

# Forest Condition in Europe

2011 Technical Report  
of ICP Forests and FutMon



## Annex to chapters 5 and 8



International Co-operative  
Programme on Assessment  
and Monitoring of Air Pollution  
Effects on Forests (ICP Forests)



Further development  
and implementation  
of an EU-level Forest  
Monitoring System  
(FutMon)

Work Report of the:  
Johann Heinrich  
von Thünen-Institute  
Institute for World Forestry



Annex to

Nagel et al. 2011: Exceedance of critical loads for acidity and nitrogen and scenarios for the future development of soil solution chemistry

and

Schlutow et al. 2011: Development of vegetation under different deposition scenarios

In:

Fischer R, Lorenz M (eds.). 2011: Forest Condition in Europe, 2011 Technical Report of ICP Forests and FutMon. Work Report of the Institute for World Forestry 2011/1. ICP Forests, Hamburg, 2011, 212 pp.

This annex contains plotwise results for FutMon/ICP Forests Level II plots related to

- Calculation of critical loads of acidity and nutrient nitrogen, critical load exceedances by actual measured and scenario modelled deposition.
- Dynamic modelling of soil chemistry applying the VSD+ model.
- Assessment of biological responds to changes in site conditions using the BERN model.



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ICP Forest Level II Site:

ID 10037

Country: France

Critical Load calculation:

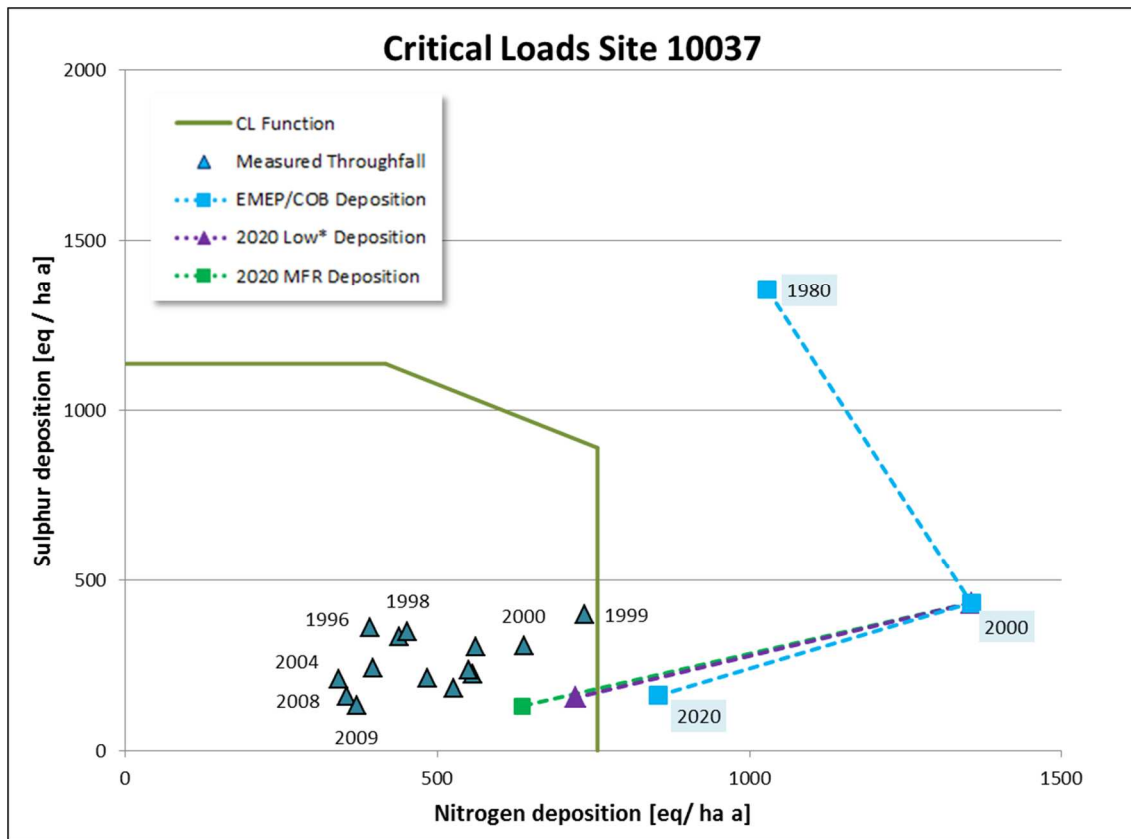
SMB method

Deposition modelled:

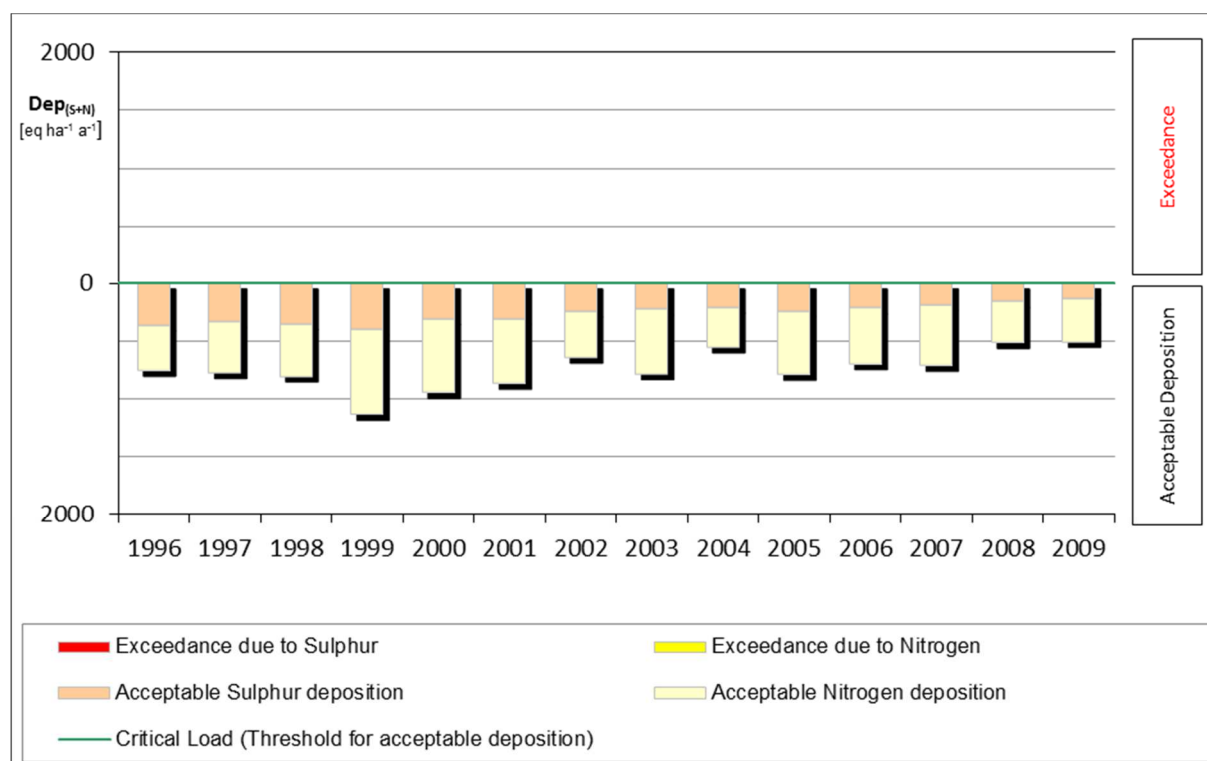
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 - 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 10037

Country: France

Critical Load calculation:

SMB method

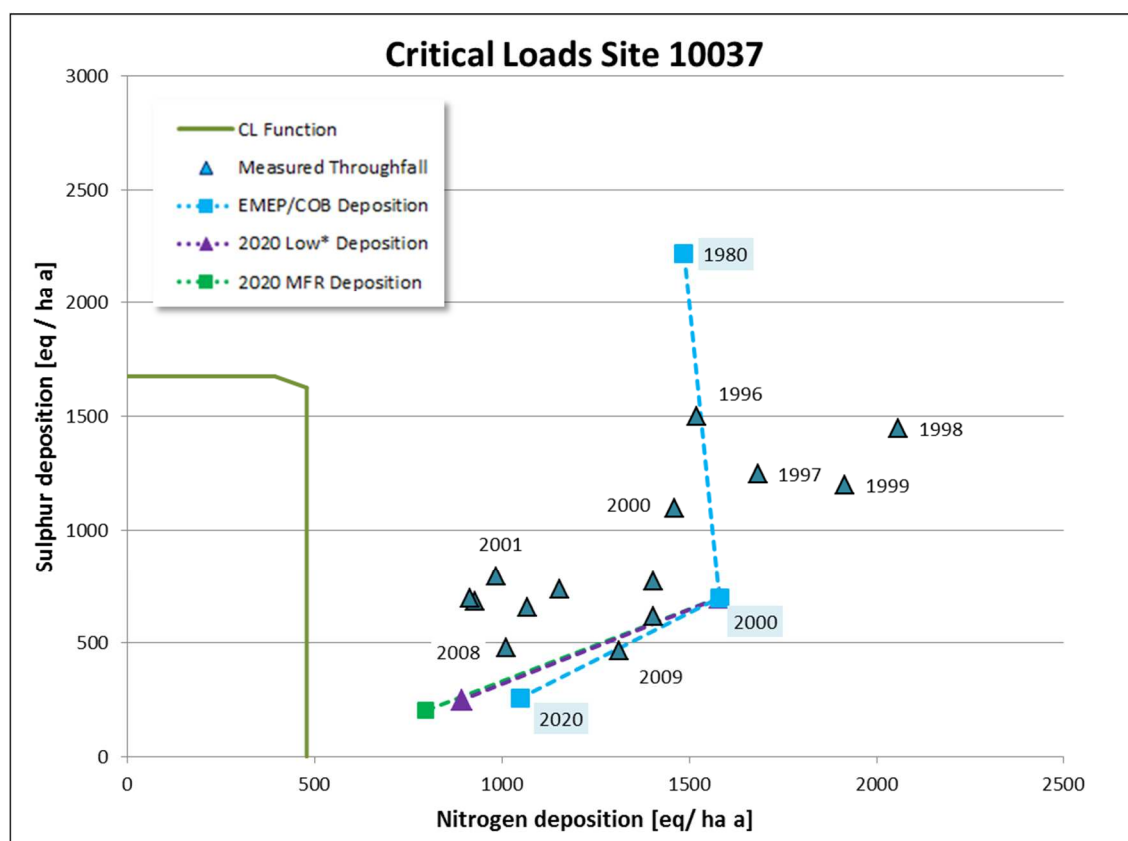
Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

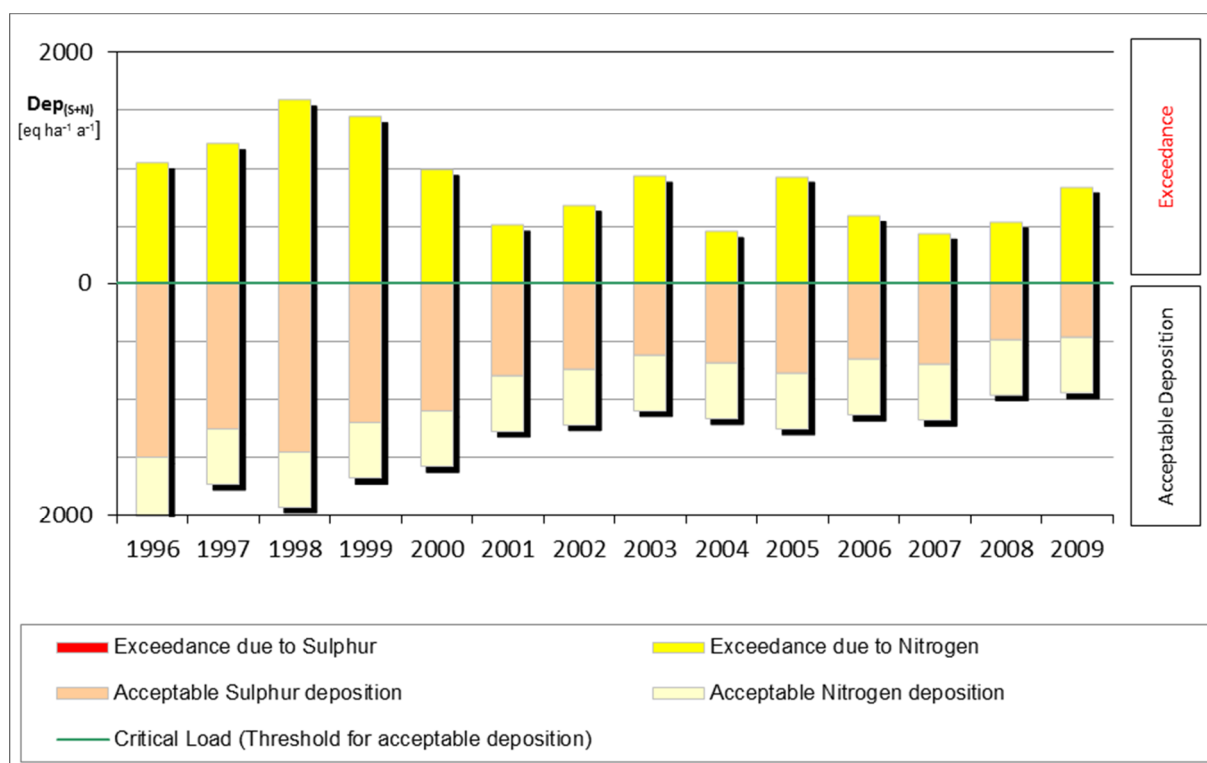
Deposition measured:

1996 – 2009





Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

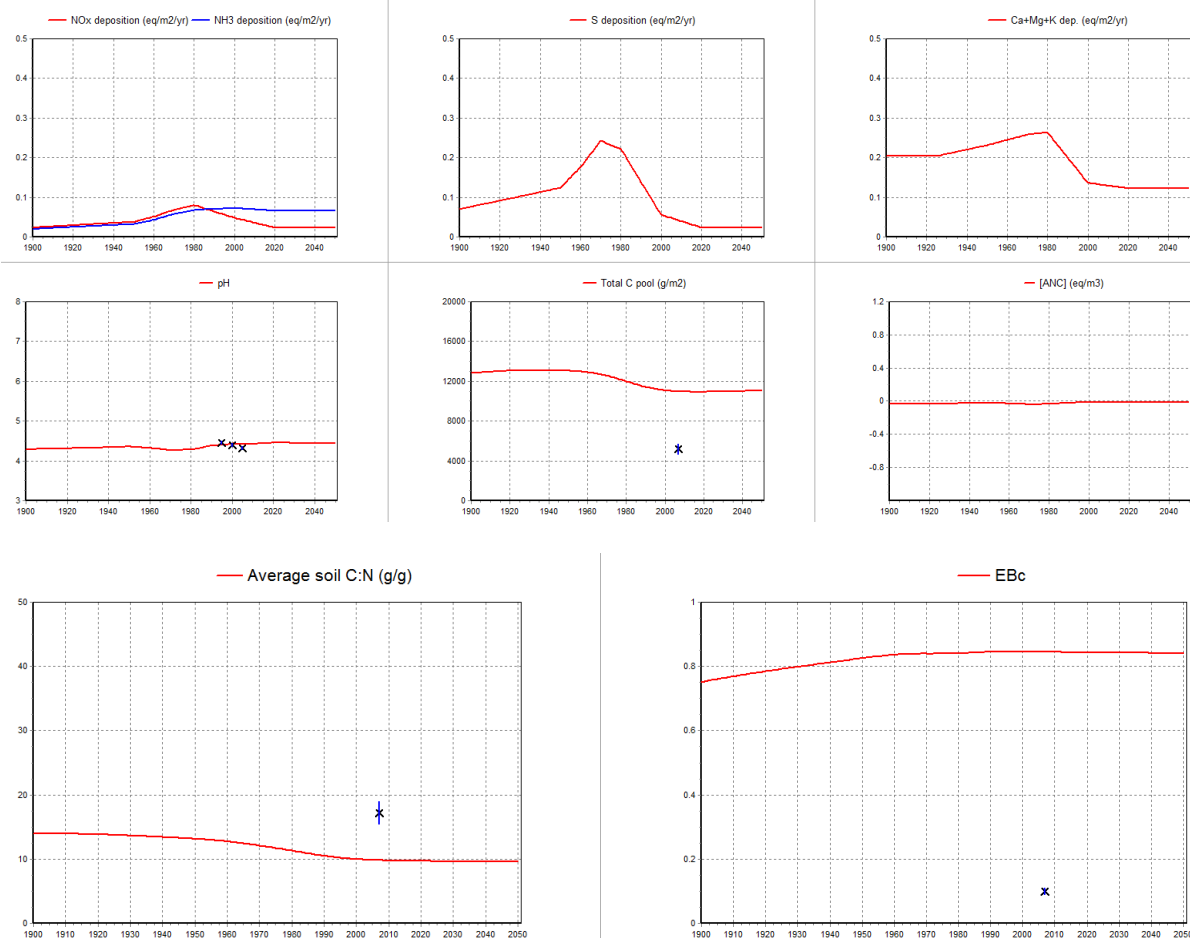
## ICP Forest Level II Site

ID 10037

Country: France

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



ICP Forest Level II Site:

ID 10041

Country: France

Critical Load calculation:

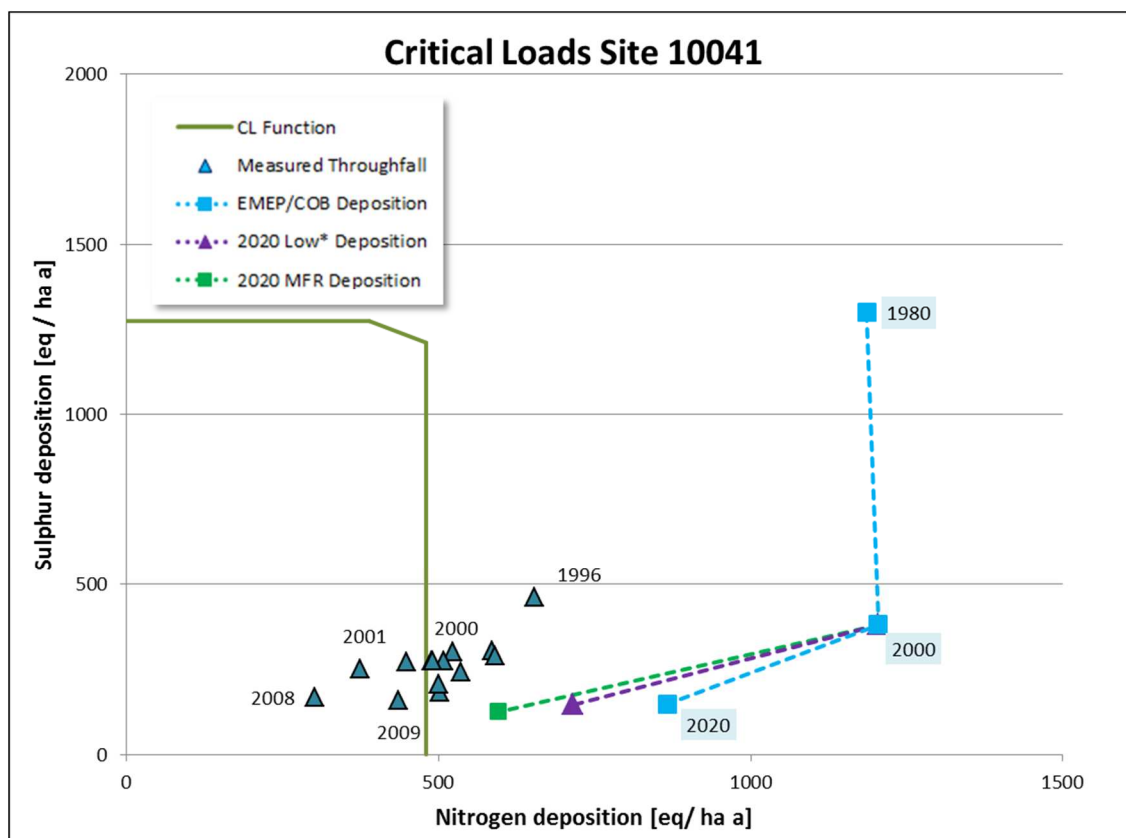
SMB method

Deposition modelled:

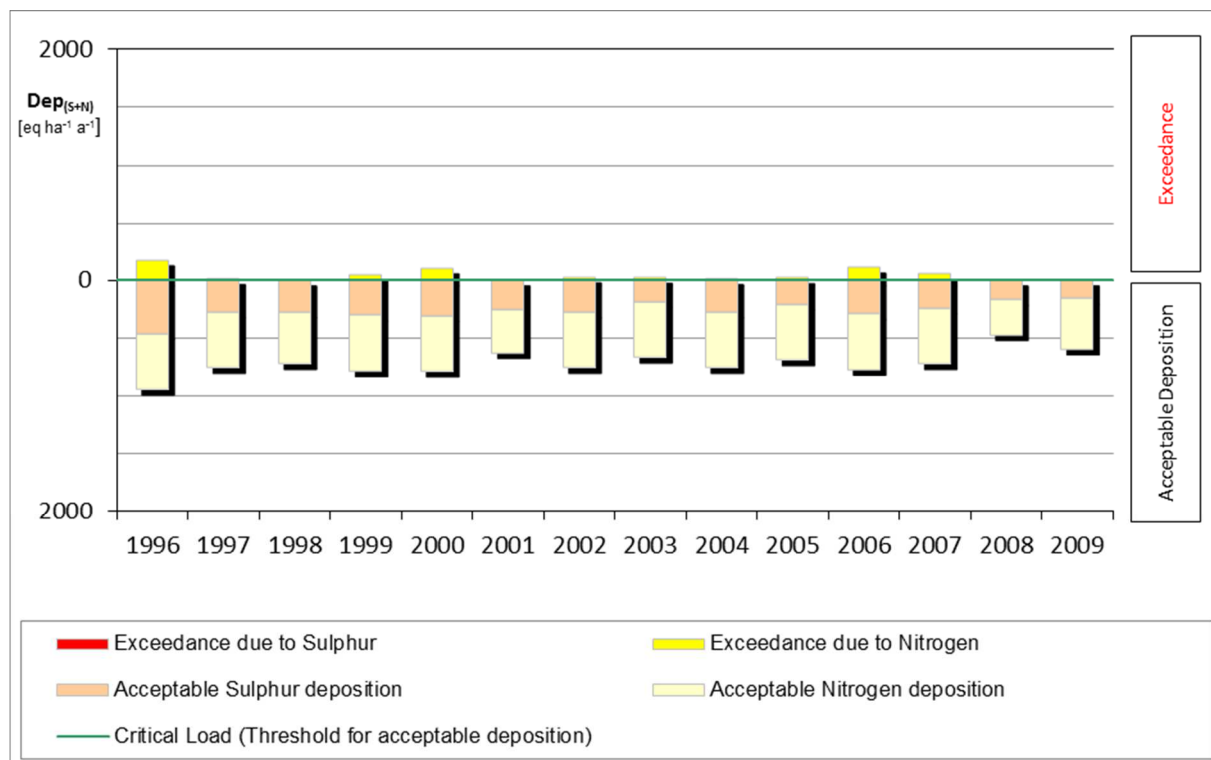
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 10046

Country: France

Critical Load calculation:

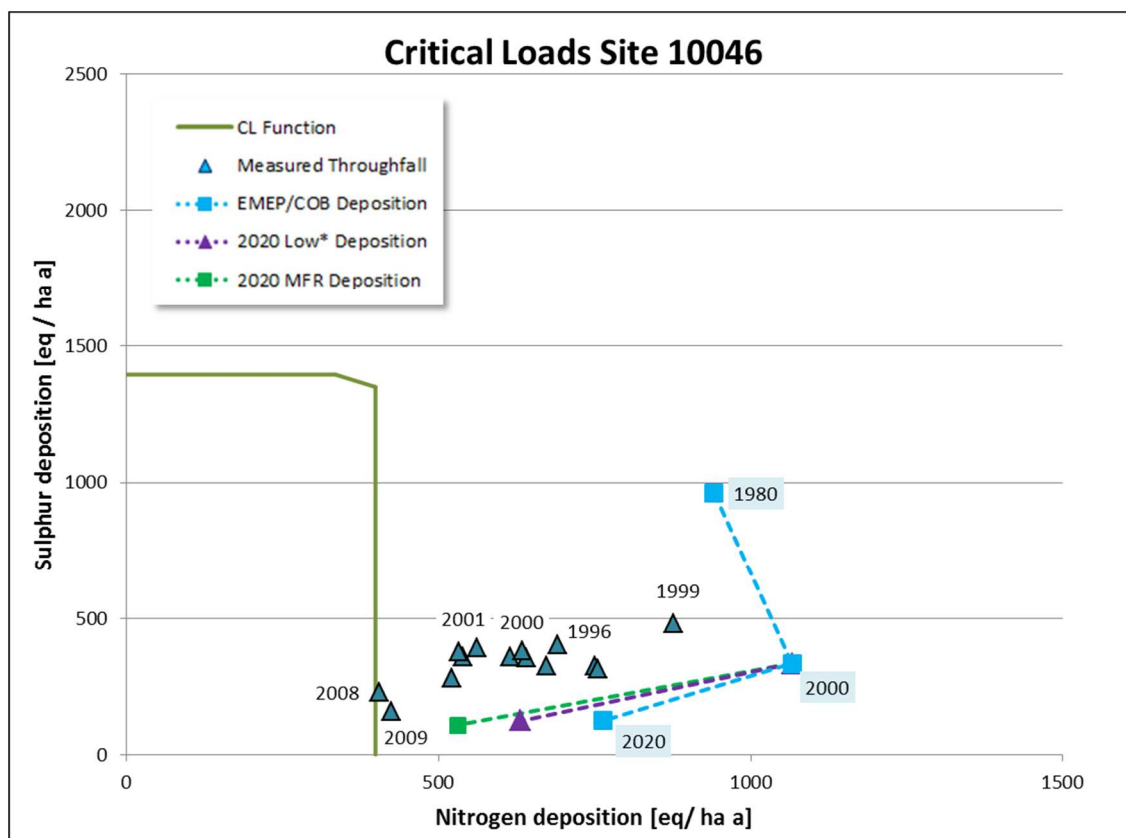
SMB method

Deposition modelled:

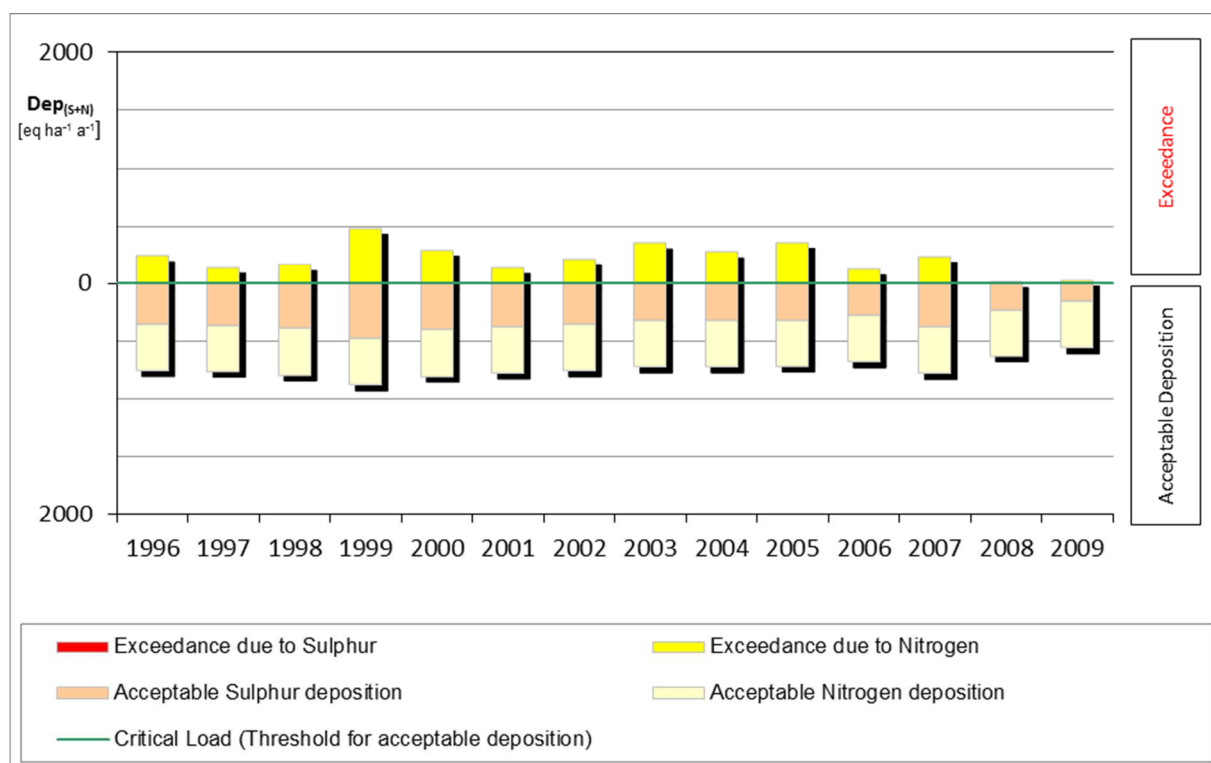
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

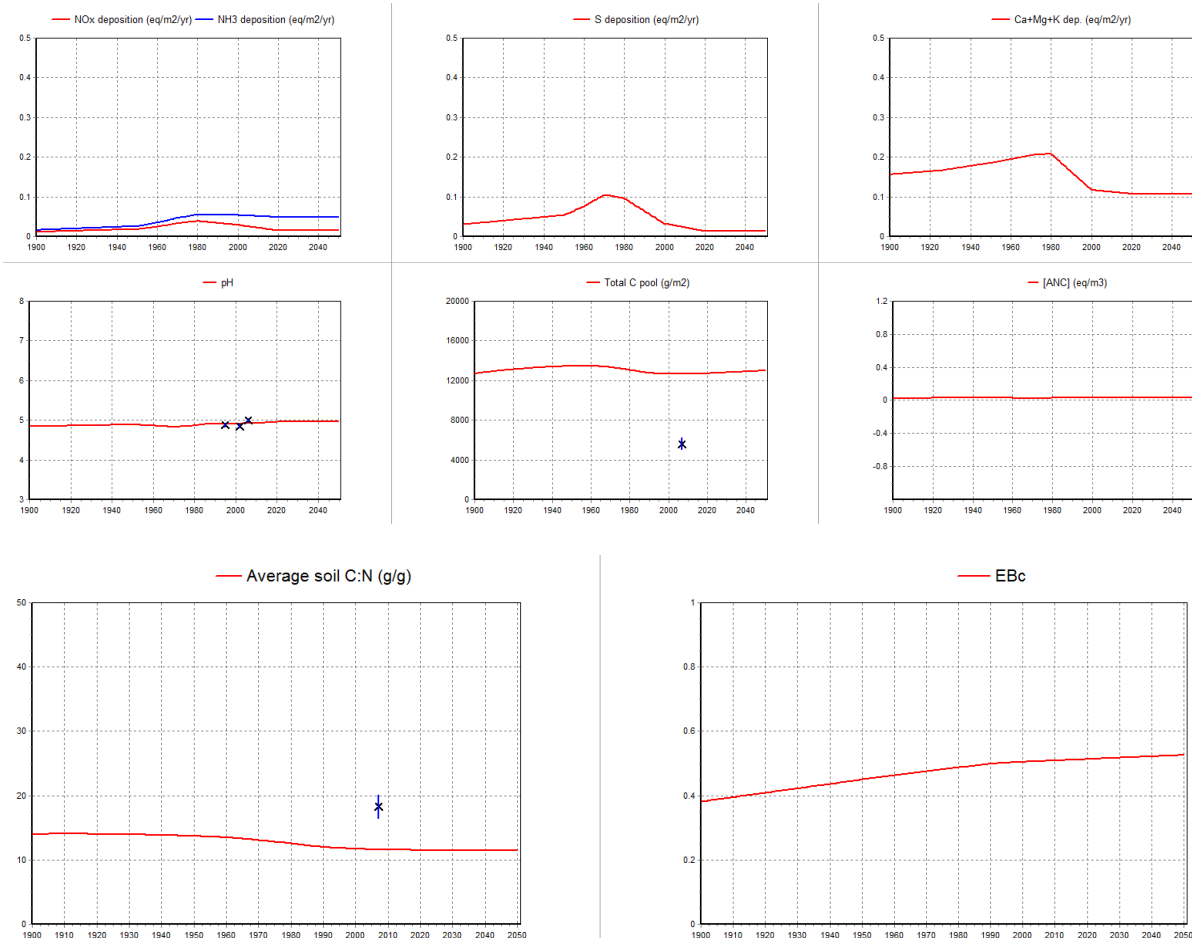
## ICP Forest Level II Site

ID 10046

Country: France

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



ICP Forest Level II Site:

ID 10057

Country: France

Critical Load calculation:

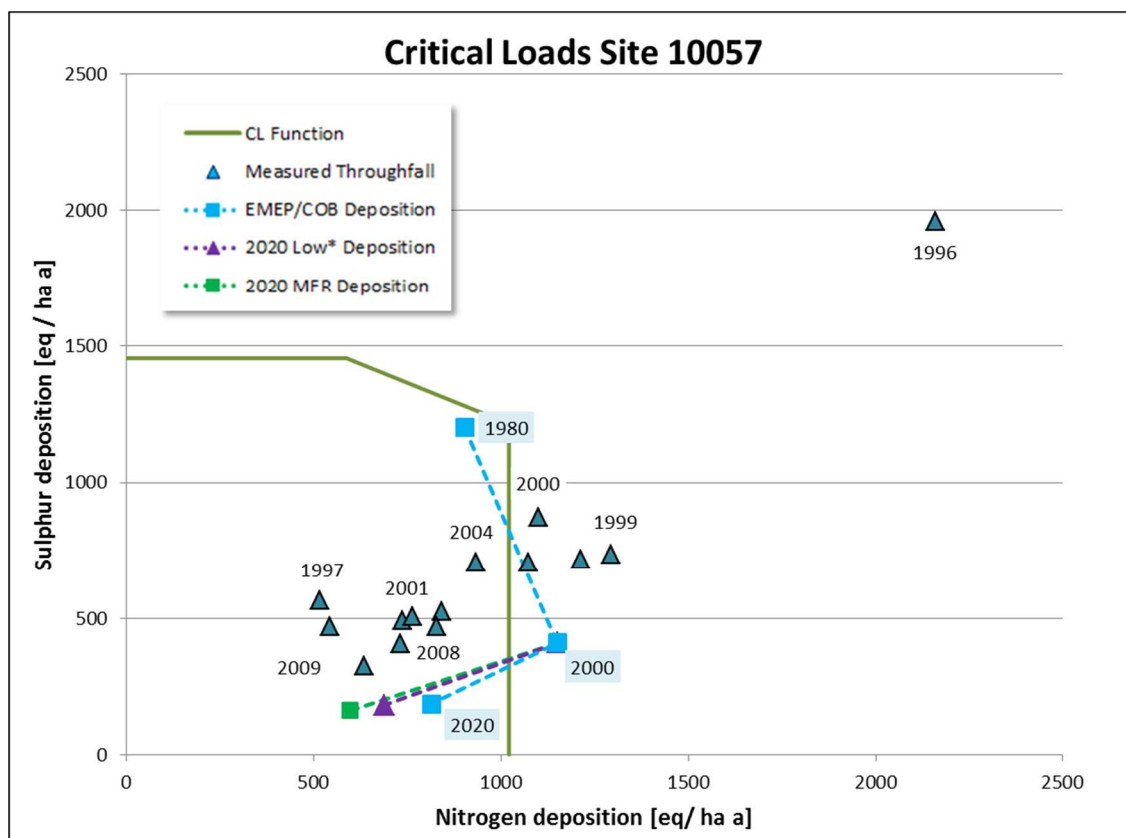
SMB method

Deposition modelled:

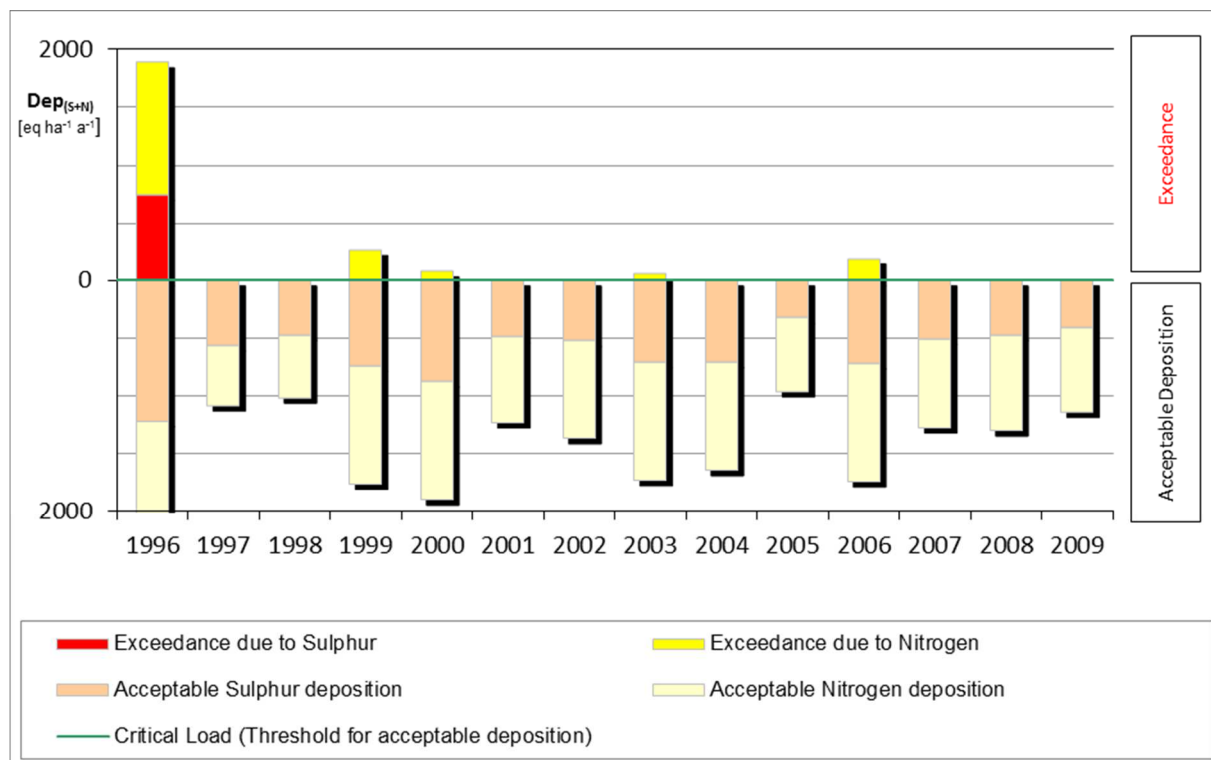
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

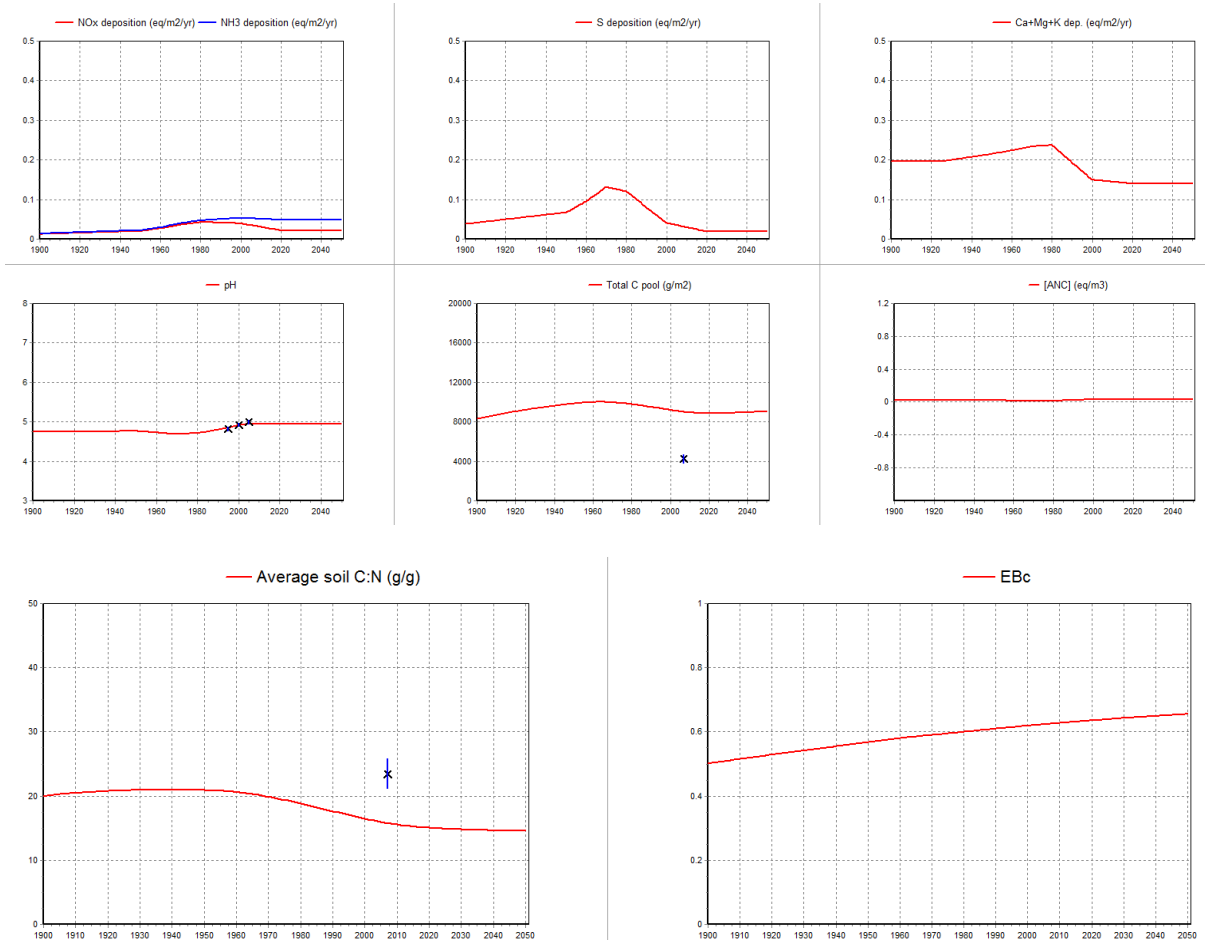
## ICP Forest Level II Site

ID 10057

Country: France

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 10063

Country: France

Critical Load calculation:

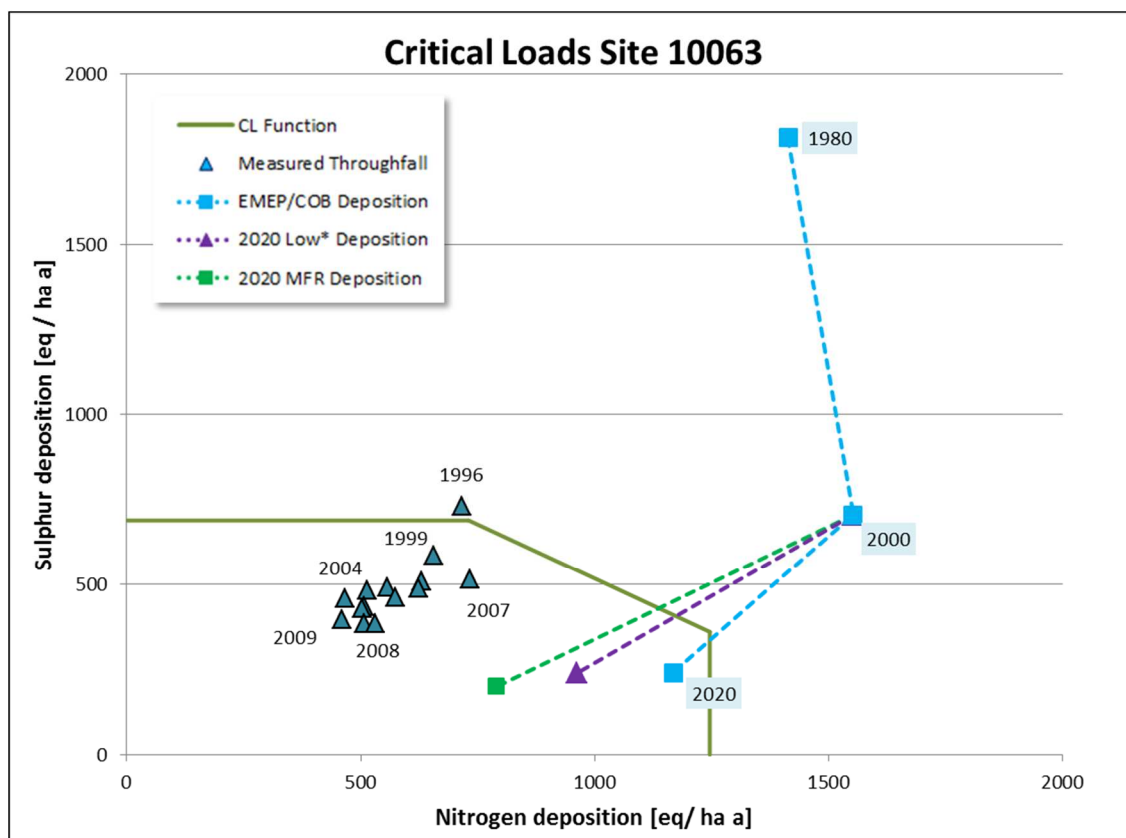
SMB method

Deposition modelled:

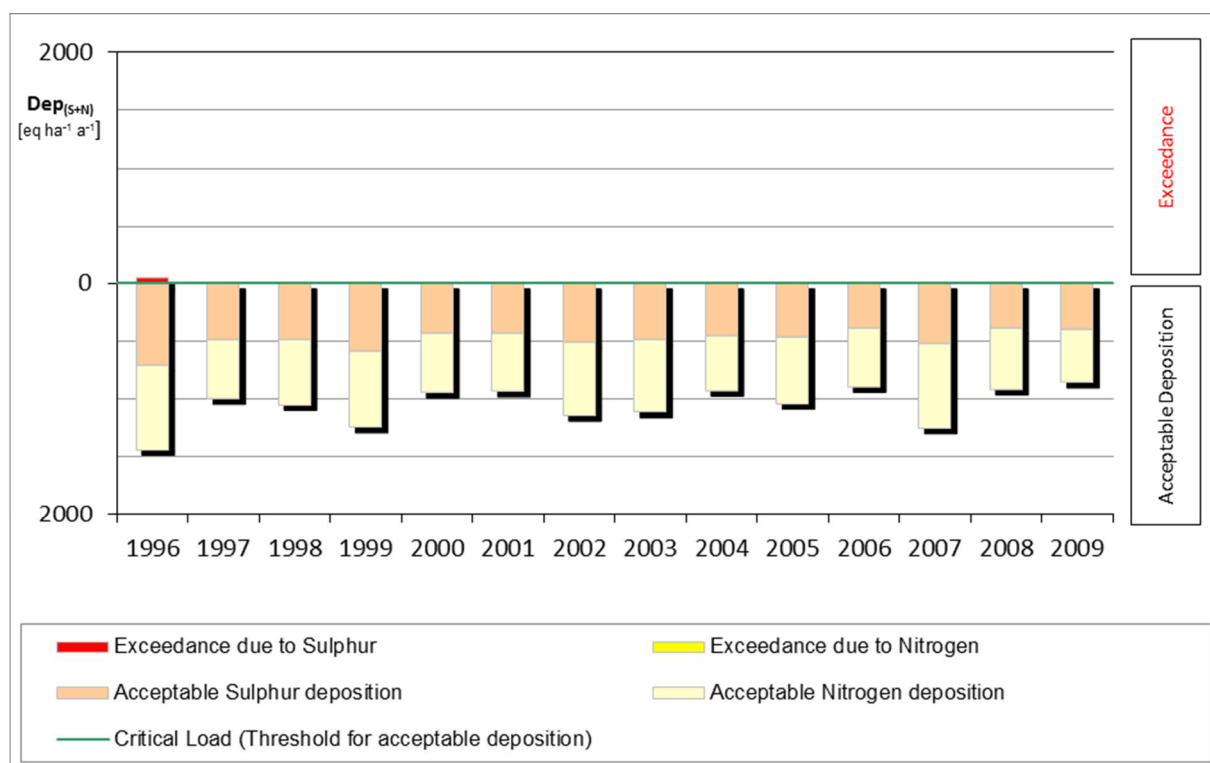
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

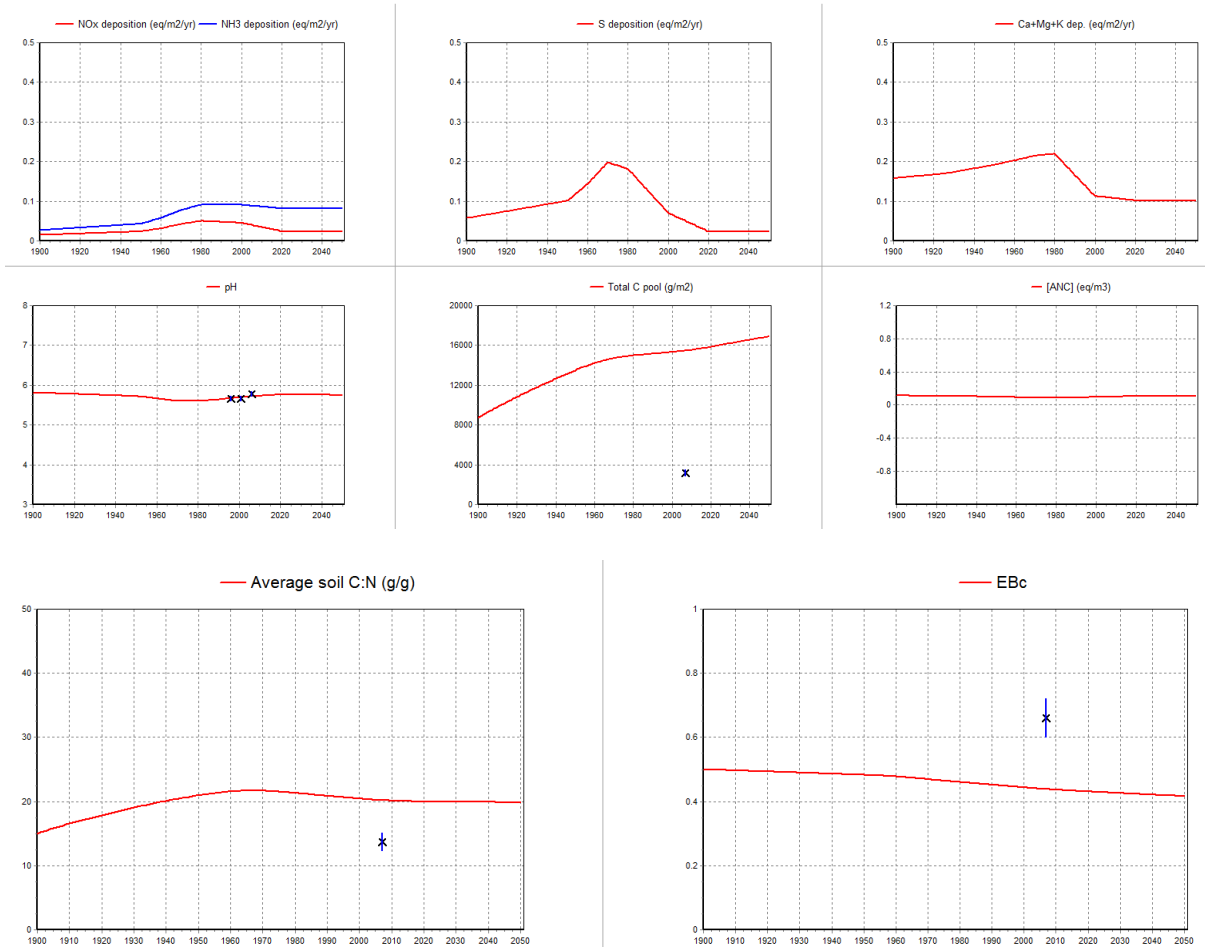
ICP Forest Level II Site

ID 10063

Country: France

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



ICP Forest Level II Site:

ID 10084

Country: France

Critical Load calculation:

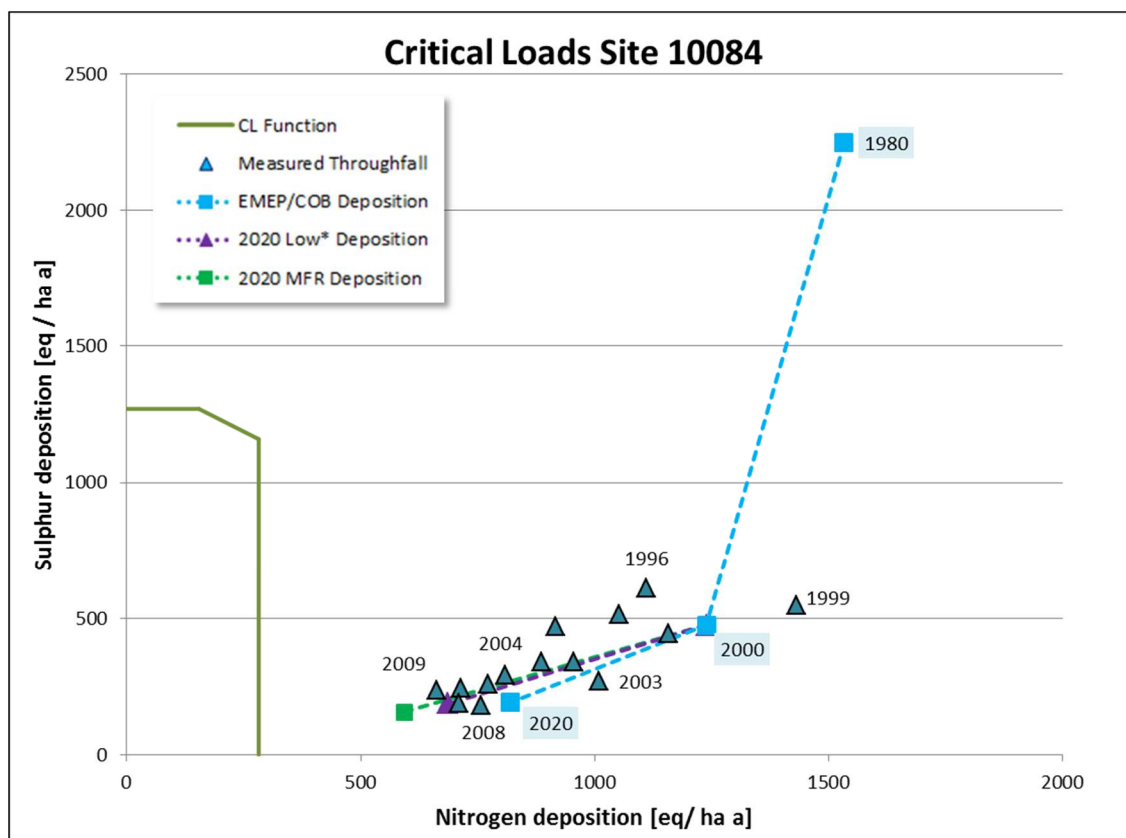
SMB method

Deposition modelled:

