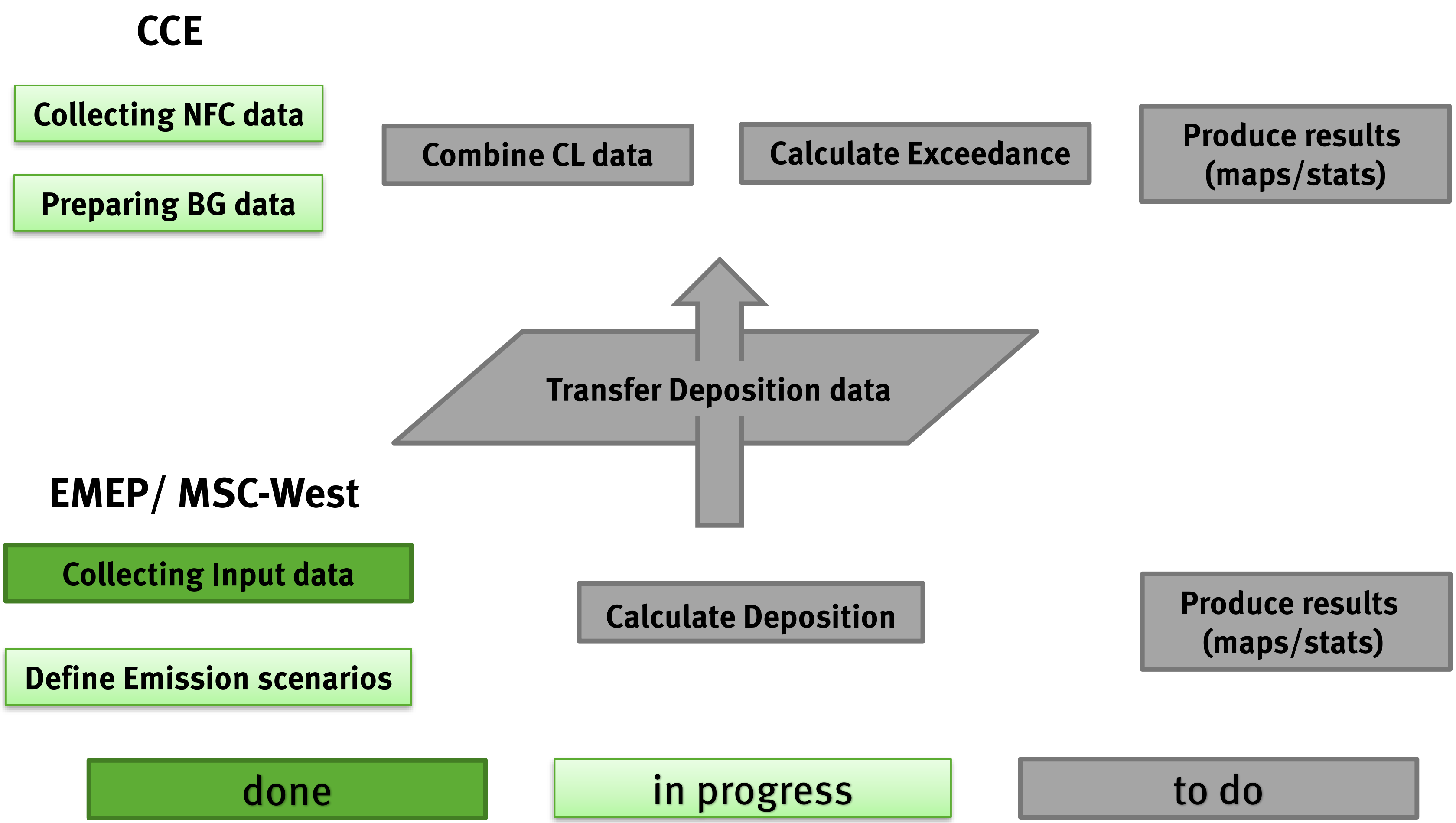
Timing within the next month and cooperation with other bodies

PREPARATORY MEETING

- 23 March 2021
- WGE Chair, CEIP, MSC-West, CCE
- Coordination of workflow on emission data, deposition data and exceedance data
- Decided years **2000 – 2019**
- MSC-West can earliest provide Deposition data by **beginning / mid August**
- The discussion on projections and historic data wasn‘t finalized
- Planned joint scientific paper provides a good starting point for colaboration between UBA and EMEP/MSC-West

CCE risk calculations, cooperation with EMEP

WORKFLOW – OVERVIEW



Draft text sent to the GPG Group

CCE will perform exceedance calculation for critical loads for acidification and eutrophication in the perspective of the GP review process.