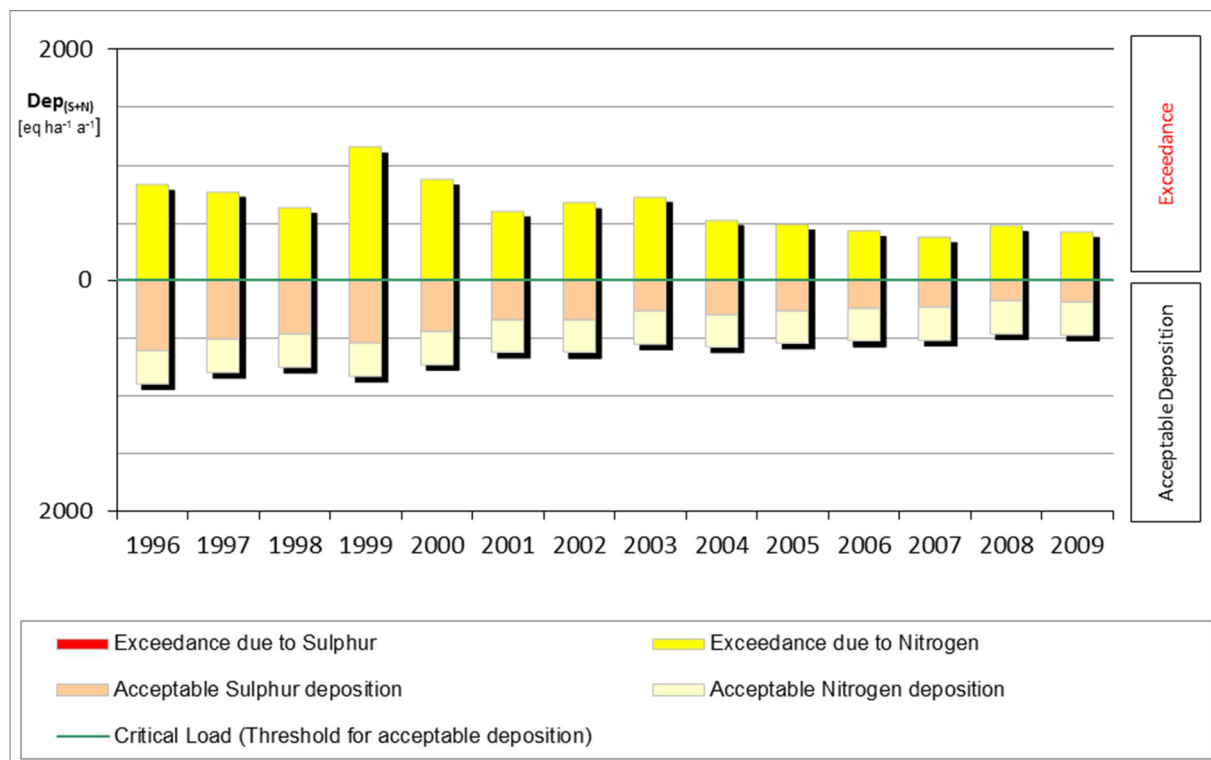
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

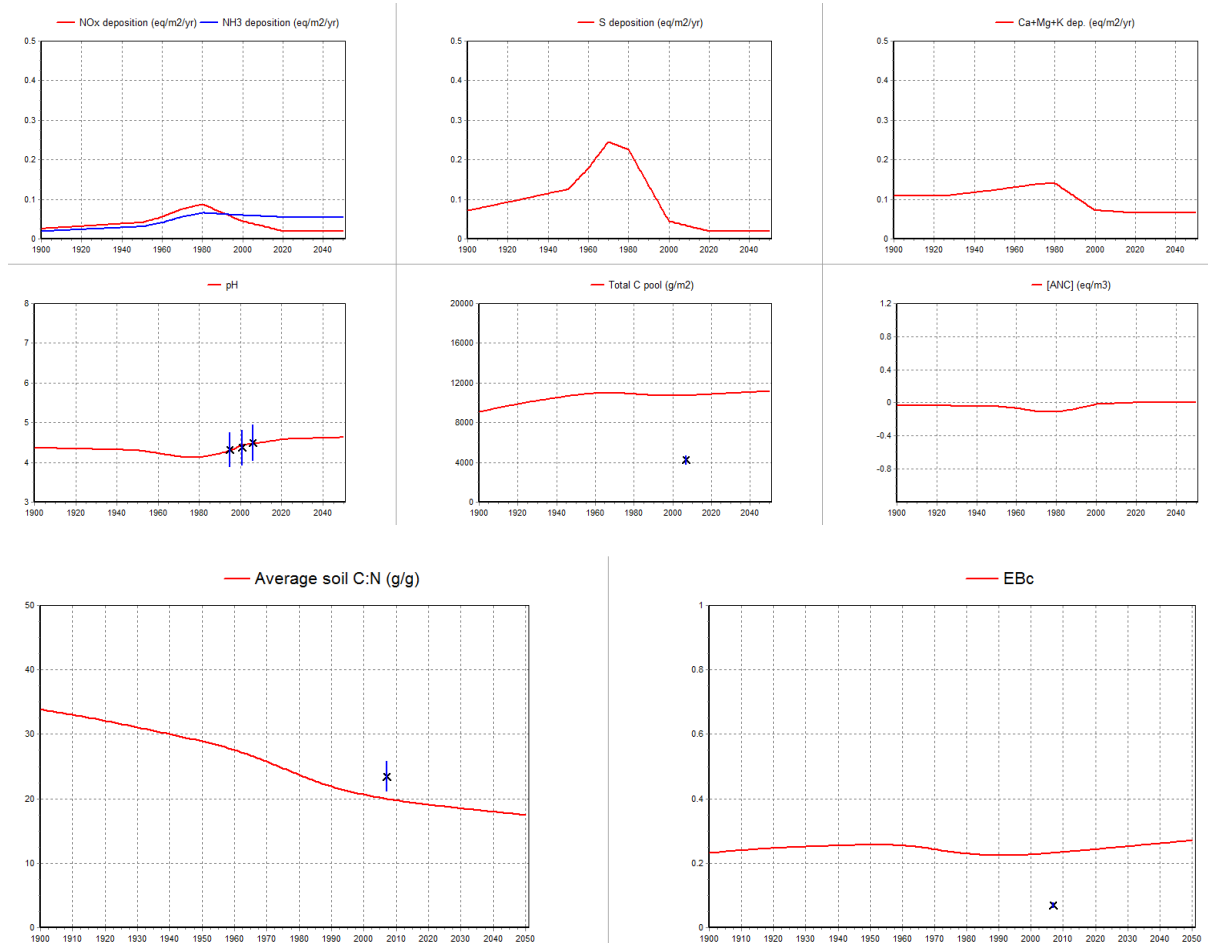
## ICP Forest Level II Site

ID 10084

Country: France

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

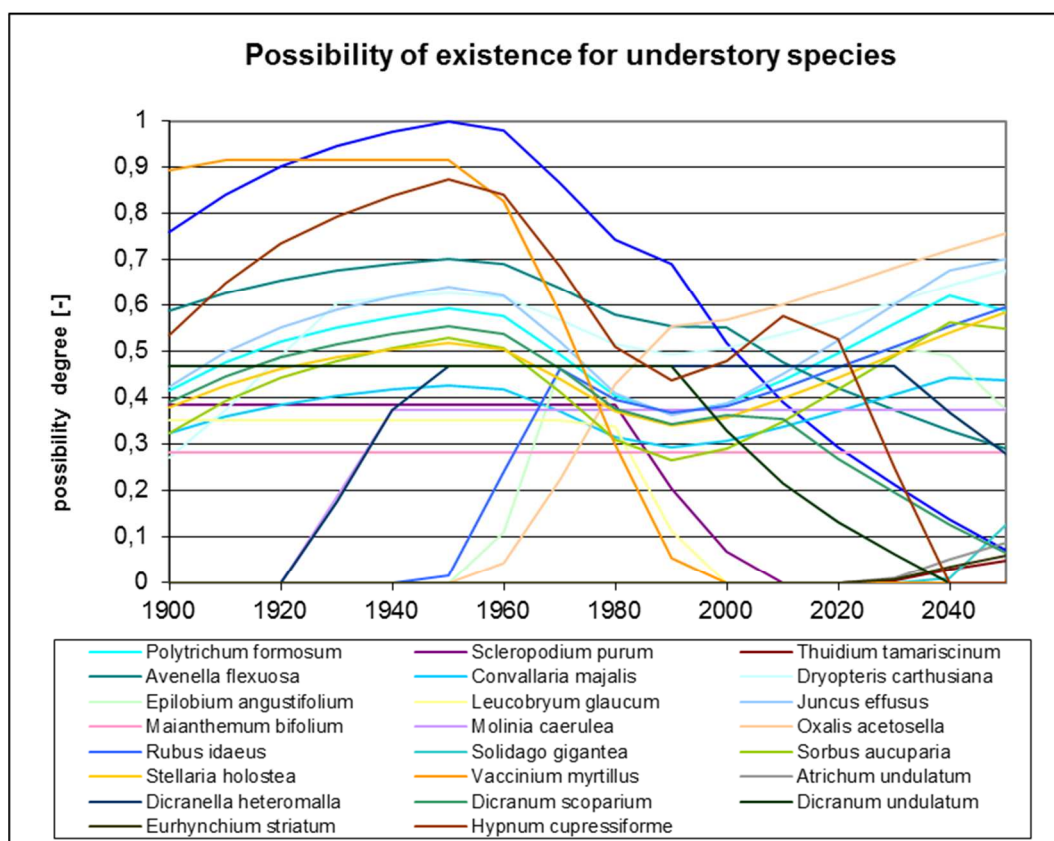
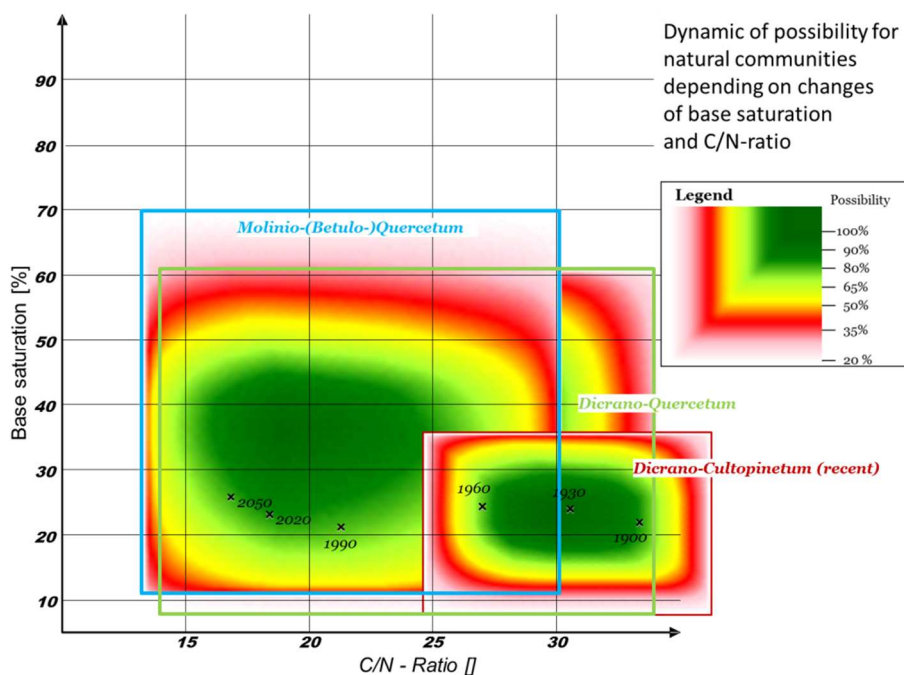
## ICP Forest Level II Site

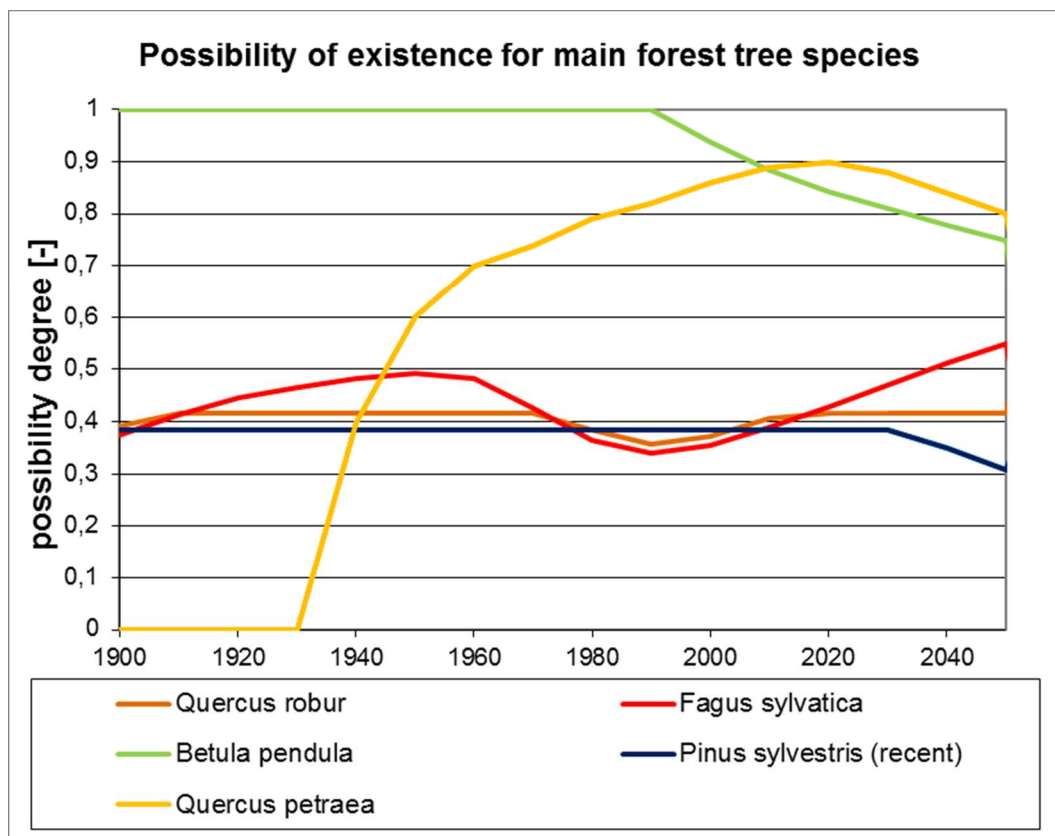
ID 10084

Country: France

## BERN model

## biodiversity effects





Conclusion: Changes in main tree species are recommended

ICP Forest Level II Site:

ID 10093

Country: France

Critical Load calculation:

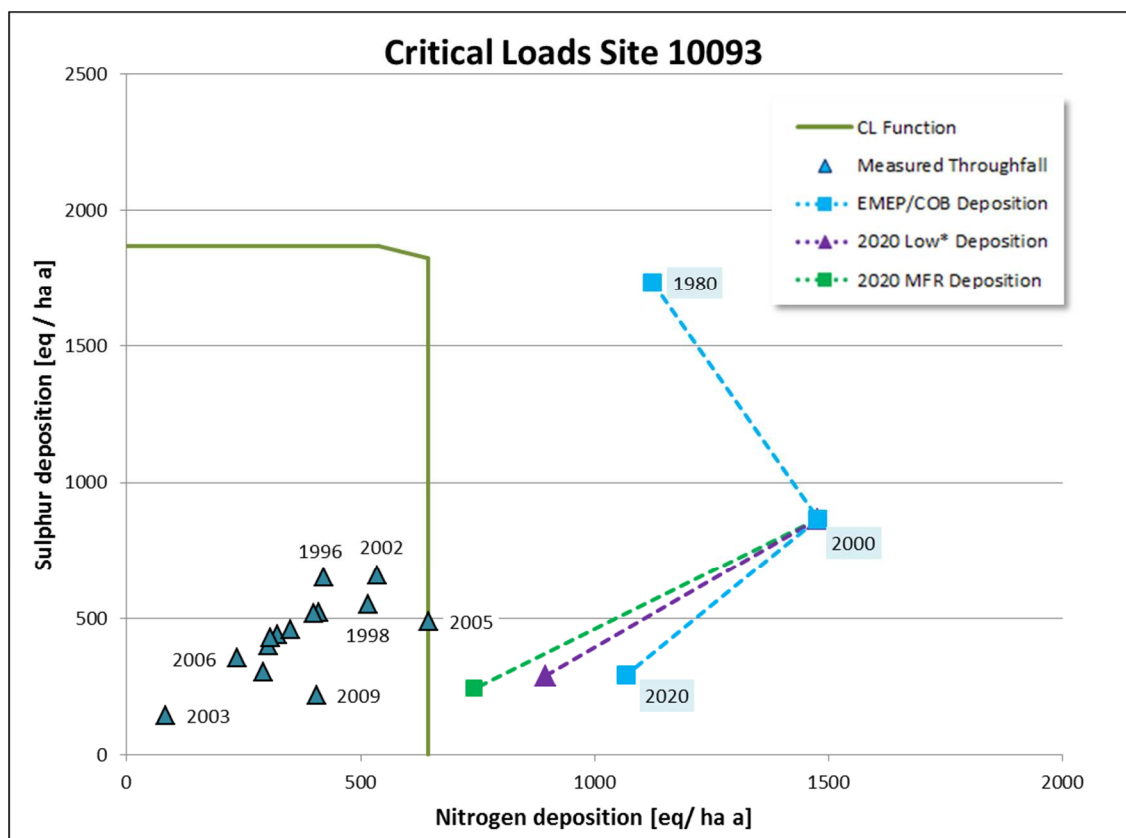
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

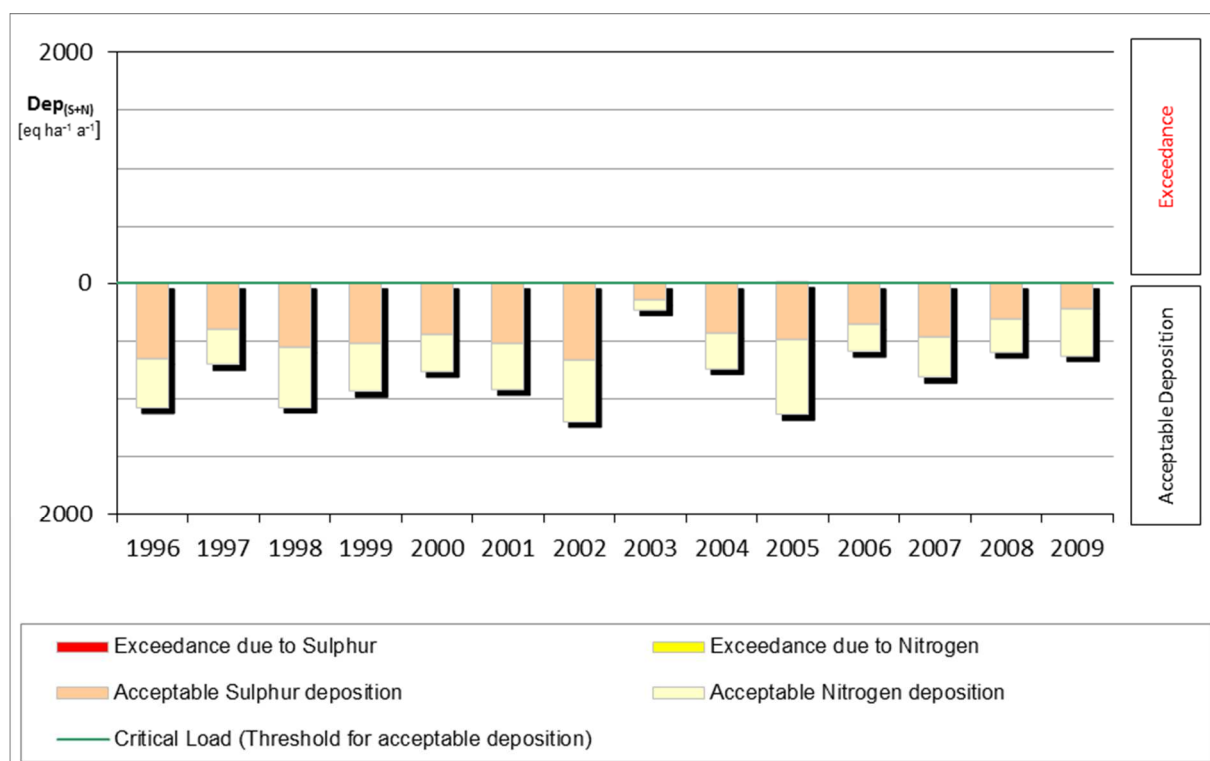
Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

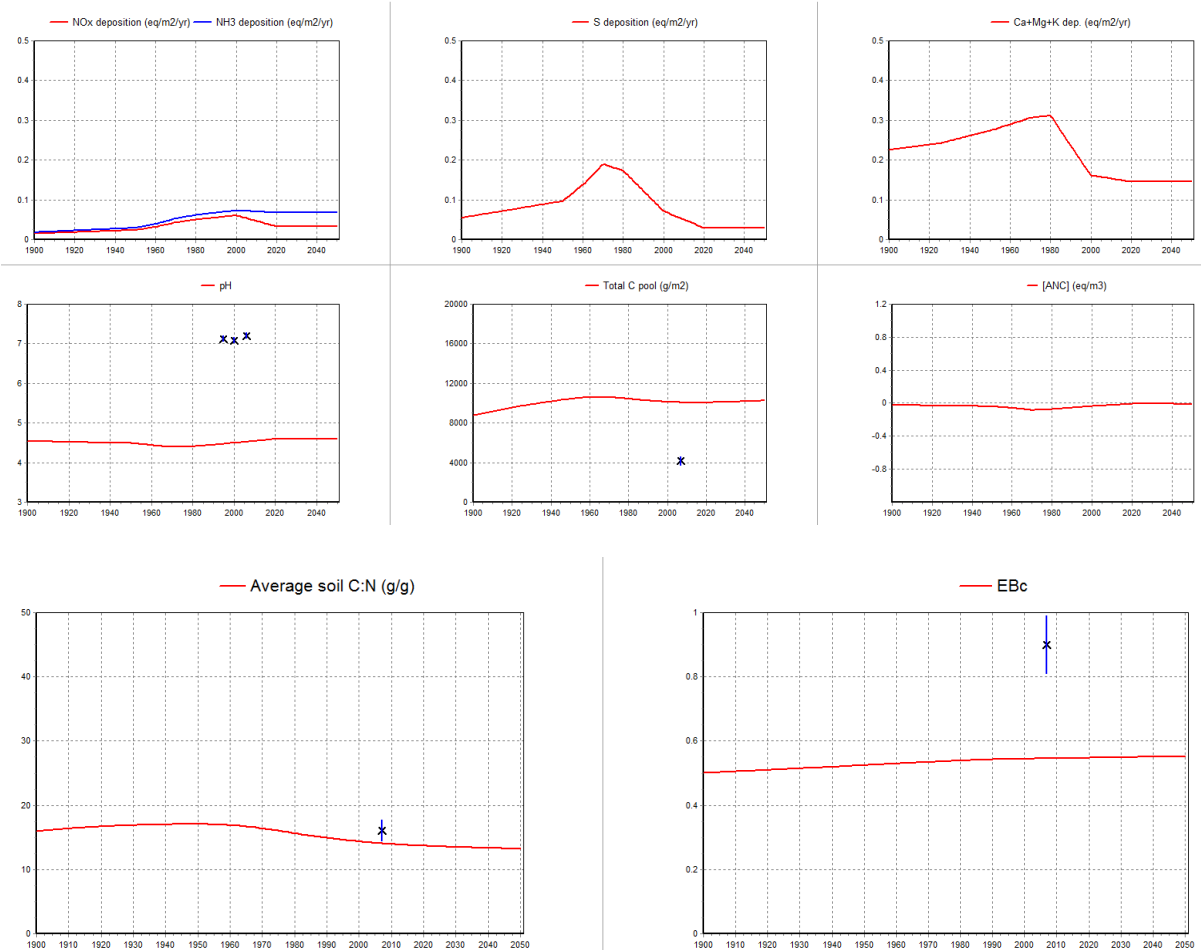
## ICP Forest Level II Site

ID 10093

Country: France

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 10098

Country: France

Critical Load calculation:

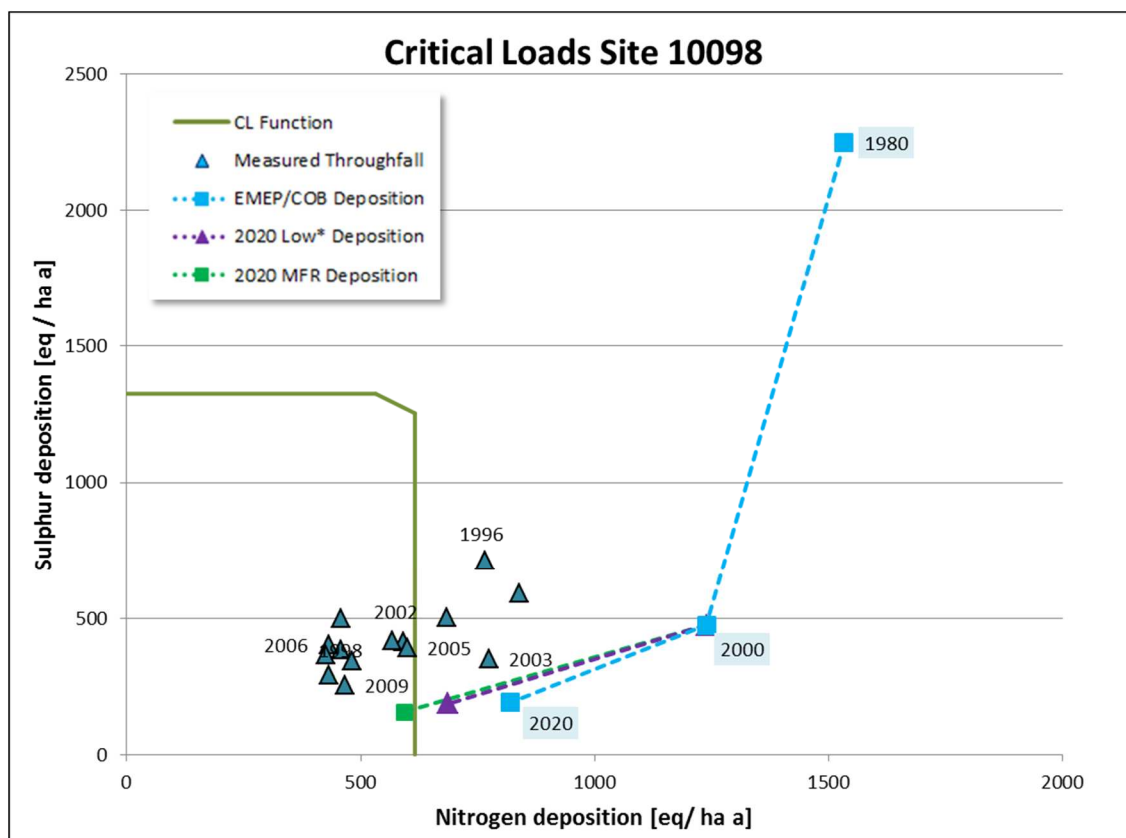
SMB method

Deposition modelled:

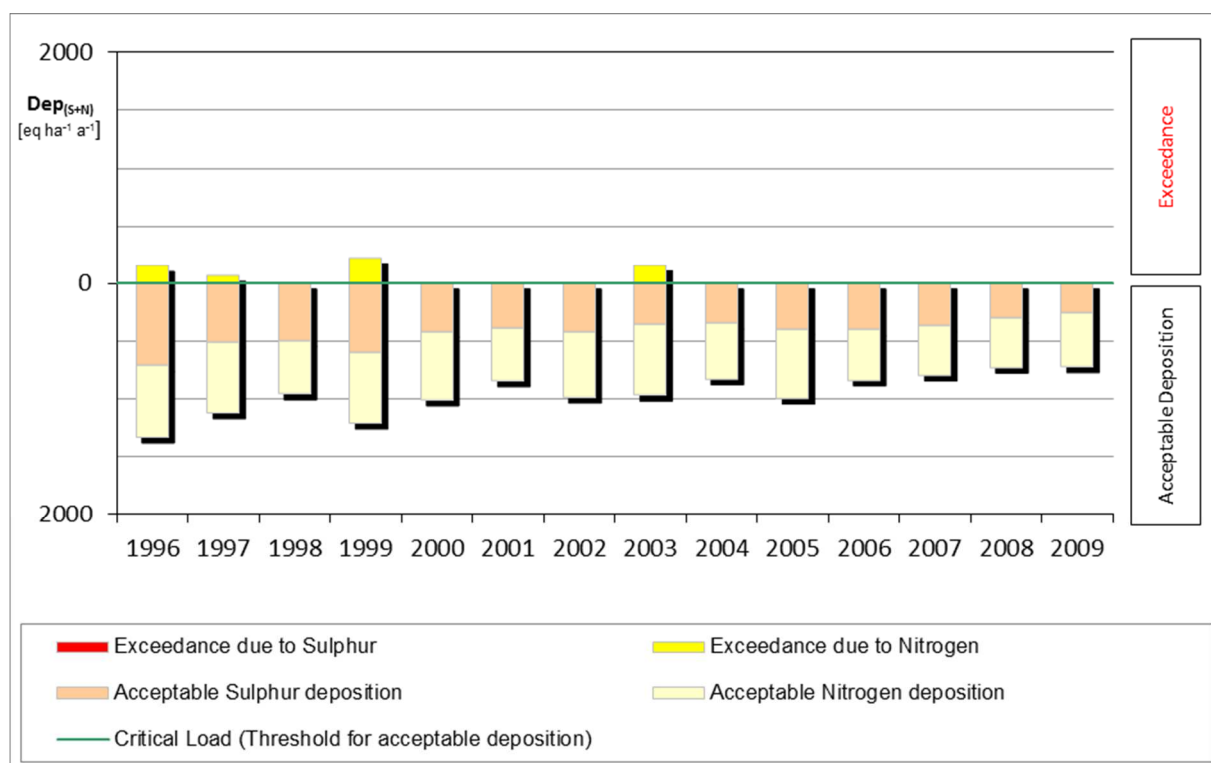
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

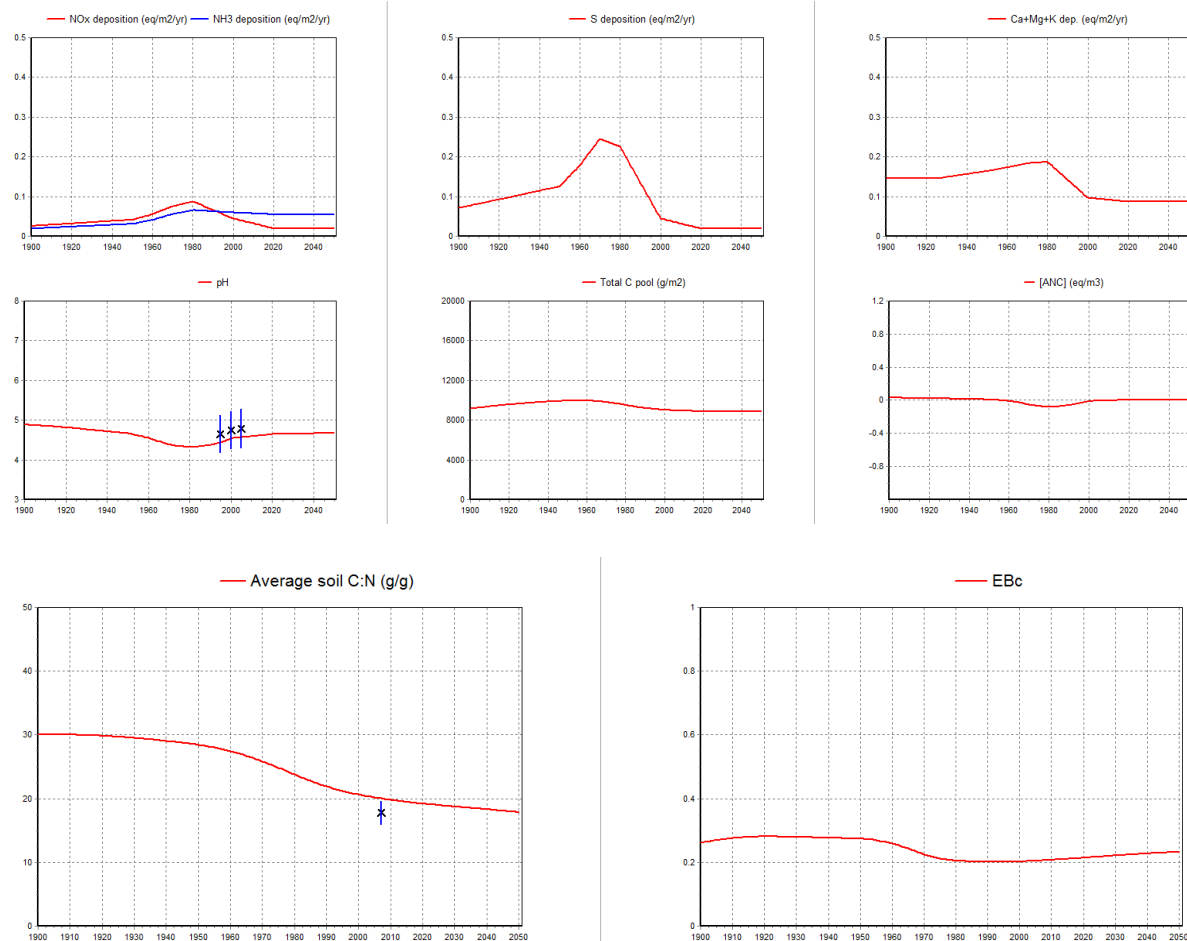
## ICP Forest Level II Site

ID 10098

Country: France

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

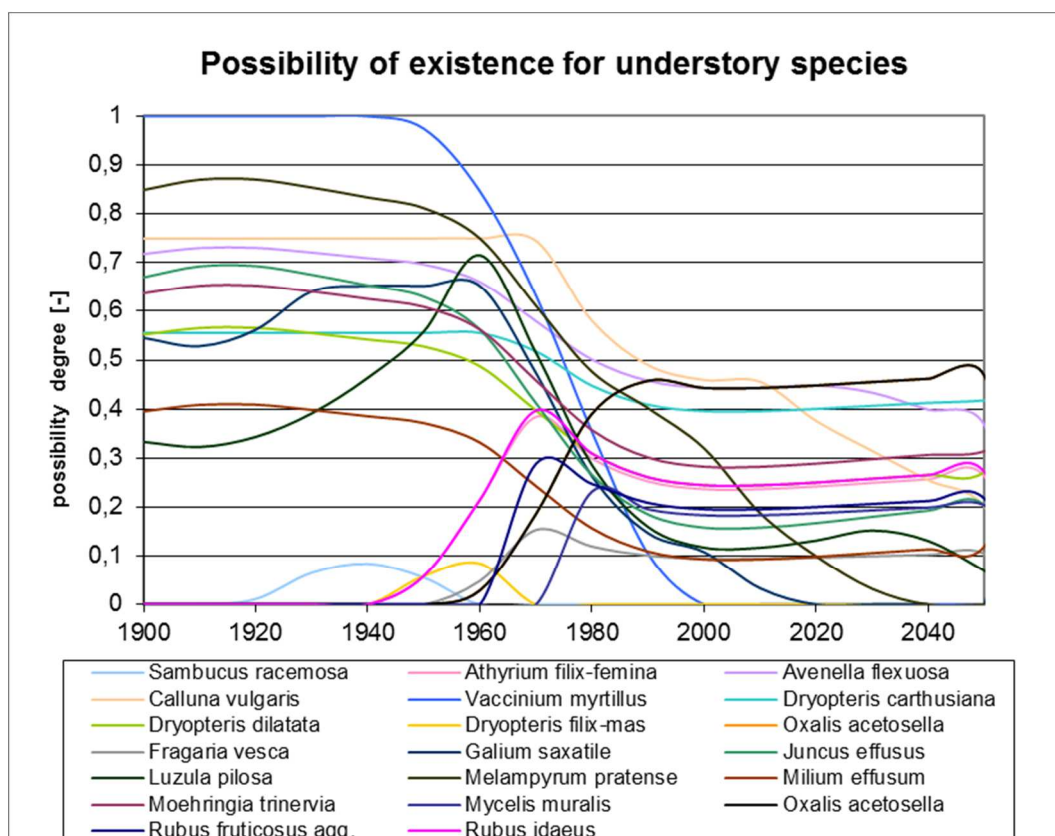
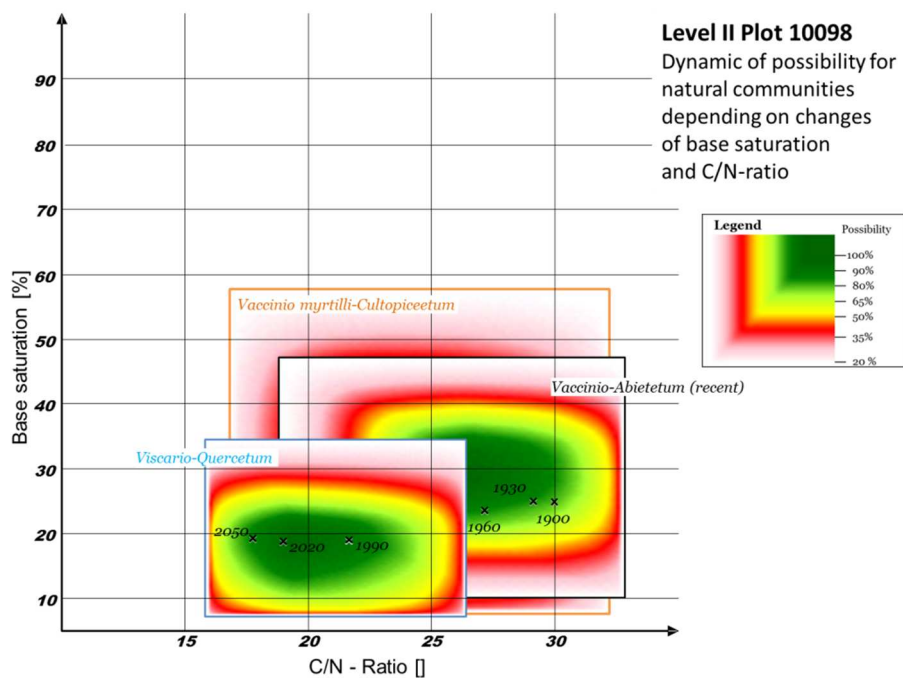
ICP Forest Level II Site

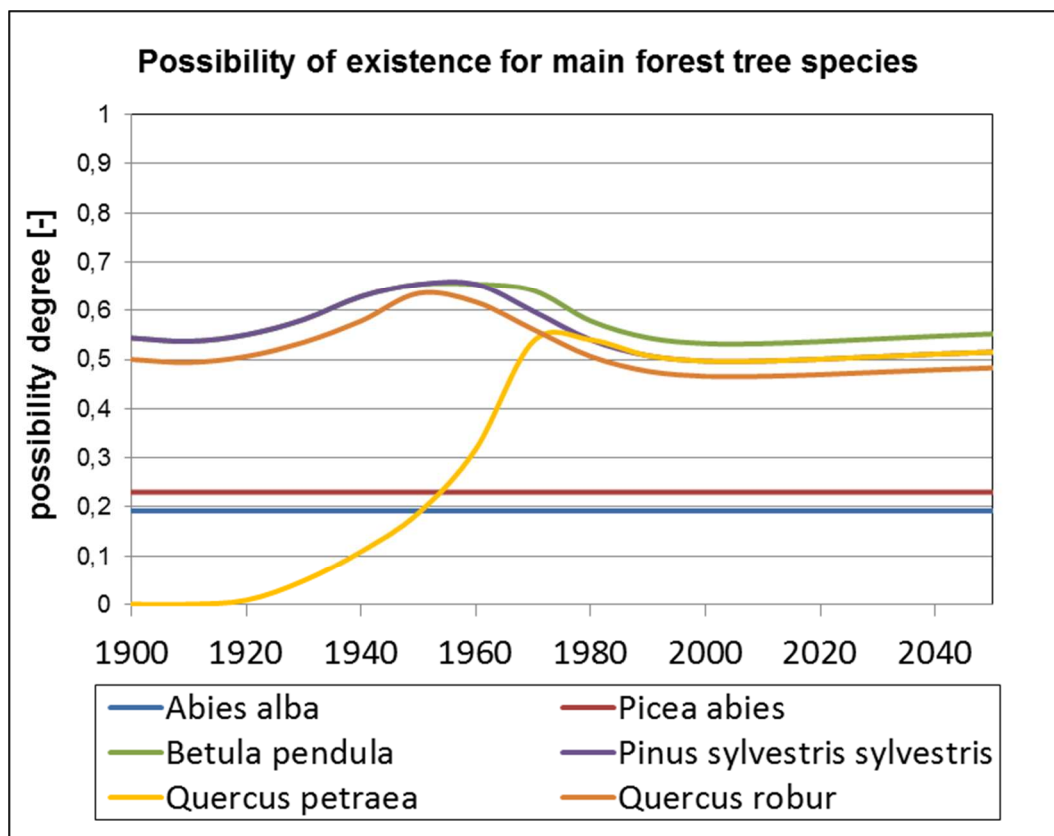
ID 10098

Country: France

BERN model

biodiversity effects





Conclusion: Changes in main tree species are recommended



ICP Forest Level II Site:

ID 20011

Country: Belgium

Critical Load calculation:

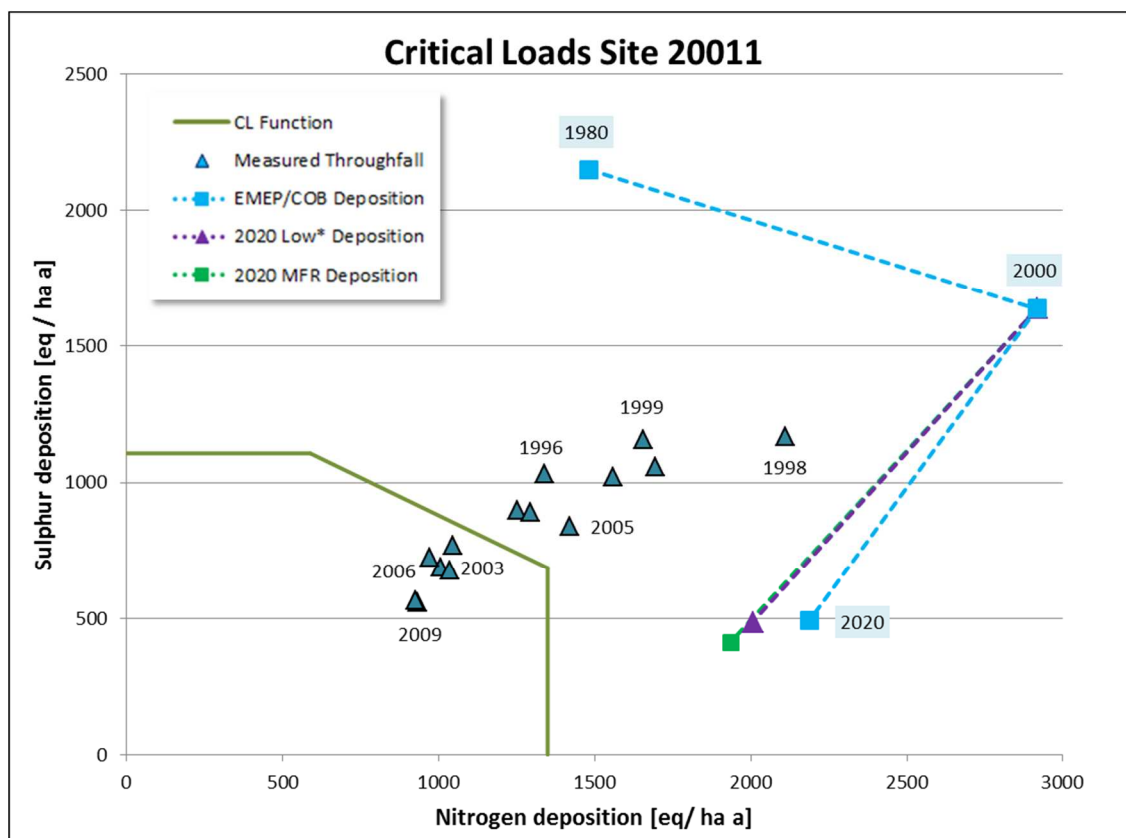
SMB method

Deposition modelled:

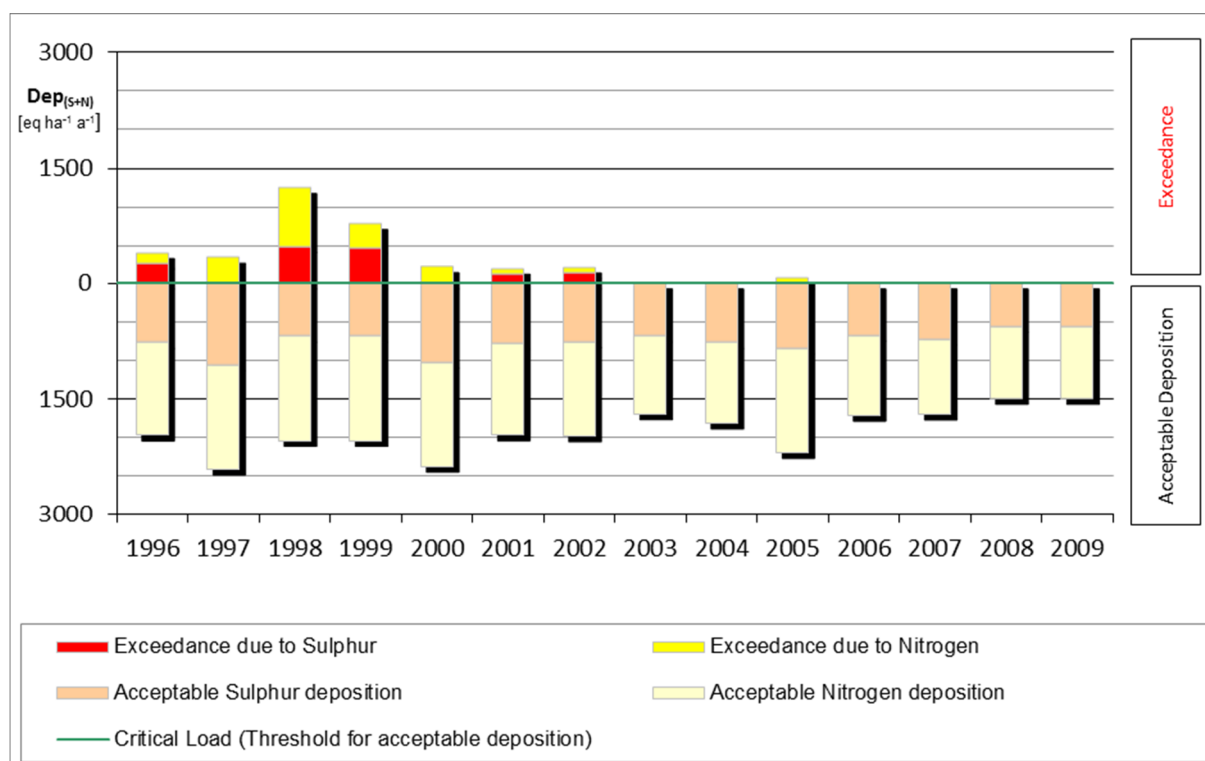
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

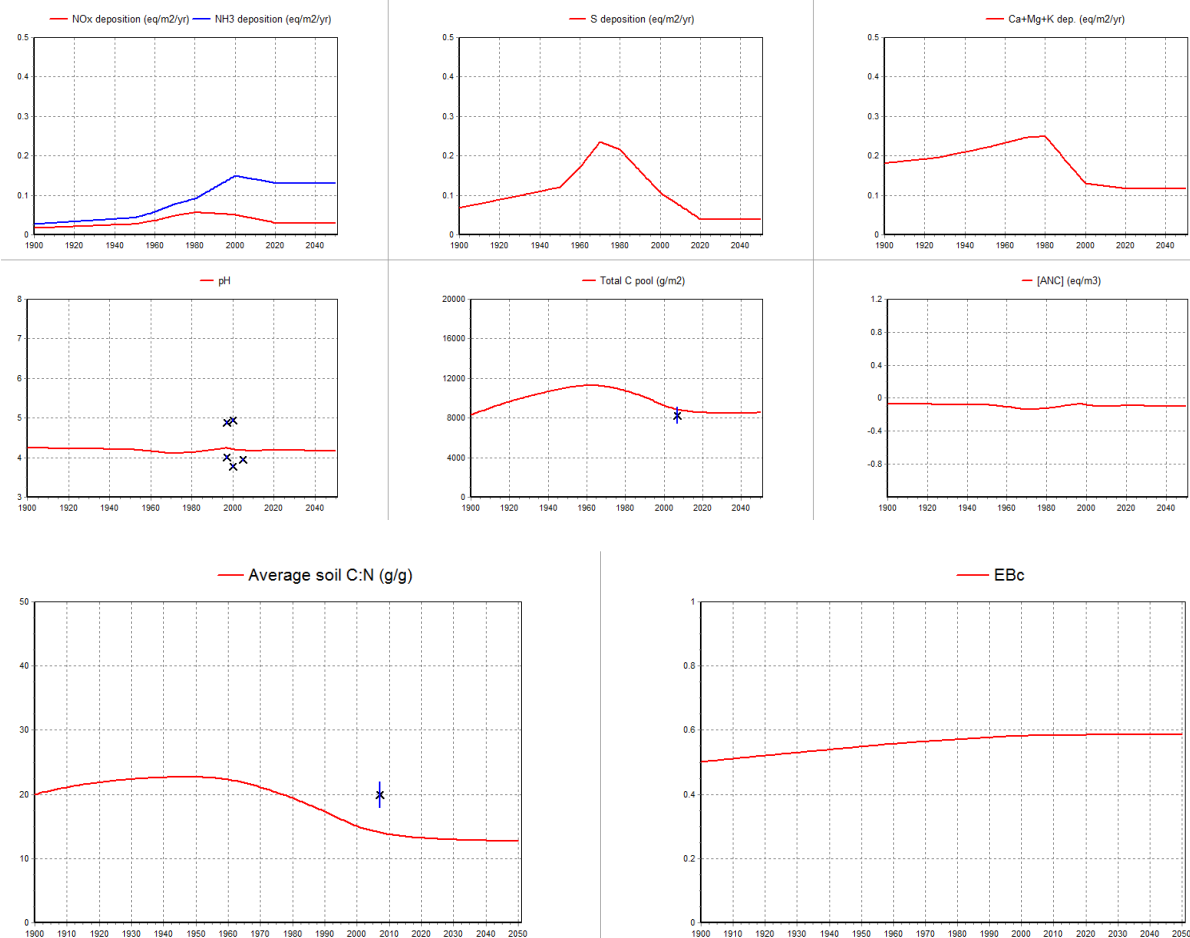
## ICP Forest Level II Site

ID 20011

Country: Belgium

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 20012

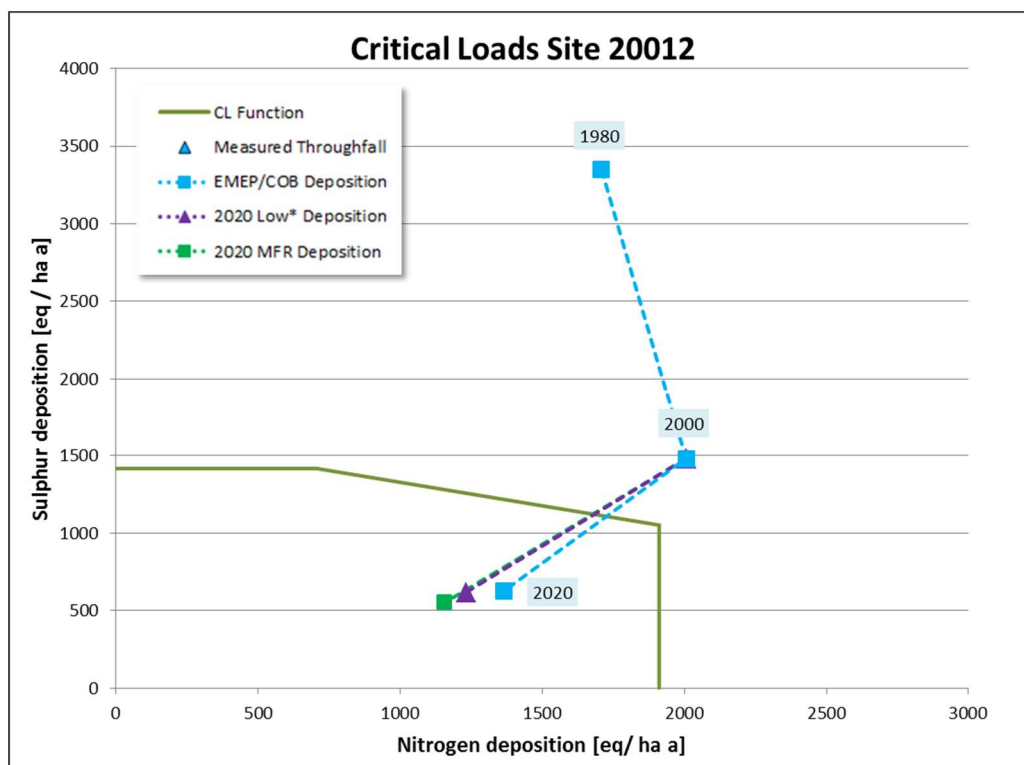
Country: Belgium

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 20013

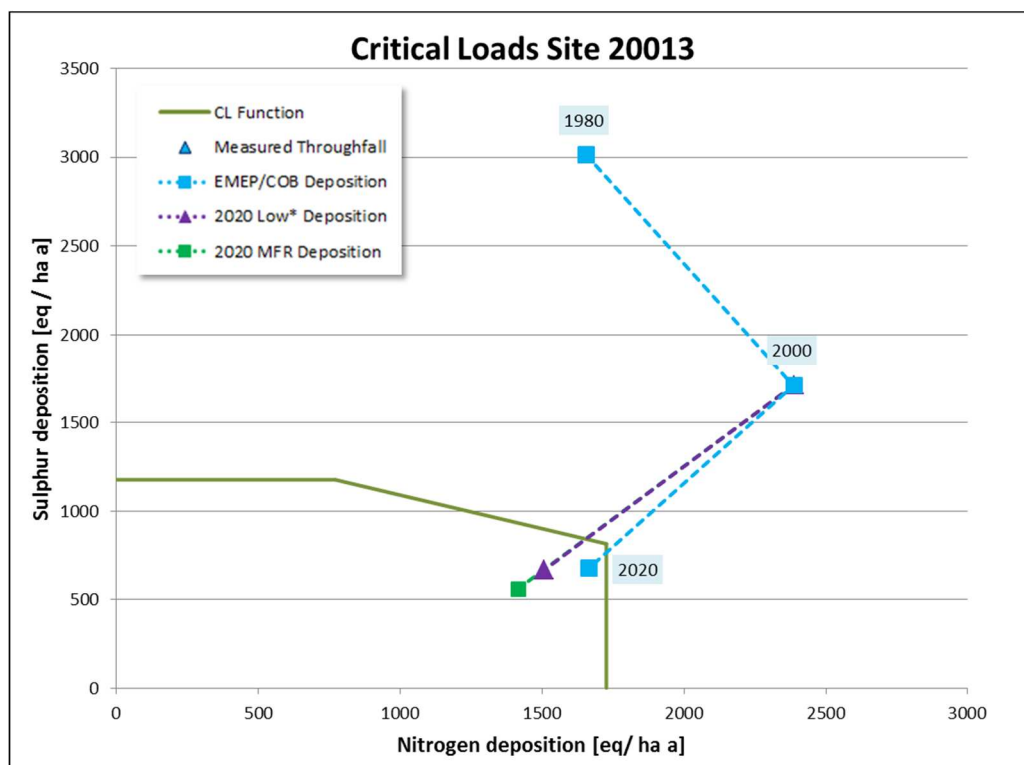
Country: Belgium

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 20014

Country: Belgium

Critical Load calculation:

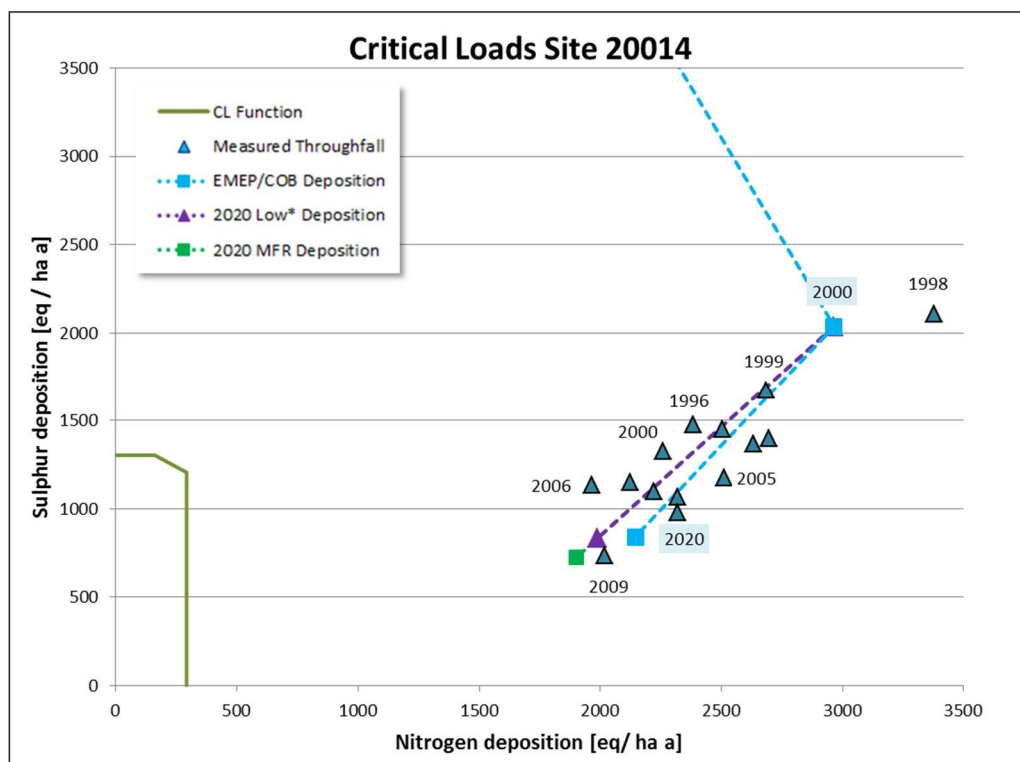
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 20015

Country: Belgium

Critical Load calculation:

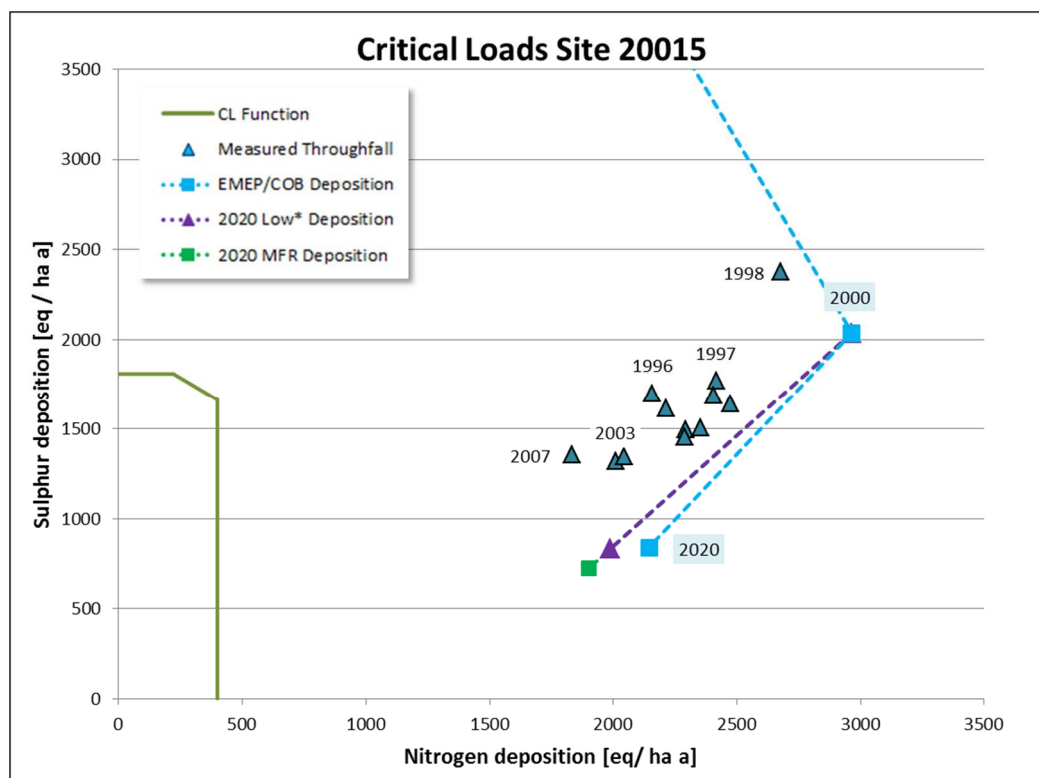
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2007



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 20016

Country: Belgium

Critical Load calculation:

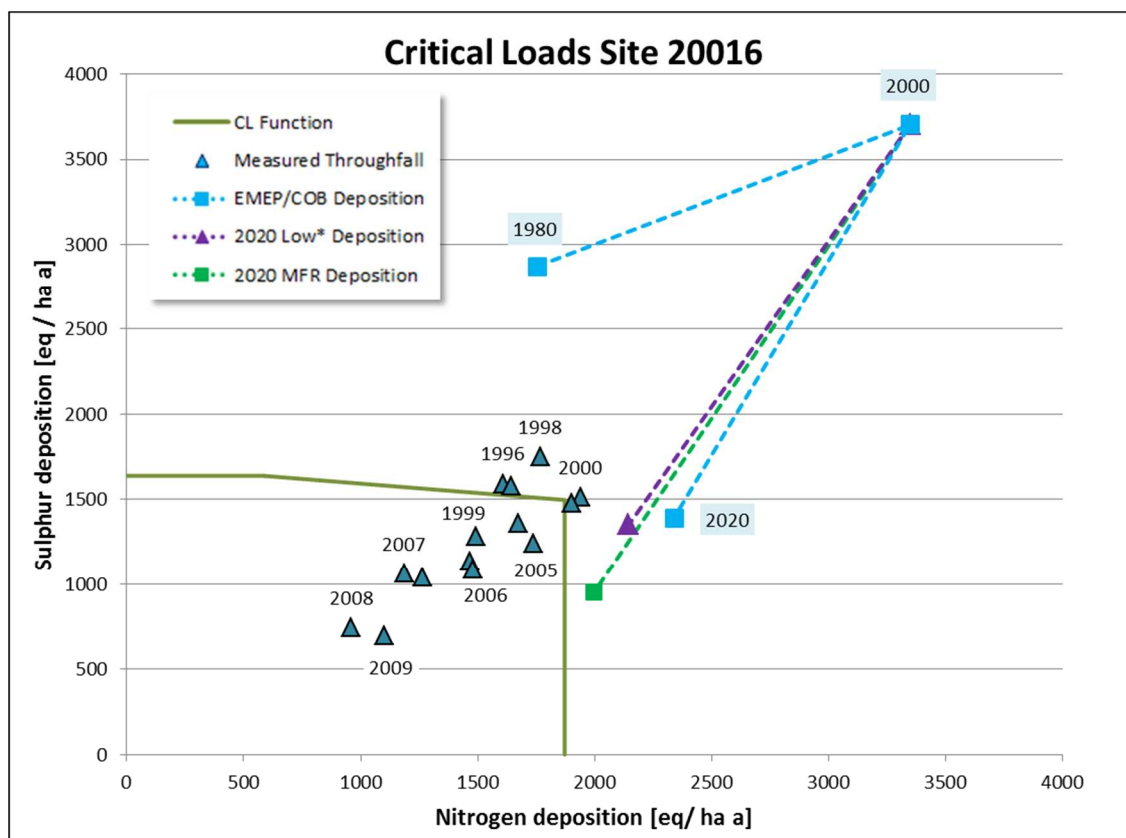
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

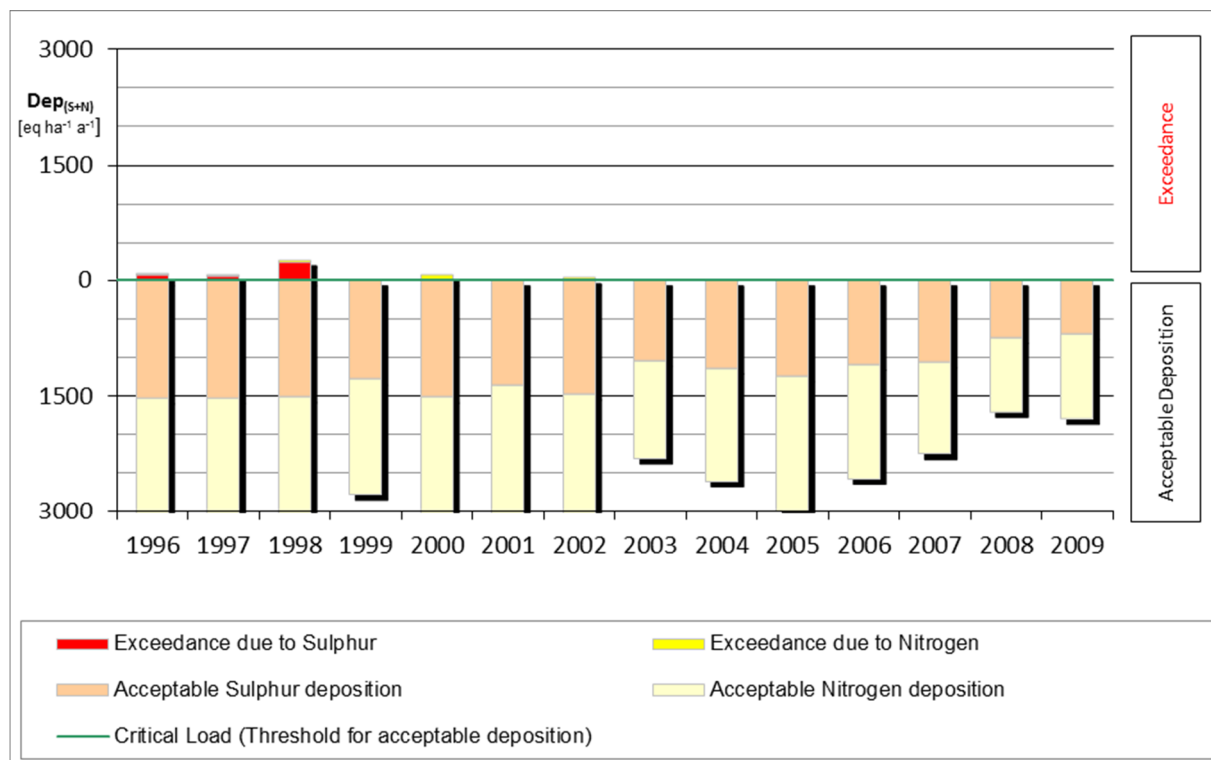
Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

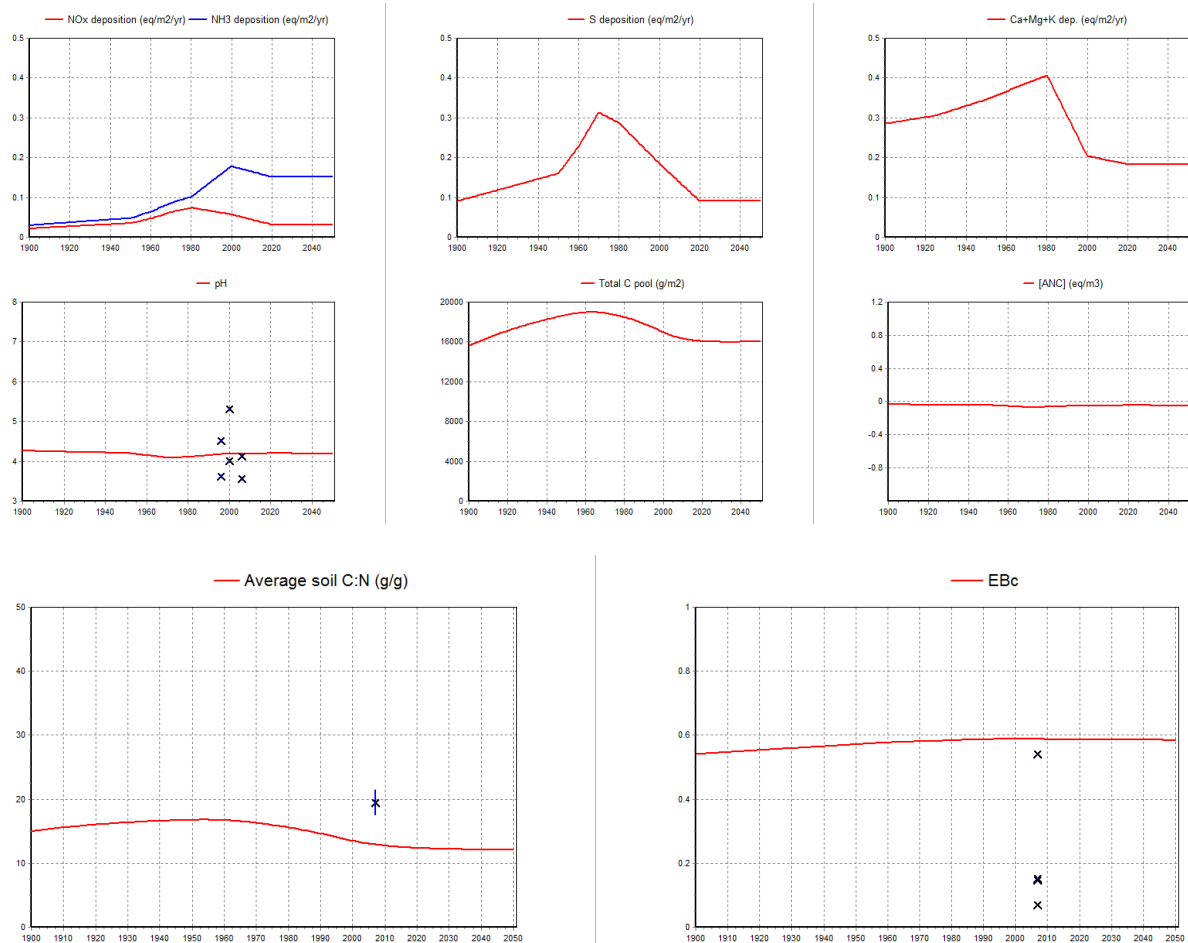
## ICP Forest Level II Site

ID 20016

Country: Belgium

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

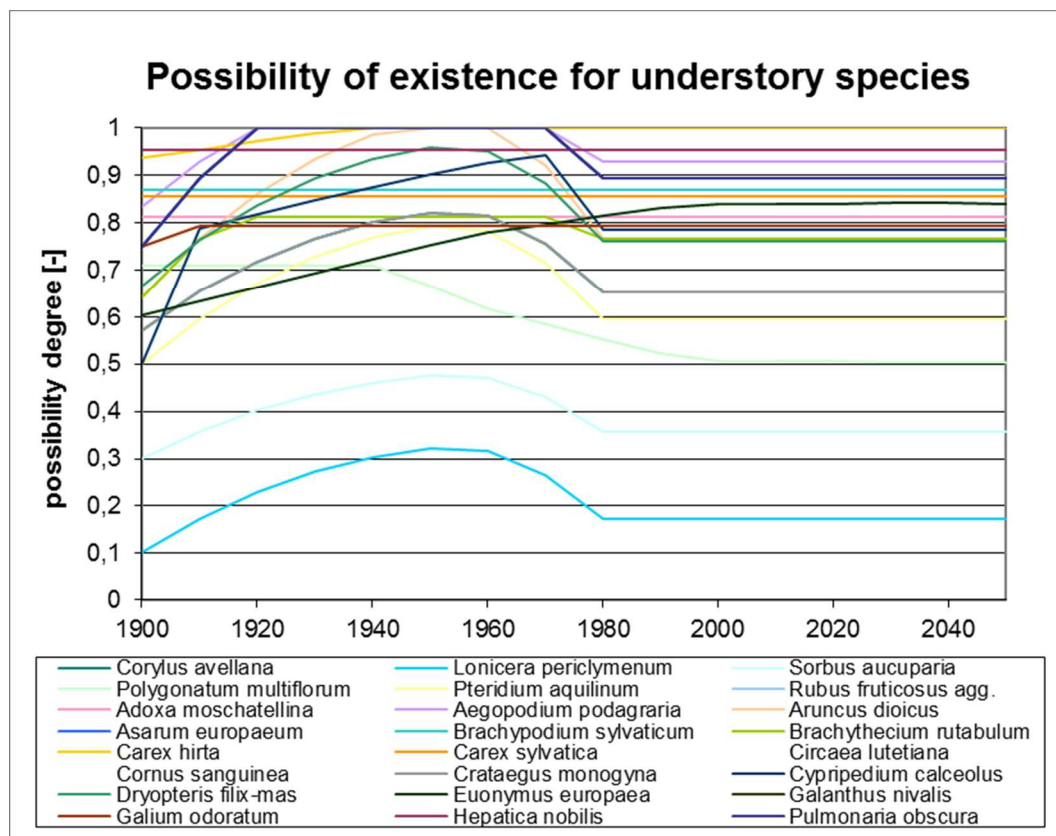
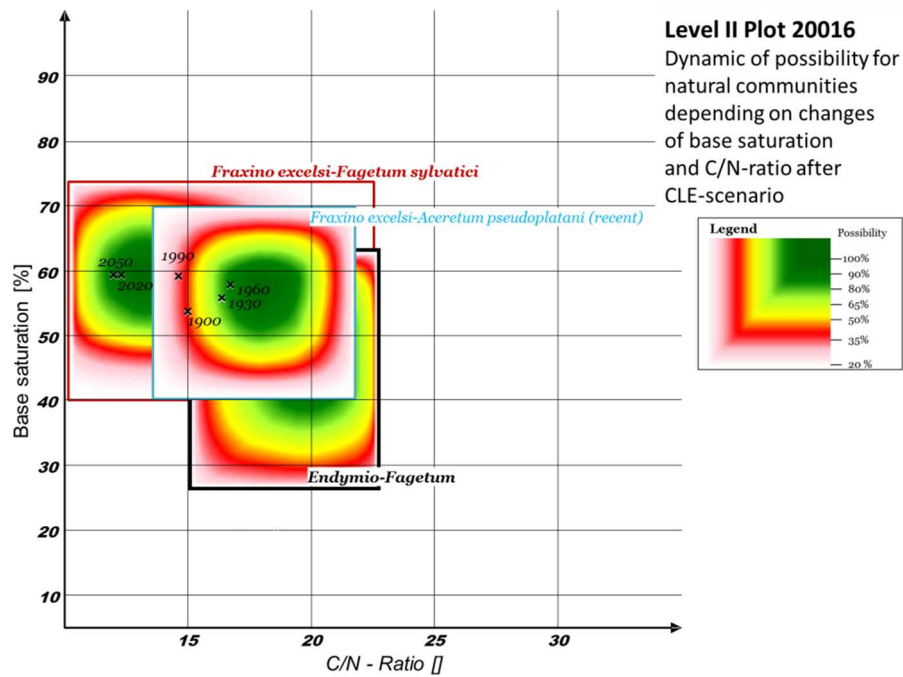
## ICP Forest Level II Site

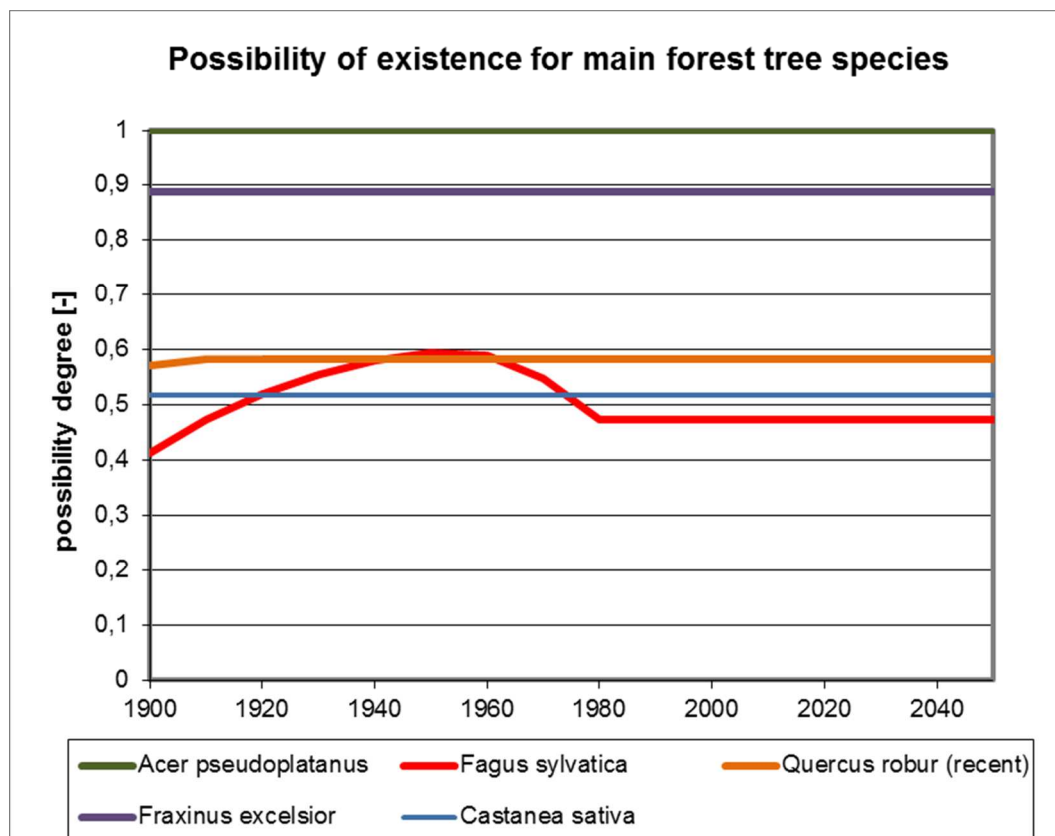
ID 20016

Country: Belgium

BERN model

biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site:

ID 20017

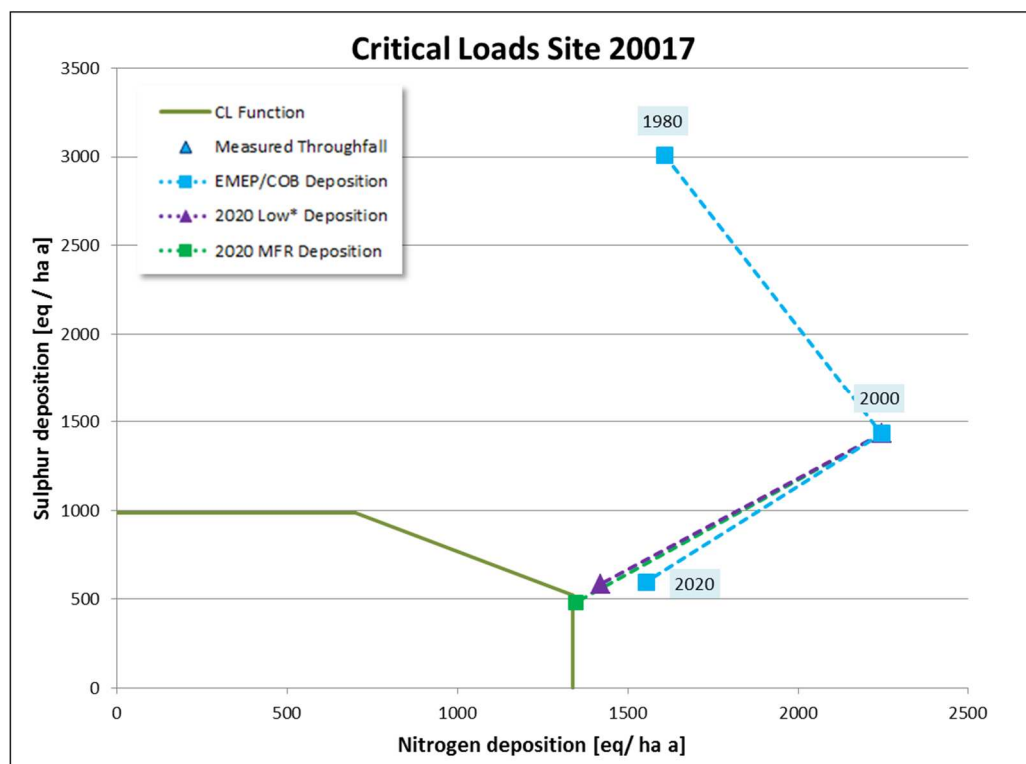
Country: Belgium

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 20018

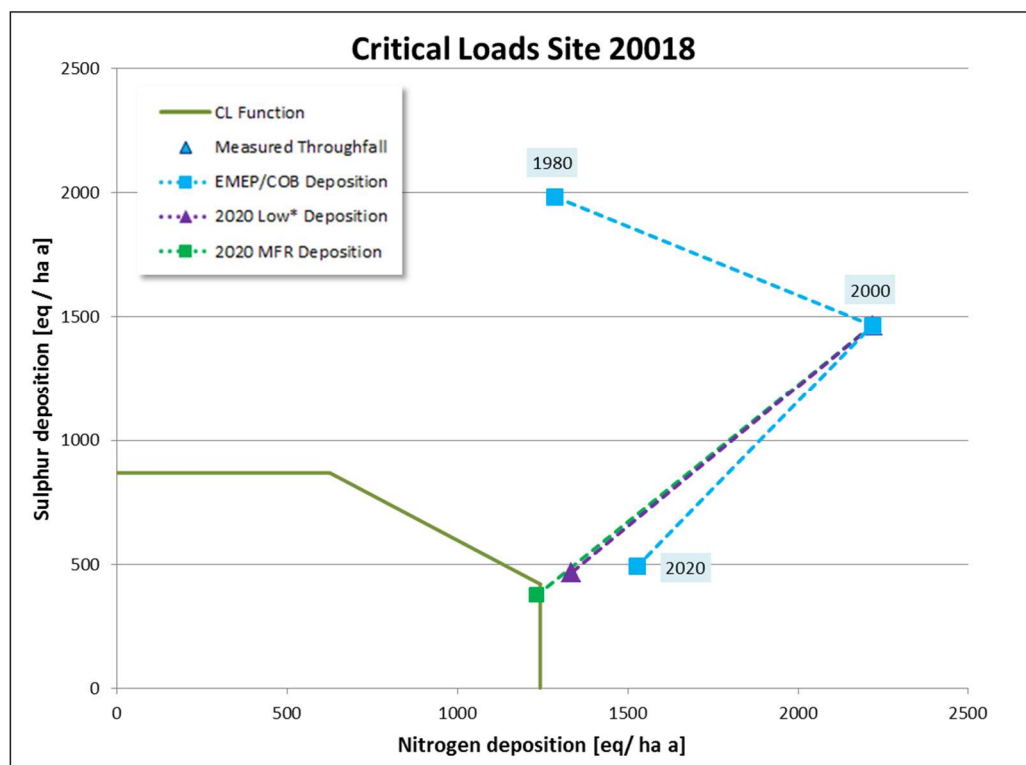
Country: Belgium

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 20020

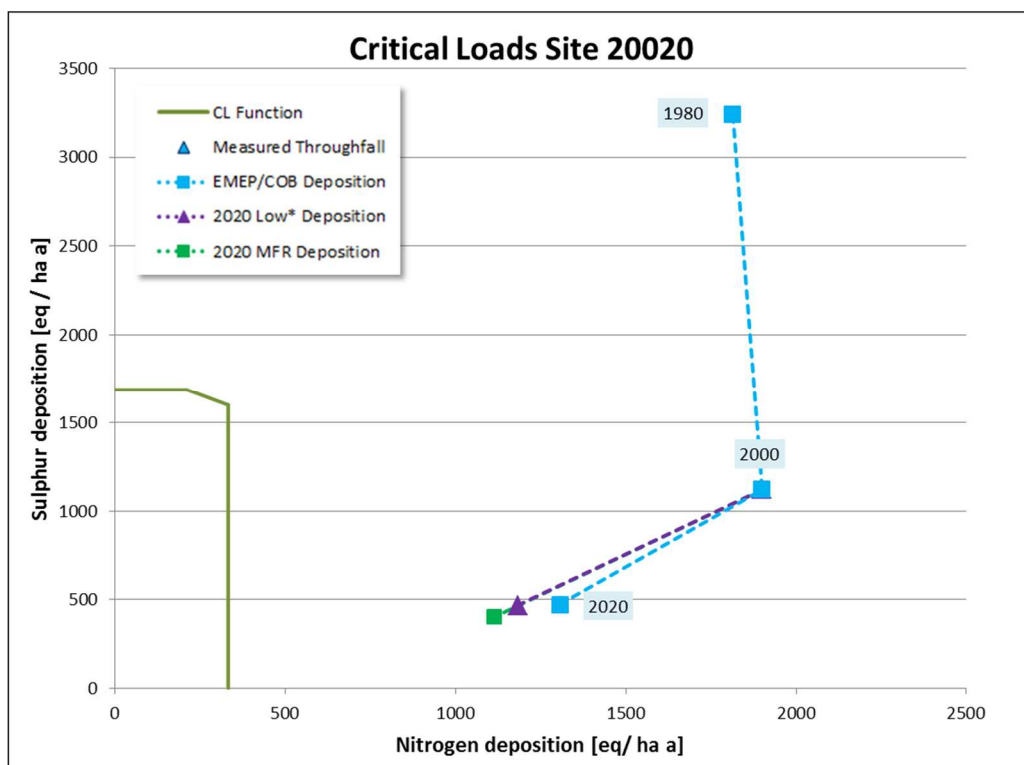
Country: Belgium

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 20019

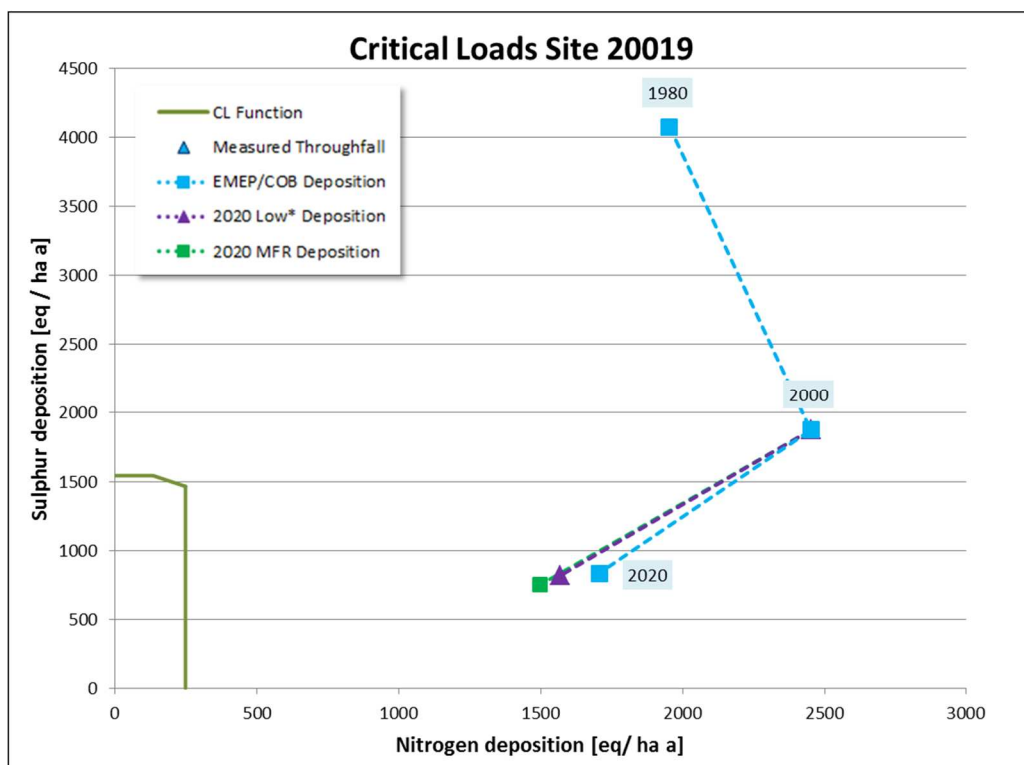
Country: Belgium

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years



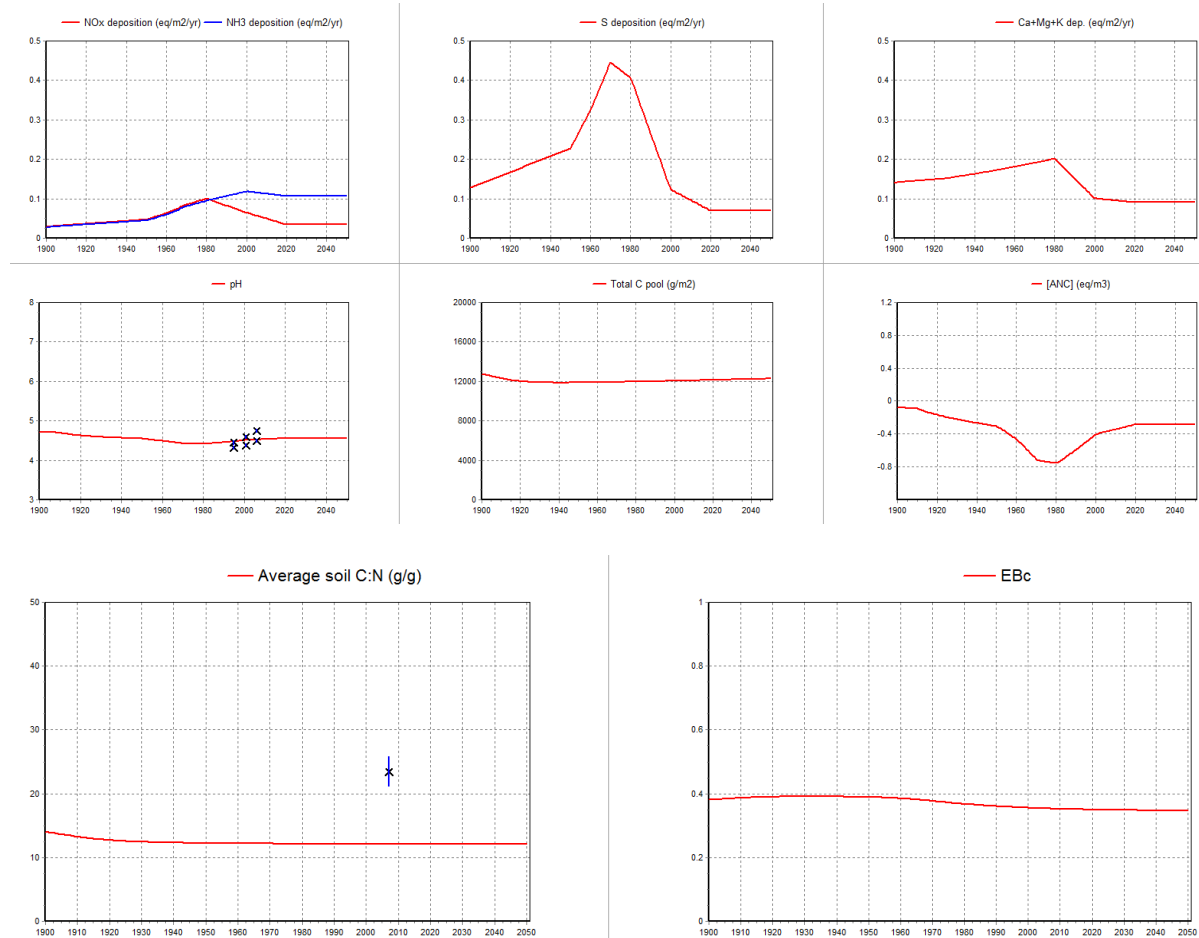
## ICP Forest Level II Site

ID 20019

Country: Belgium

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 20021

Country: Belgium

Critical Load calculation:

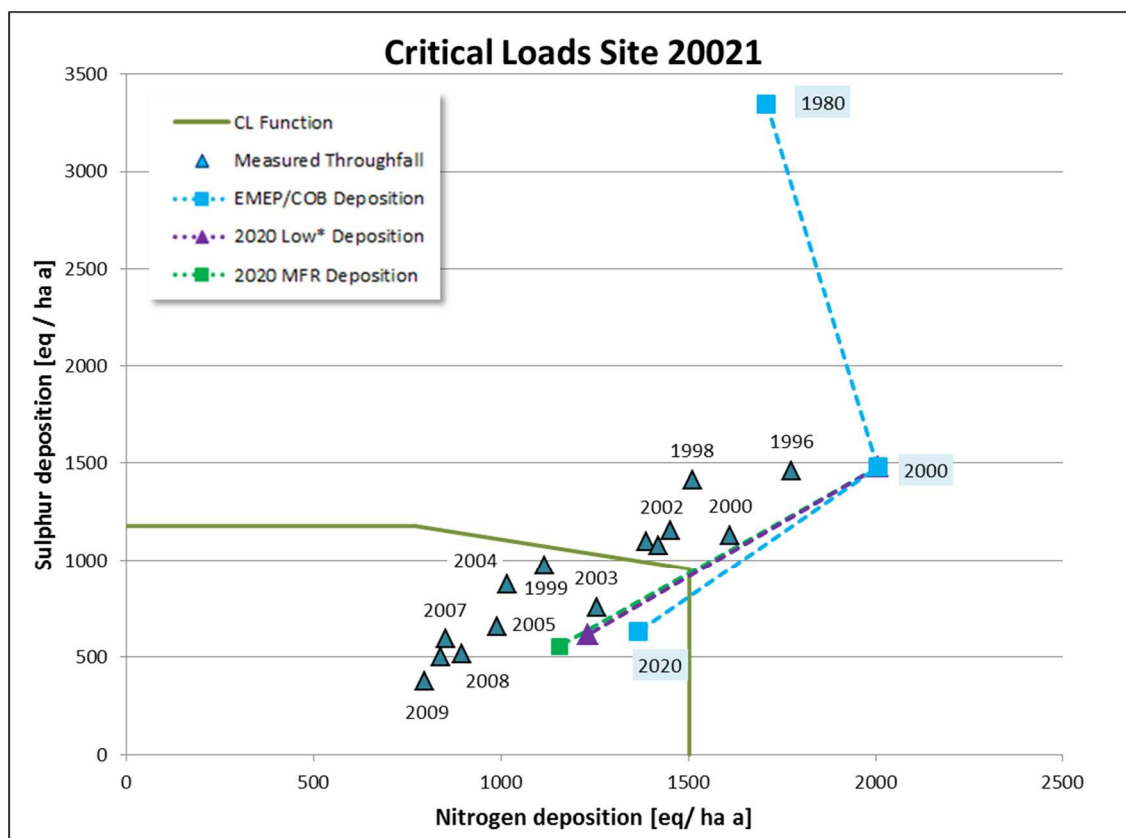
SMB method

Deposition modelled:

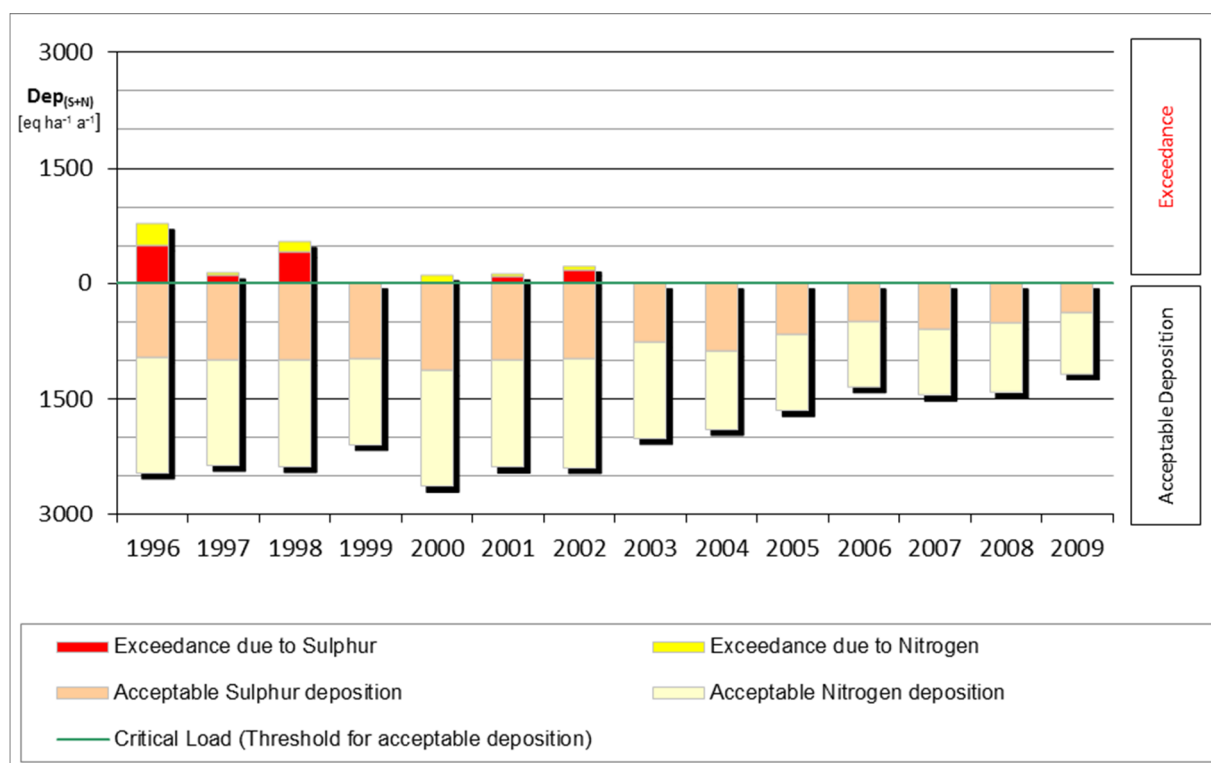
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

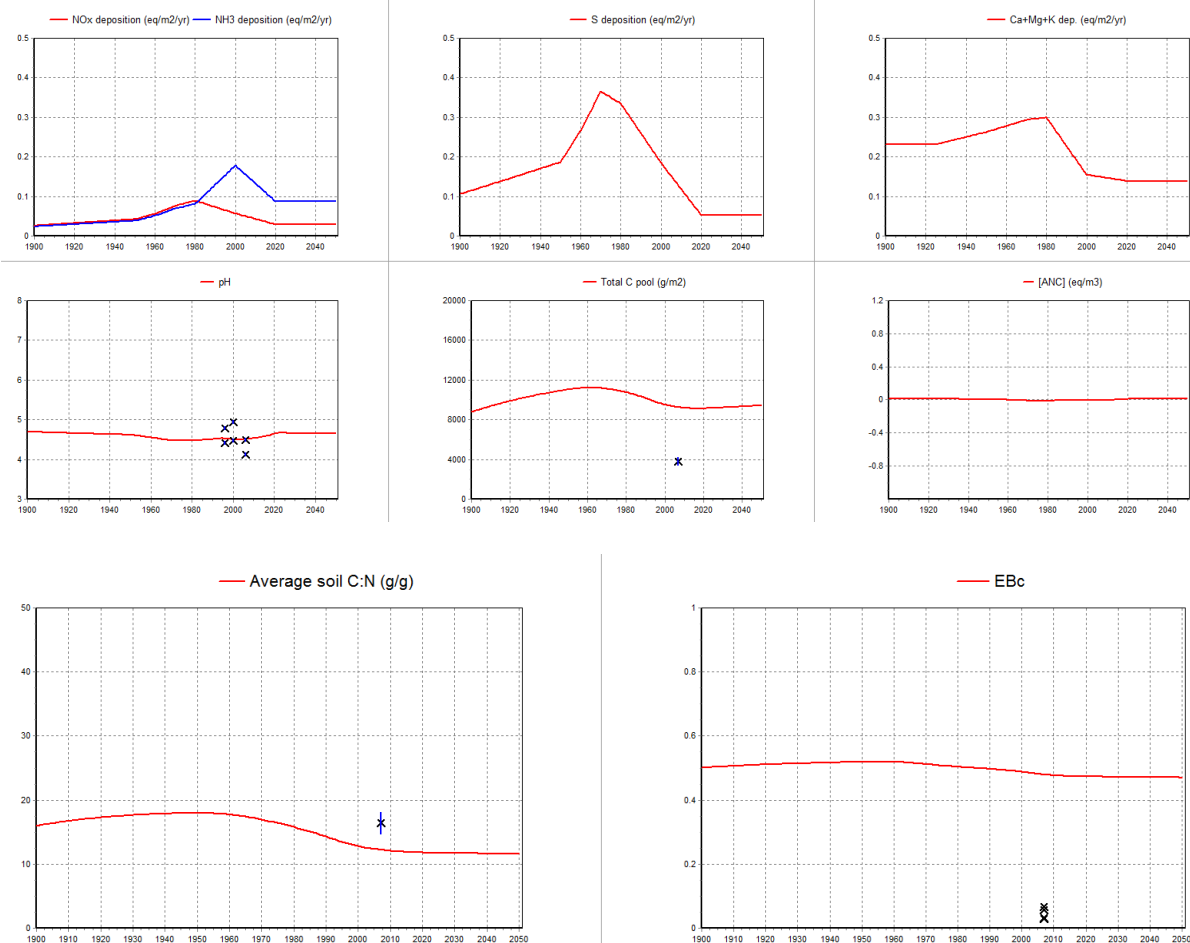
ICP Forest Level II Site

ID 20021

Country: Belgium

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

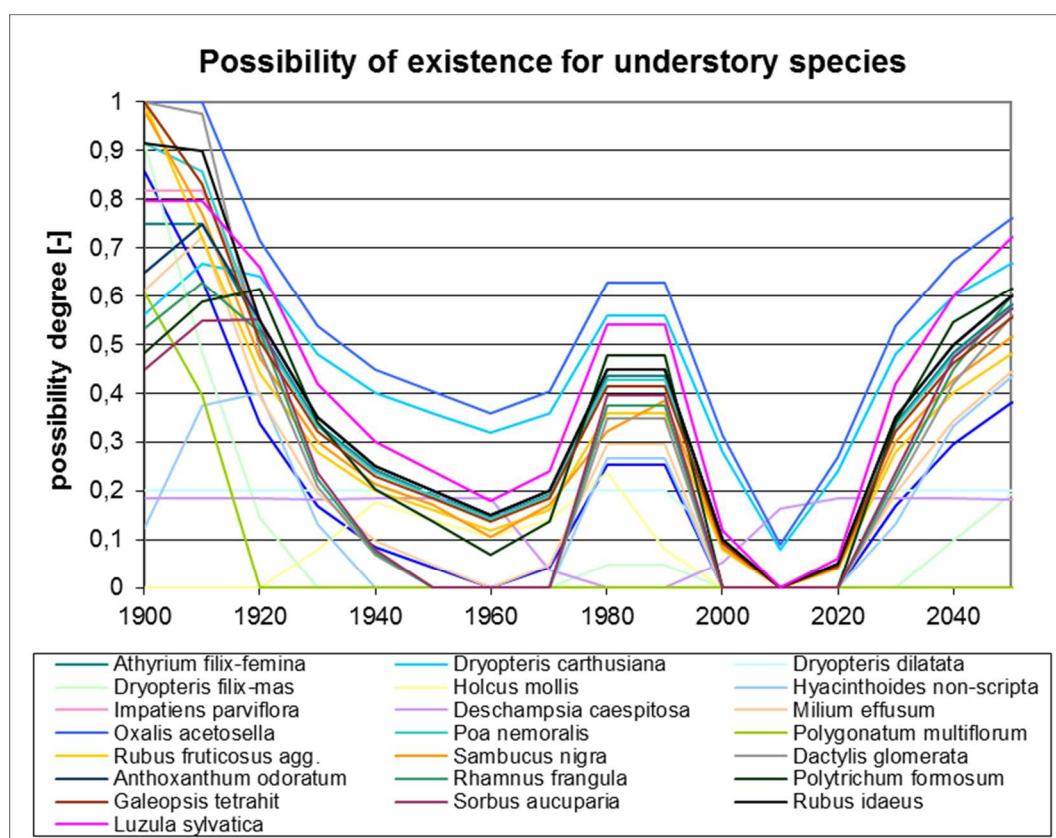
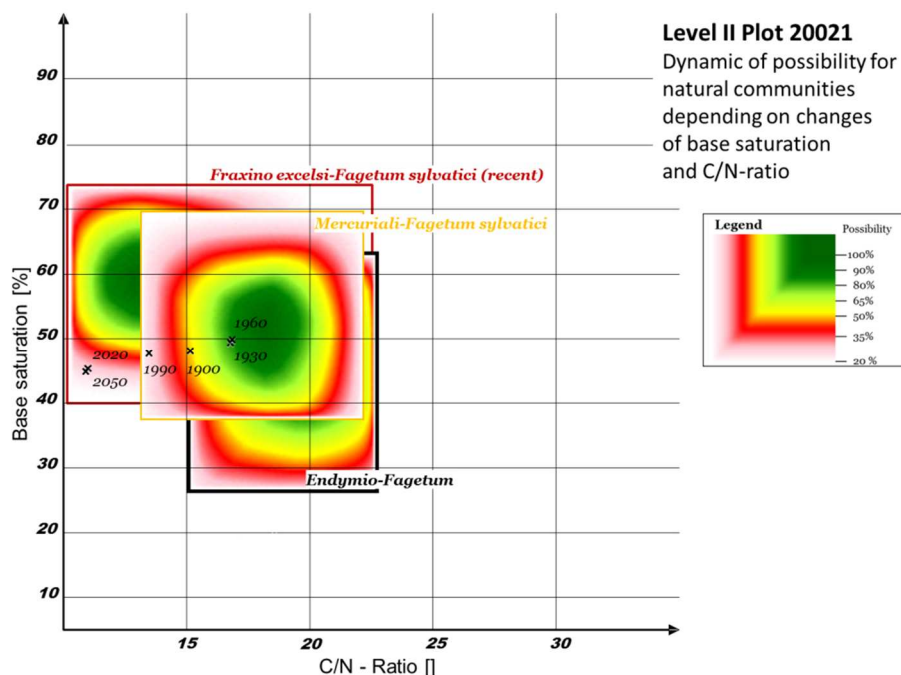
ICP Forest Level II Site

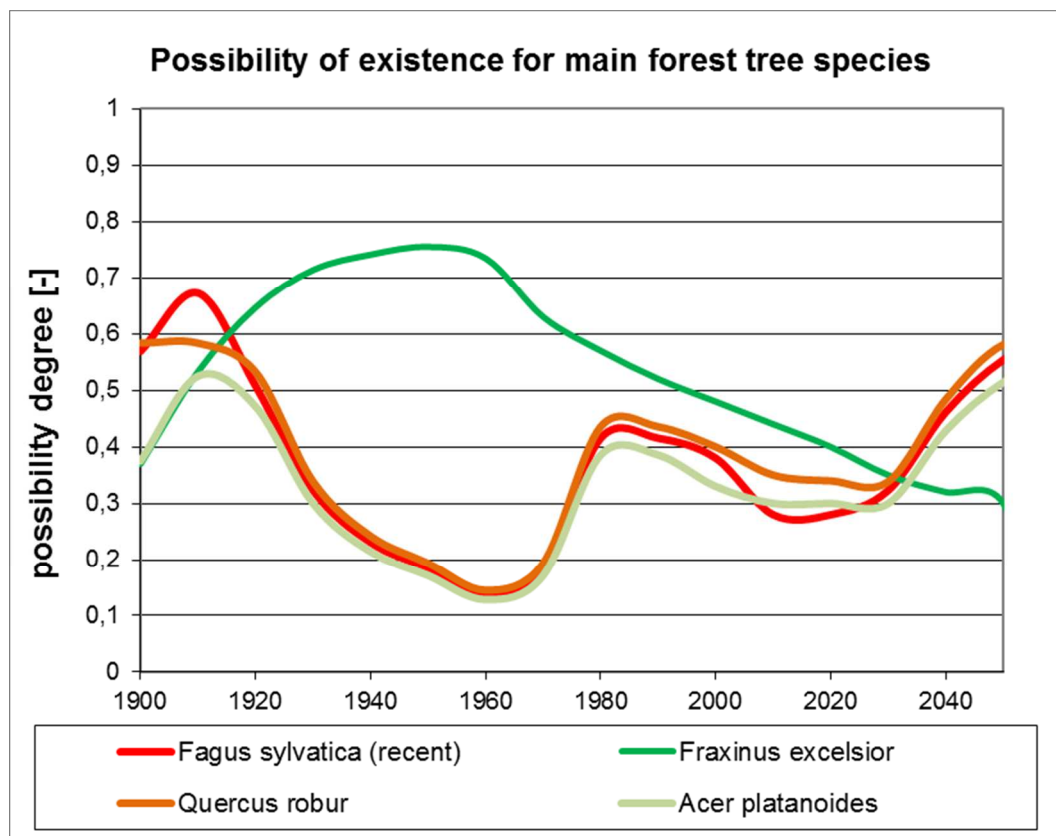
ID 20021

Country: Belgium

BERN model

biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted

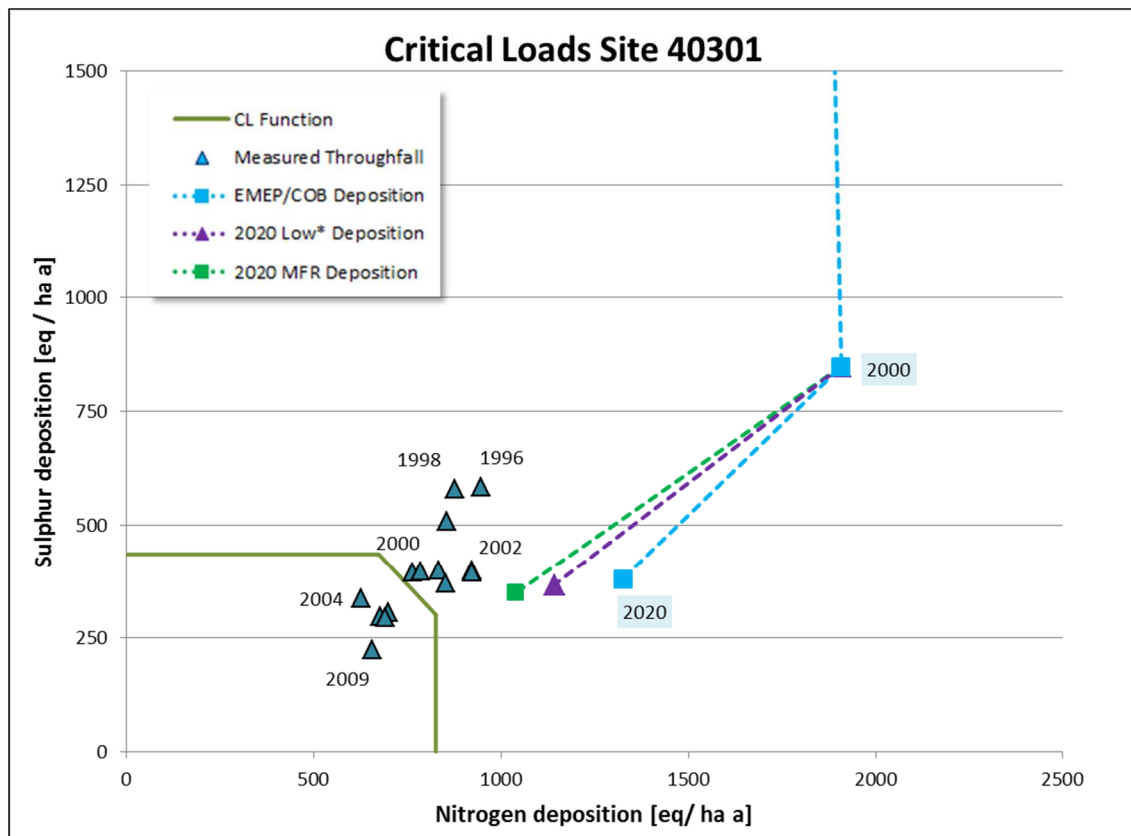
ICP Forest Level II Site: ID 40301

Country: Germany

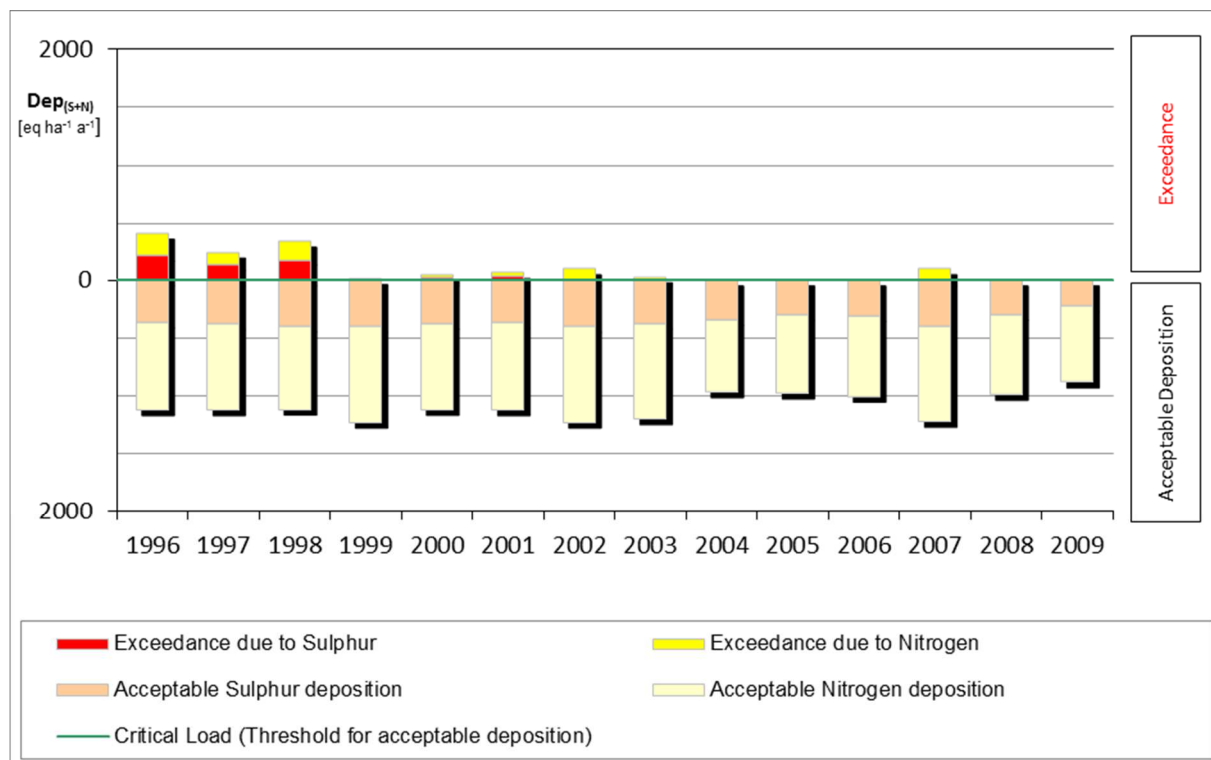
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



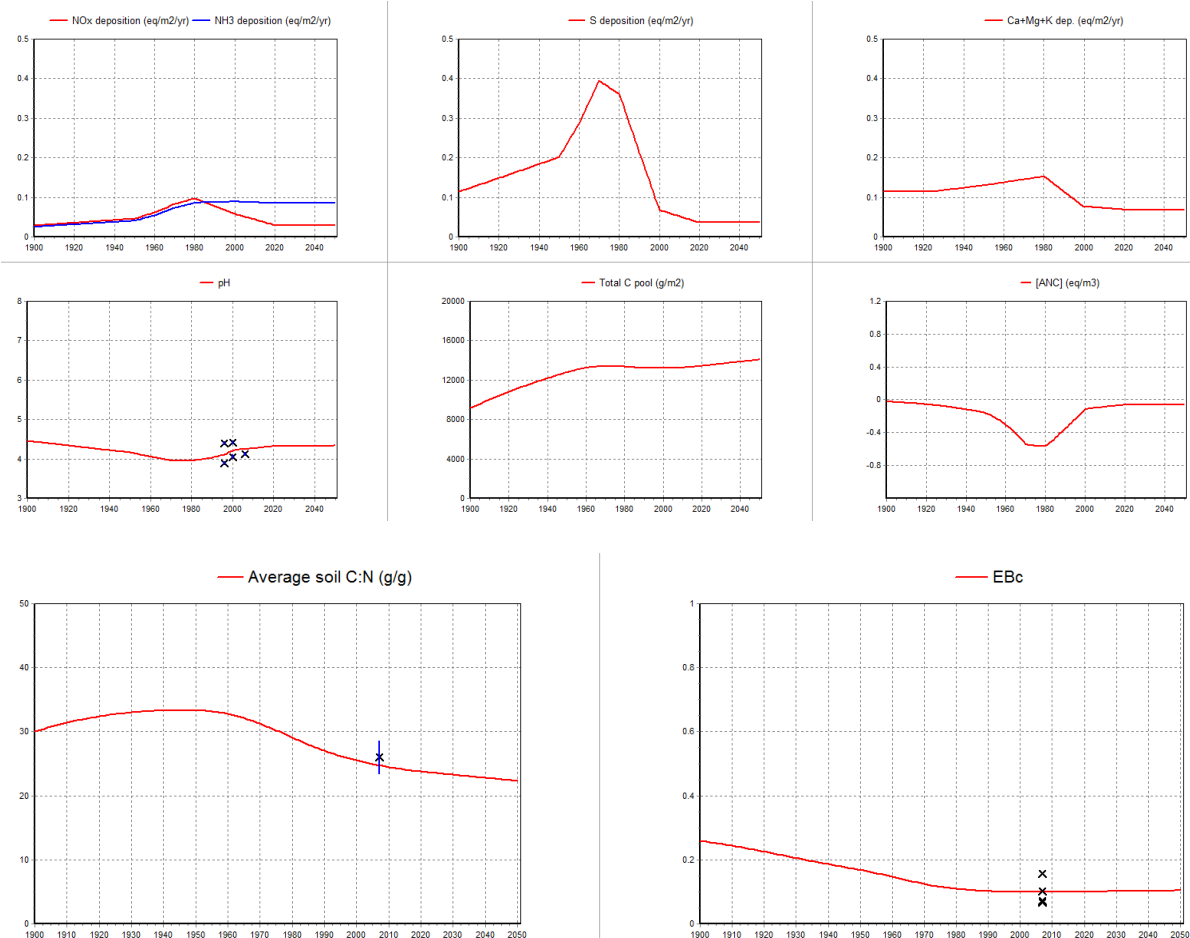
## ICP Forest Level II Site

ID 40301

Country: Germany

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

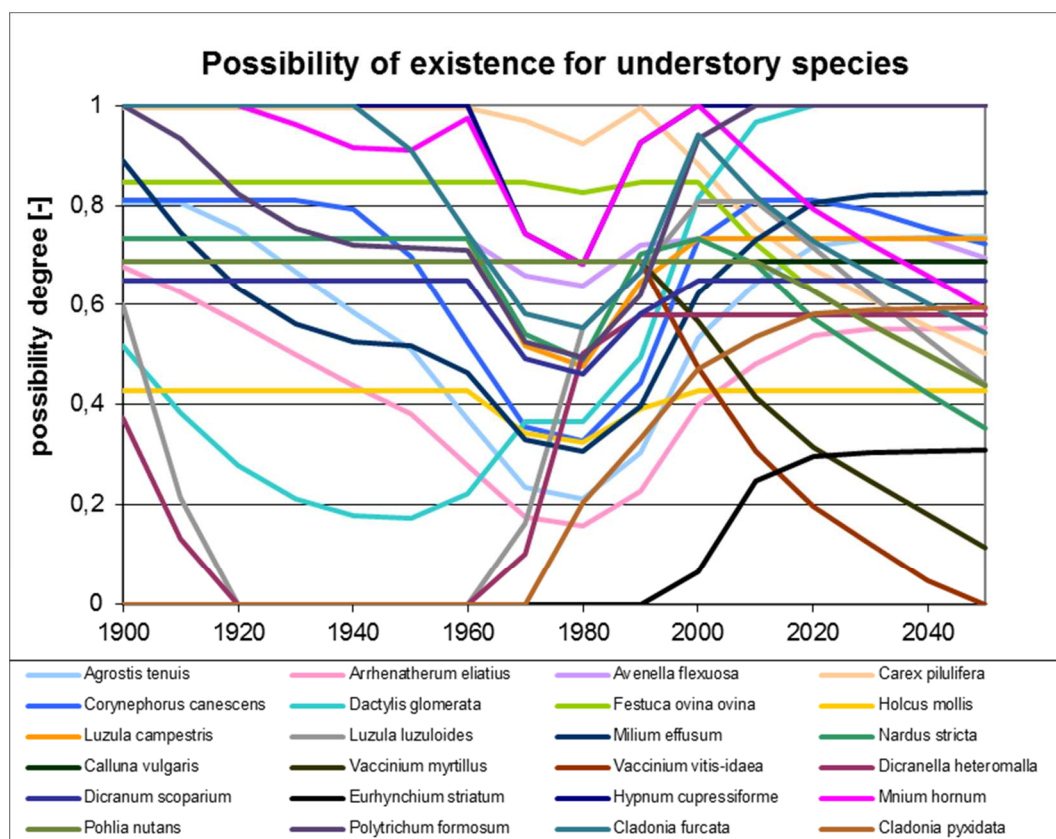
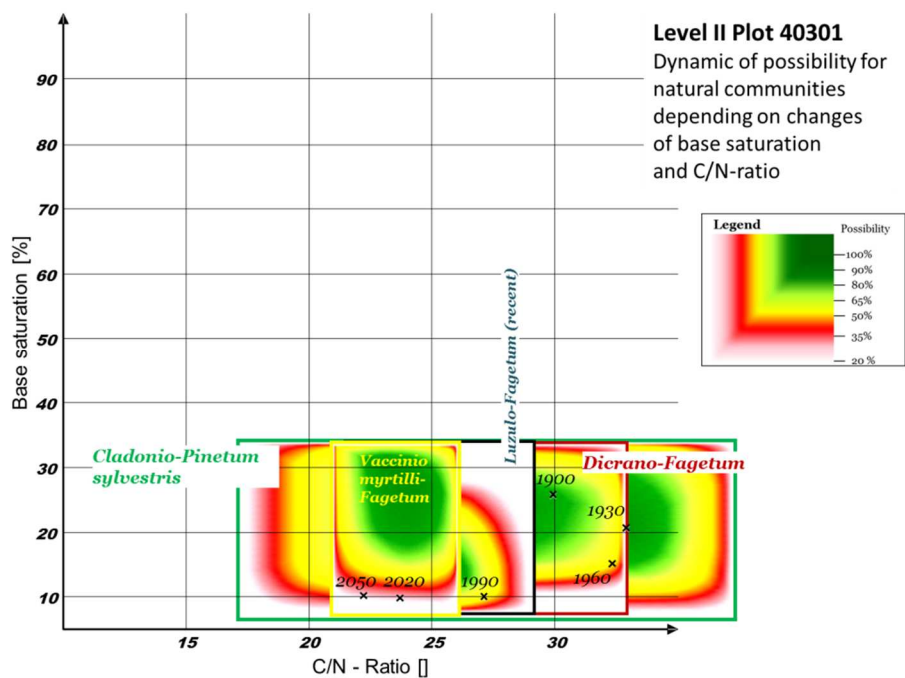
ICP Forest Level II Site

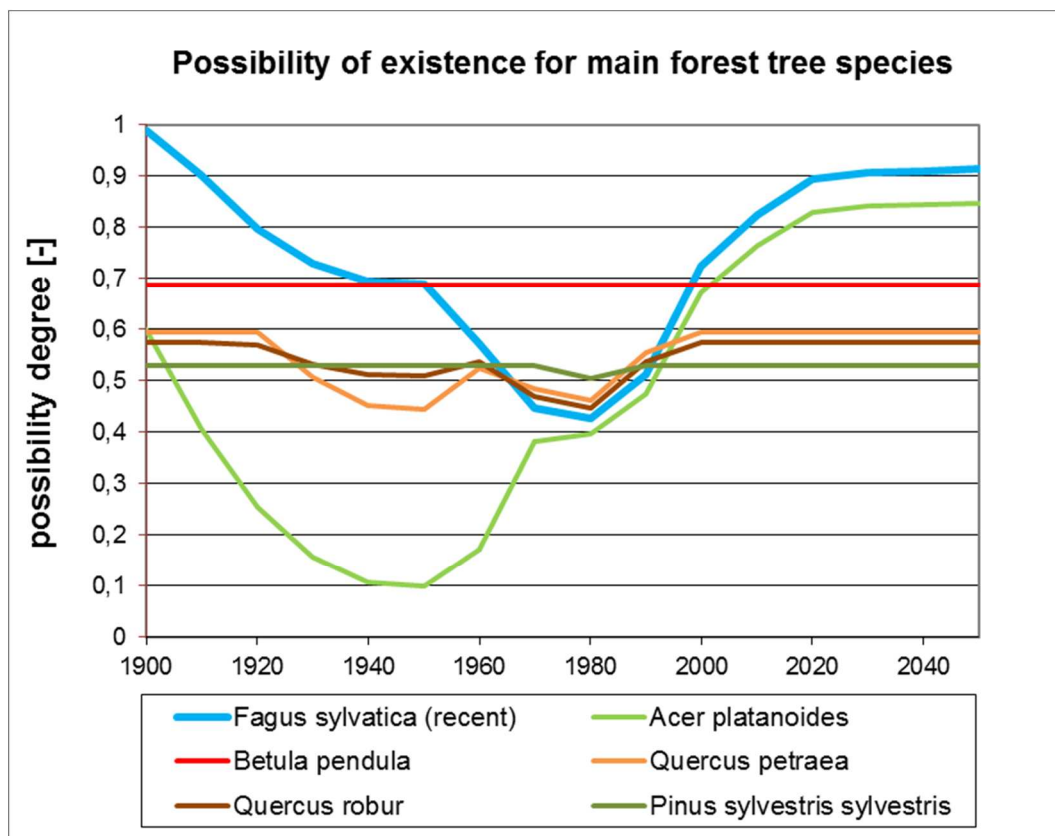
ID 40301

Country: Germany

BERN model

biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site:

ID 40507

Country: Germany

Critical Load calculation:

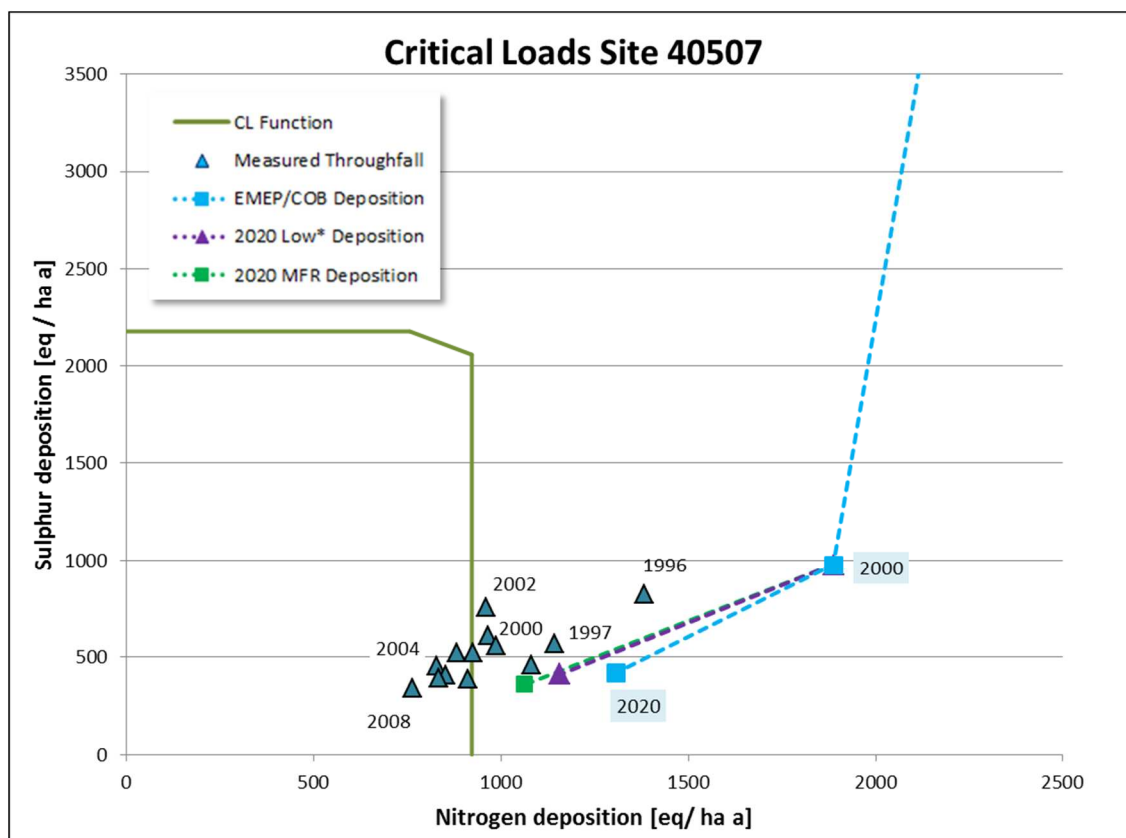
SMB method

Deposition modelled:

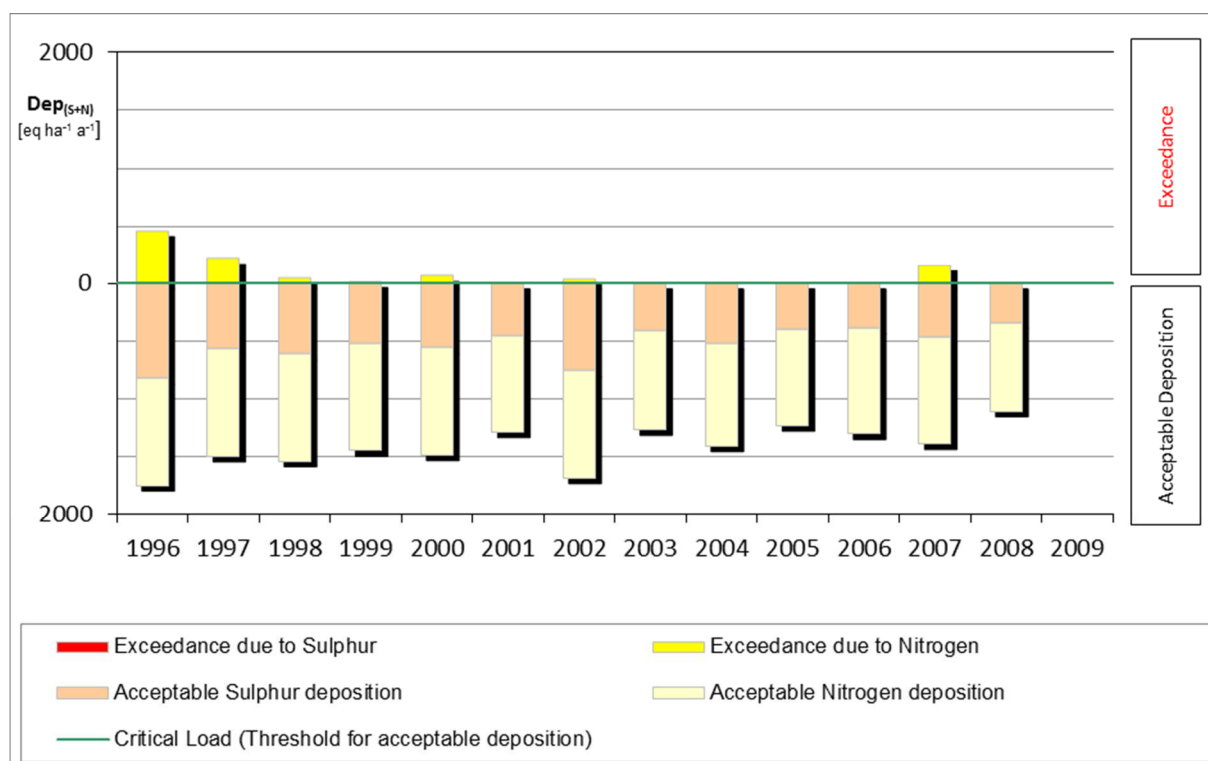
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2008



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

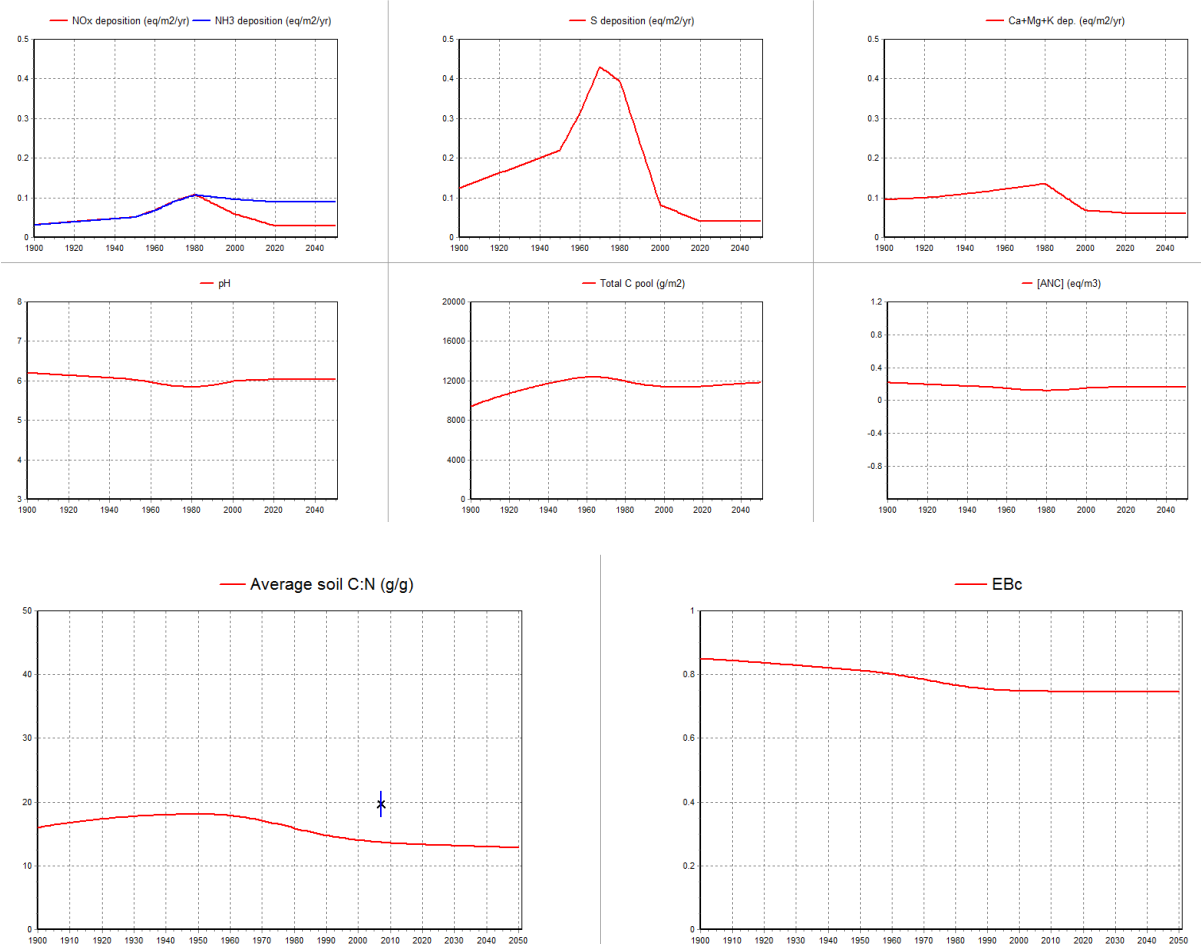
## ICP Forest Level II Site

ID 40507

Country: Germany

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



ICP Forest Level II Site:

ID 40606

Country: Germany

Critical Load calculation:

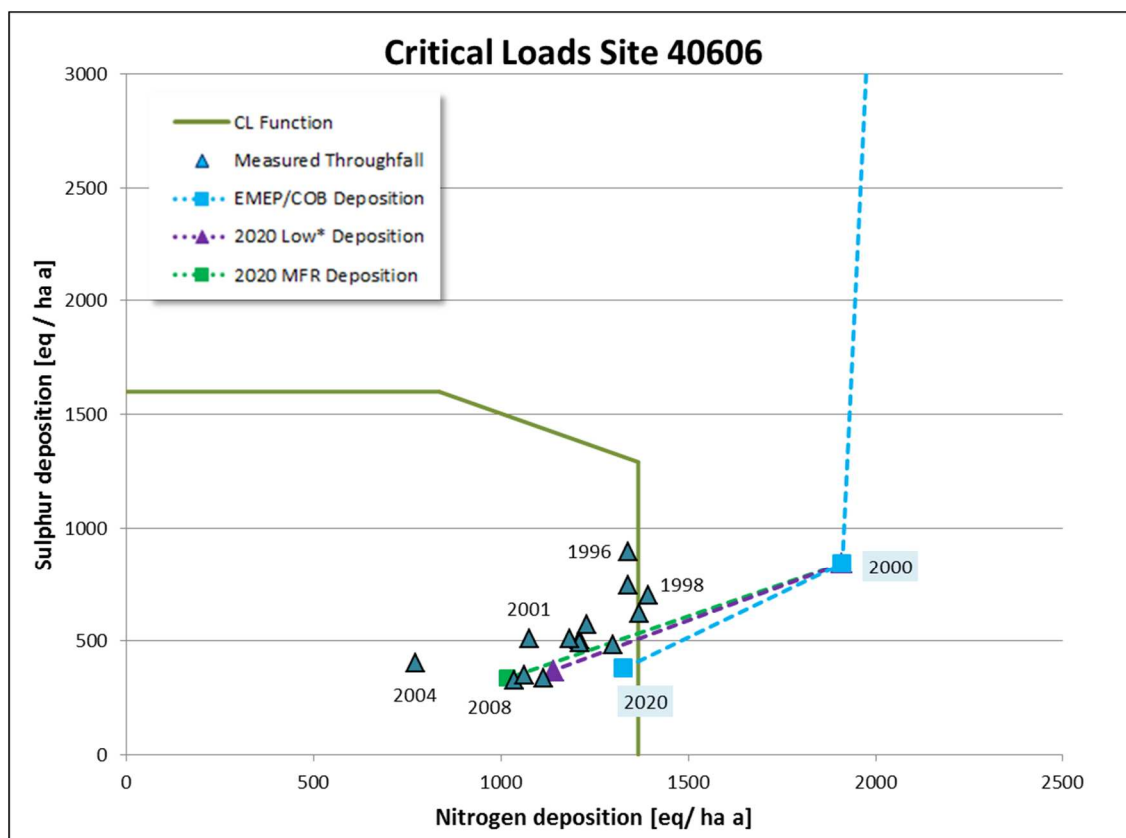
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

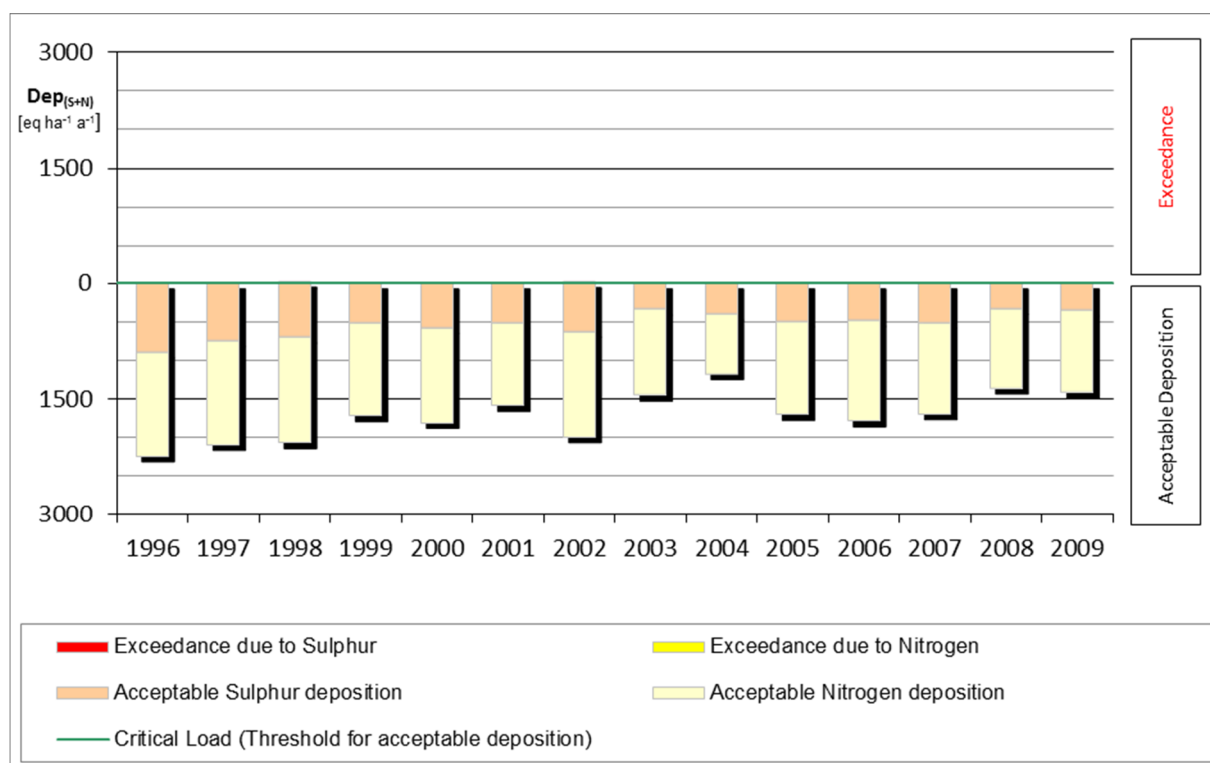
Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

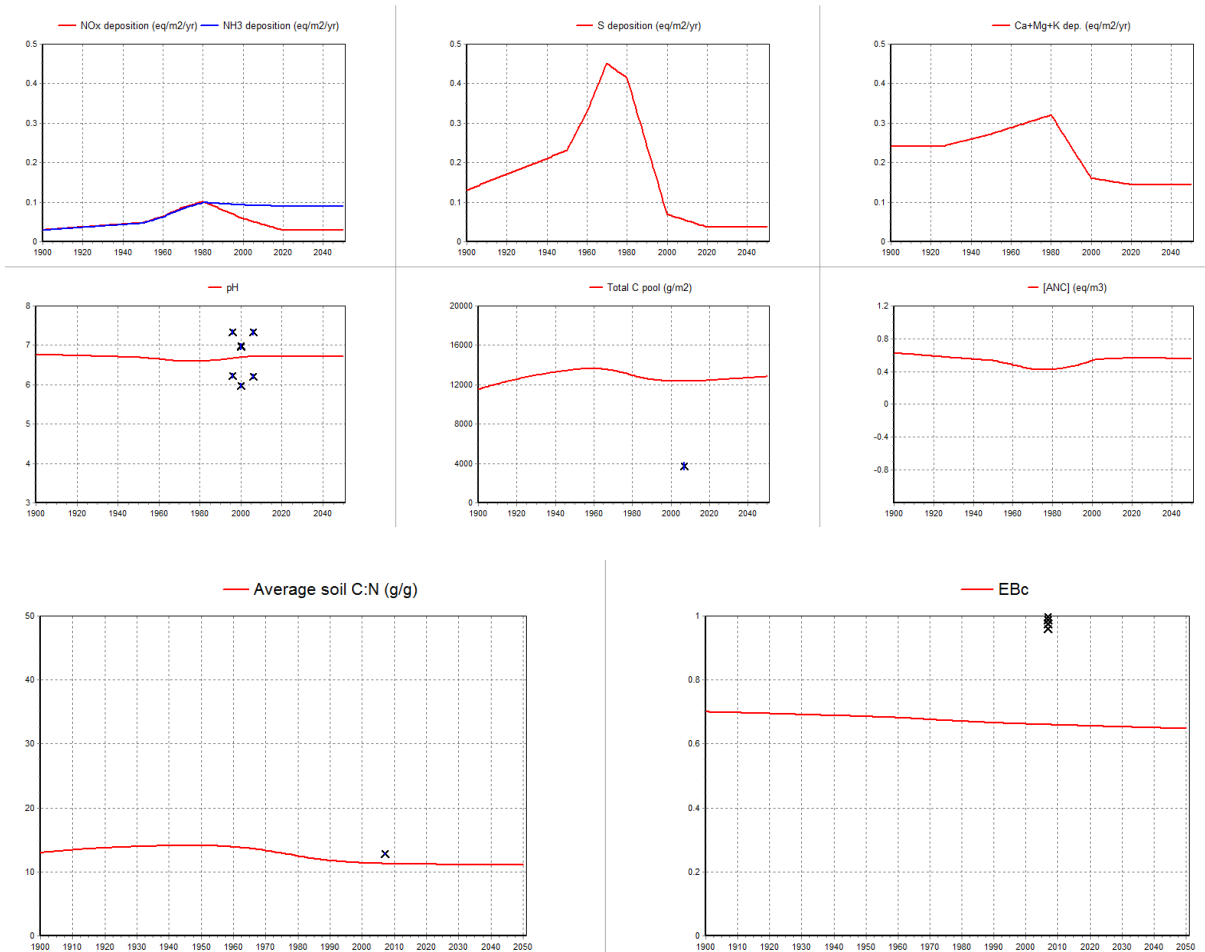
## ICP Forest Level II Site

ID 40606

Country: Germany

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

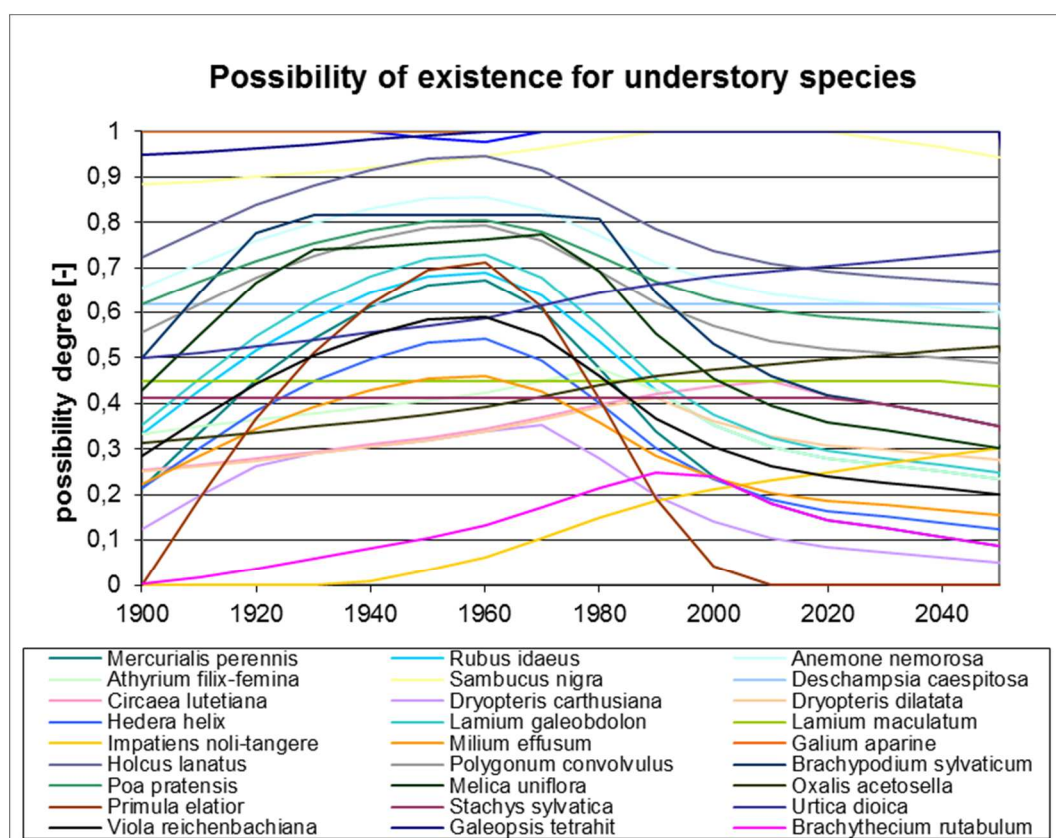
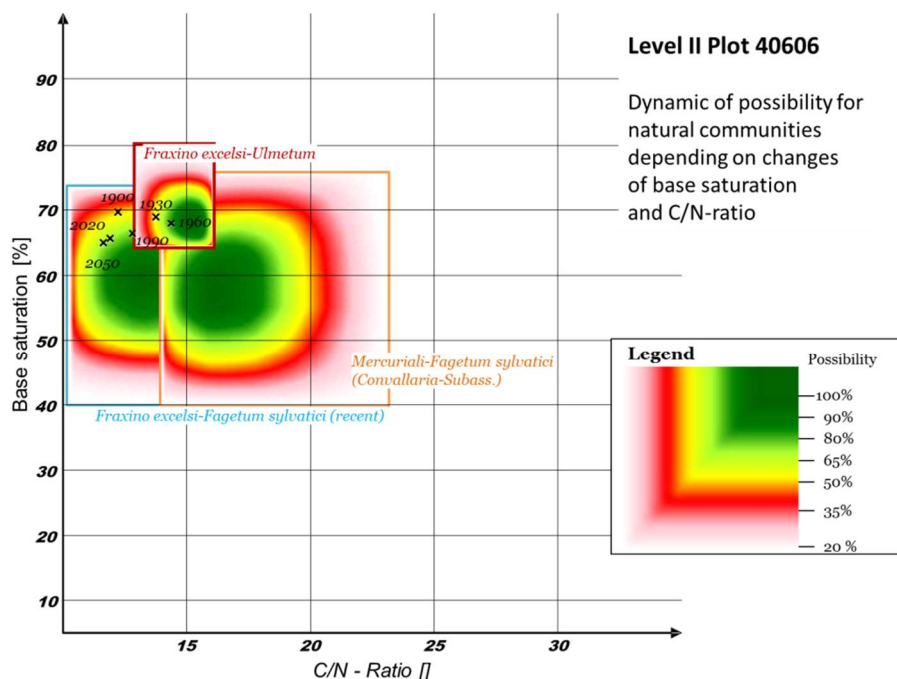
ICP Forest Level II Site

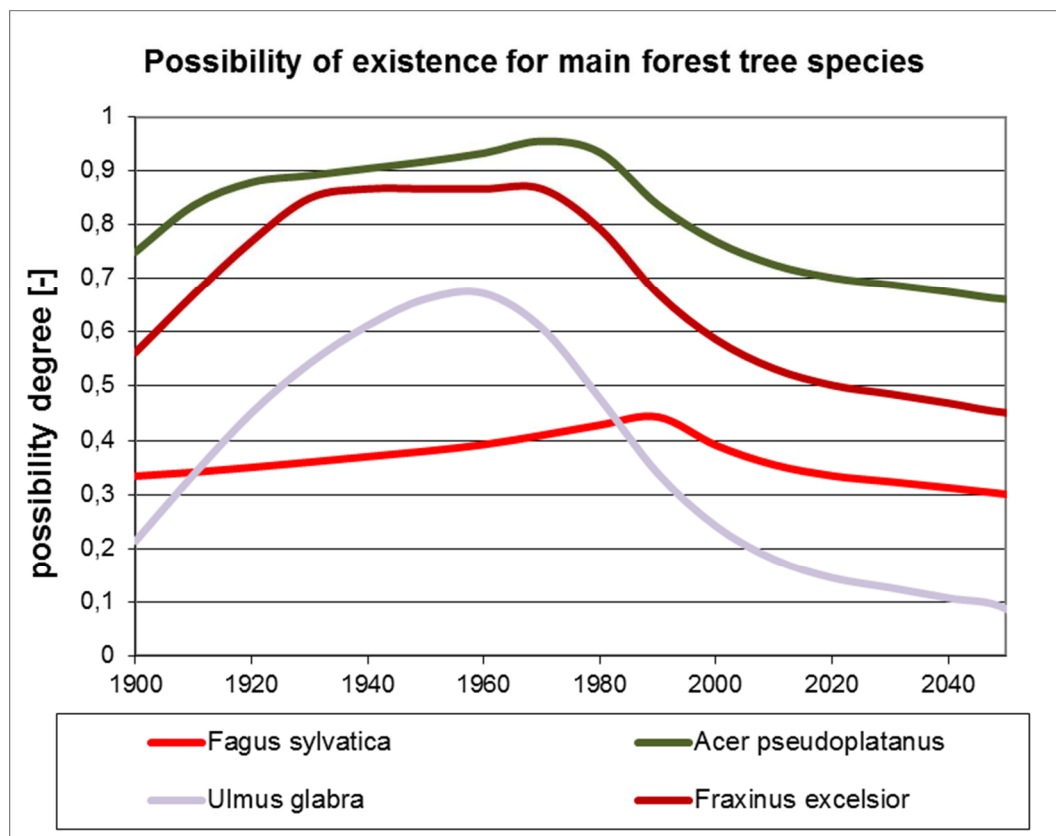
ID 40606

Country: Germany

BERN model

biodiversity effects





Conclusion: Changes in main tree species are recommended

ICP Forest Level II Site:

ID 40802

Country: Germany

Critical Load calculation:

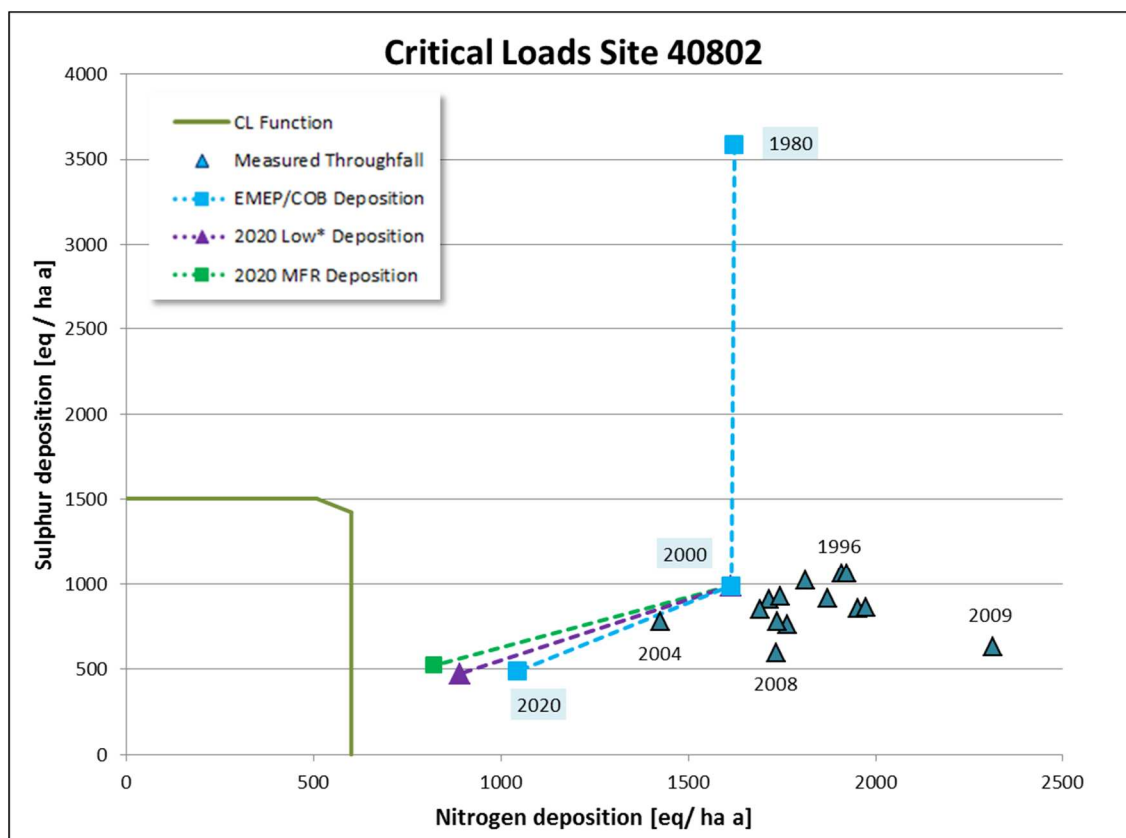
SMB method

Deposition modelled:

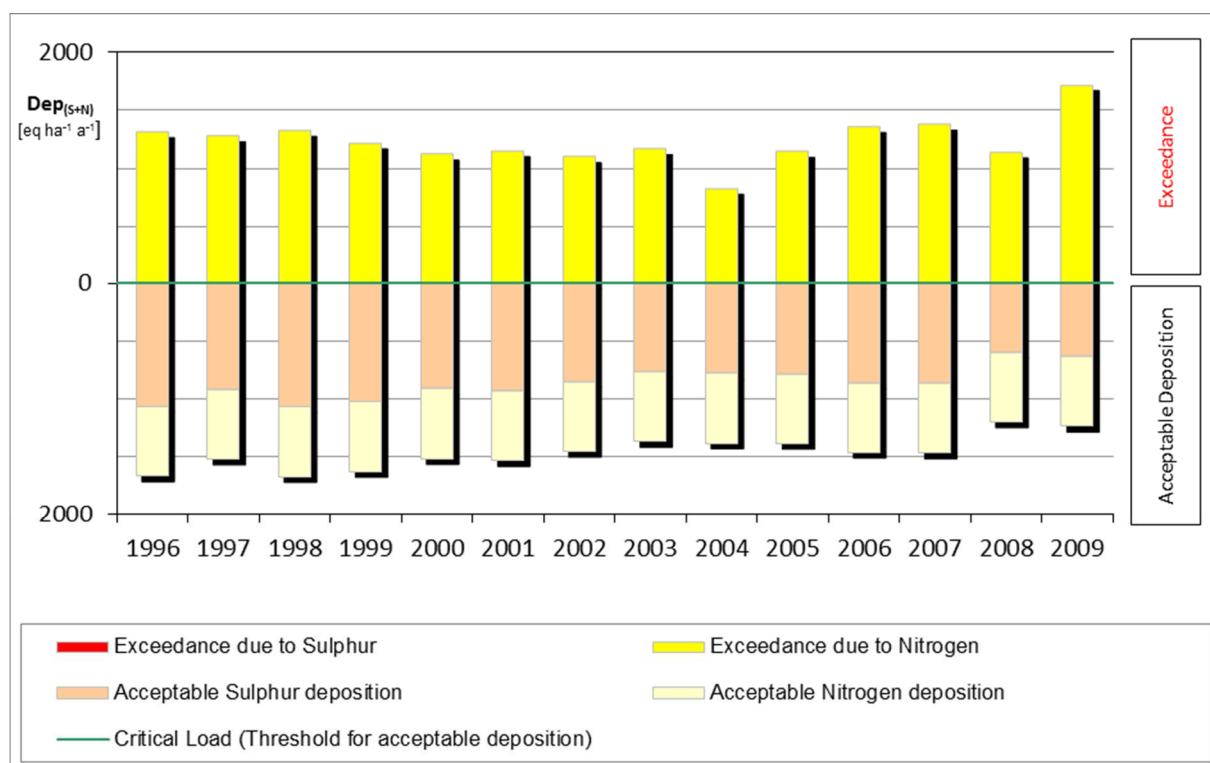
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

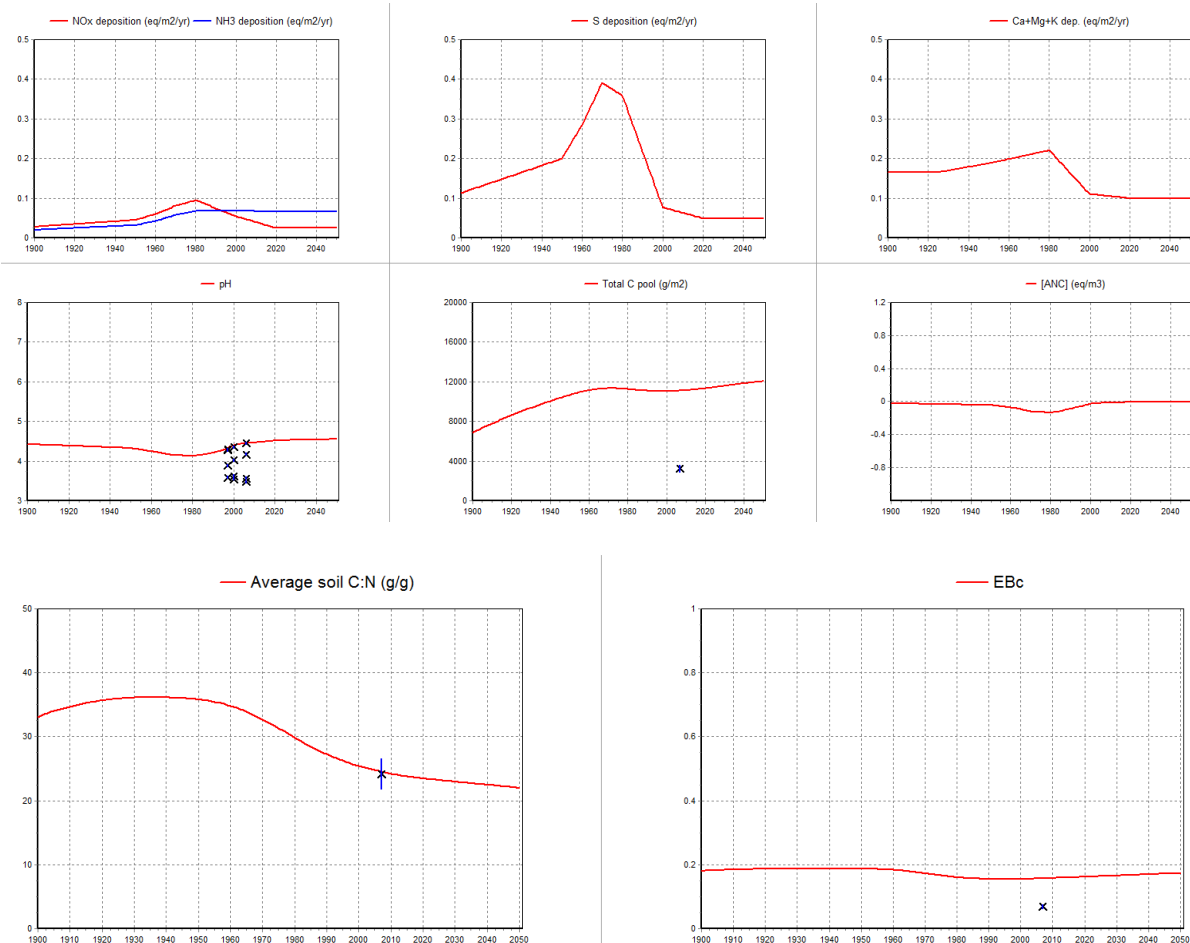
ICP Forest Level II Site

ID 40802

Country: Germany

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 40808

Country: Germany

Critical Load calculation:

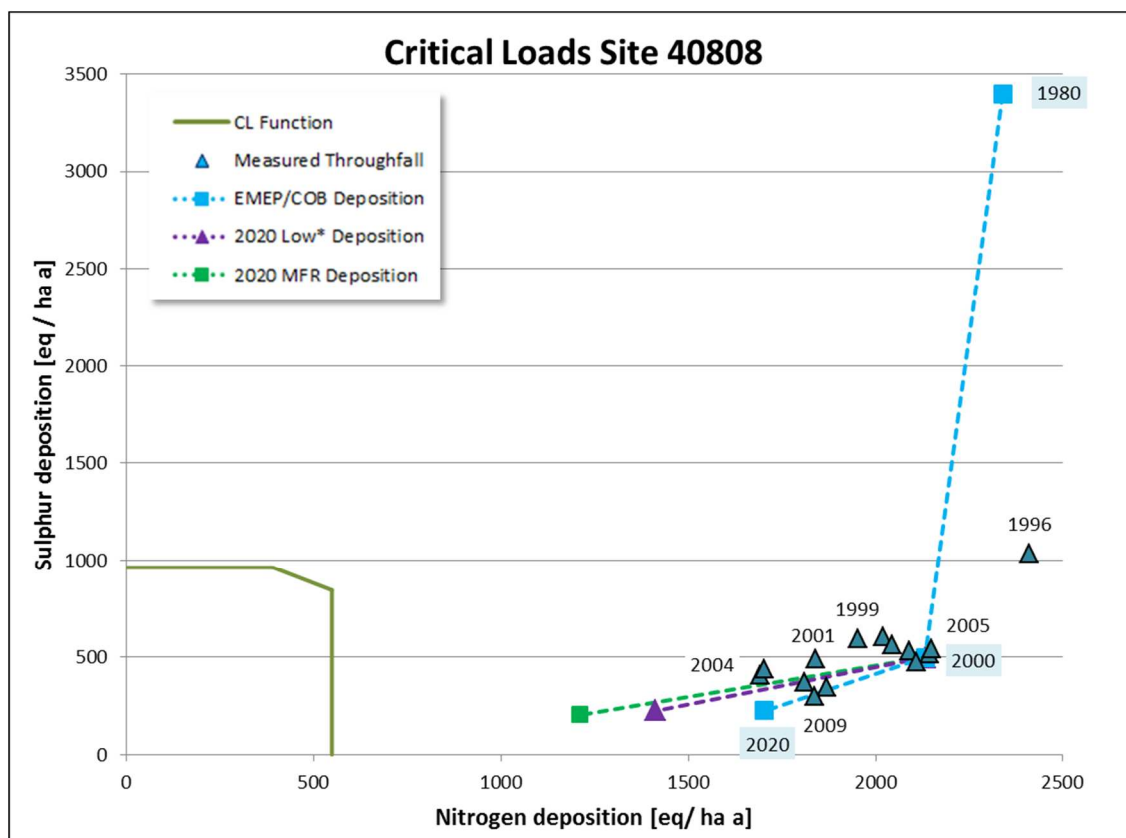
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

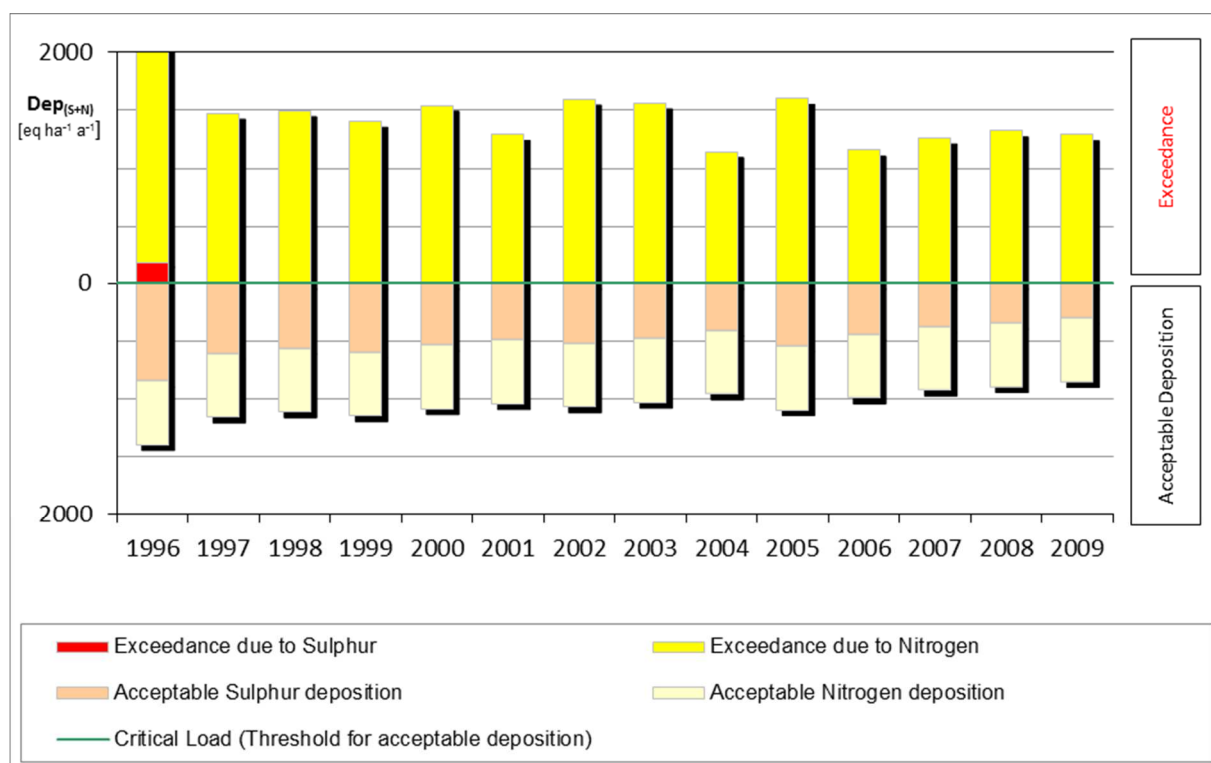
Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

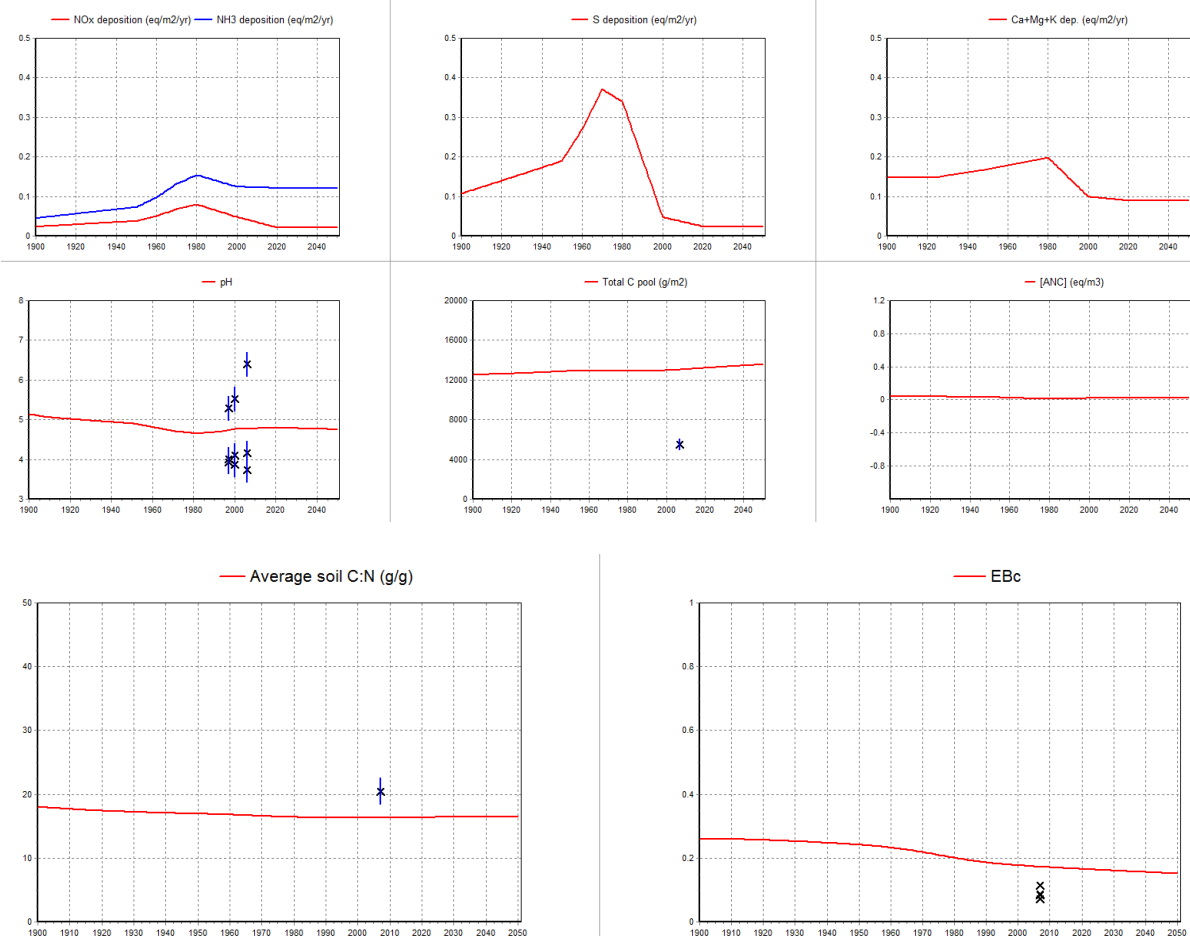
ICP Forest Level II Site

ID 40808

Country: Germany

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 41302

Country: Germany

Critical Load calculation:

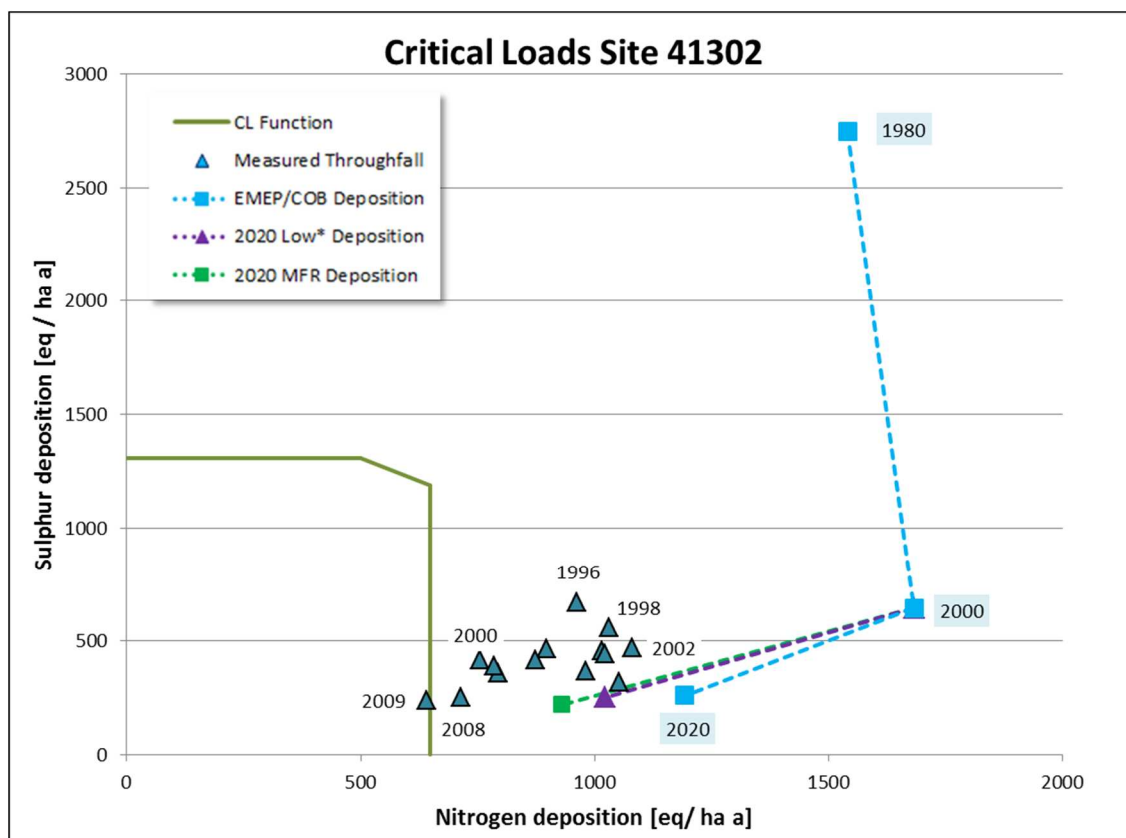
SMB method

Deposition modelled:

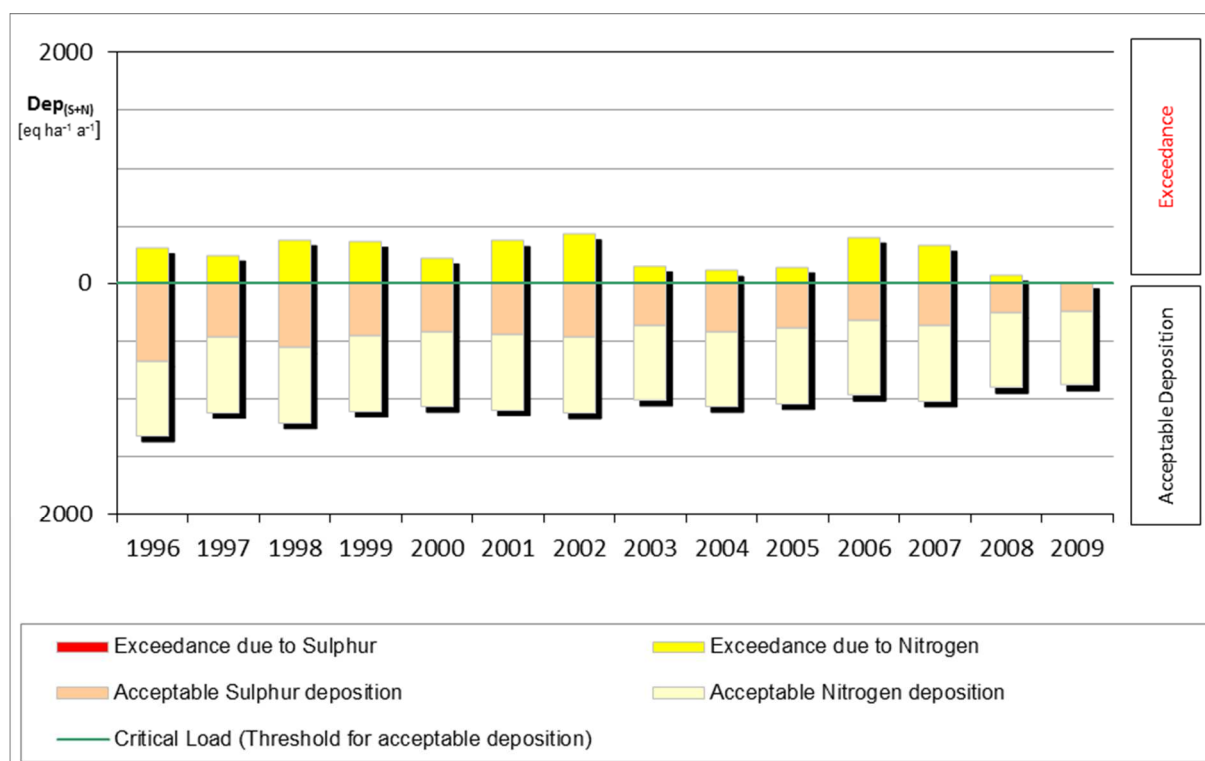
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

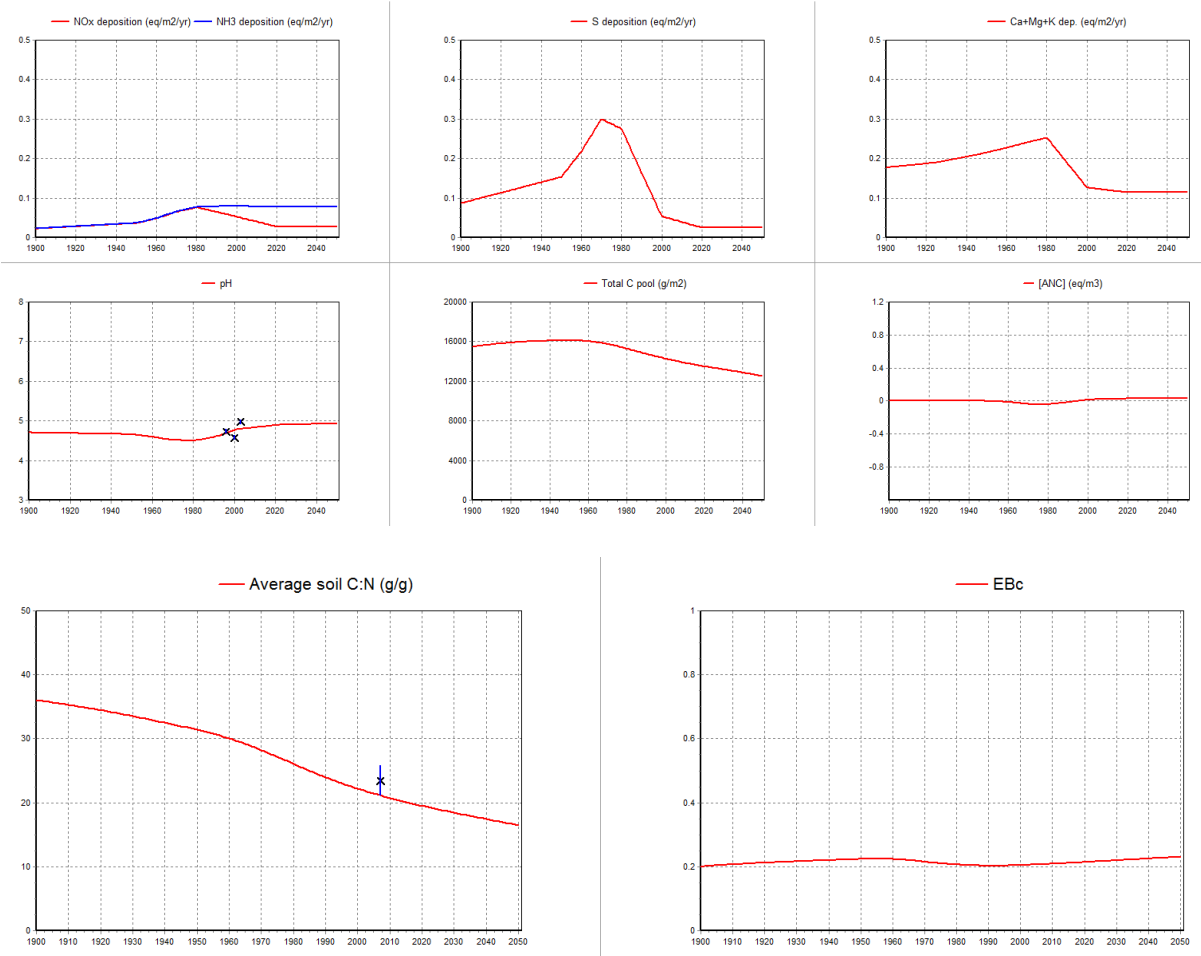
## ICP Forest Level II Site

ID 41302

Country: Germany

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 50001

Country: Italy

Critical Load calculation:

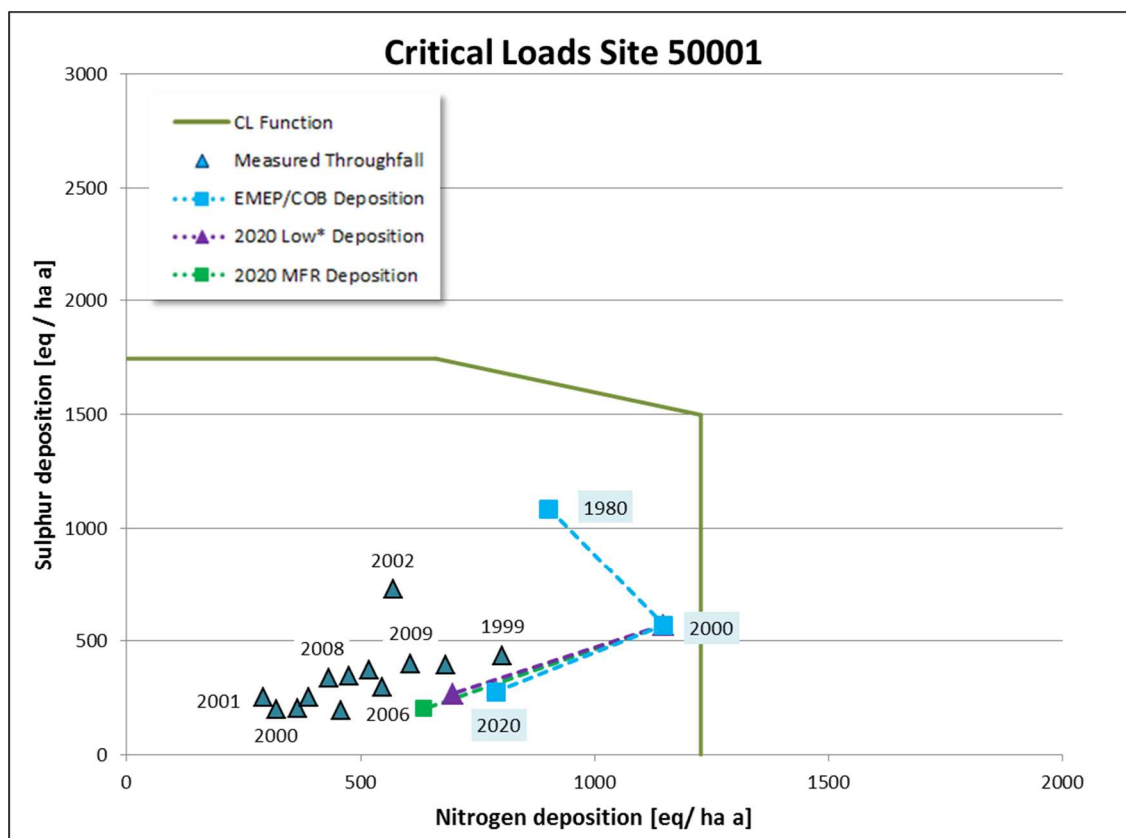
SMB method

Deposition modelled:

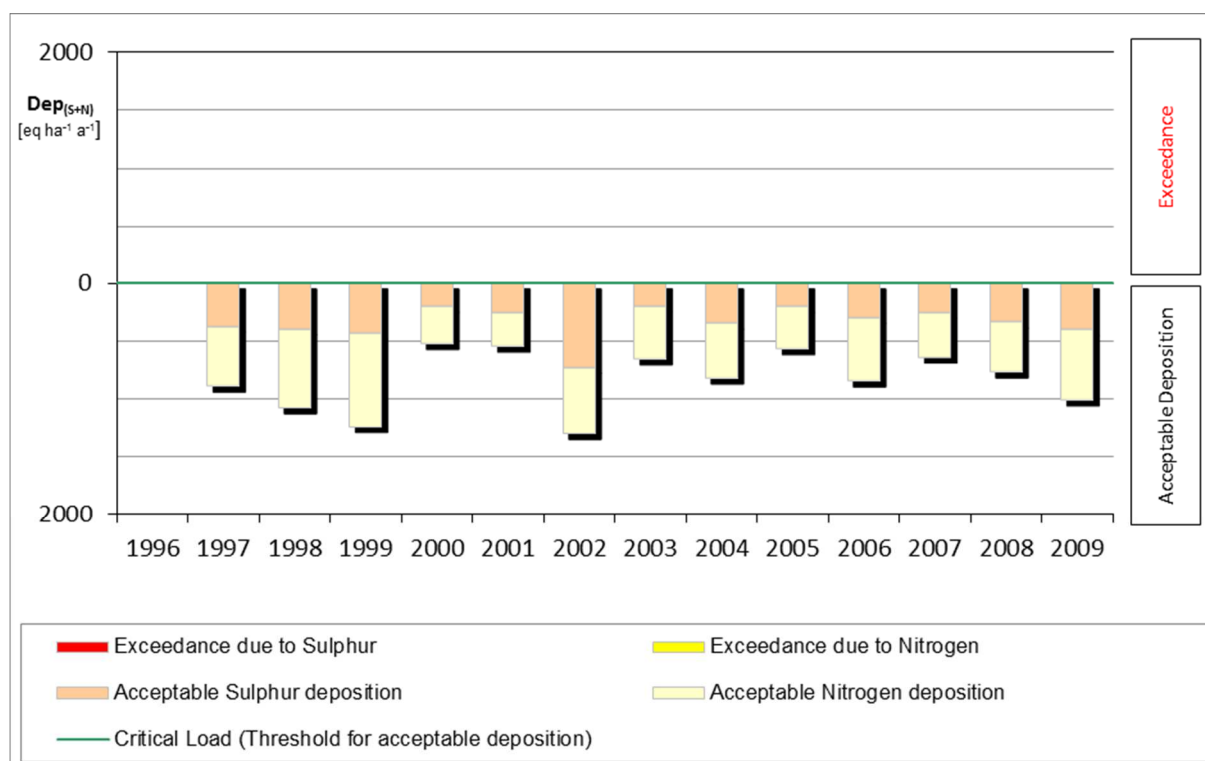
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1997 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

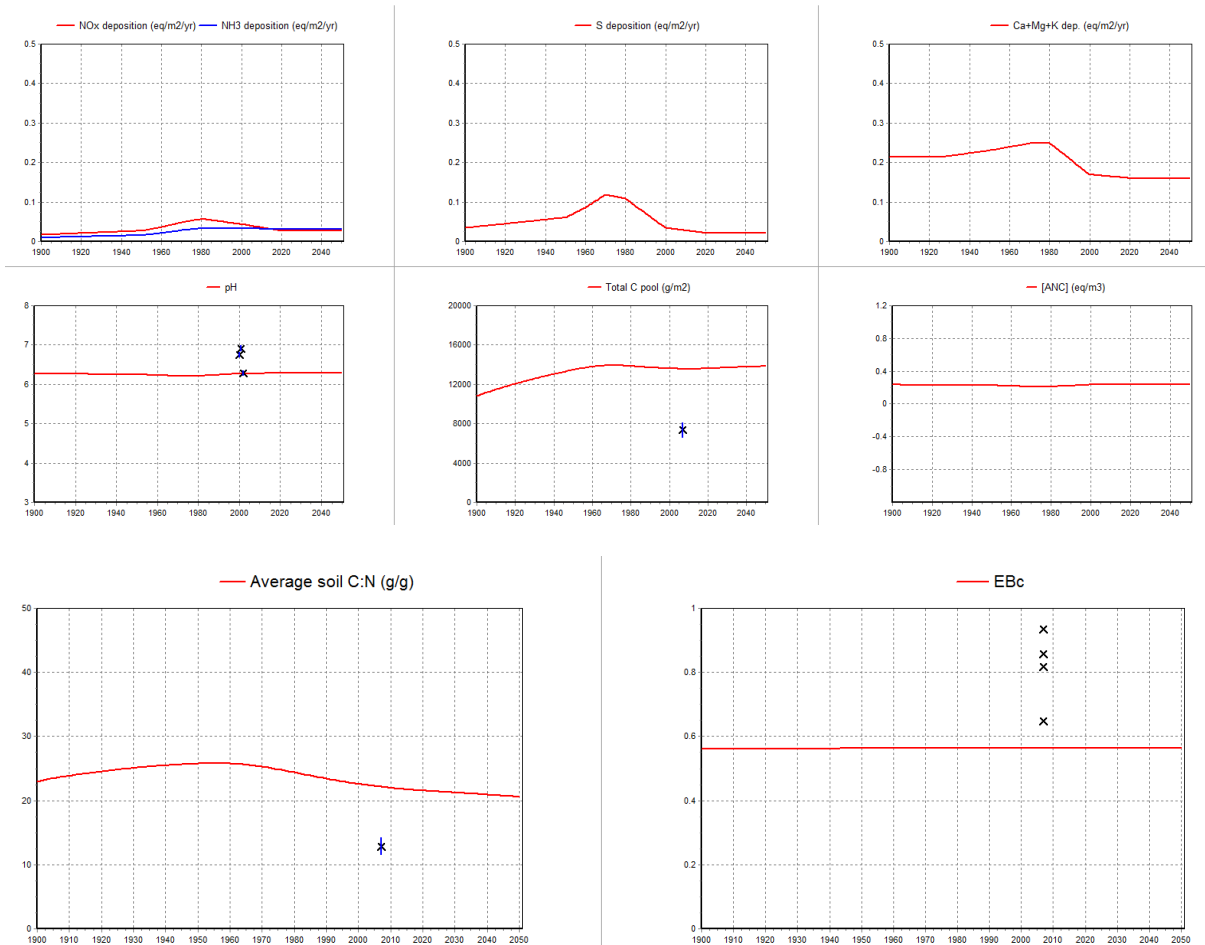
## ICP Forest Level II Site

ID 50001

Country: Italy

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



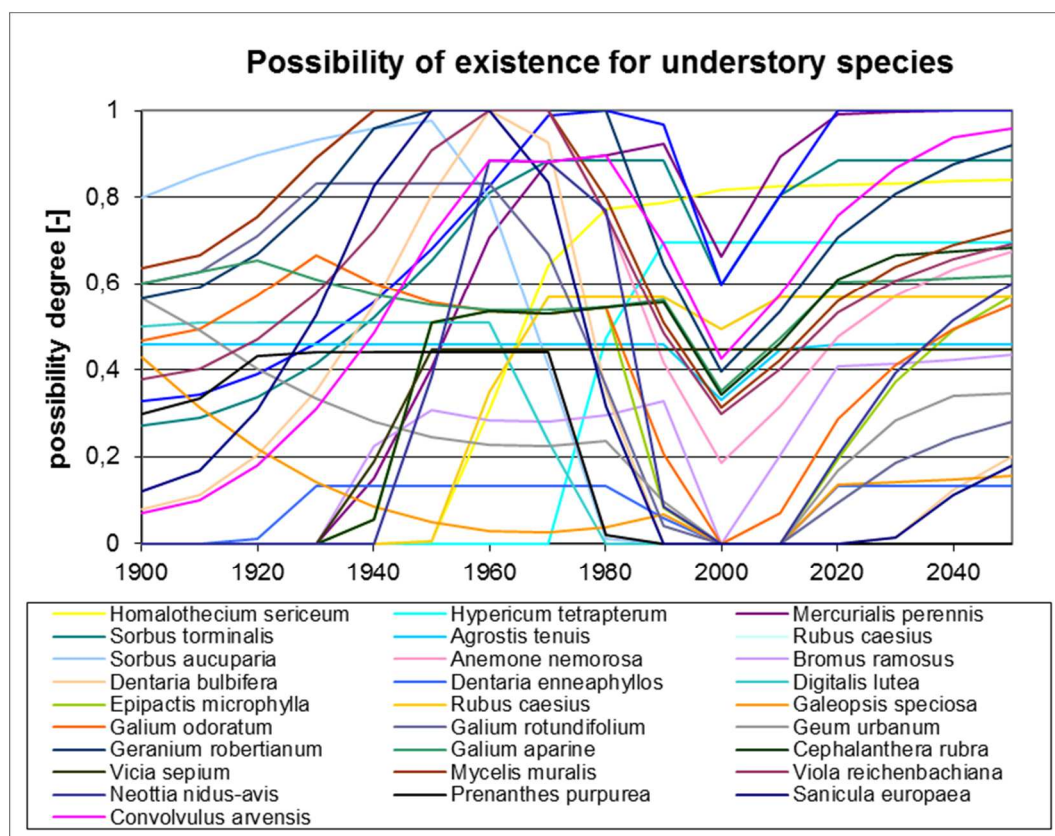
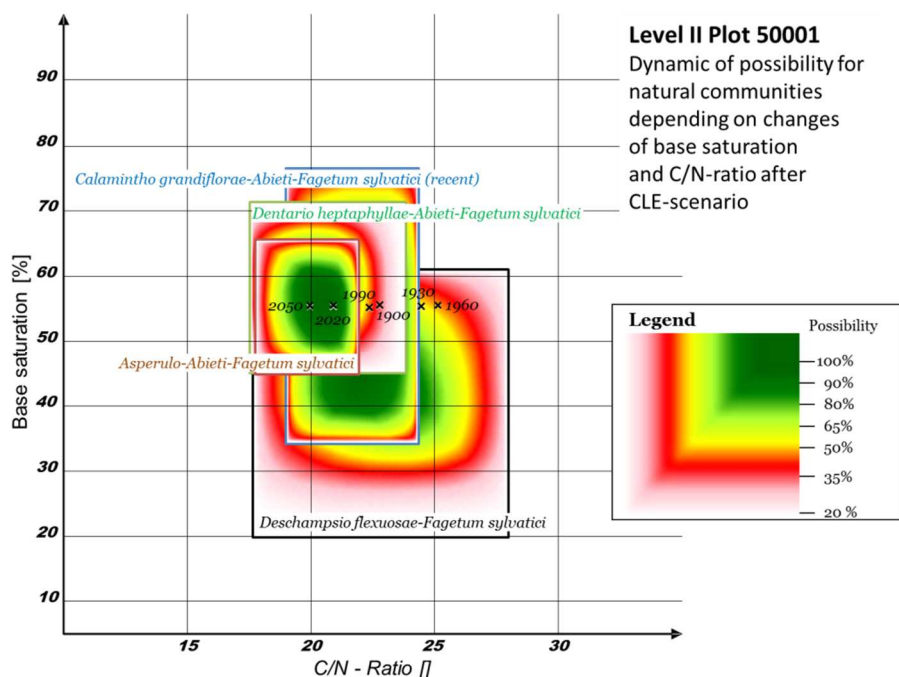
ICP Forest Level II Site

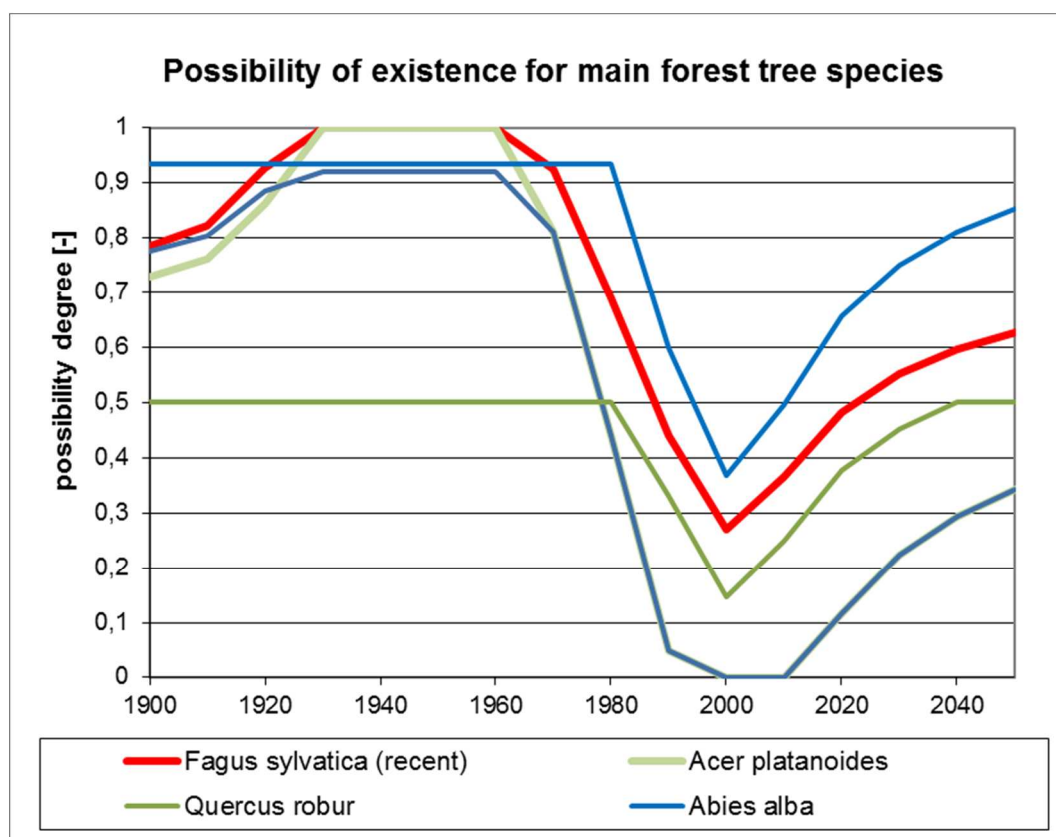
ID 50001

Country: Italy

BERN model

biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site:

ID 50006

Country: Italy

Critical Load calculation:

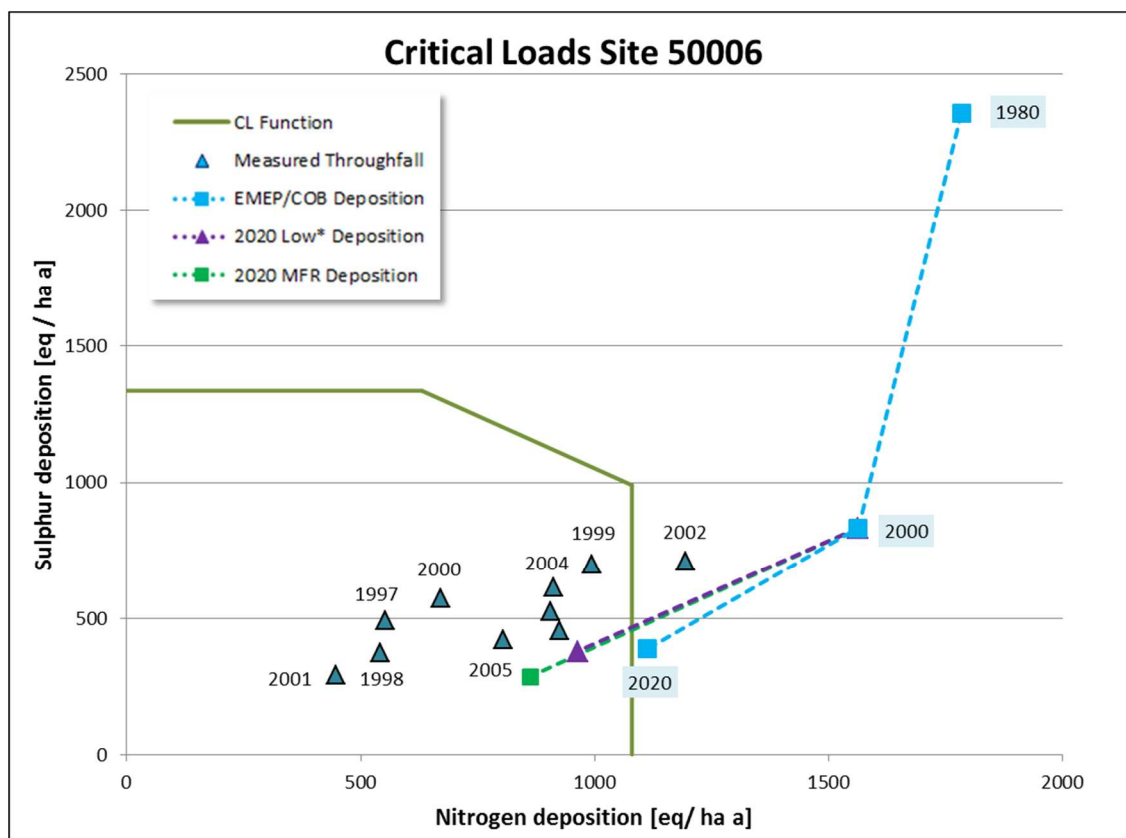
SMB method

Deposition modelled:

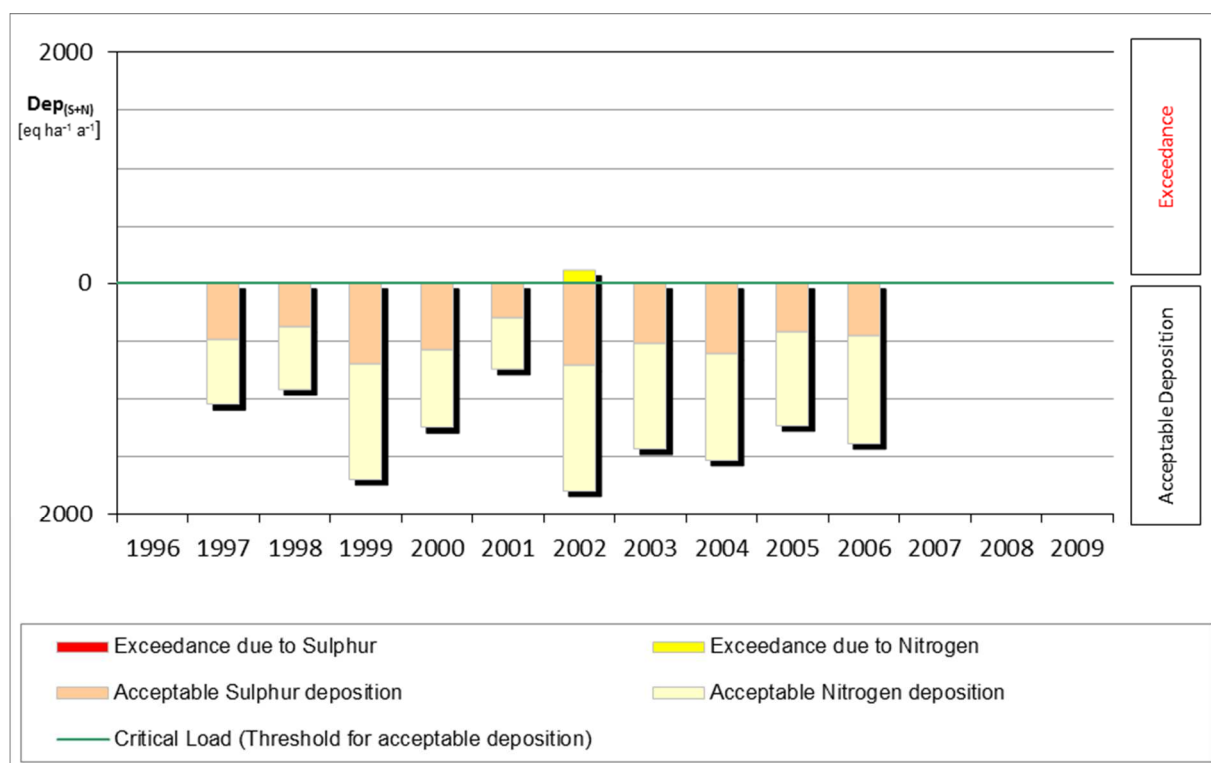
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1997 – 2006



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

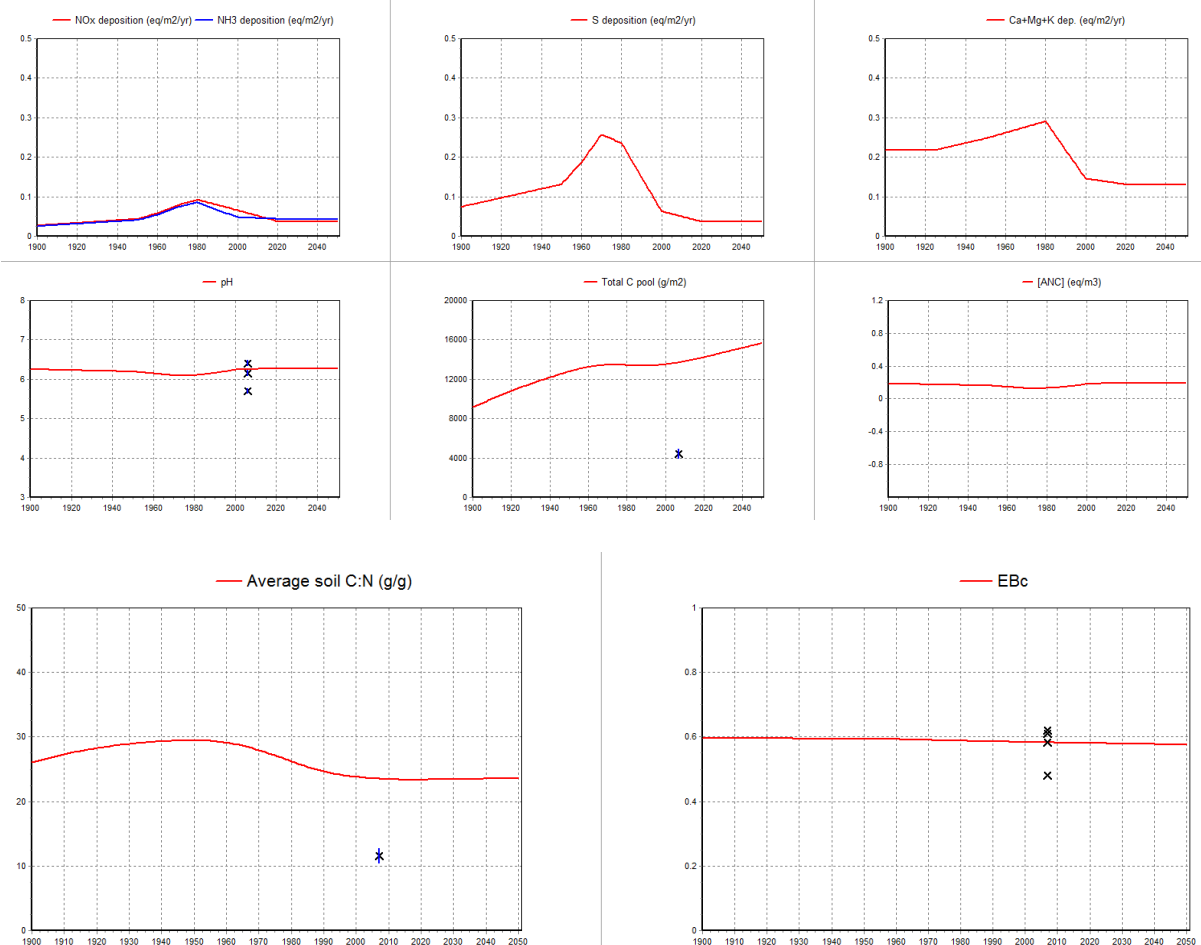
ICP Forest Level II Site

ID 50006

Country: Italy

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

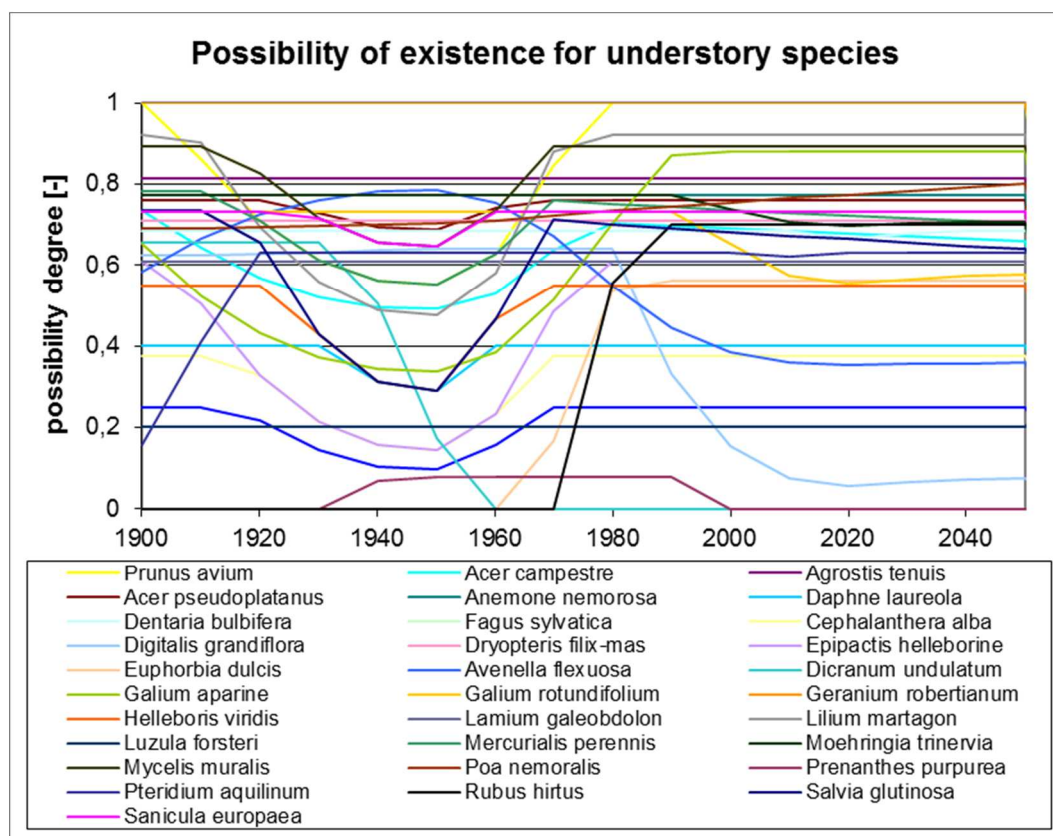
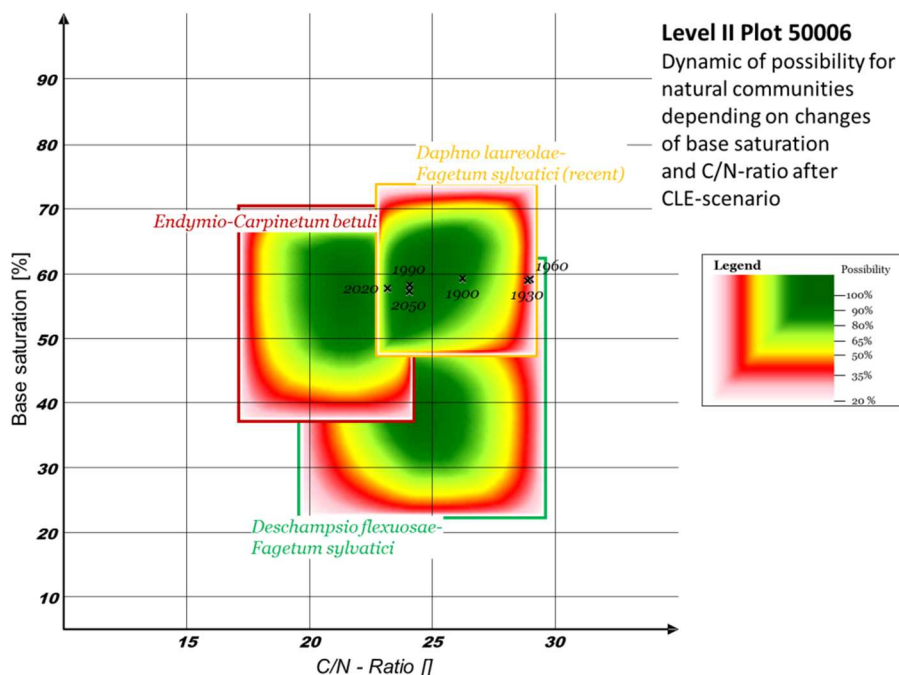
ICP Forest Level II Site

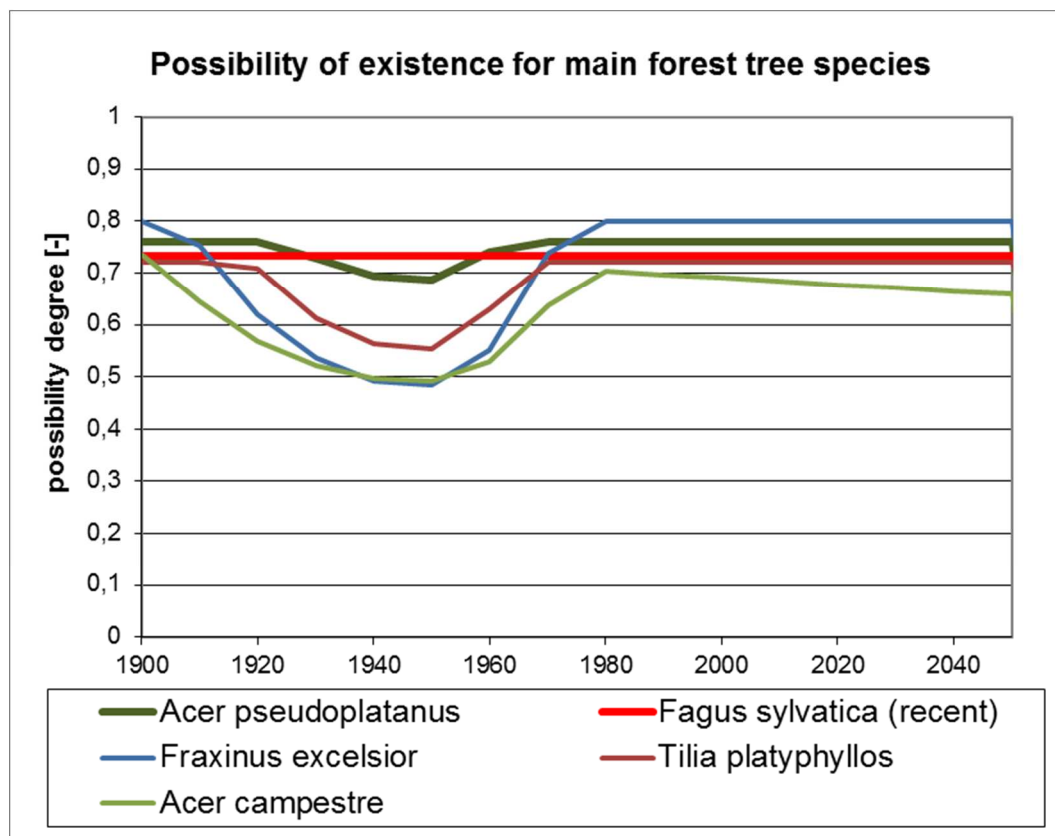
ID 50006

Country: Italy

BERN model

biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site:

ID 50008

Country: Italy

Critical Load calculation:

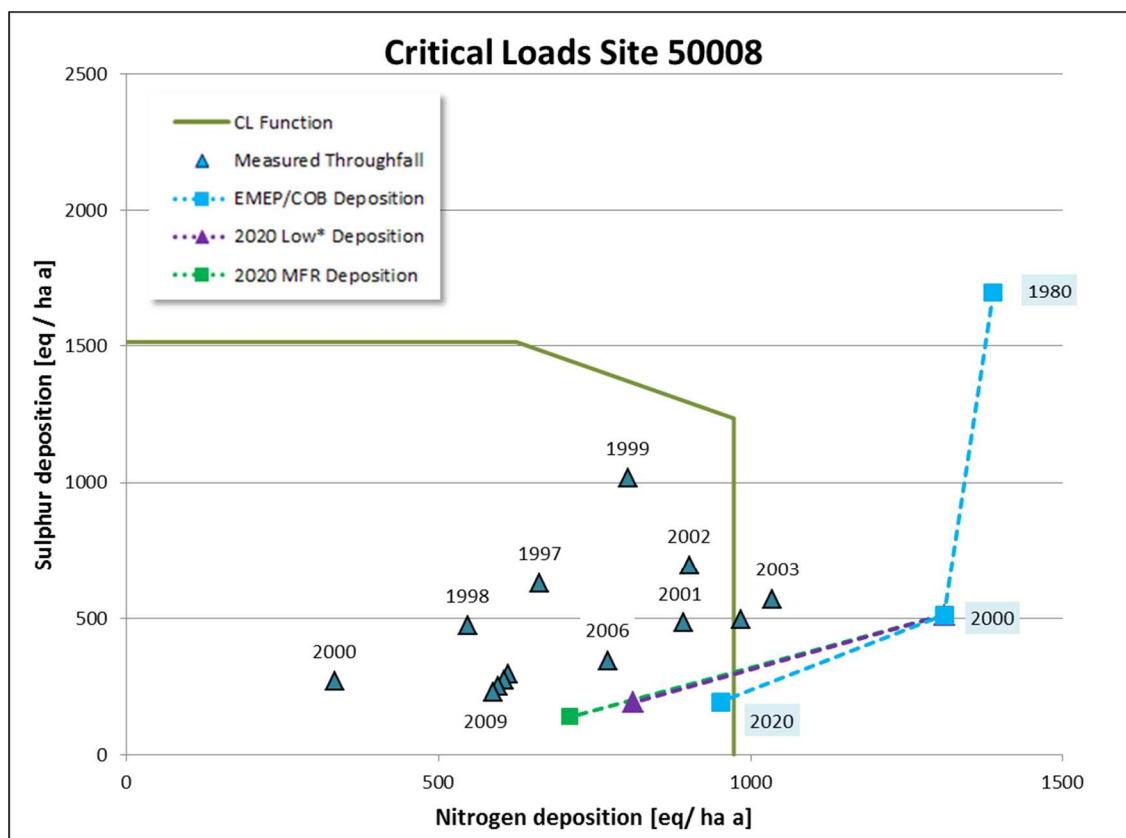
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

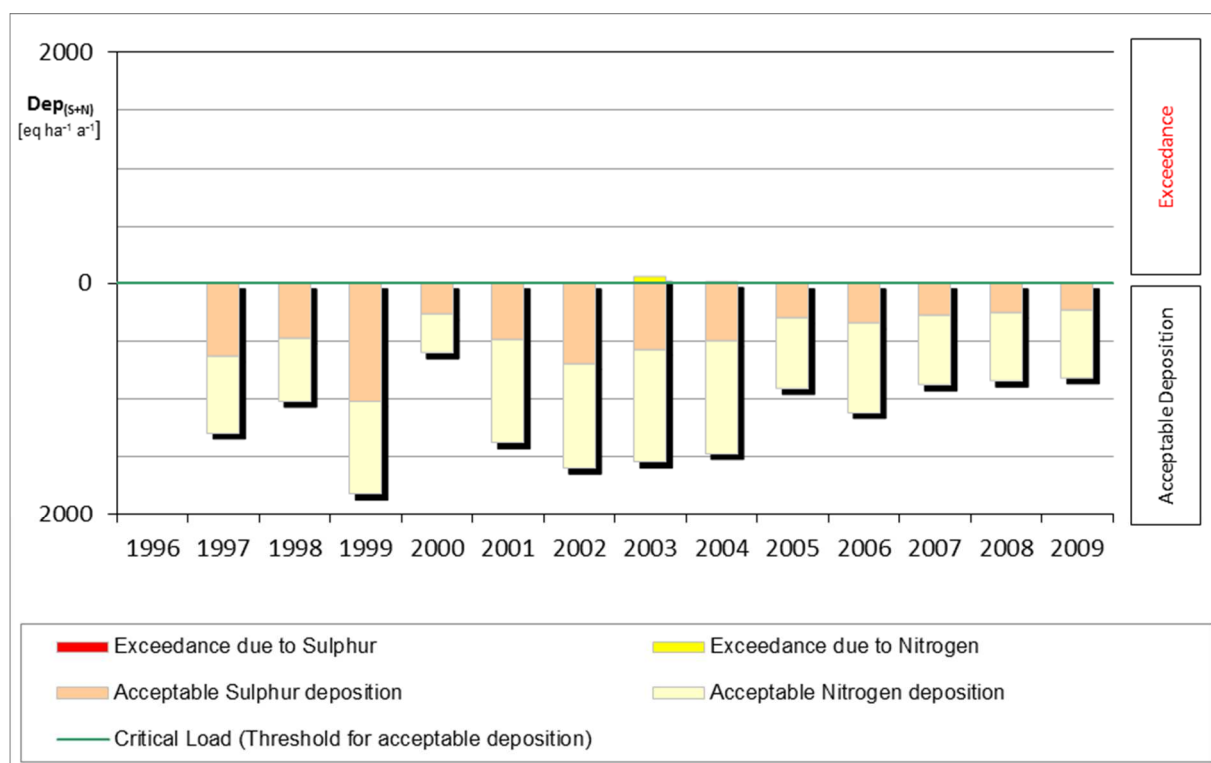
Deposition measured:

1997 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

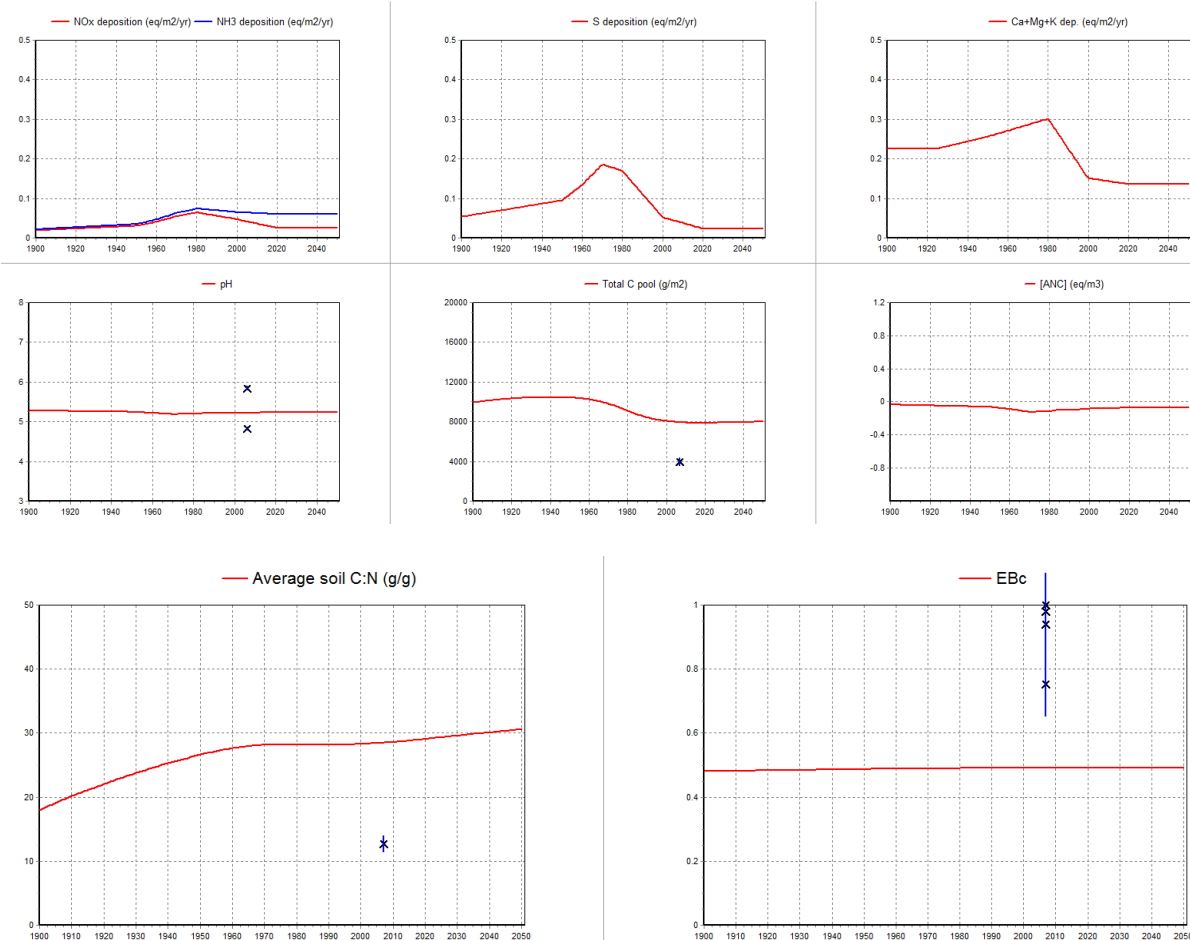
ICP Forest Level II Site

ID 50008

Country: Italy

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

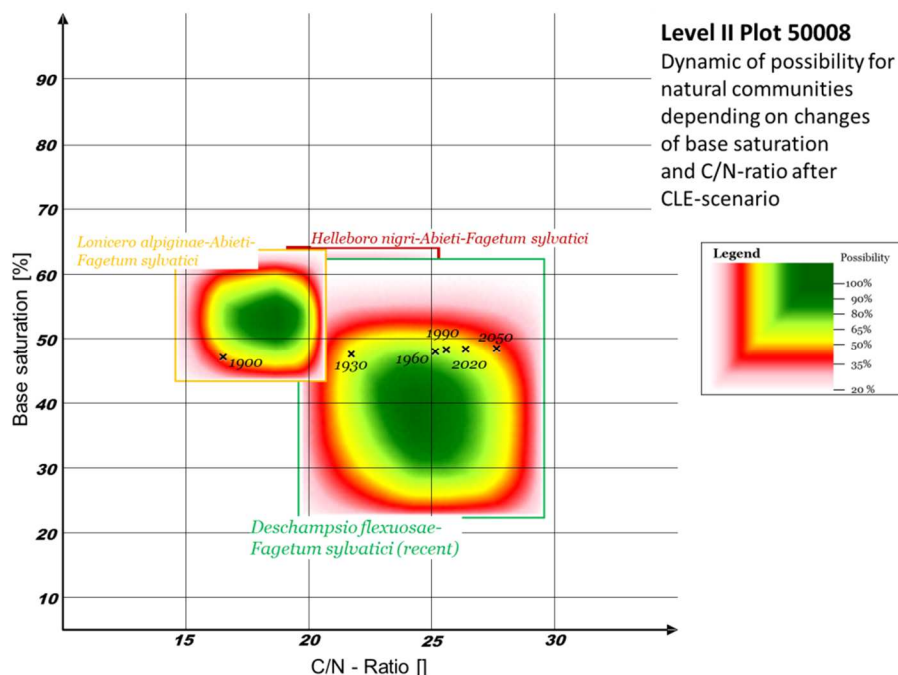
ICP Forest Level II Site

ID 50008

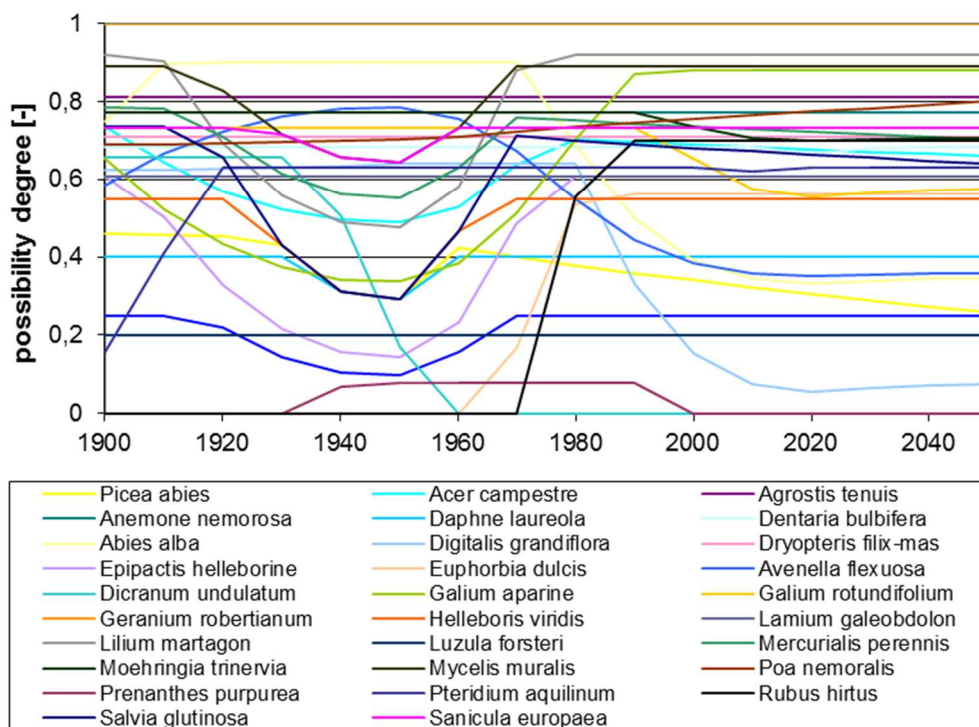
Country: Italy

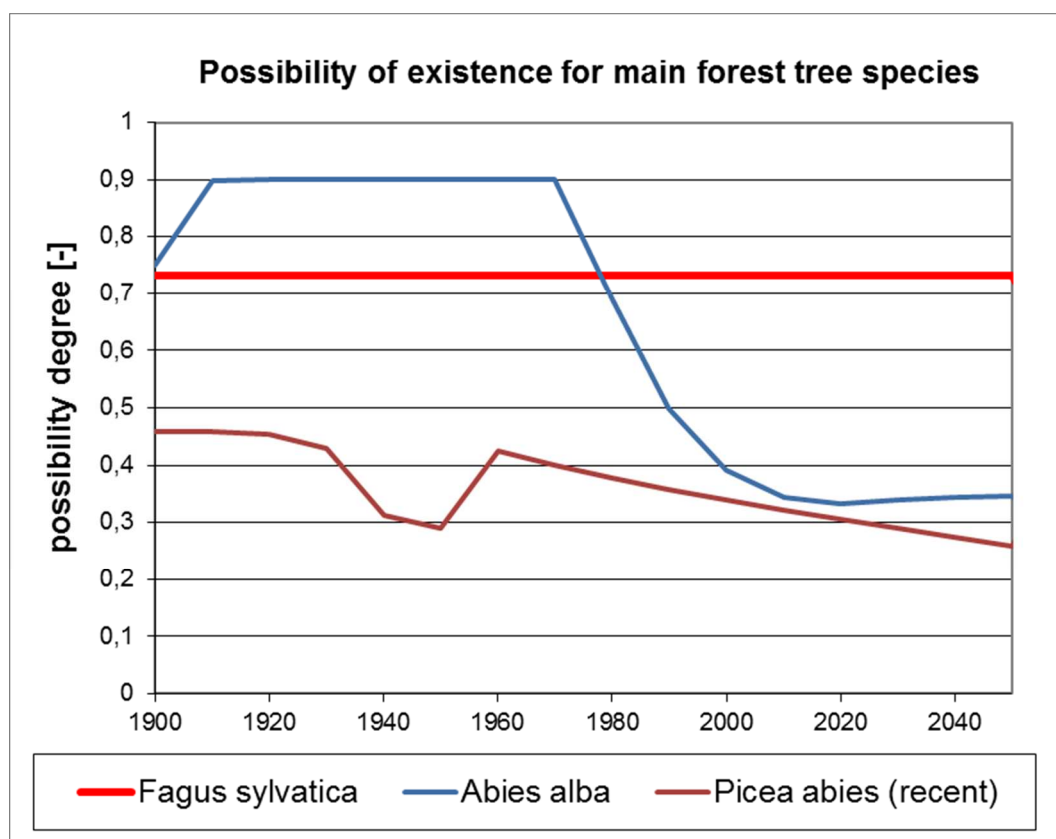
BERN model

biodiversity effects



### Possibility of existence for understory species





Conclusion: Changes in main tree species are recommended

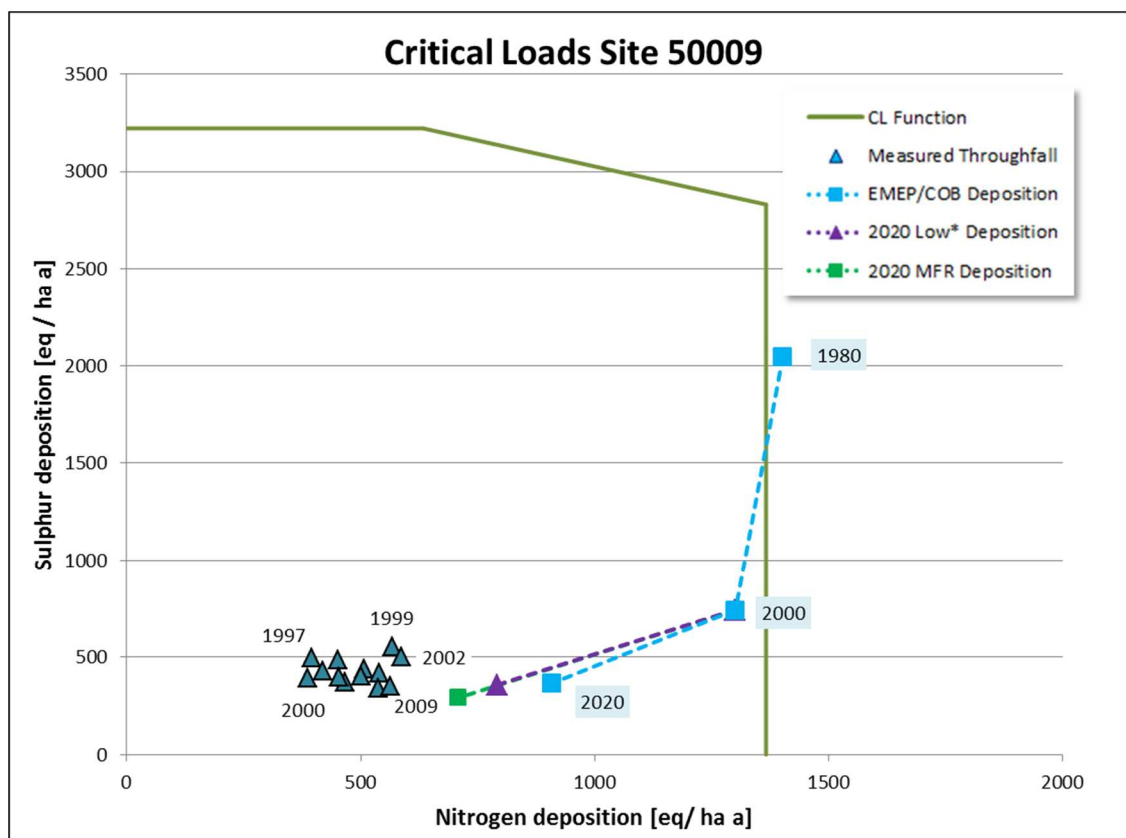
ICP Forest Level II Site: ID 50009

Country: Italy

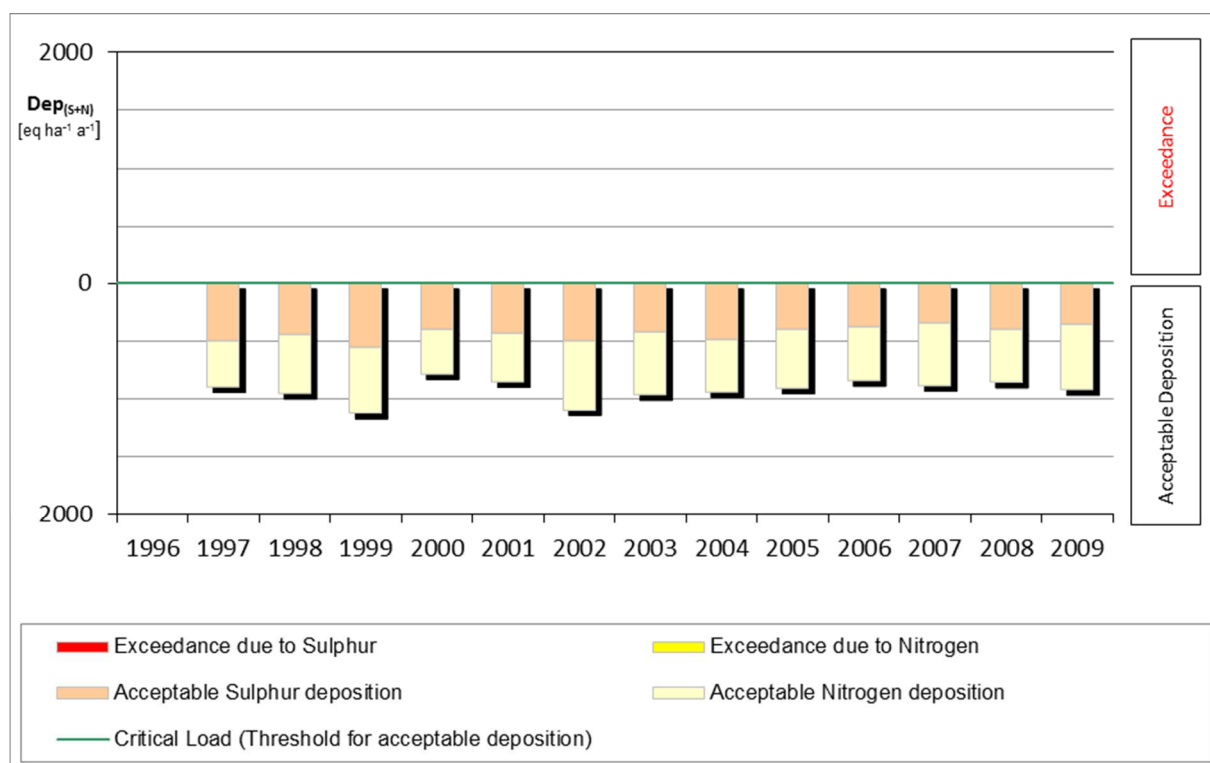
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1997 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

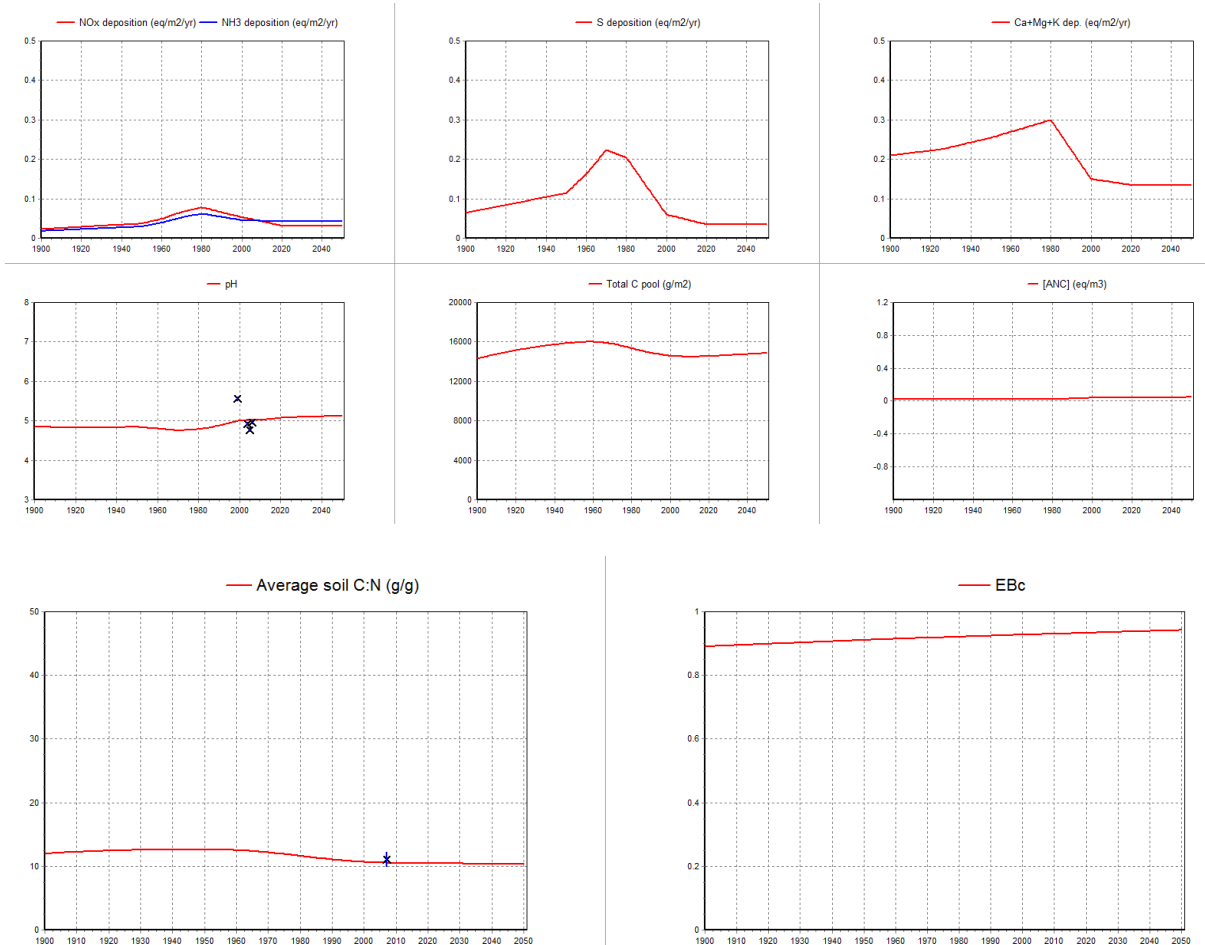
## ICP Forest Level II Site

ID 50009

Country: Italy

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 50010

Country: Italy

Critical Load calculation:

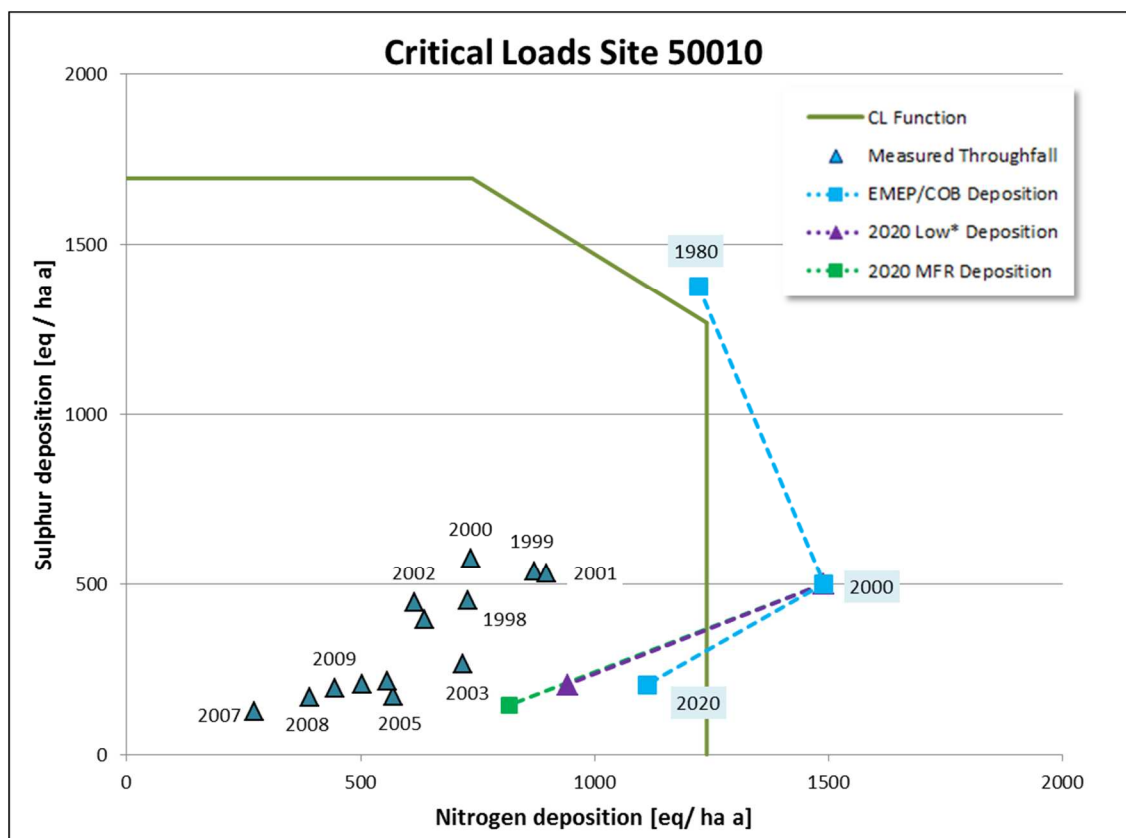
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

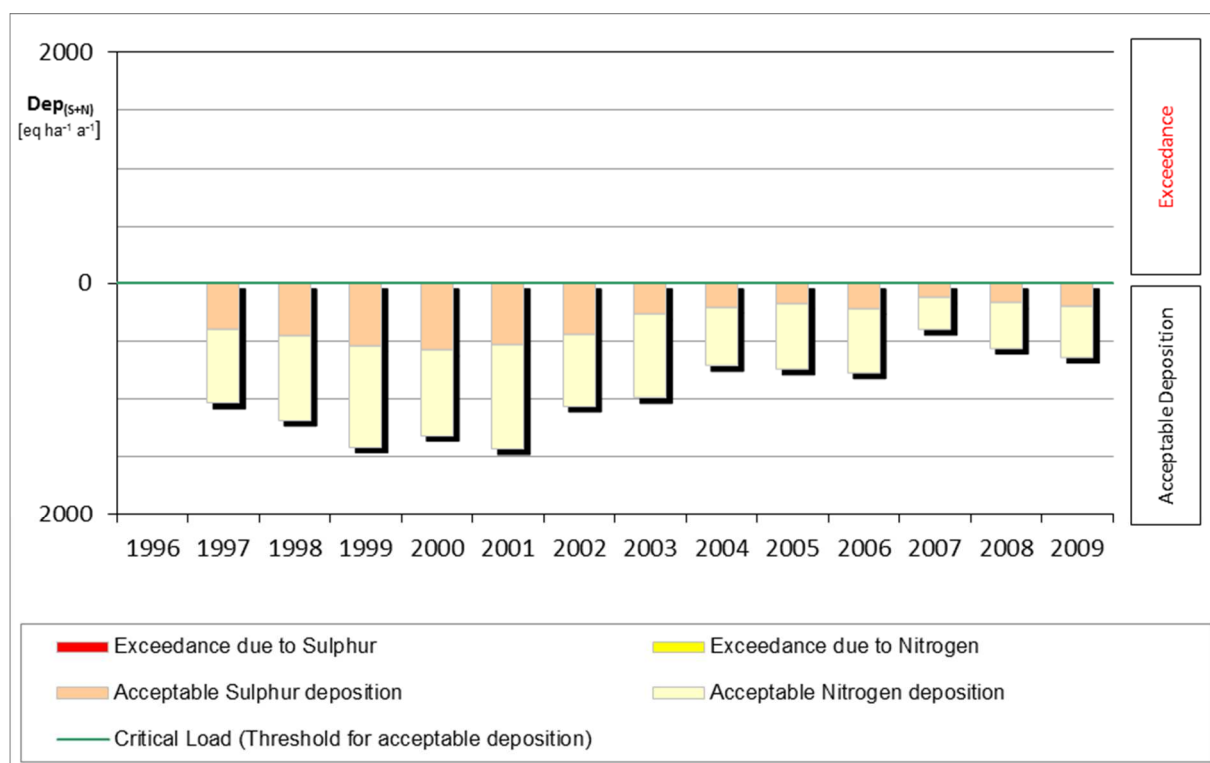
Deposition measured:

1997 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 50012

Country: Italy

Critical Load calculation:

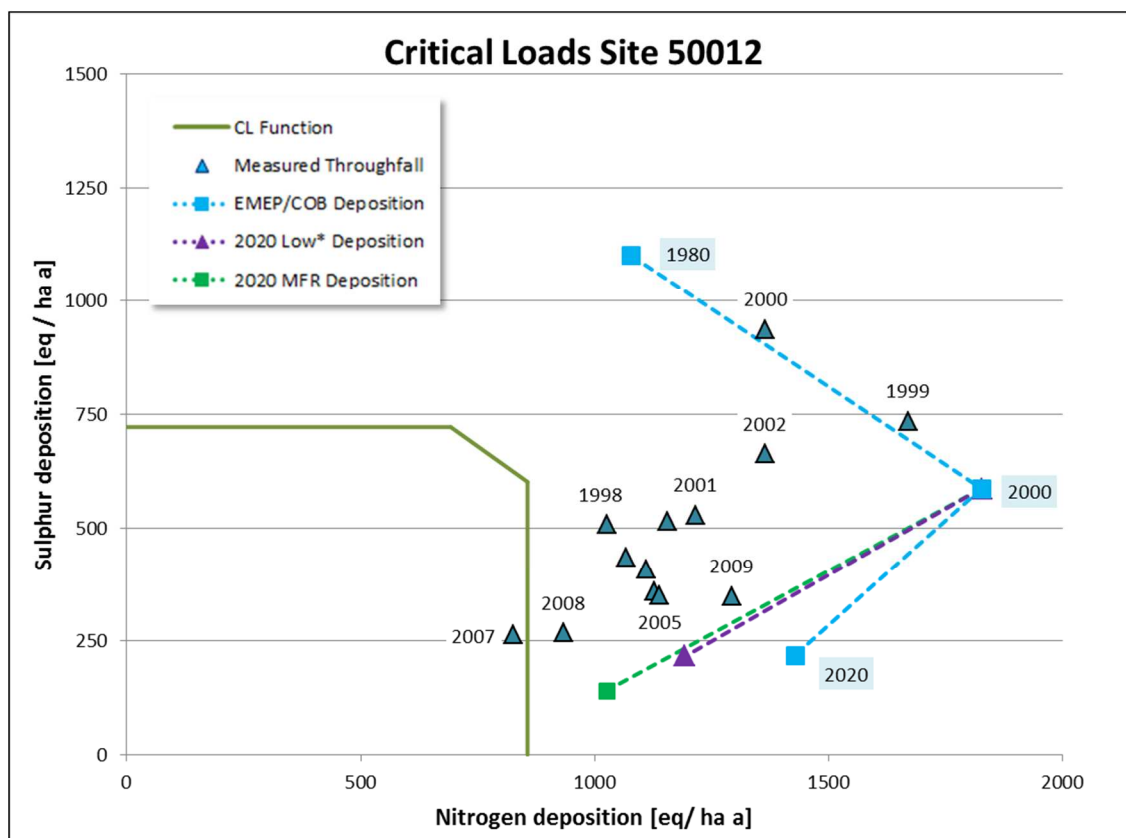
SMB method

Deposition modelled:

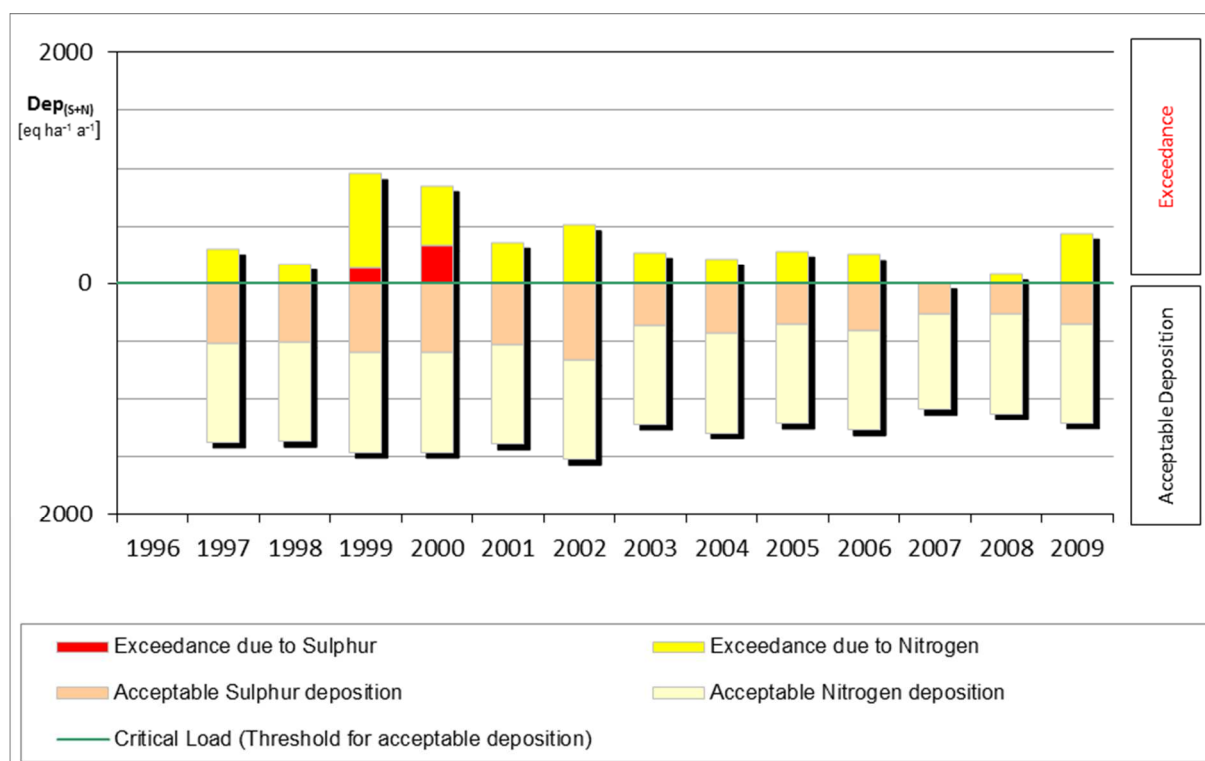
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1997 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

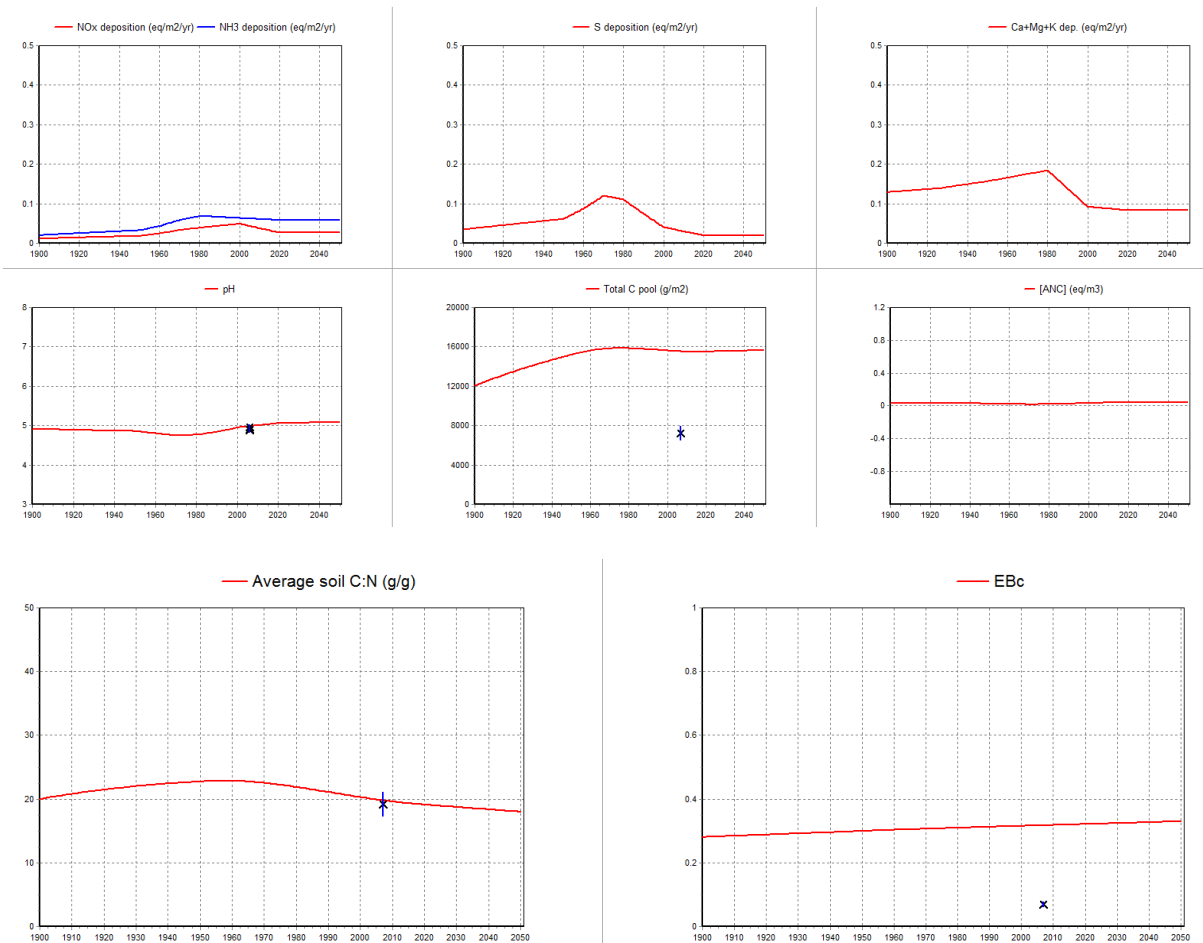
ICP Forest Level II Site

ID 50012

Country: Italy

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 50017

Country: Italy

Critical Load calculation:

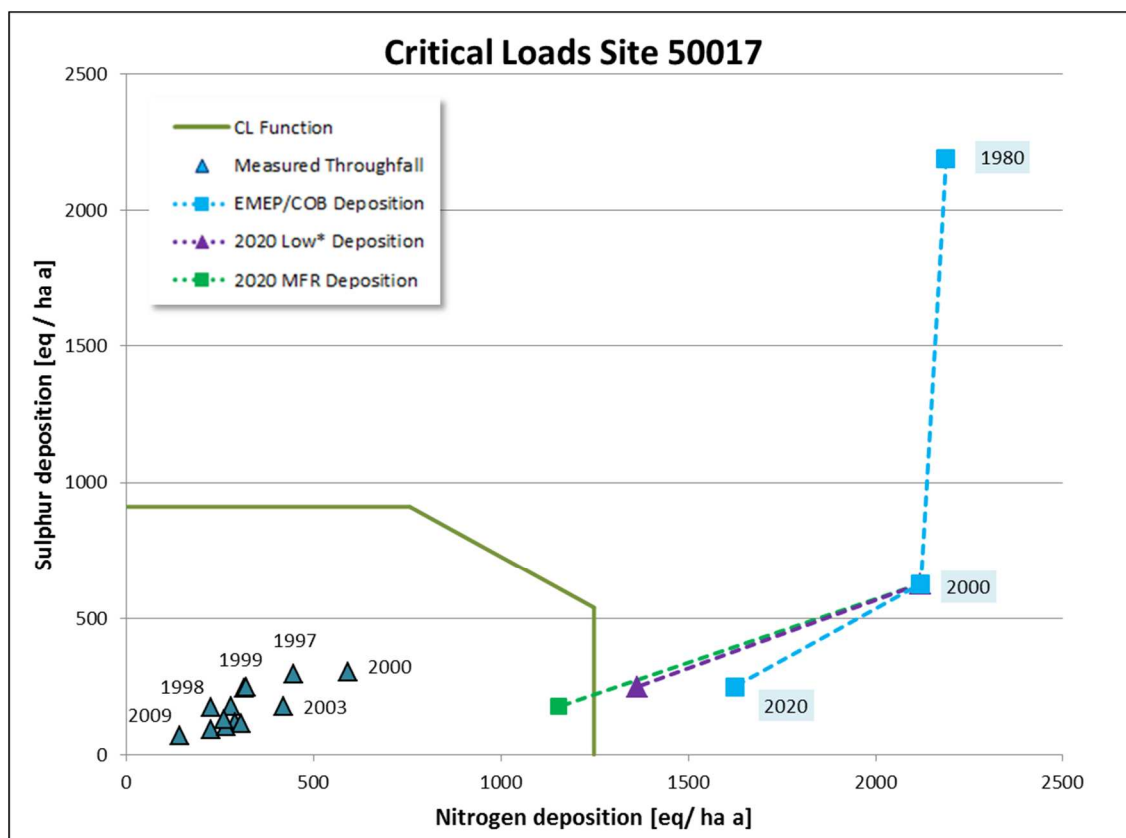
SMB method

Deposition modelled:

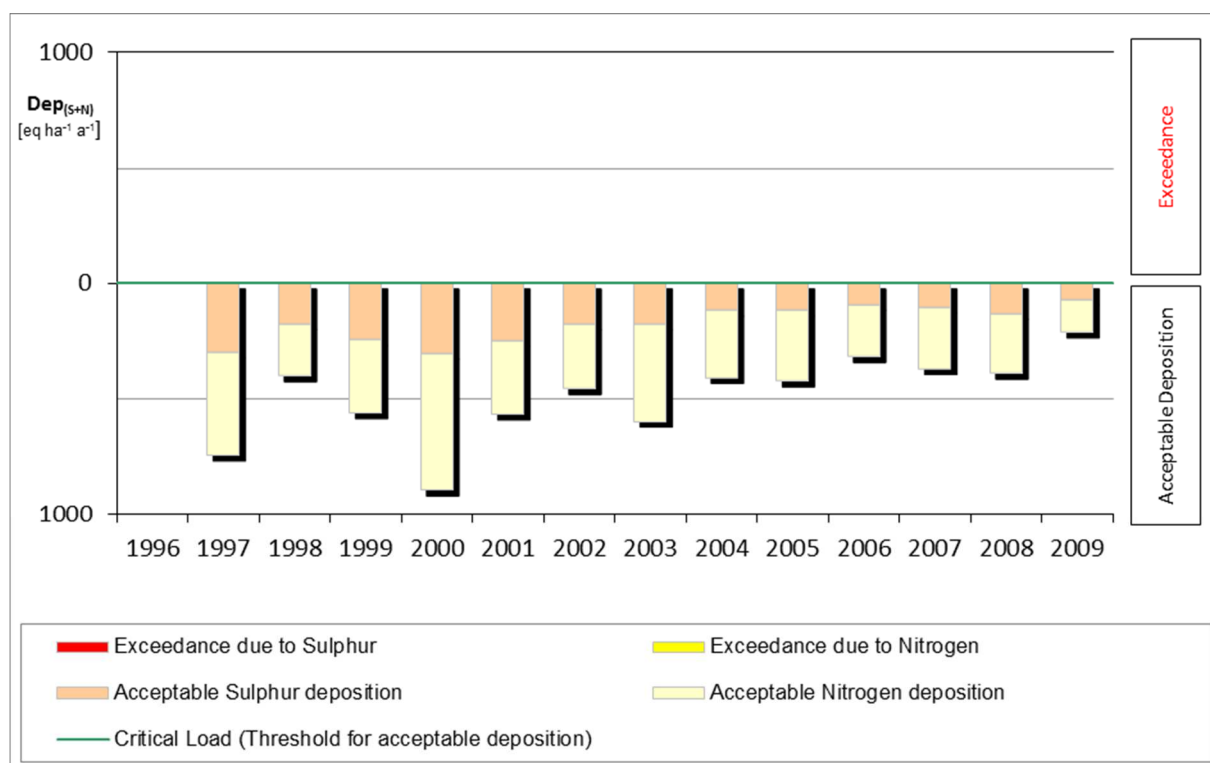
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1997 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

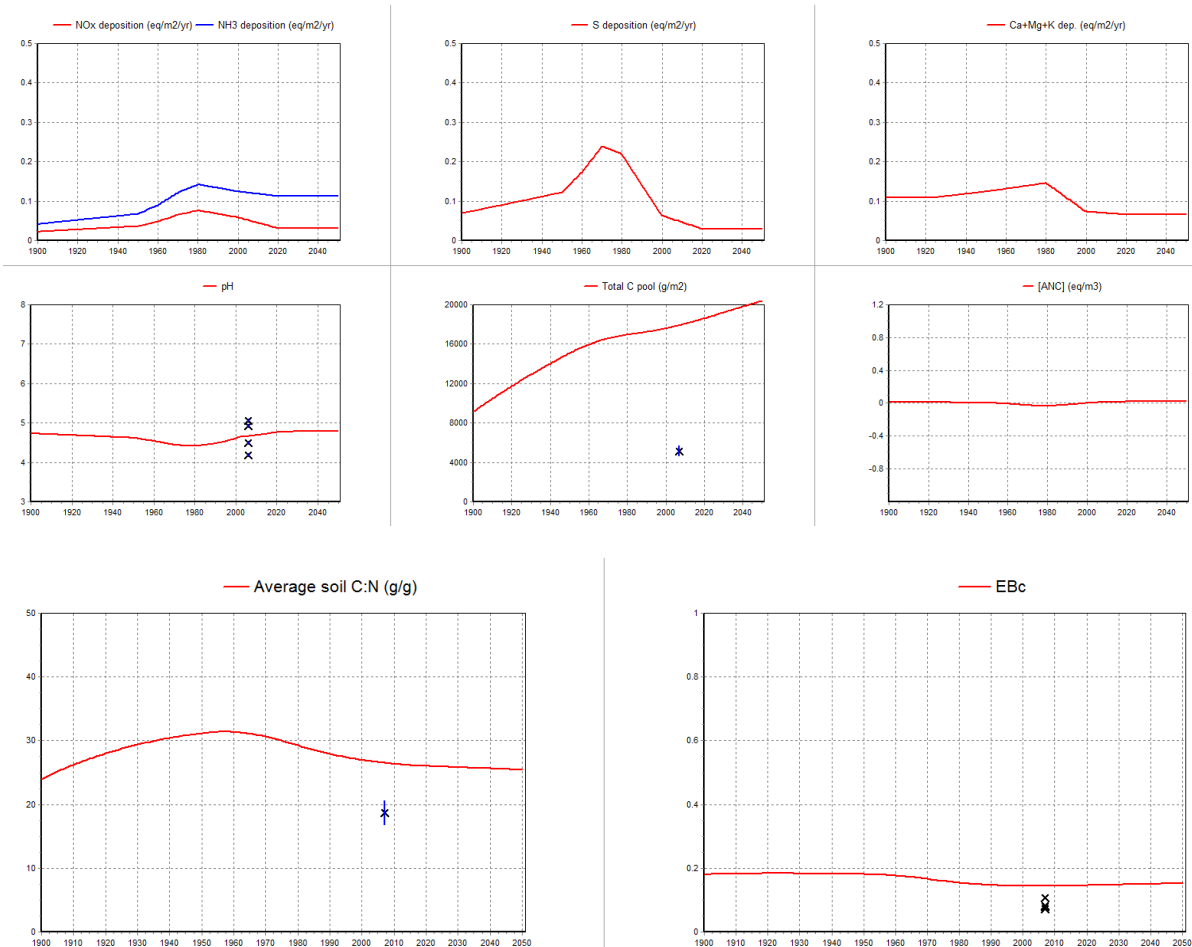
## ICP Forest Level II Site

ID 50017

Country: Italy

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

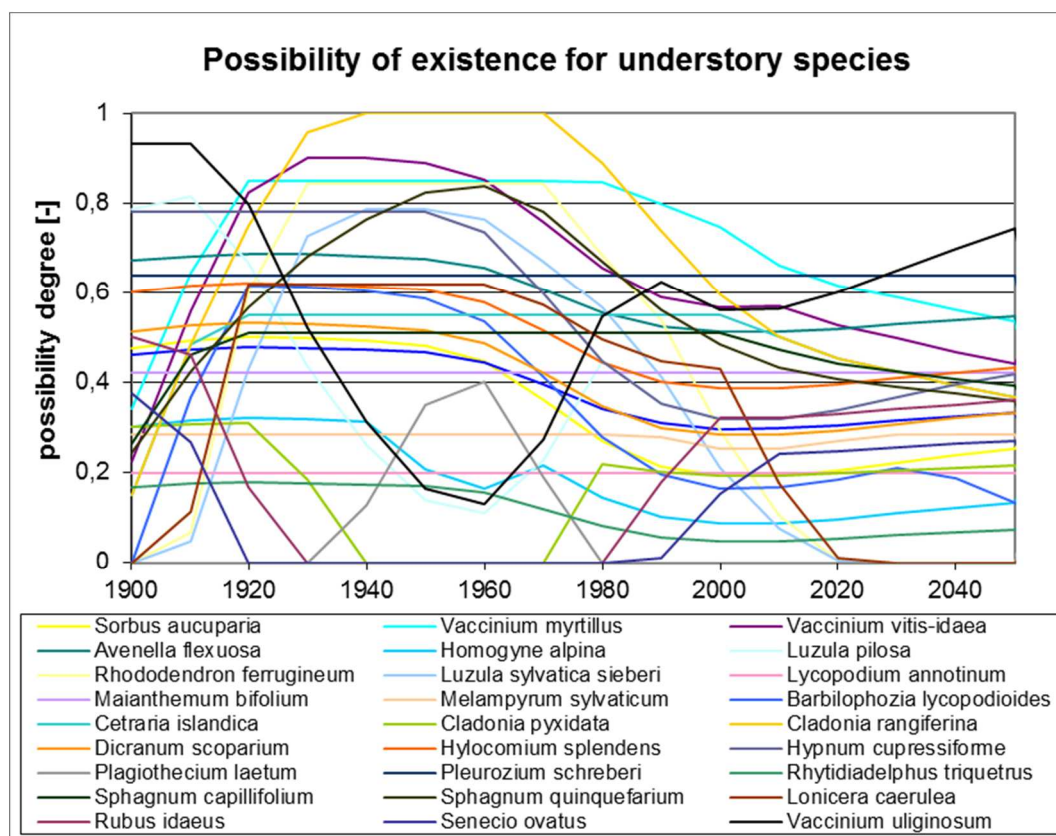
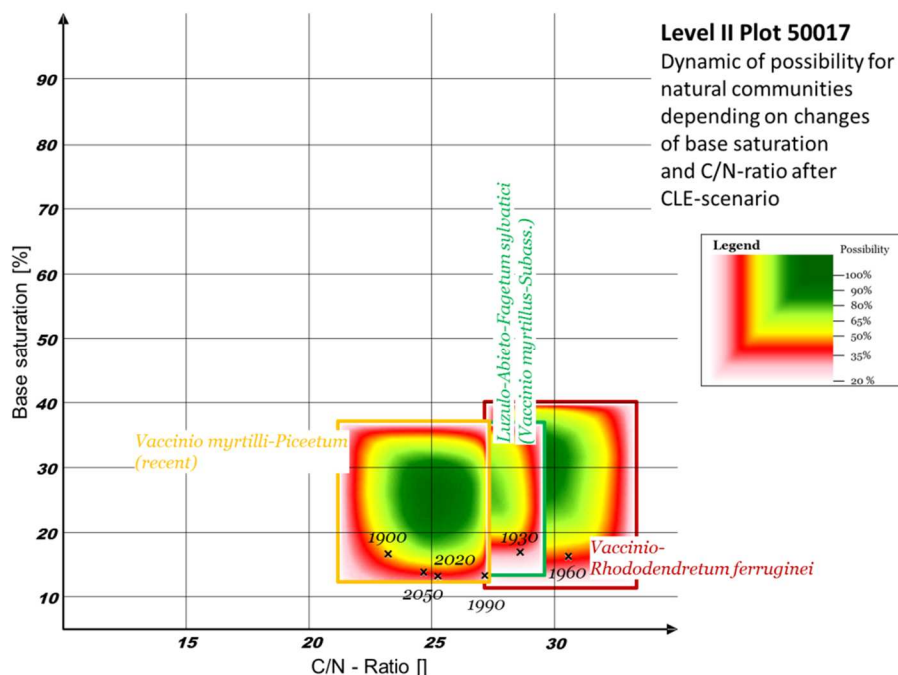
ICP Forest Level II Site