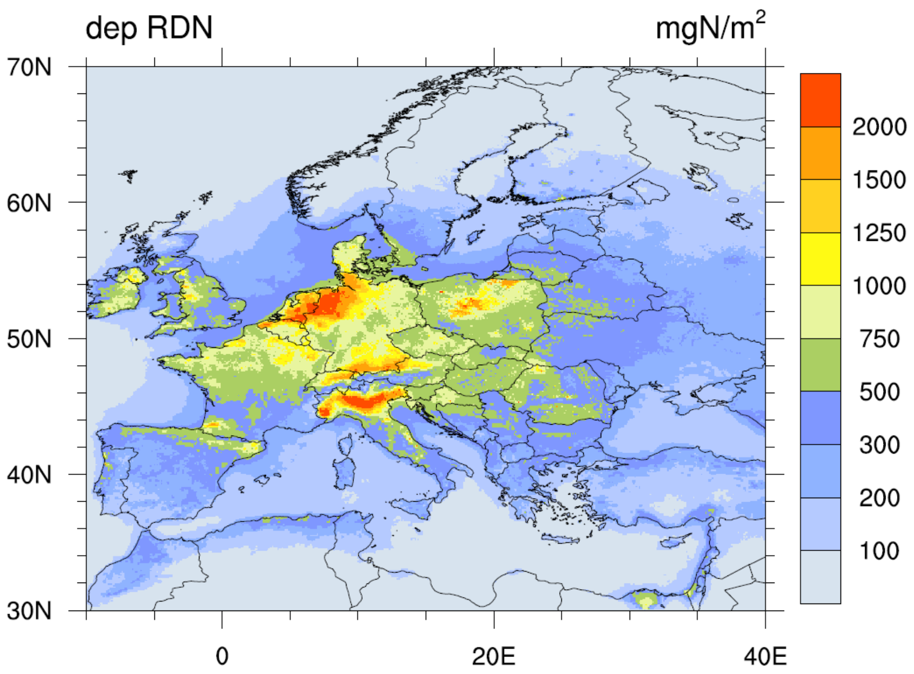
It is anticipated to use an updated critical load database, but any updates need to be discussed firstly with National Focal Centers via a Call for data, that ends 31 March 2021 and at the TF Meeting of ICP Modelling & Mapping 20-22 April 2021. Updates may comprise updated national submissions and critical loads calculated with the newly updated background database of CCE.
As a first step, differences between the critical load dataset used for the current review and the critical load dataset that had been used in GAINS since the last update in 2017 is foreseen. Any comparison with old critical load data depends on the availability and documentation of such data in GAINS and may be done in close cooperation with CIAM .

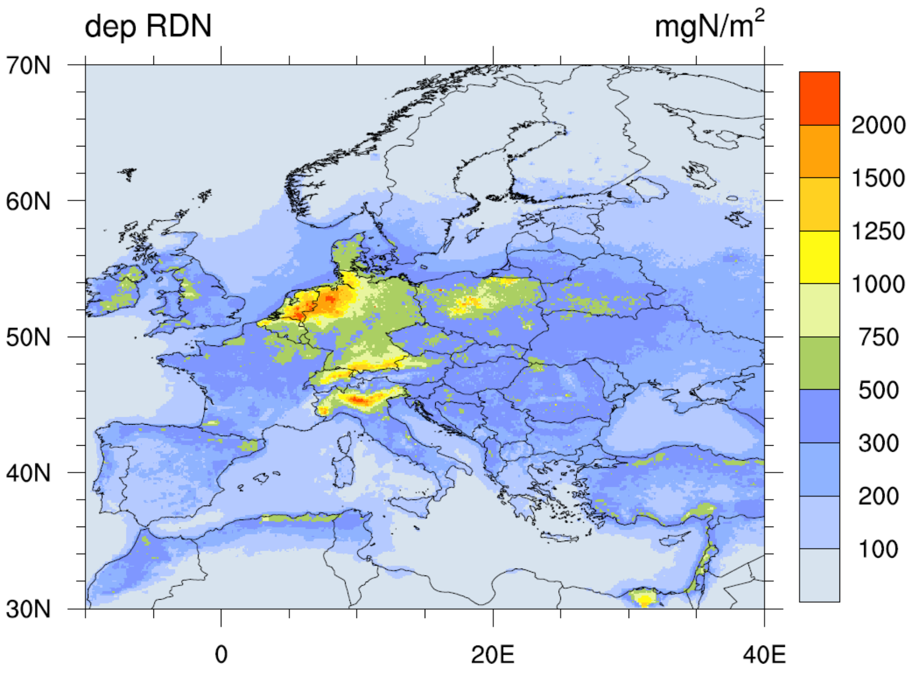
The second step will be the calculation of exceedances based on deposition data provided by MSC-West, CEIP, MSC-West and CCE. This work still needs to be coordinated for data timing specification and availability until September 2021. Its purpose is the comparison of exceedance calculation between years 2000 and 2019.

CCE risk calculations, cooperation with EMEP

WORK ON A RECENT PAPER

“MODELLING CHANGES IN SECONDARY INORGANIC AEROSOL FORMATION AND NITROGEN DEPOSITION IN EUROPE FROM 2005 TO 2030” - WITH FOCUS ON PM 2.5 AND AMMONIA REDUCTION





CCE risk calculations, cooperation with EMEP

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