ID 50017

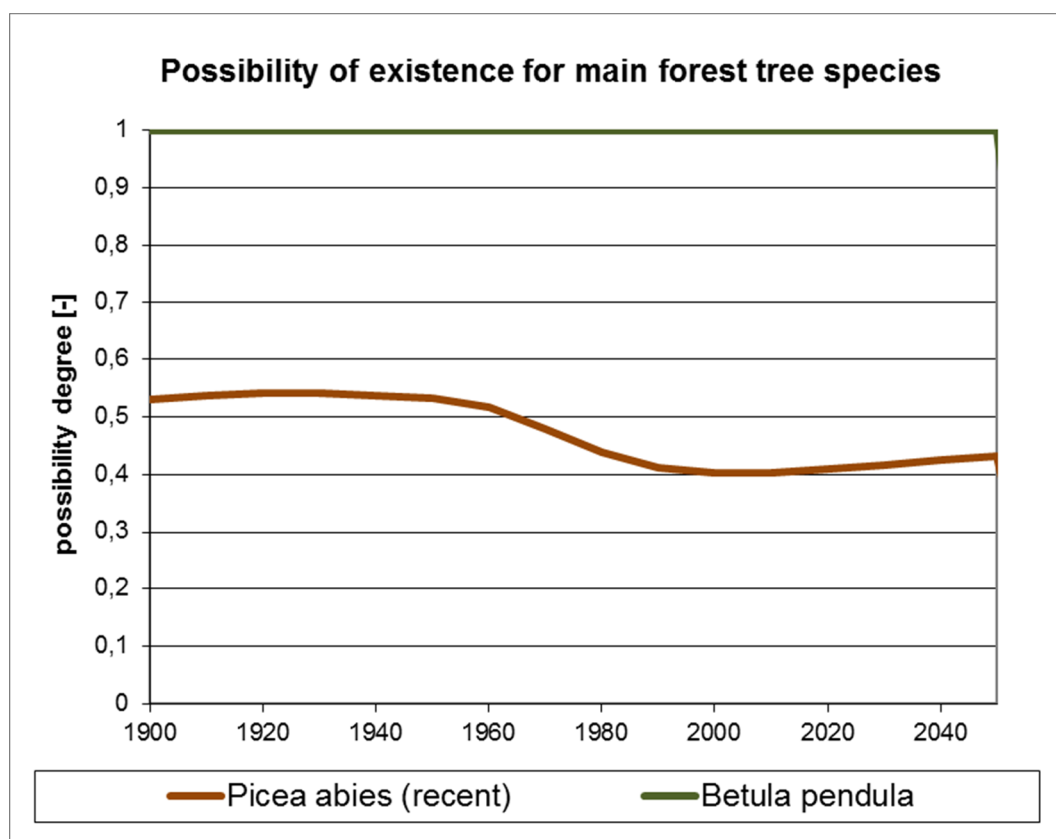
Country: Italy

BERN model

biodiversity effects







Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site:

ID 50027

Country: Italy

Critical Load calculation:

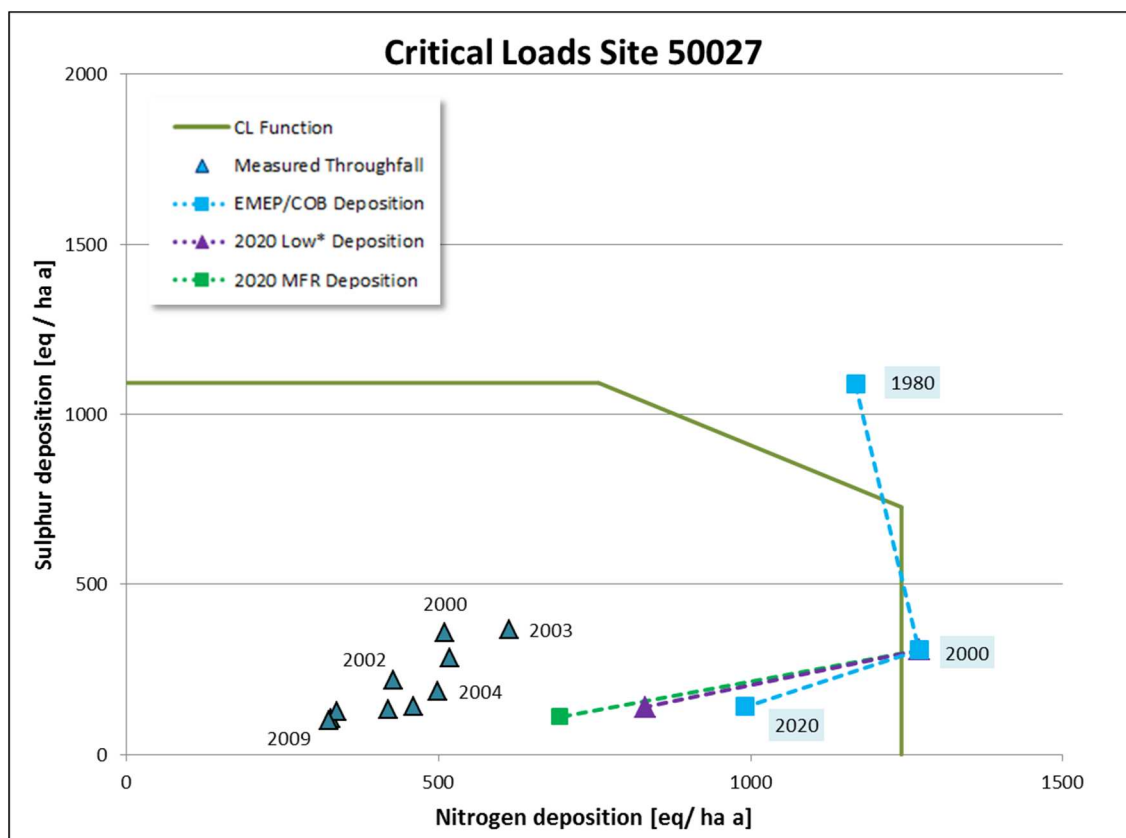
SMB method

Deposition modelled:

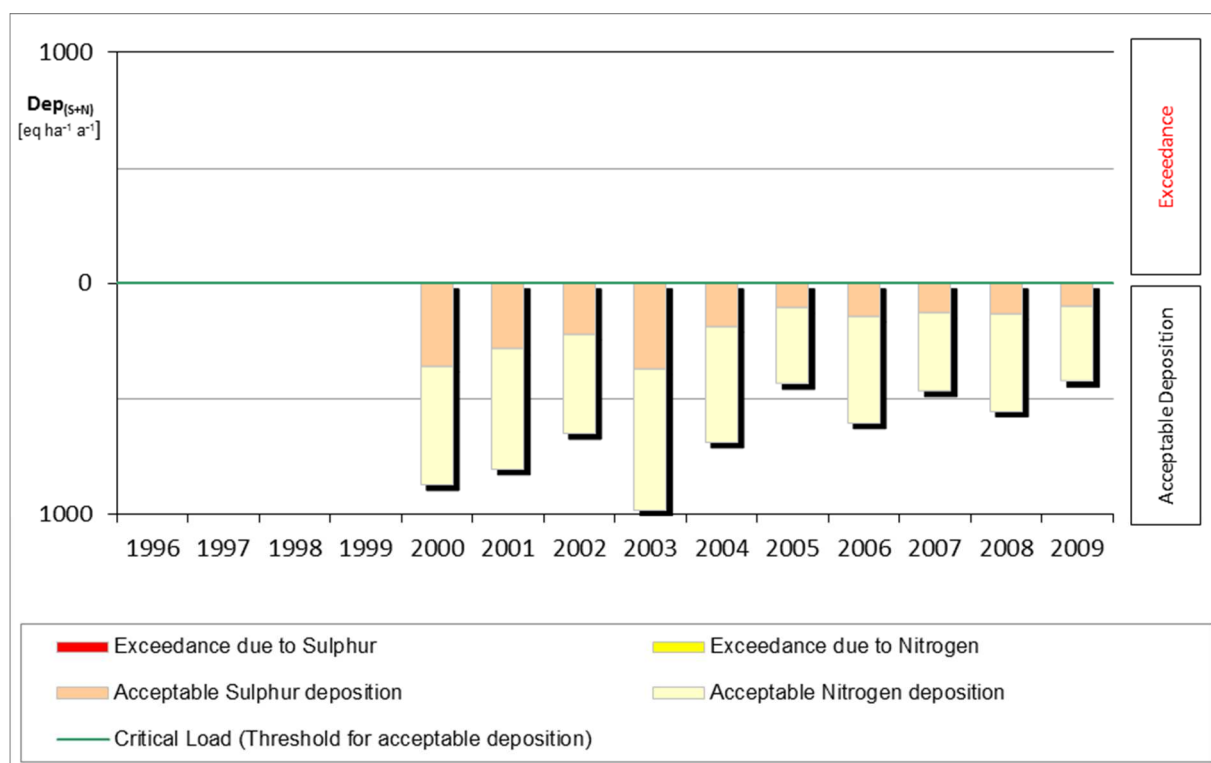
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

2000 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

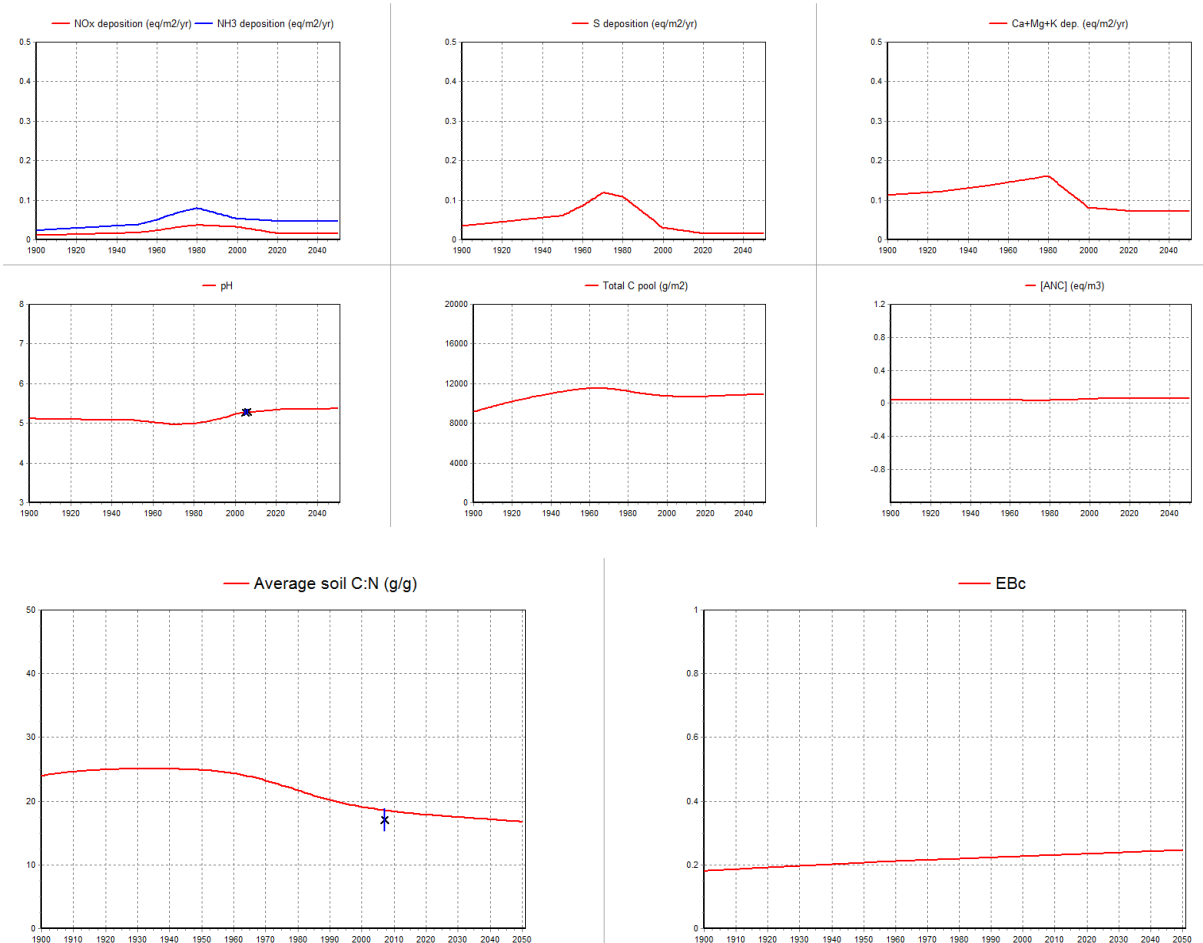
## ICP Forest Level II Site

ID 50027

Country: Italy

VSD+ model

geochemical dynamics



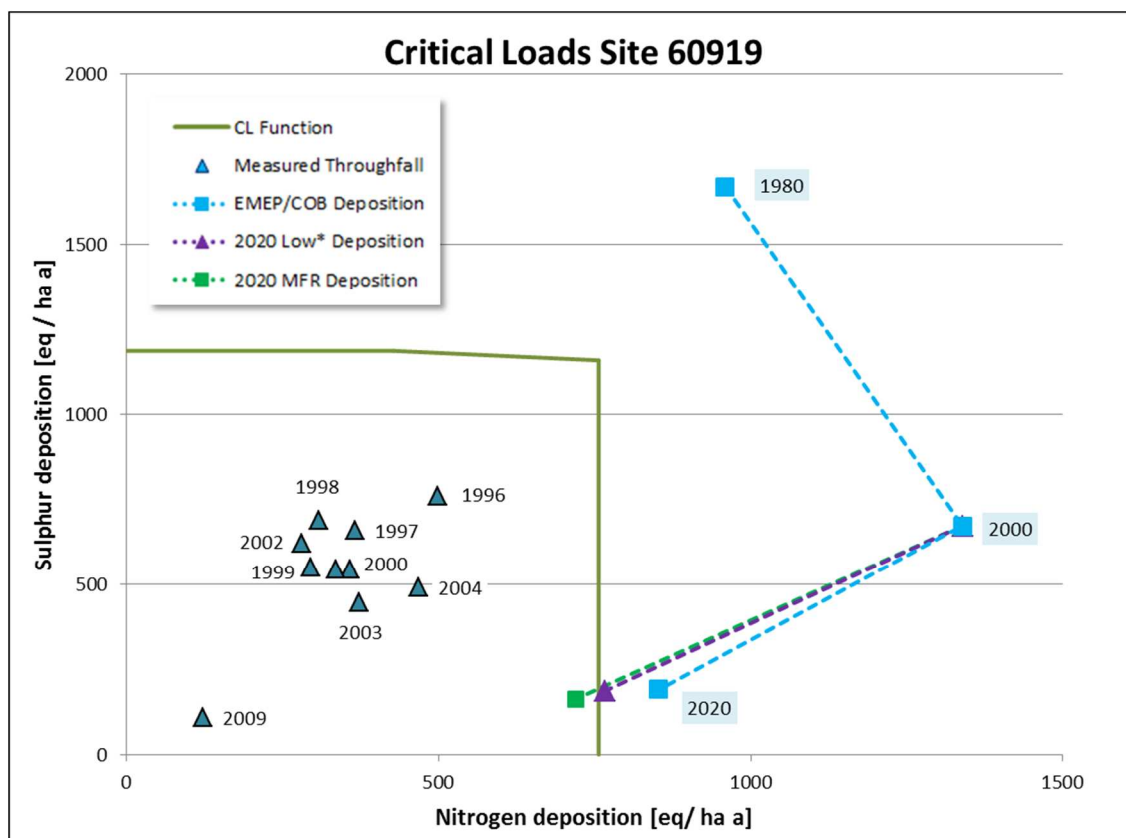
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: **ID 60919** **Country: United Kingdom**

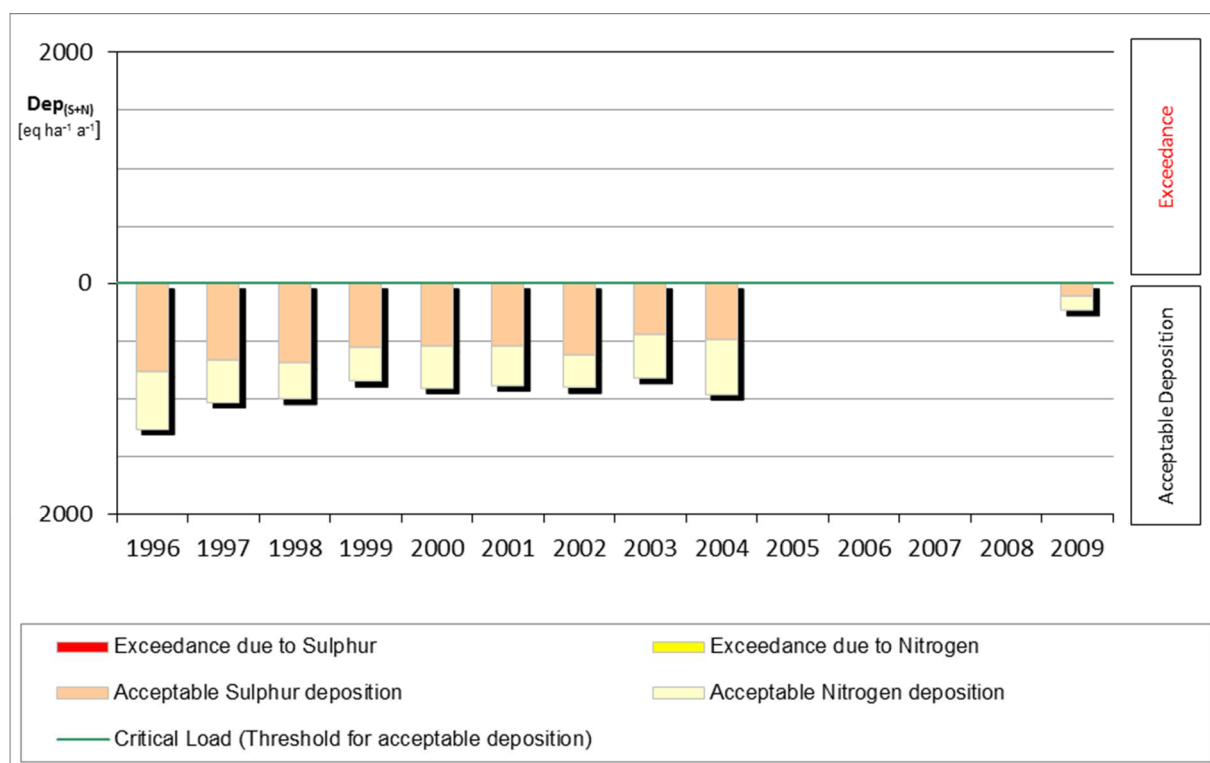
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2004, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

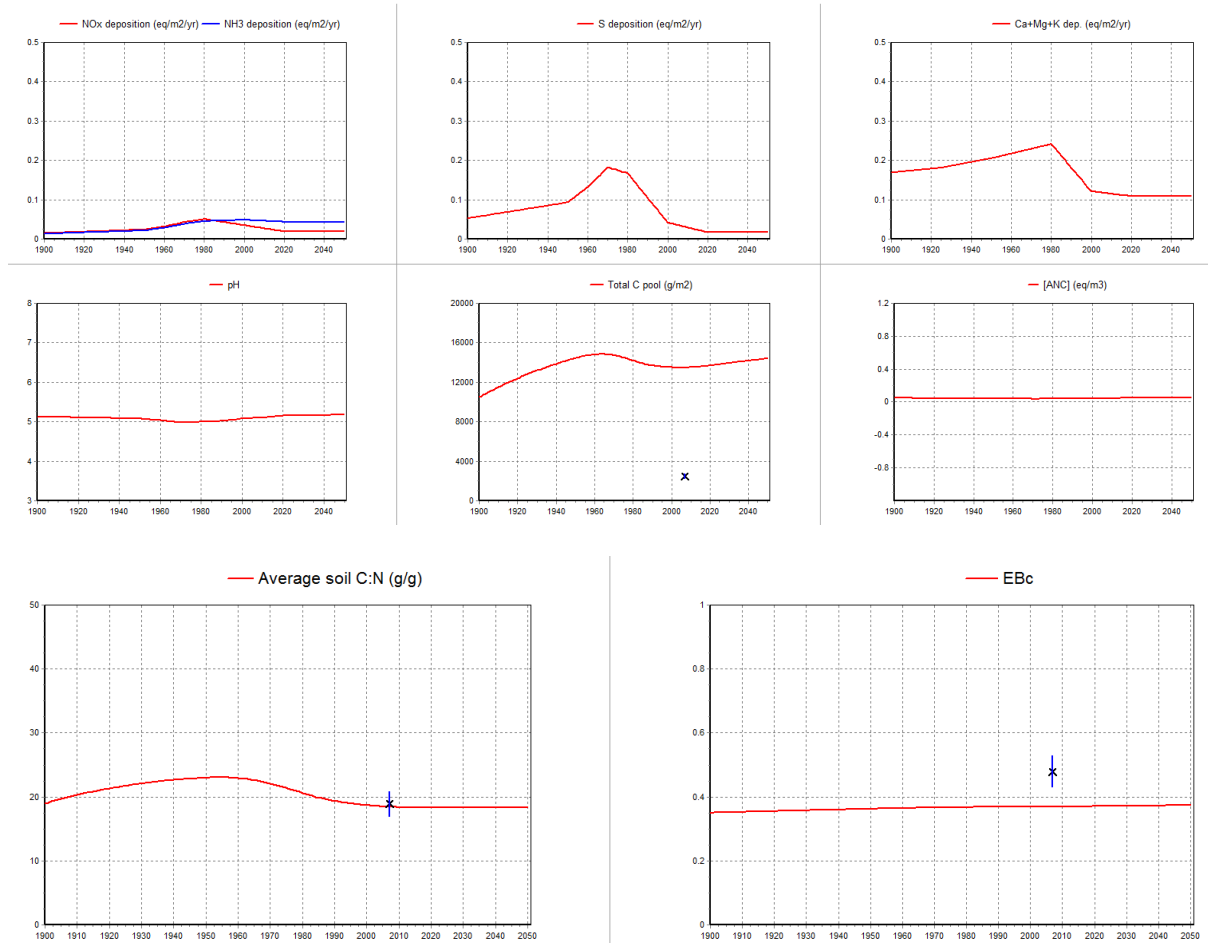
## ICP Forest Level II Site

ID 60919

Country: United Kingdom

## VSD+ model

## geochemical dynamics



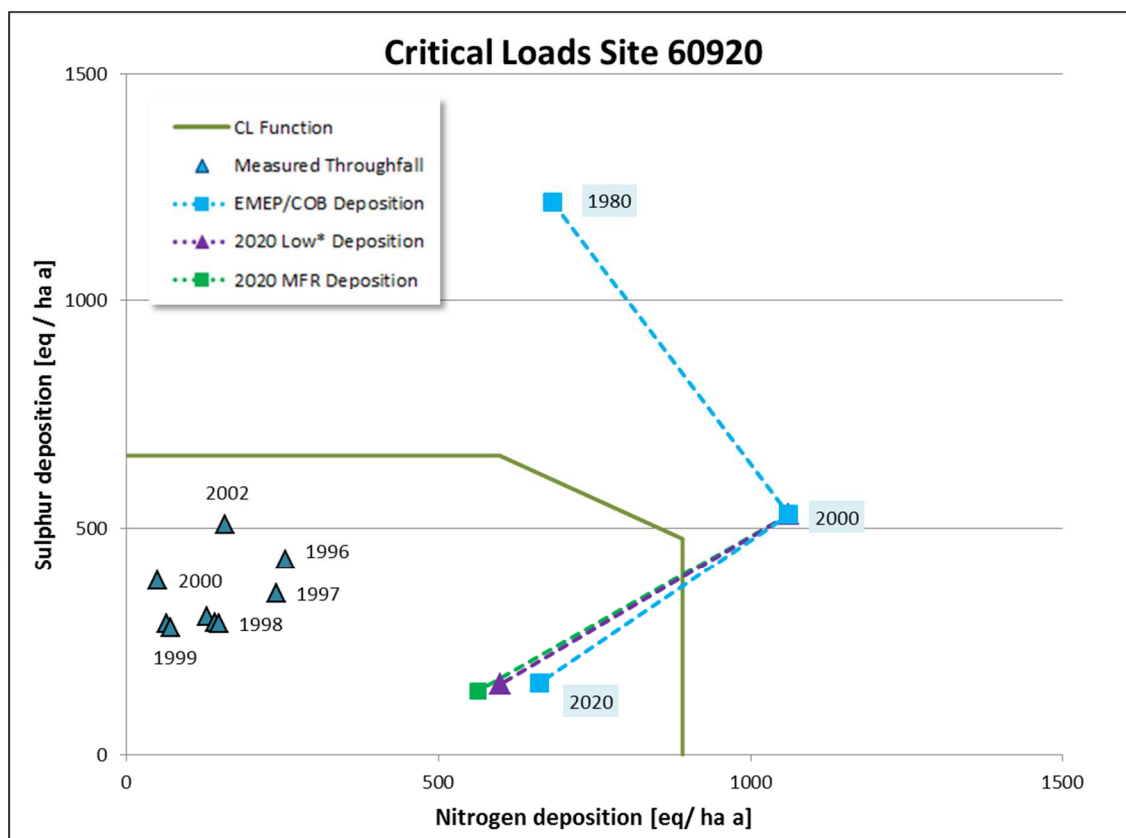
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: **ID 60920** **Country: United Kingdom**

Critical Load calculation: SMB method

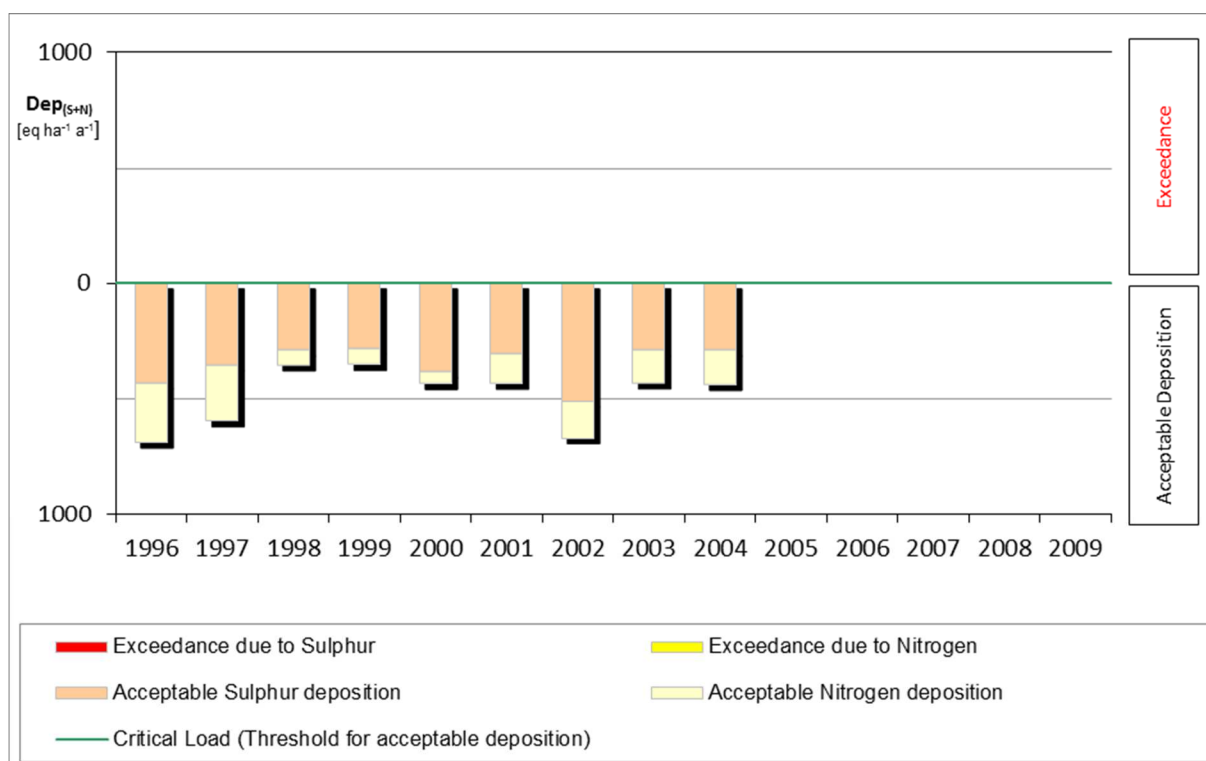
Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2004



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

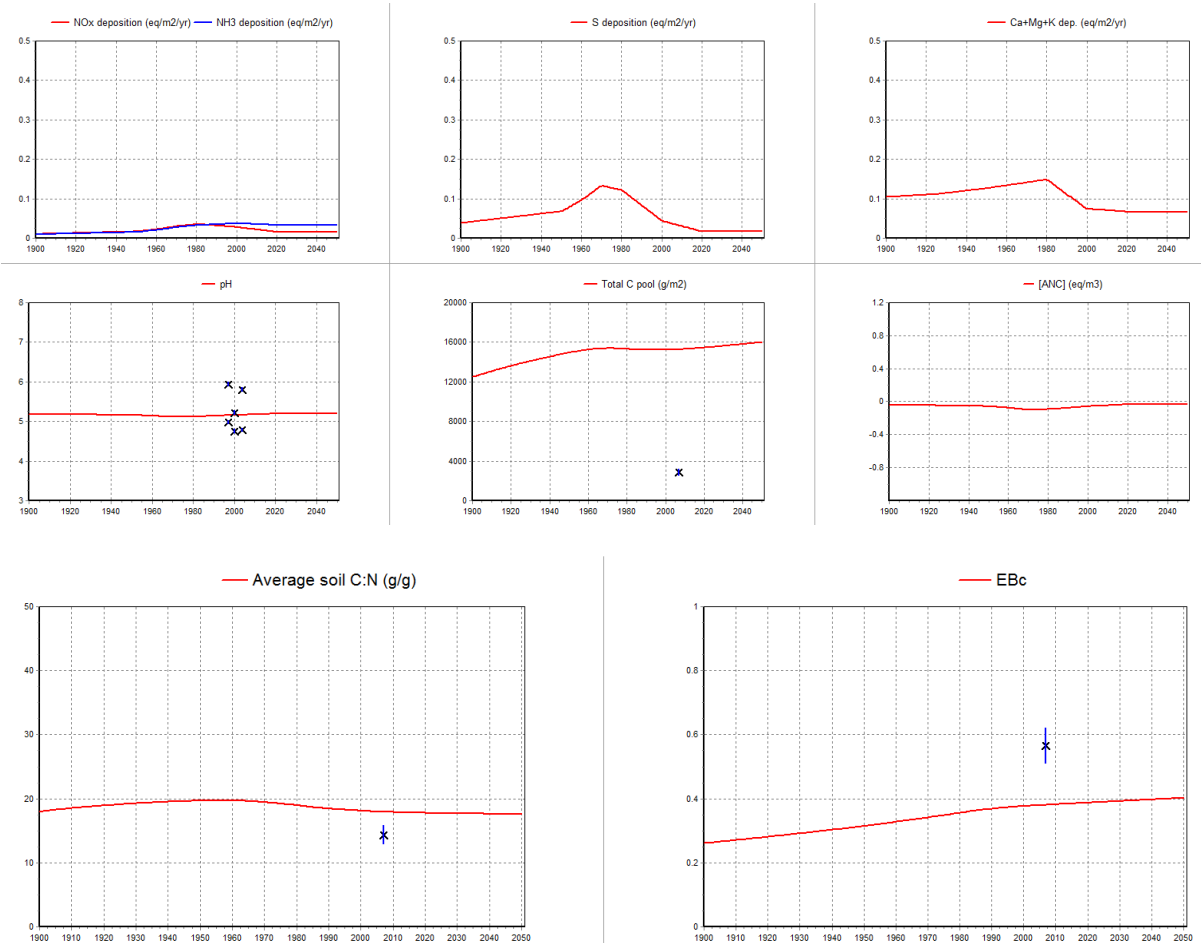
## ICP Forest Level II Site

ID 60920

Country: United Kingdom

## VSD+ model

## geochemical dynamics



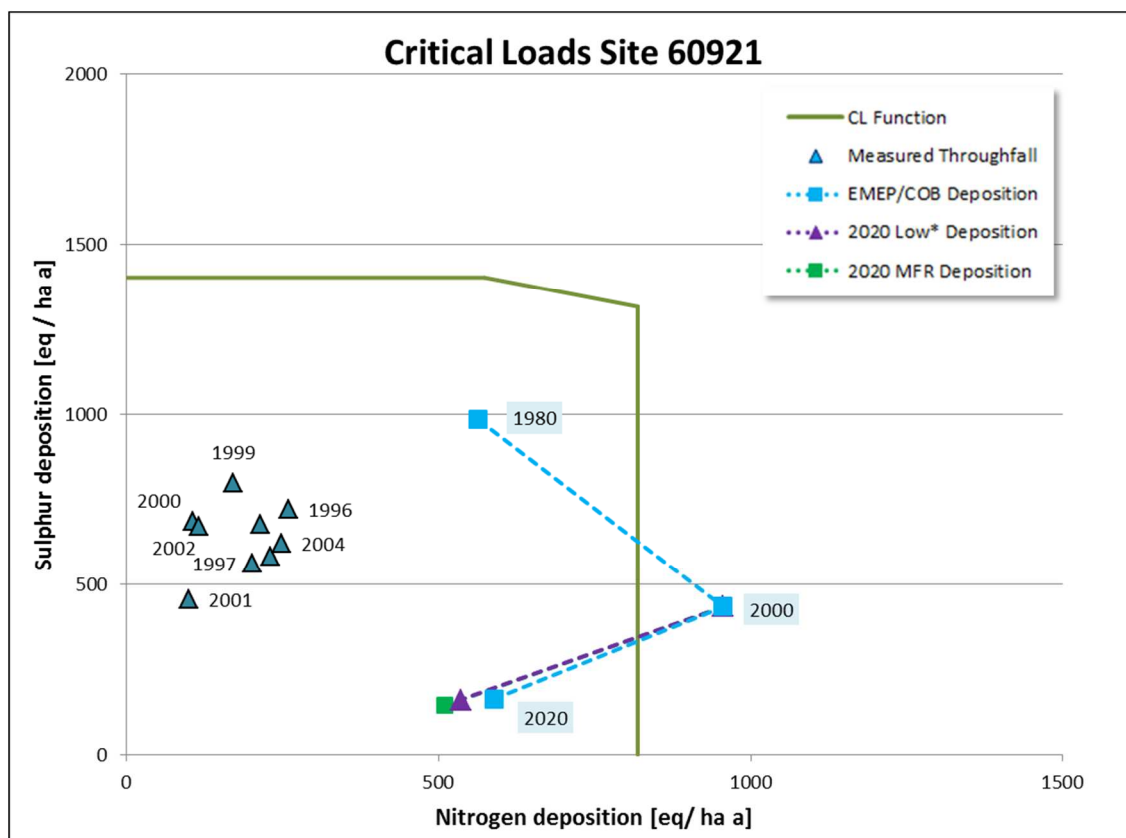
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: ID 60921 Country: United Kingdom

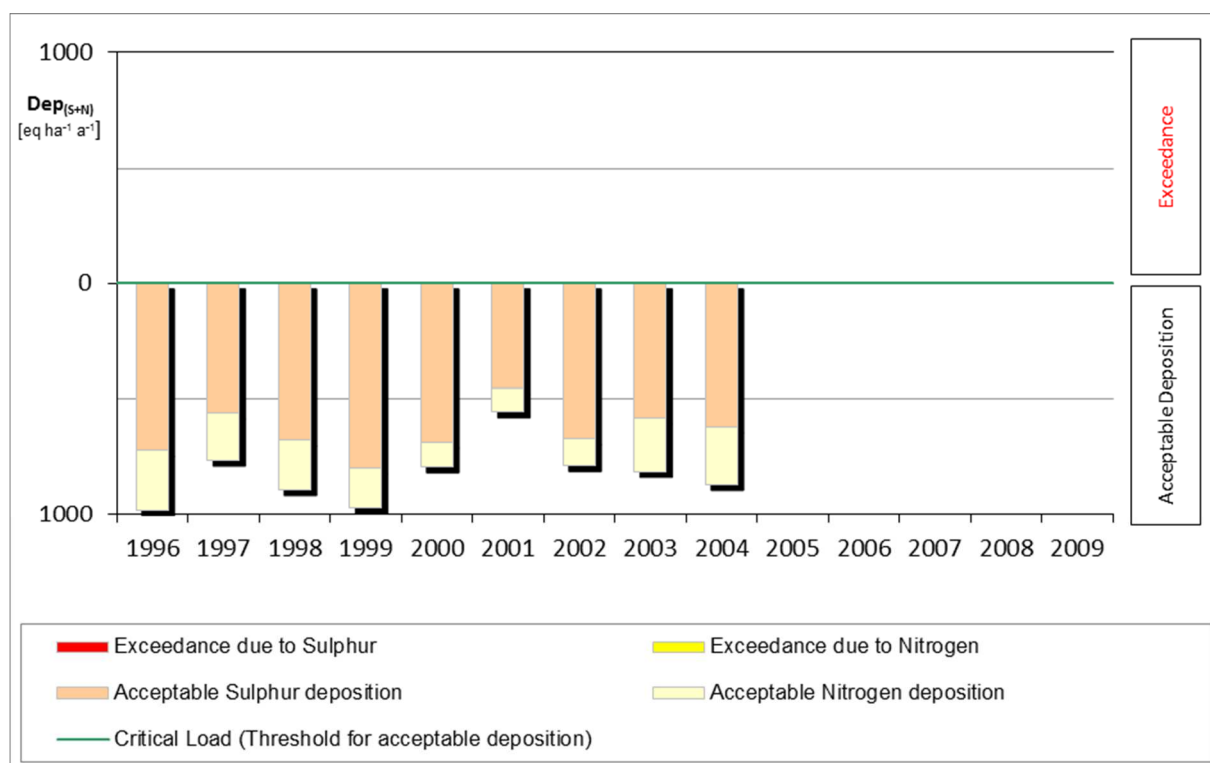
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2004



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

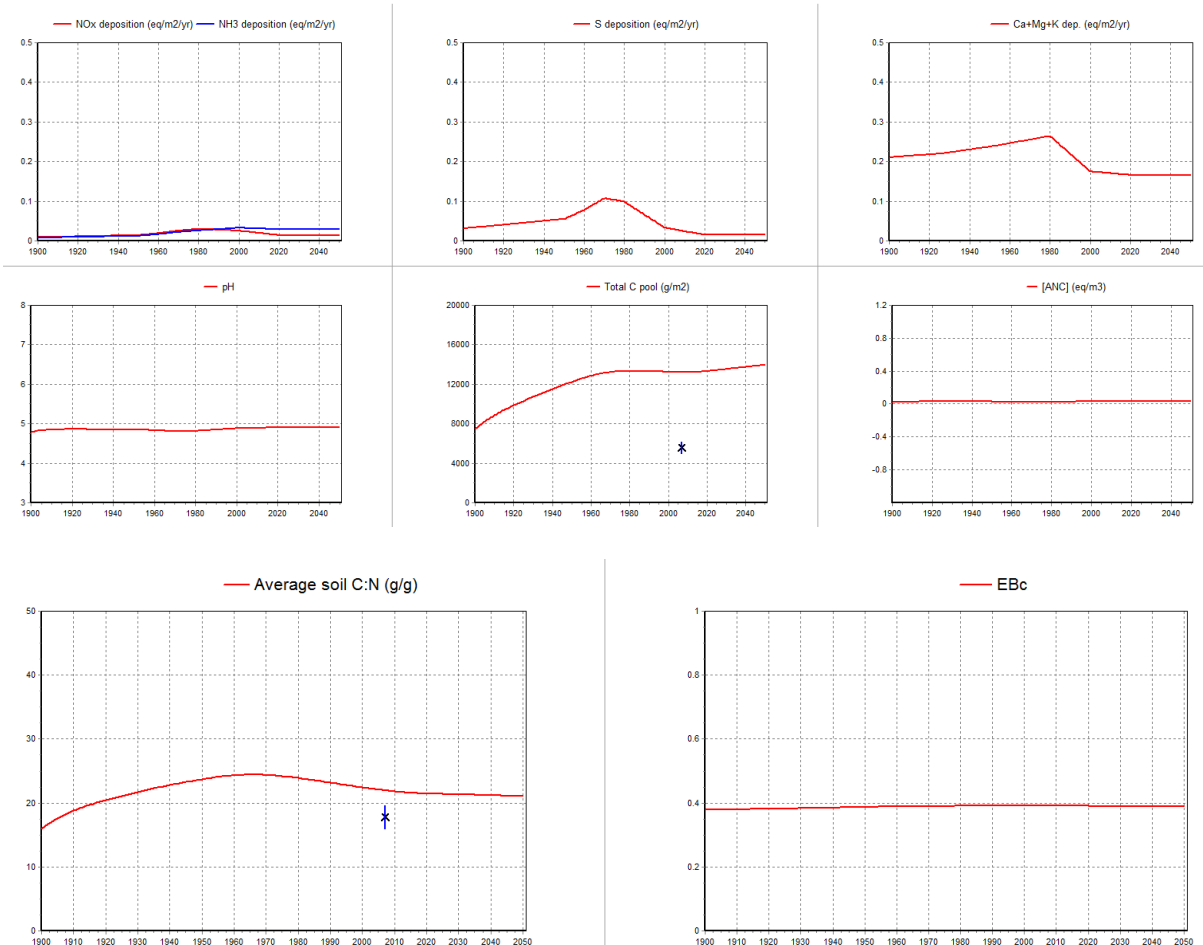
## ICP Forest Level II Site

ID 60921

Country: United Kingdom

## VSD+ model

## geochemical dynamics



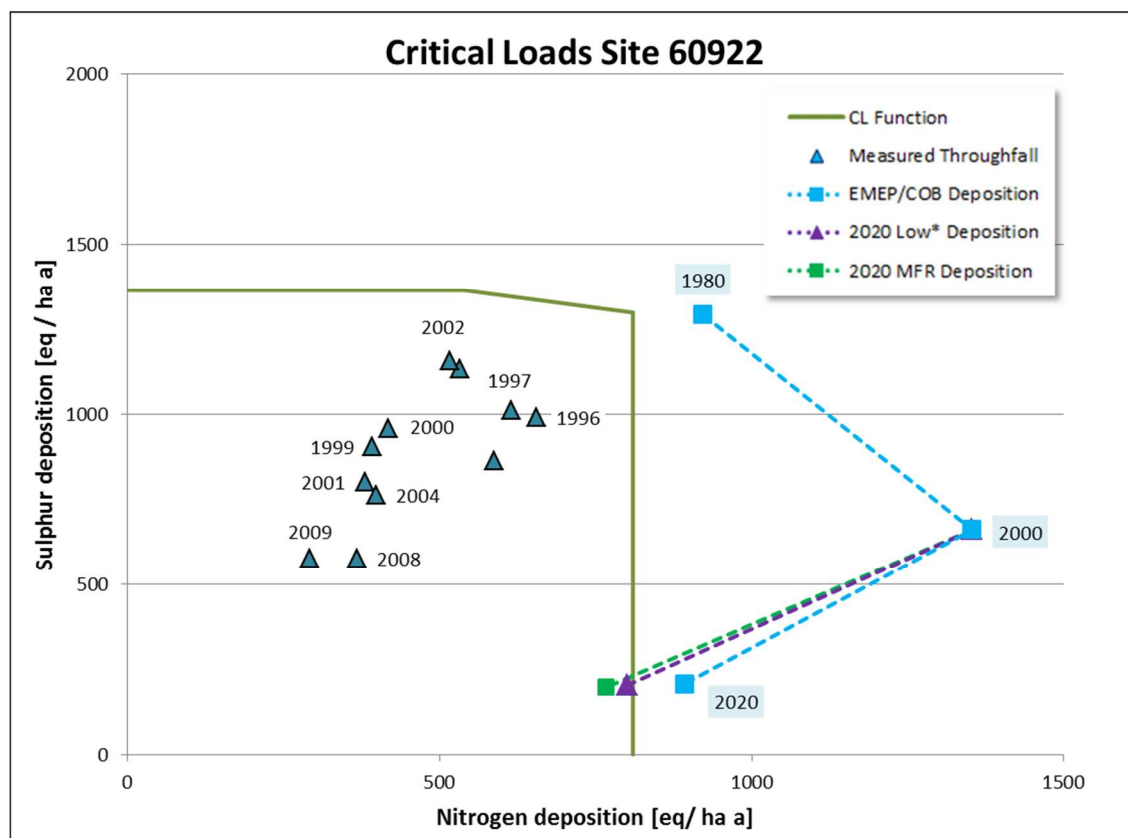
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: **ID 60922** **Country: United Kingdom**

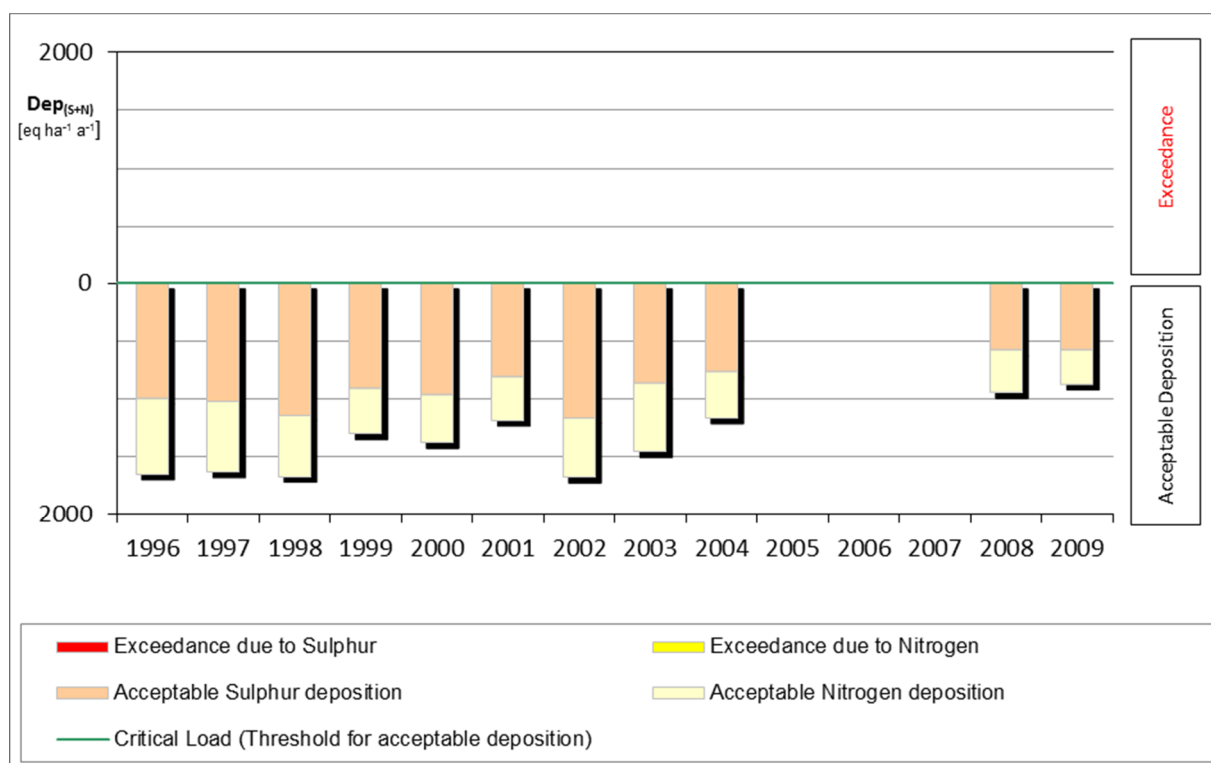
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2004, 2008, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



ICP Forest Level II Site:

ID 70010

Country: Ireland

Critical Load calculation:

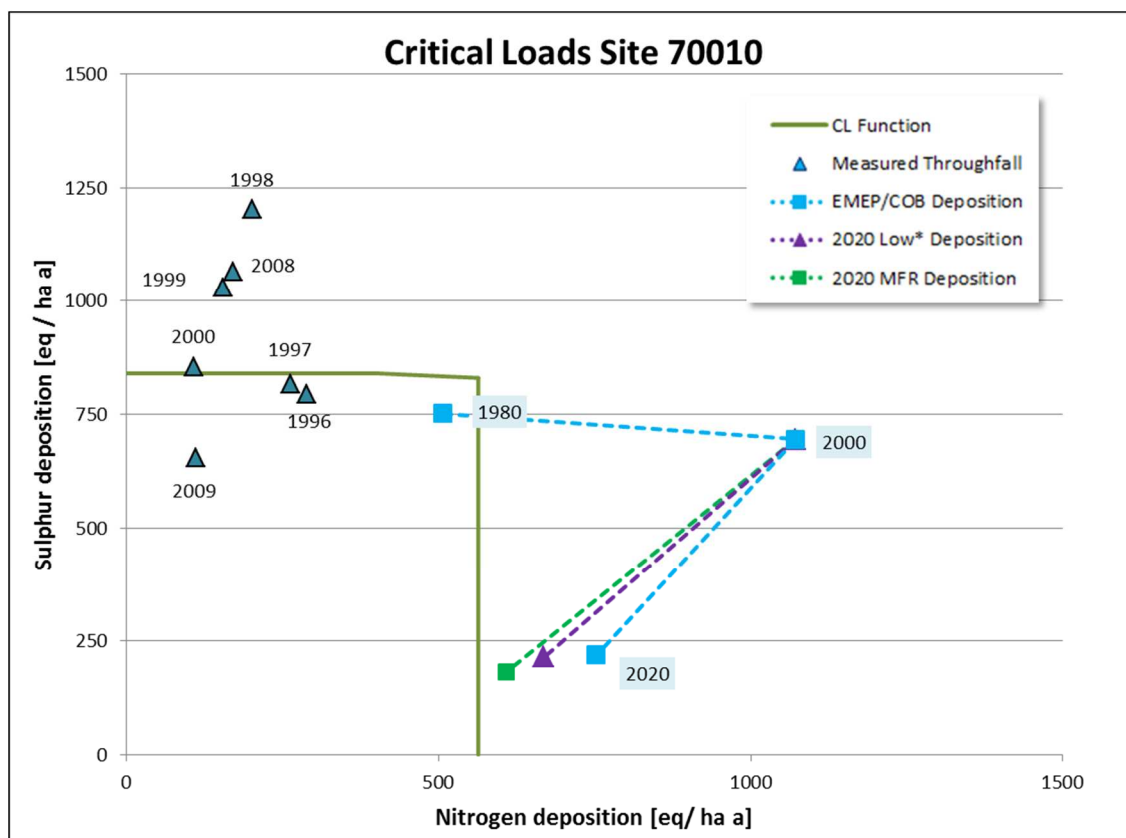
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

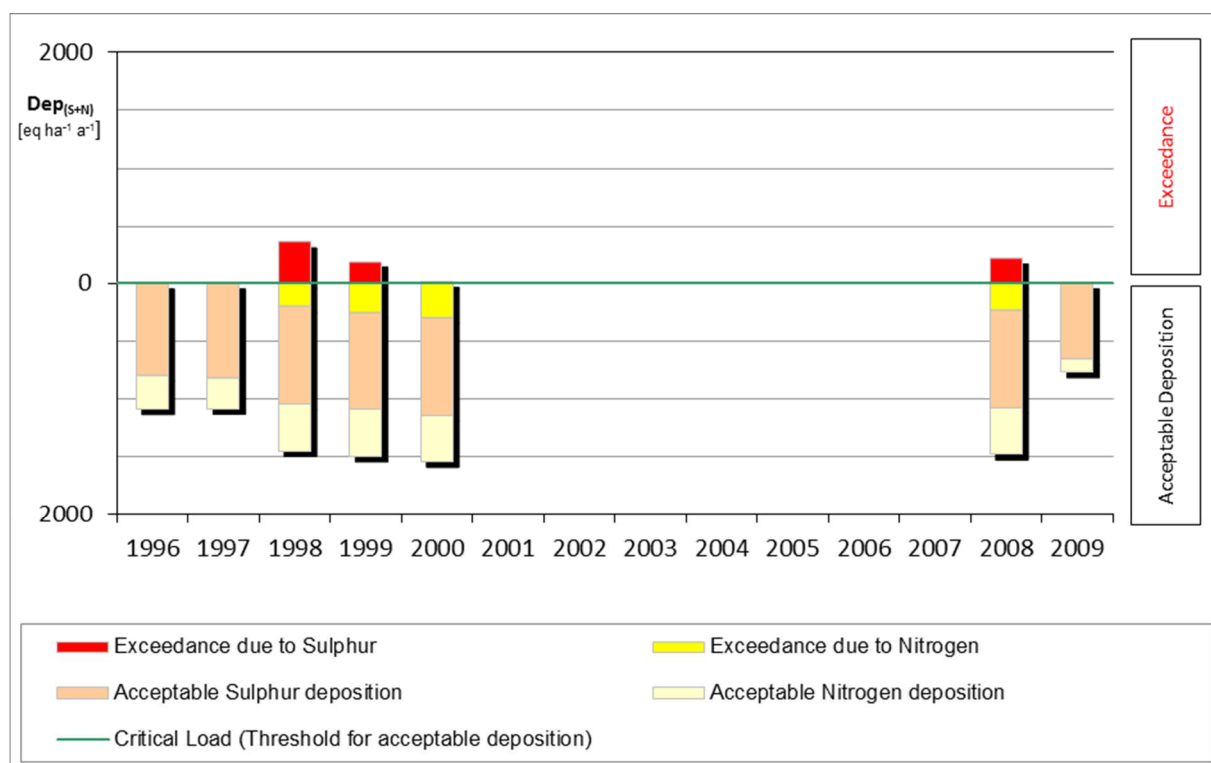
Deposition measured:

1996 – 2000, 2008, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 70011

Country: Ireland

Critical Load calculation:

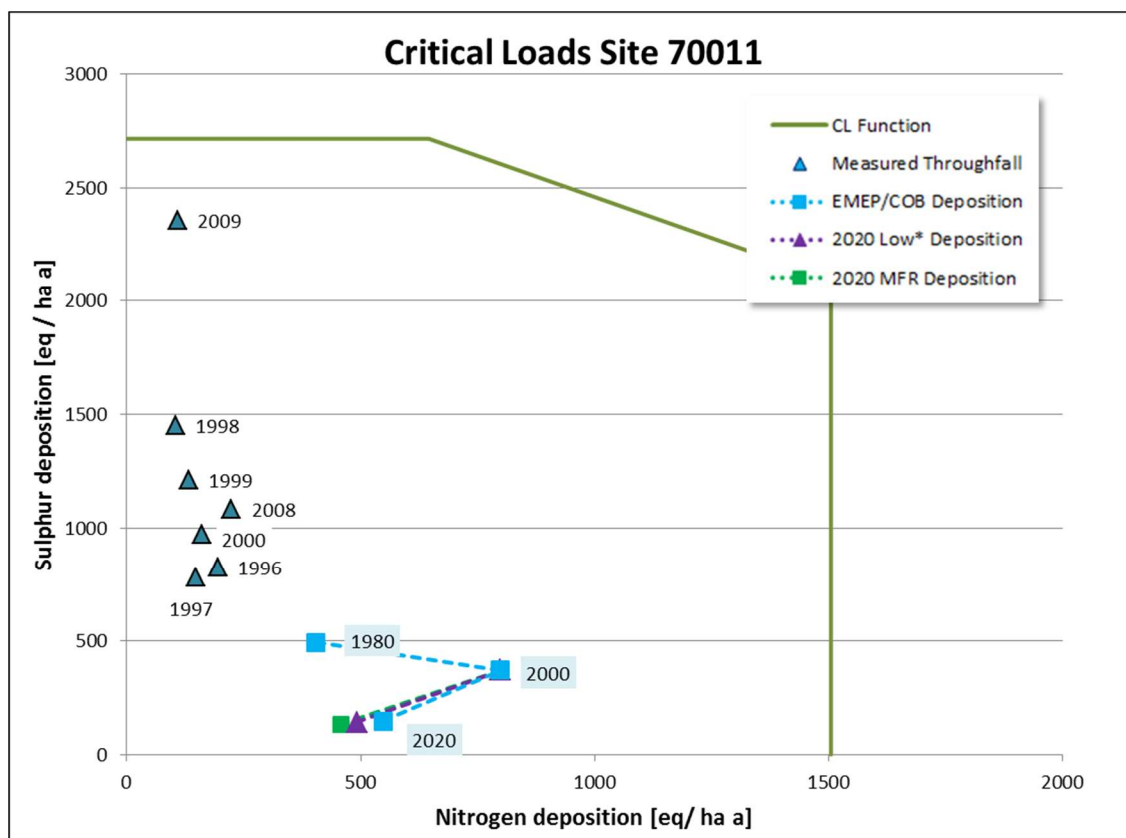
SMB method

Deposition modelled:

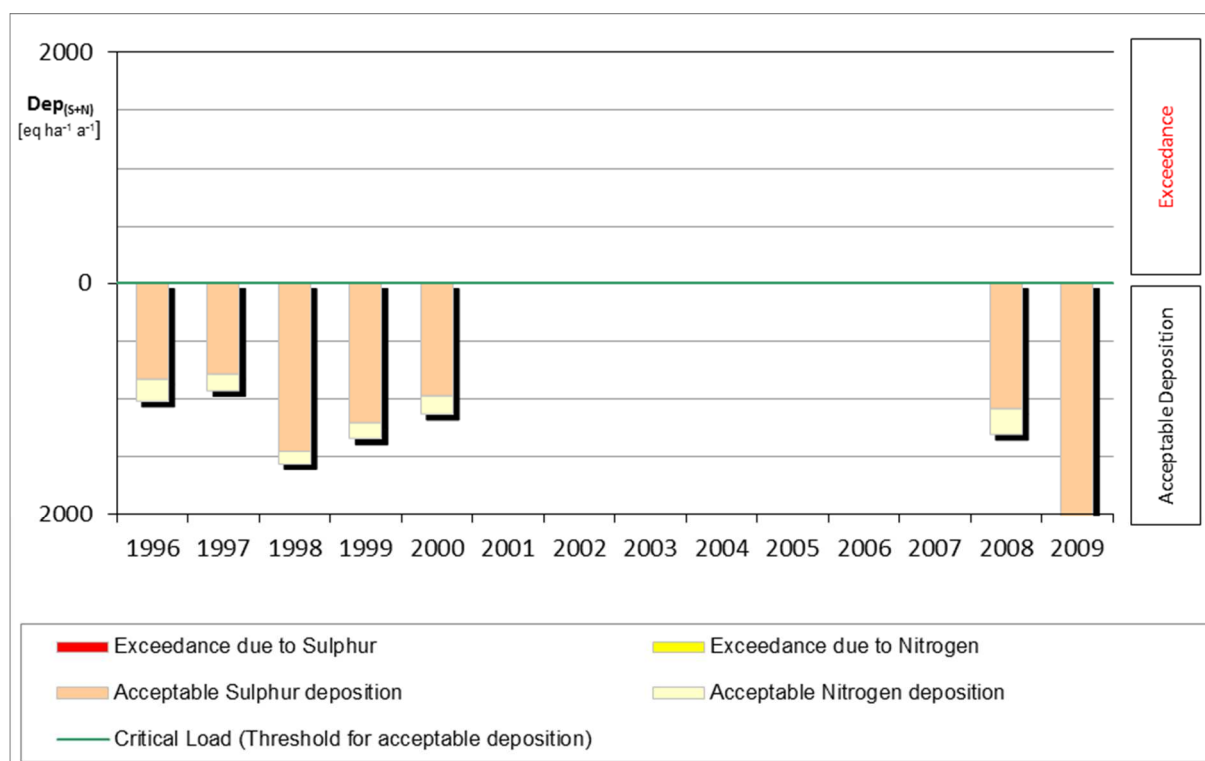
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2000, 2008, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

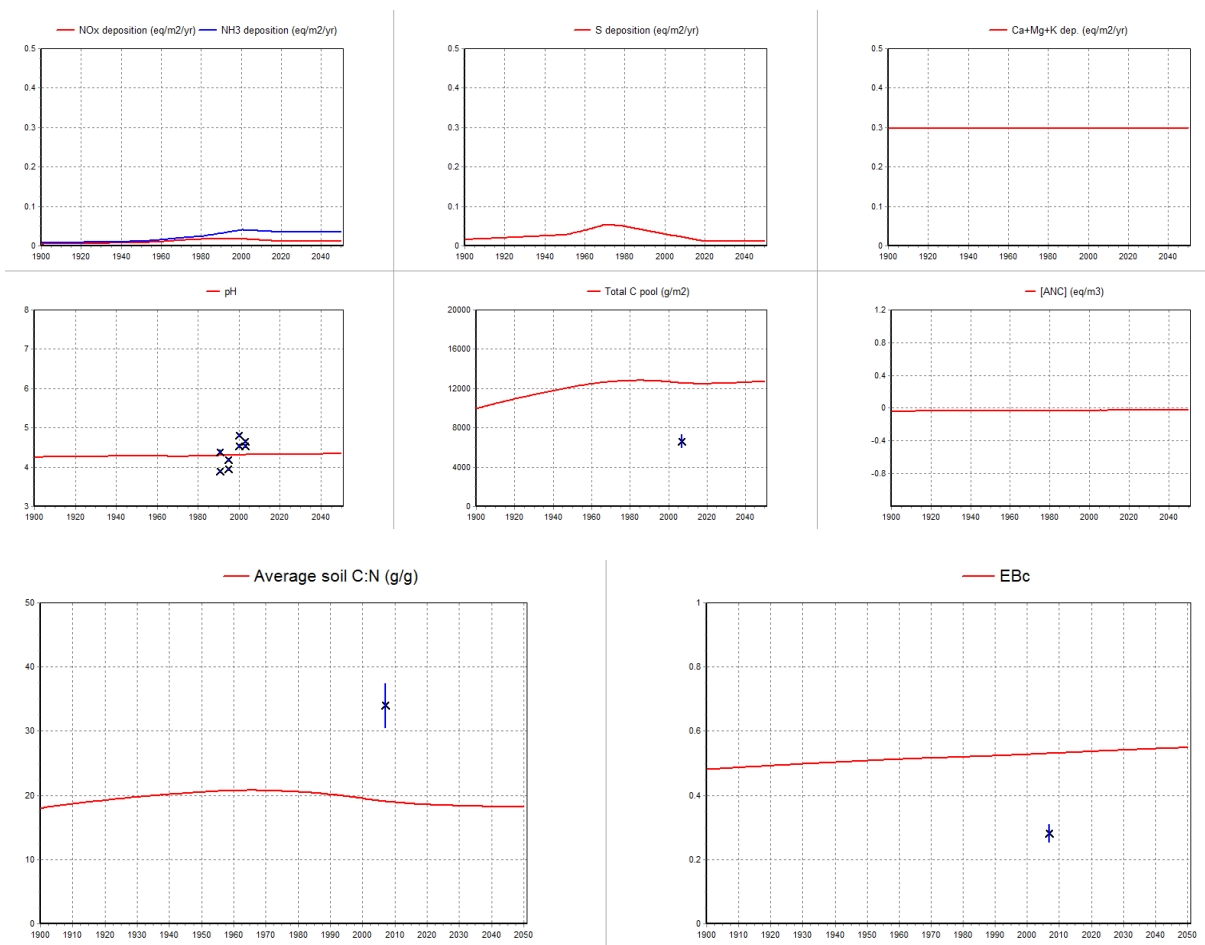
ICP Forest Level II Site

ID 70011

Country: Ireland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 70016

Country: Ireland

Critical Load calculation:

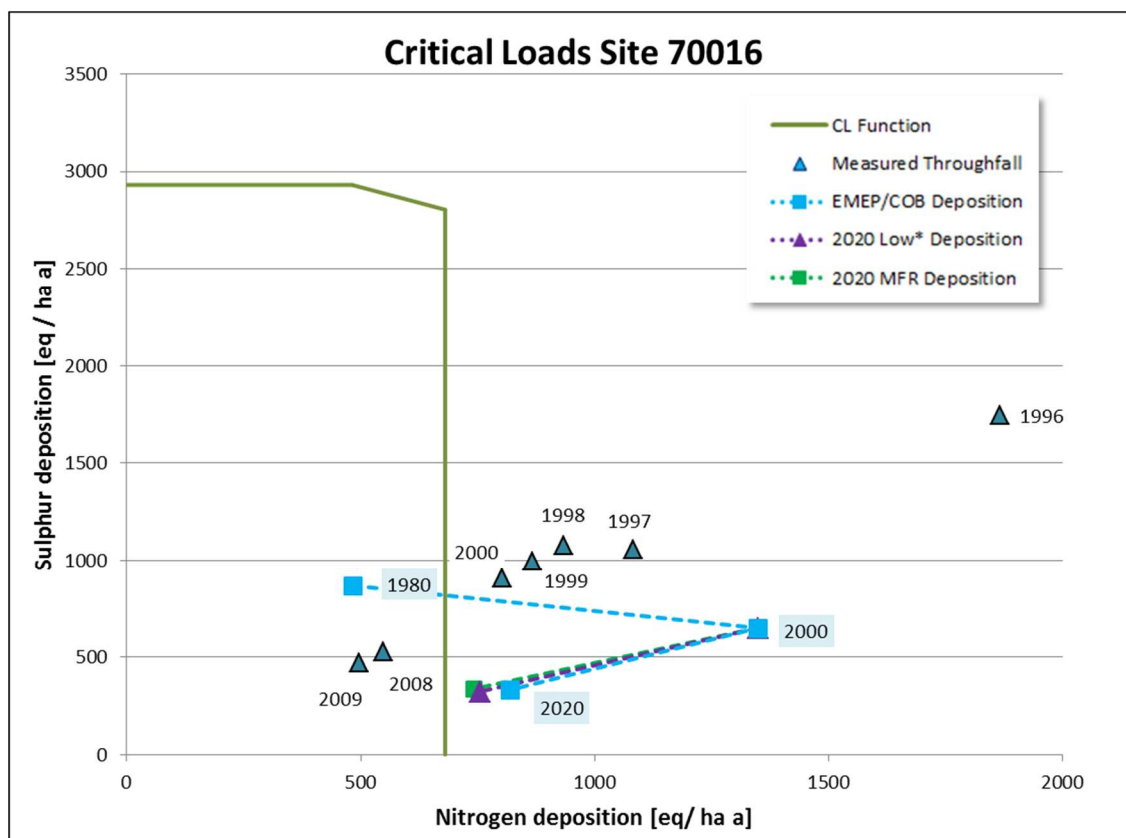
SMB method

Deposition modelled:

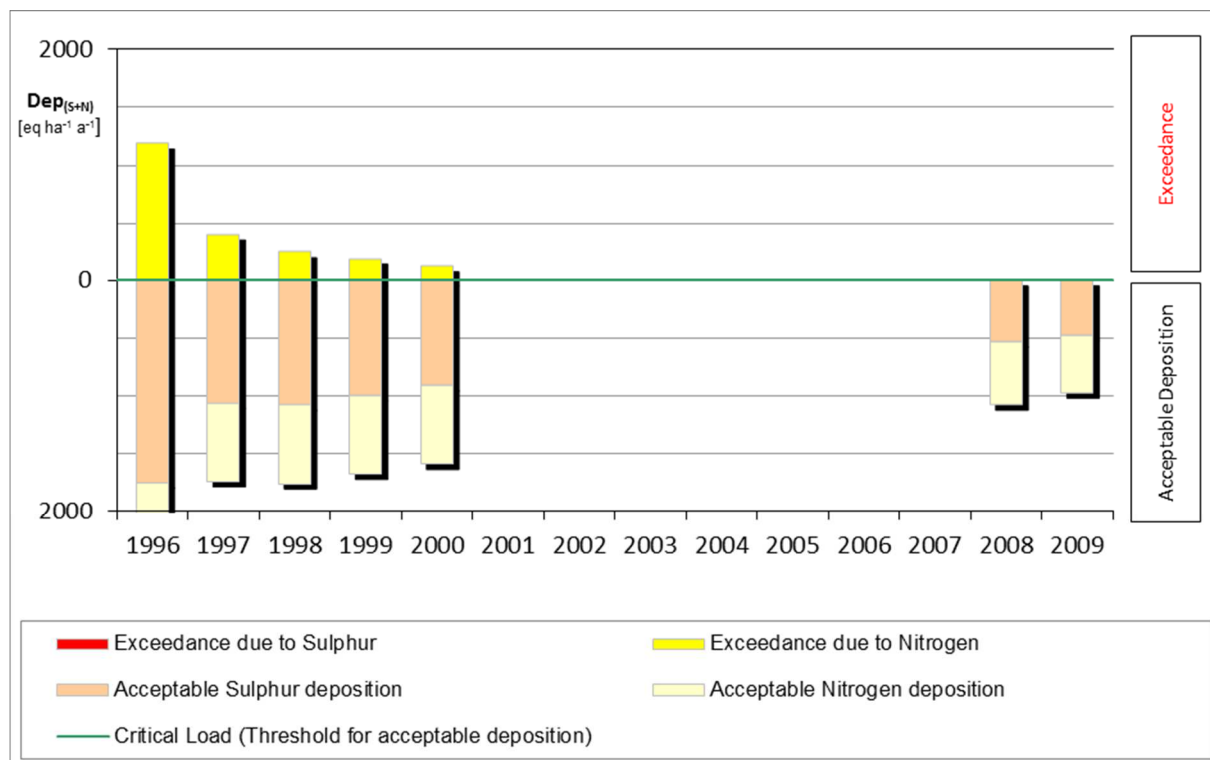
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2000, 2008, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 80011

Country: Denmark

Critical Load calculation:

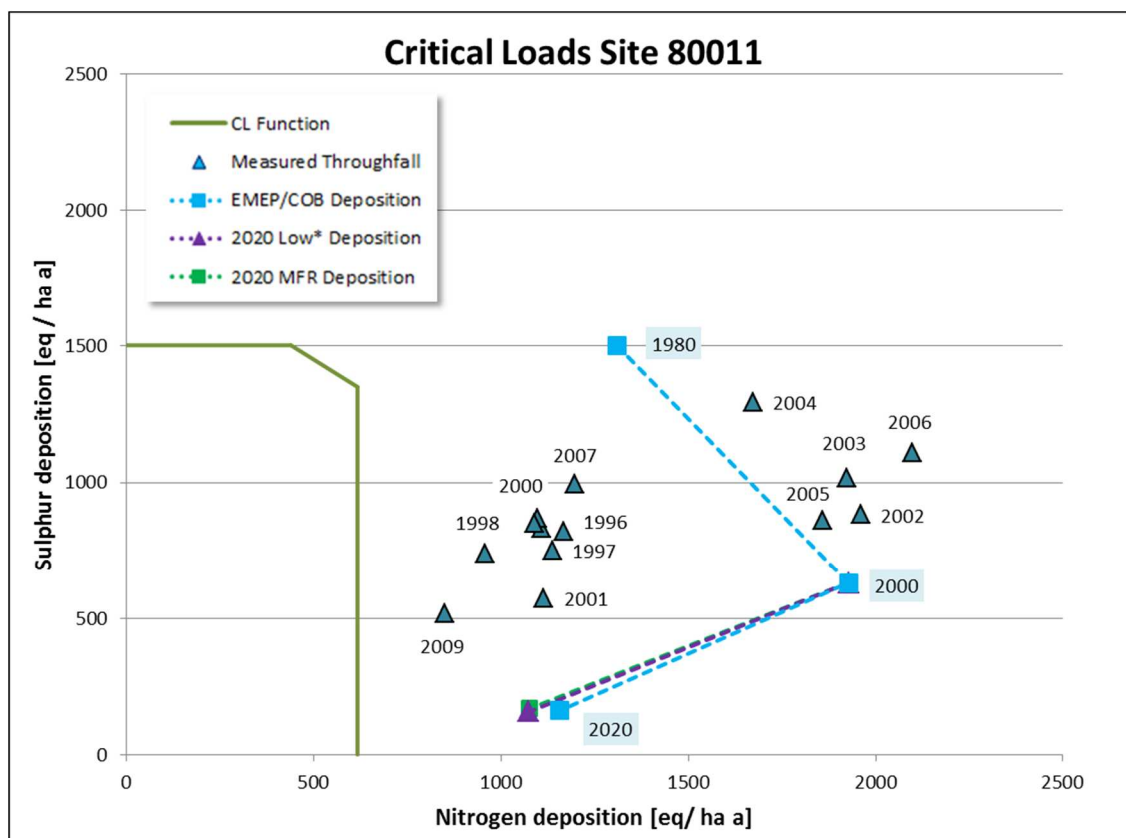
SMB method

Deposition modelled:

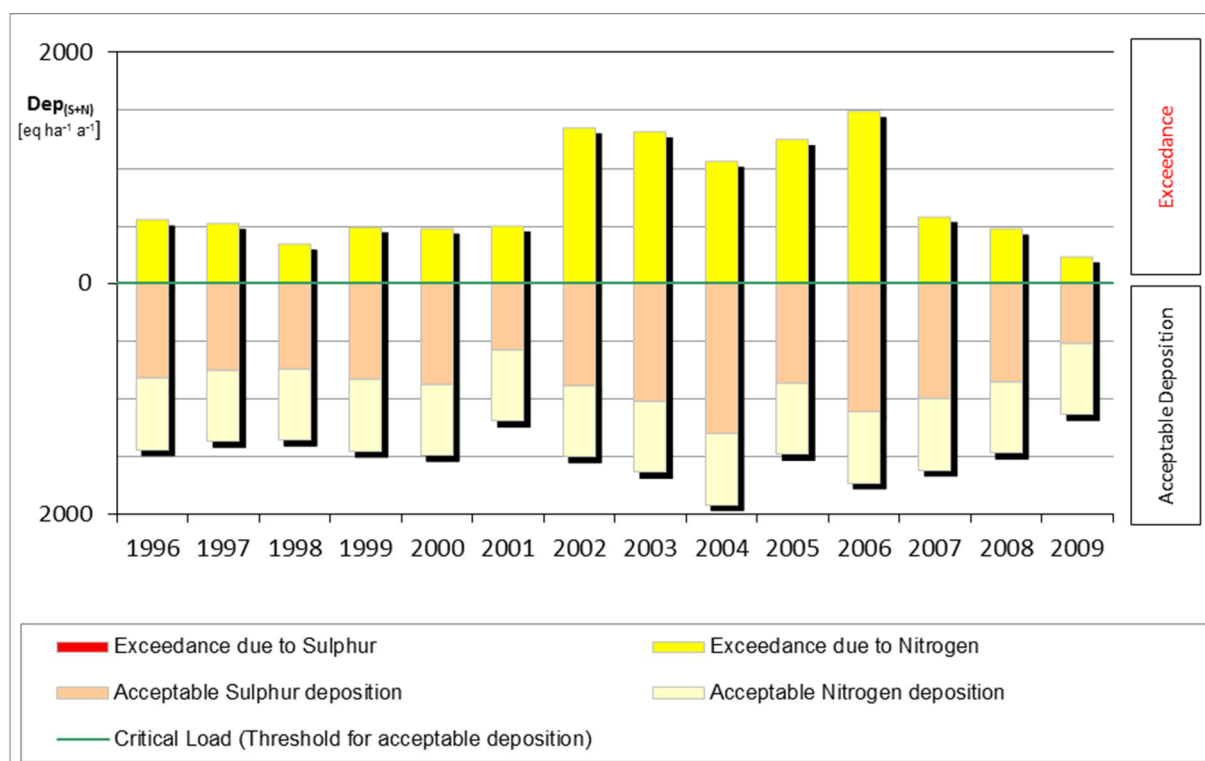
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



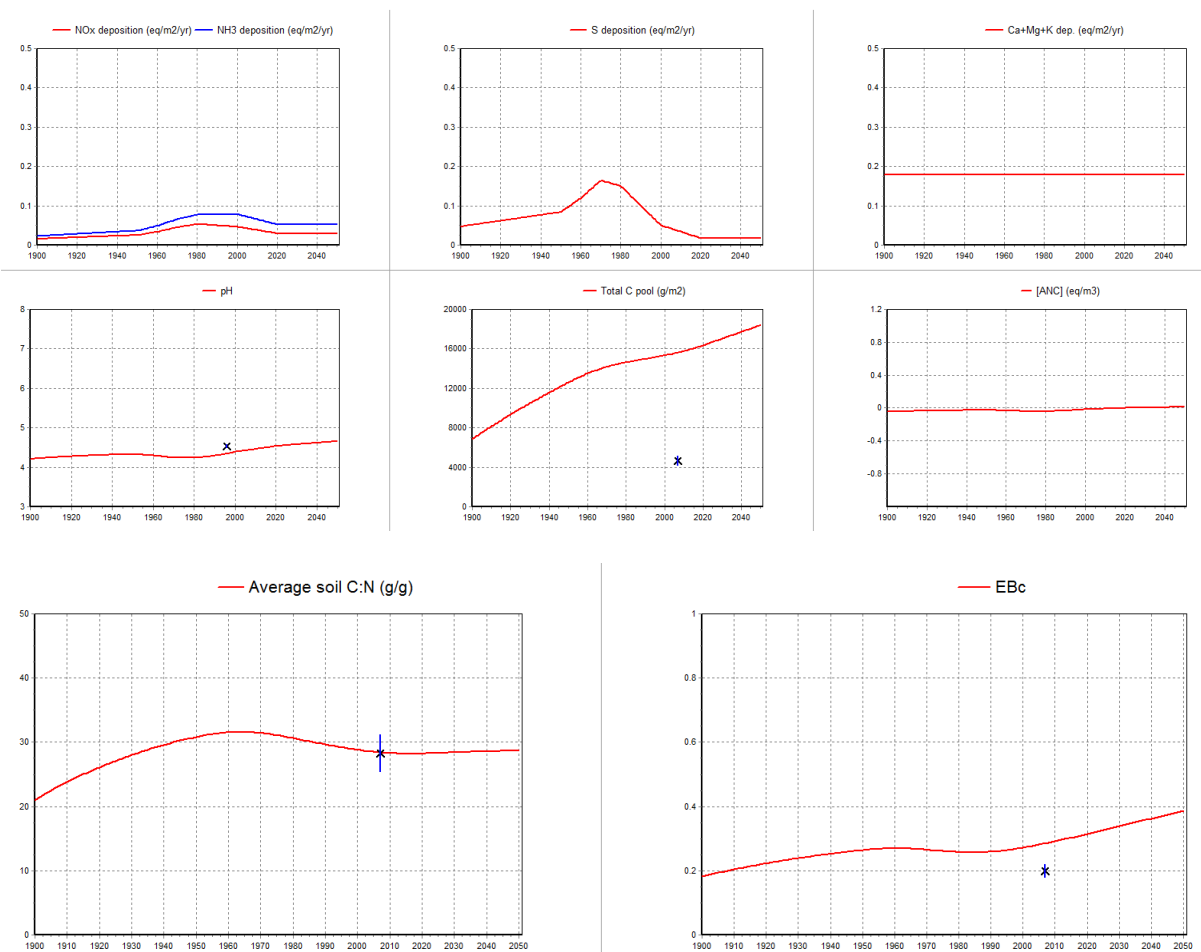
## ICP Forest Level II Site

ID 80011

Country: Denmark

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

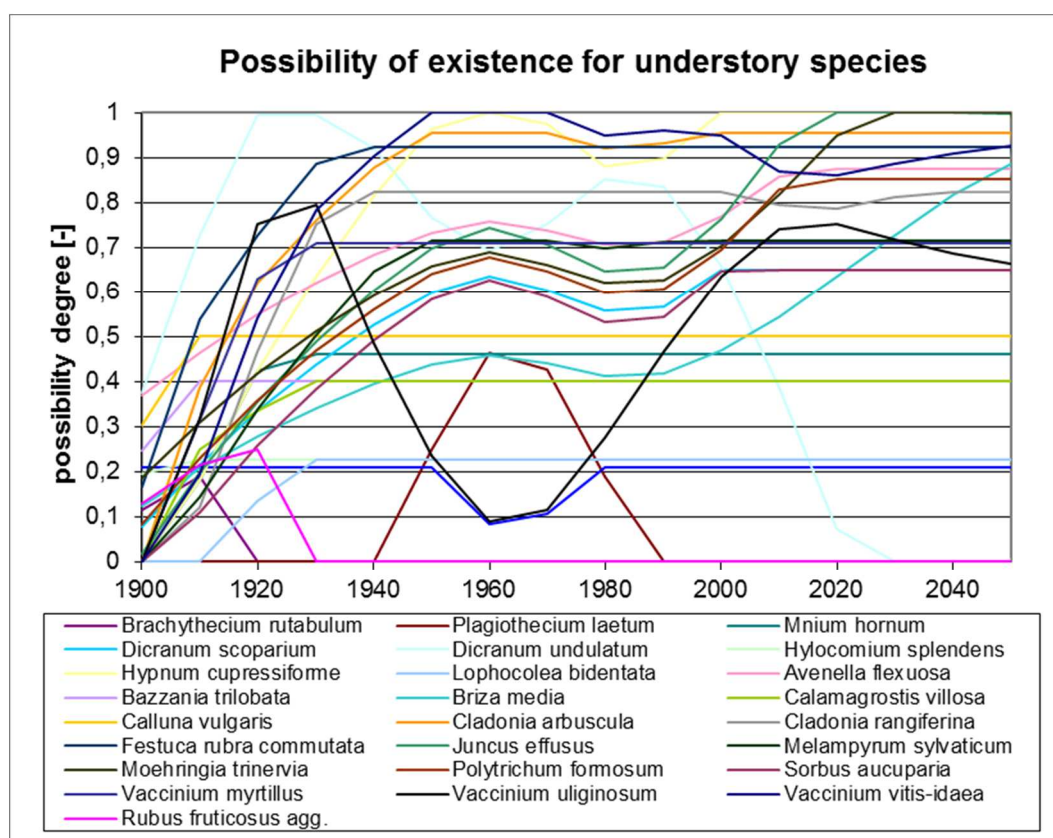
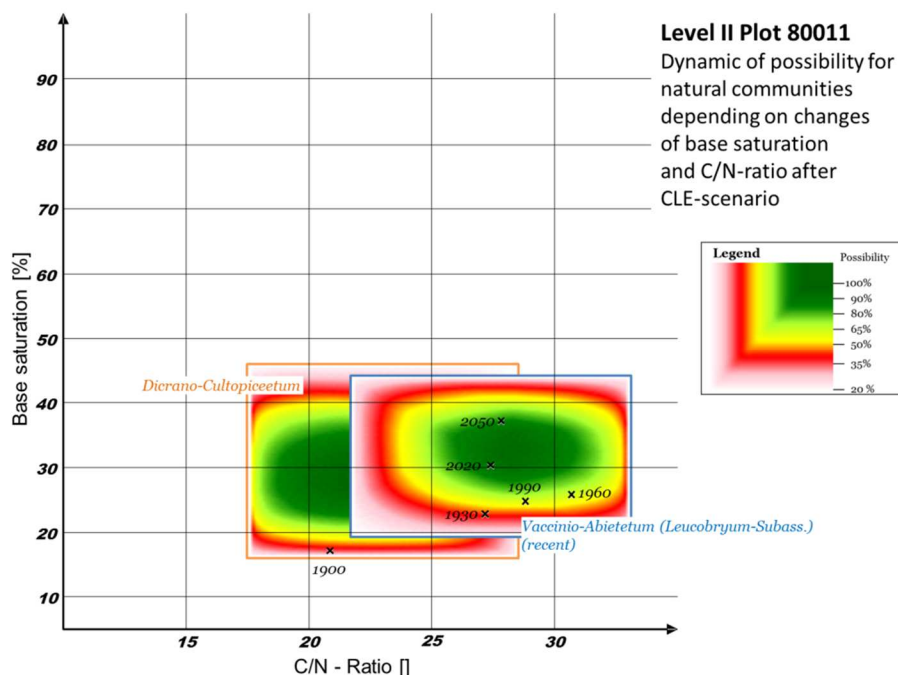
ICP Forest Level II Site

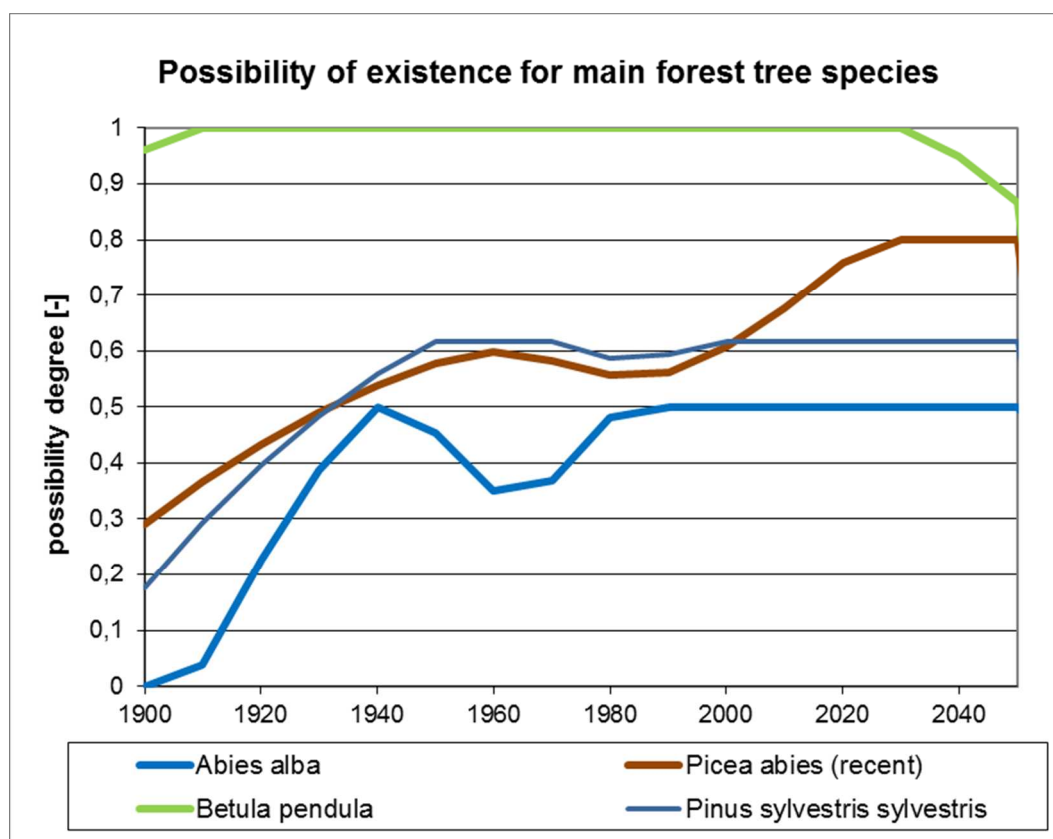
ID 80011

Country: Denmark

BERN model

biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site:

ID 80034

Country: Denmark

Critical Load calculation:

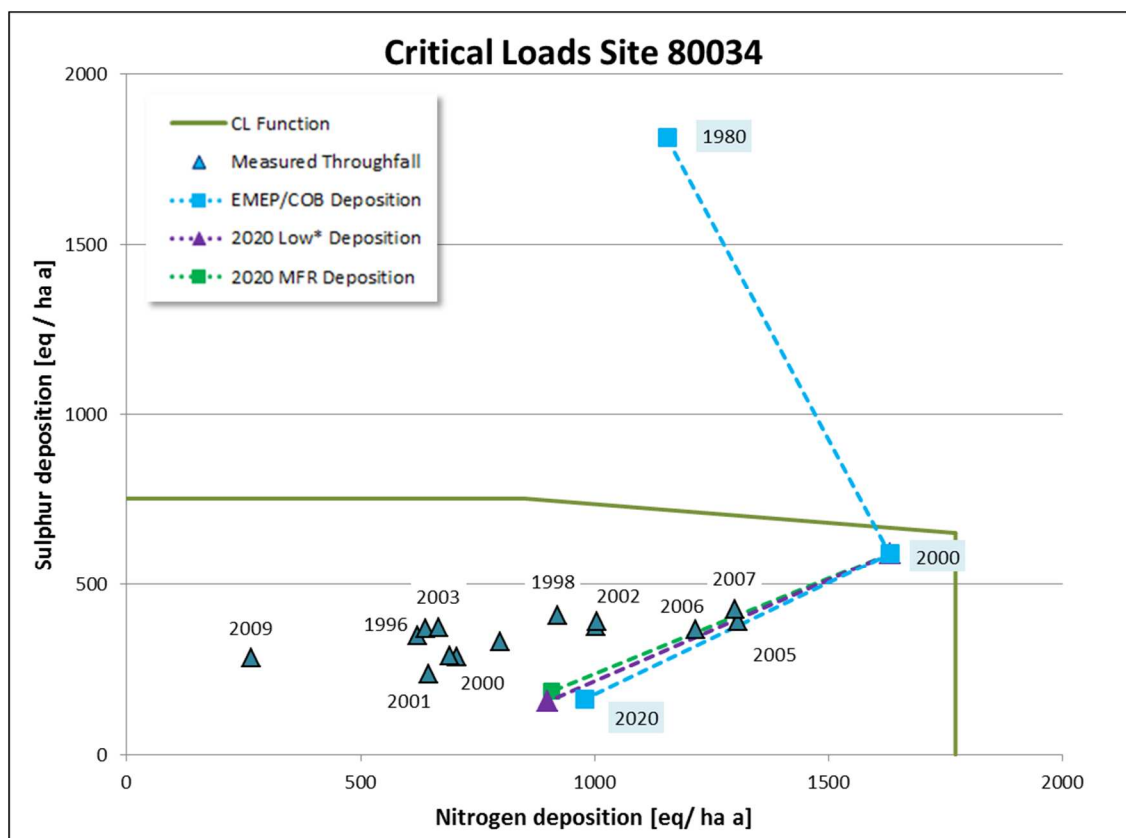
SMB method

Deposition modelled:

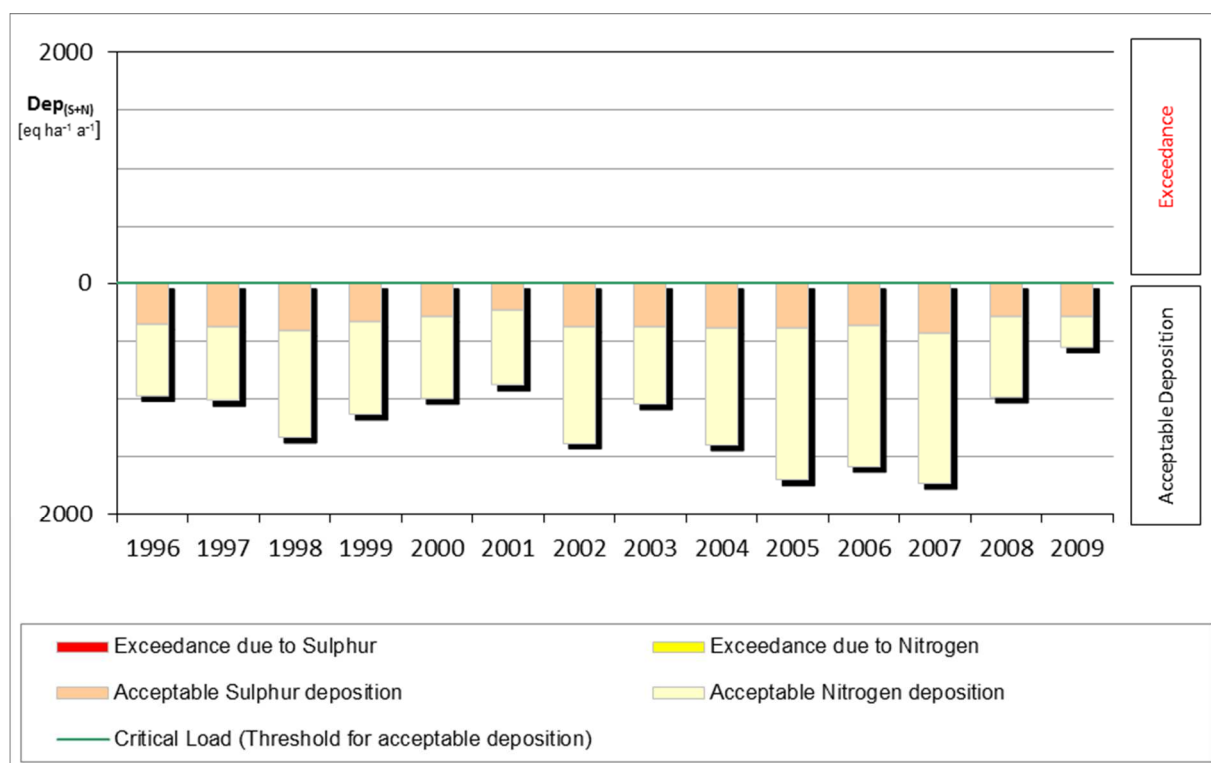
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

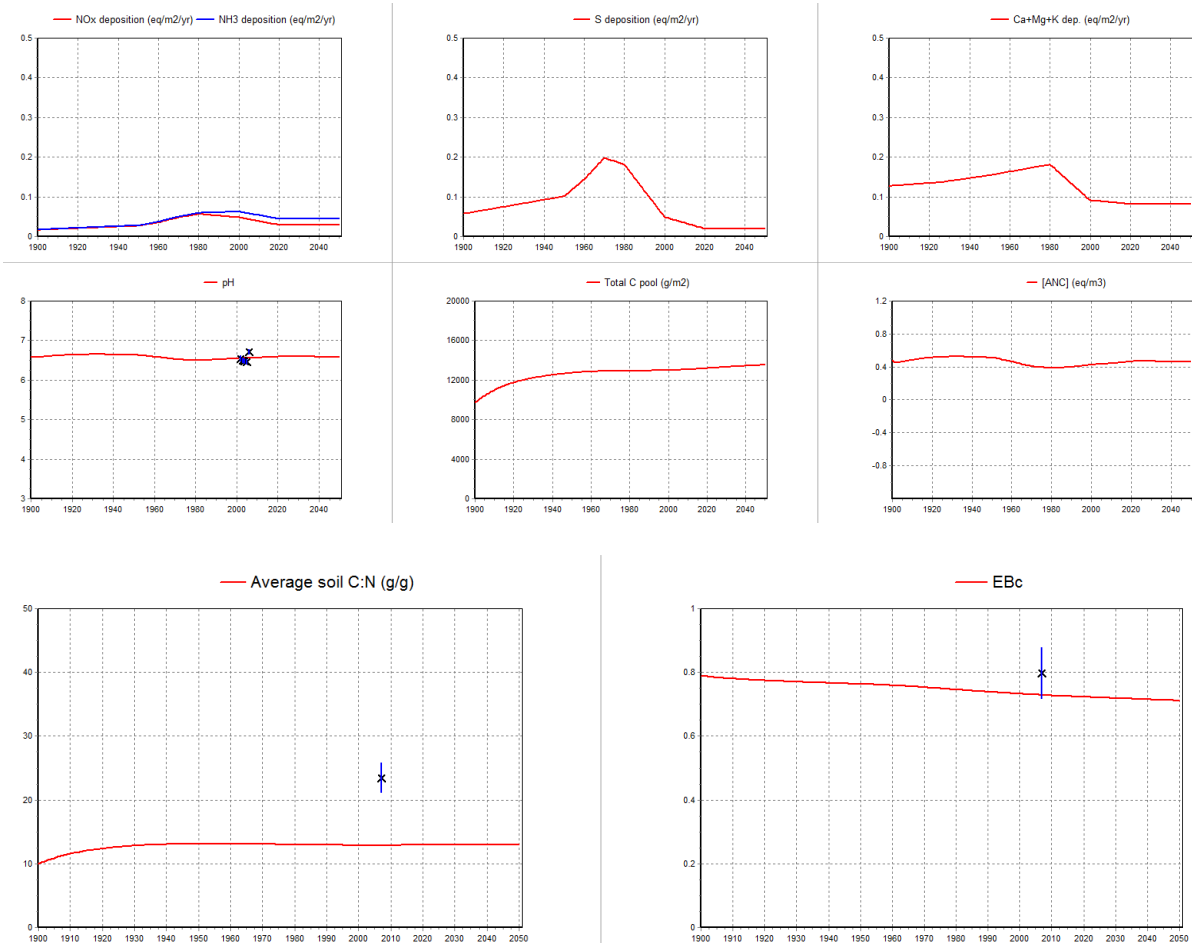
## ICP Forest Level II Site

ID 80034

Country: Denmark

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 90001

Country: Greece

Critical Load calculation:

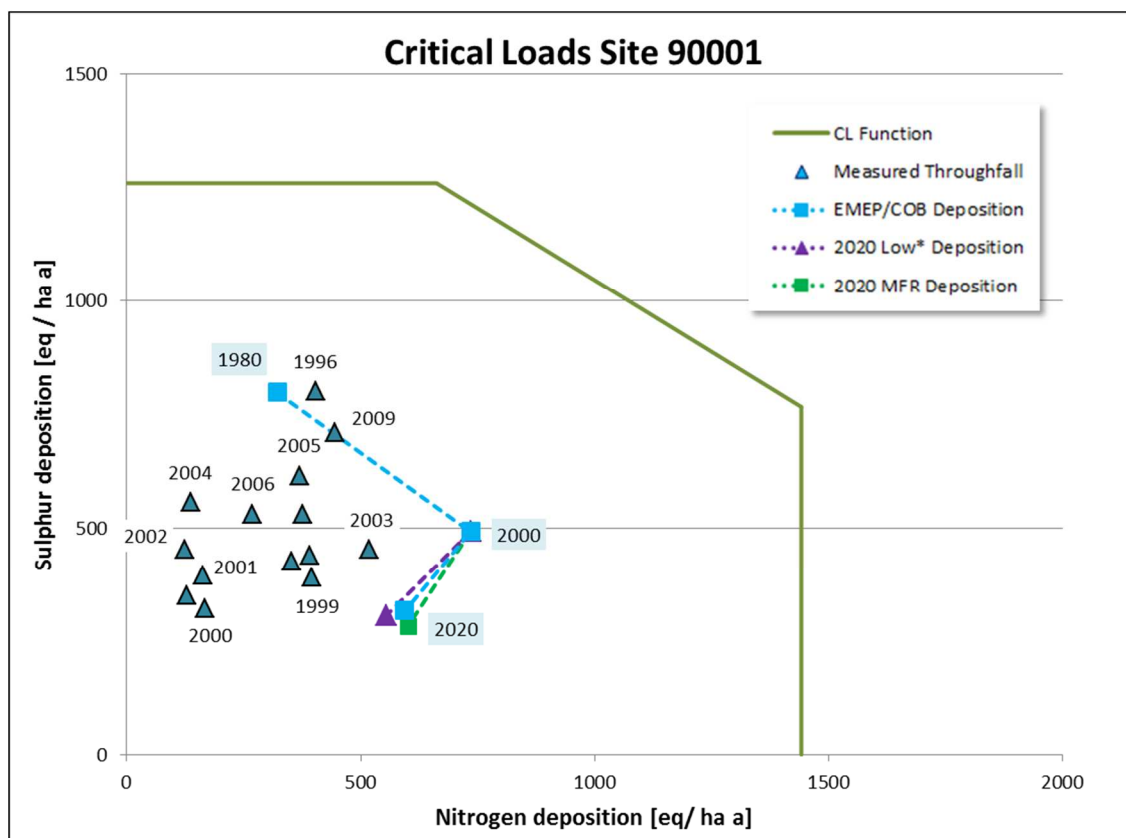
SMB method

Deposition modelled:

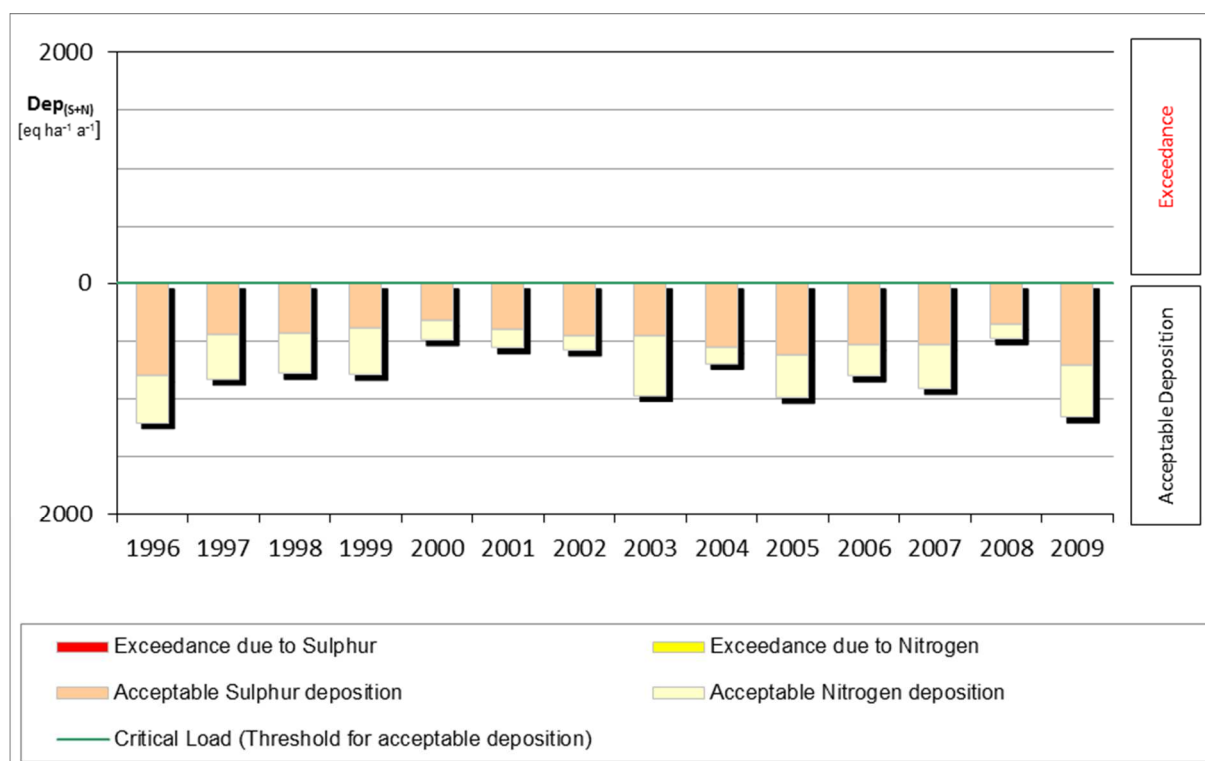
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



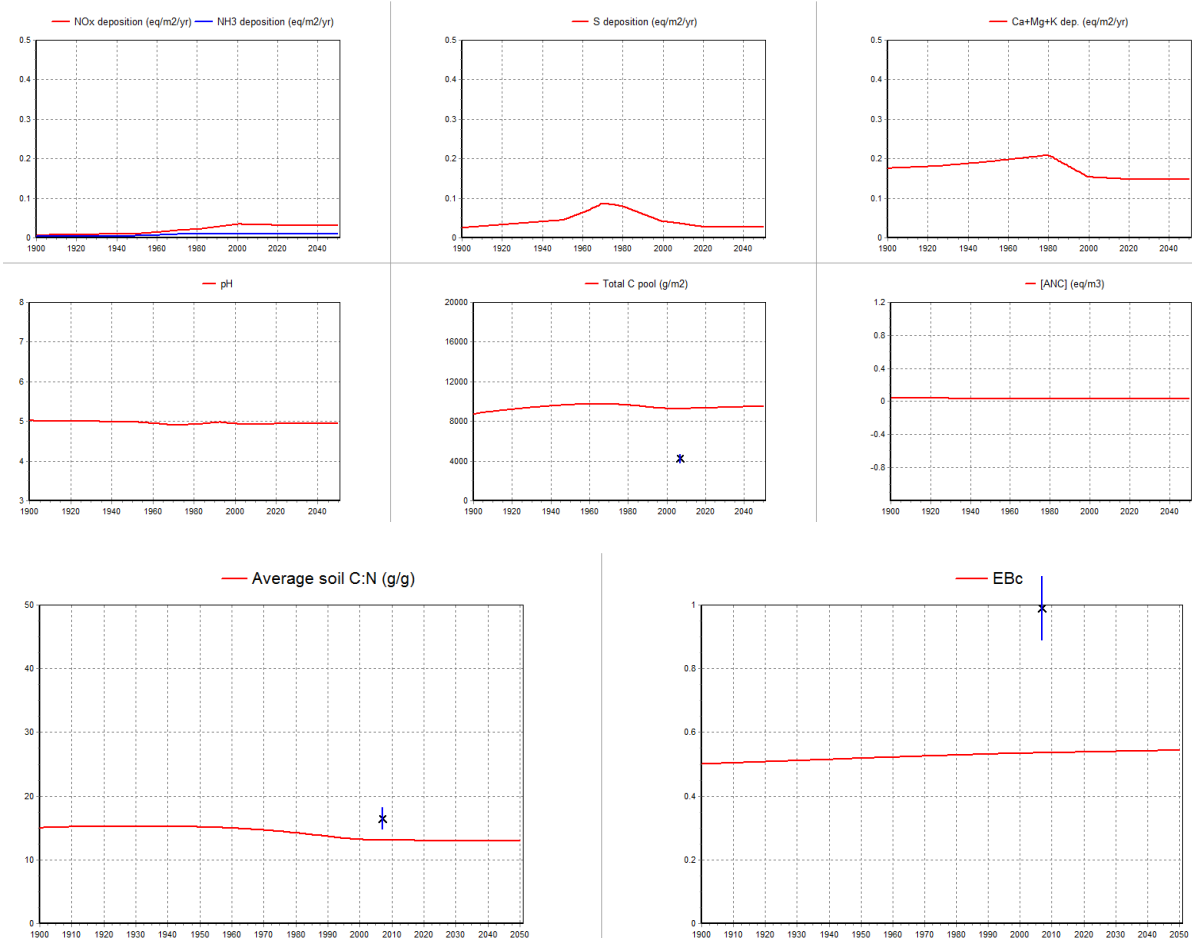
ICP Forest Level II Site

ID 90001

Country: Greece

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 90002

Country: Greece

Critical Load calculation:

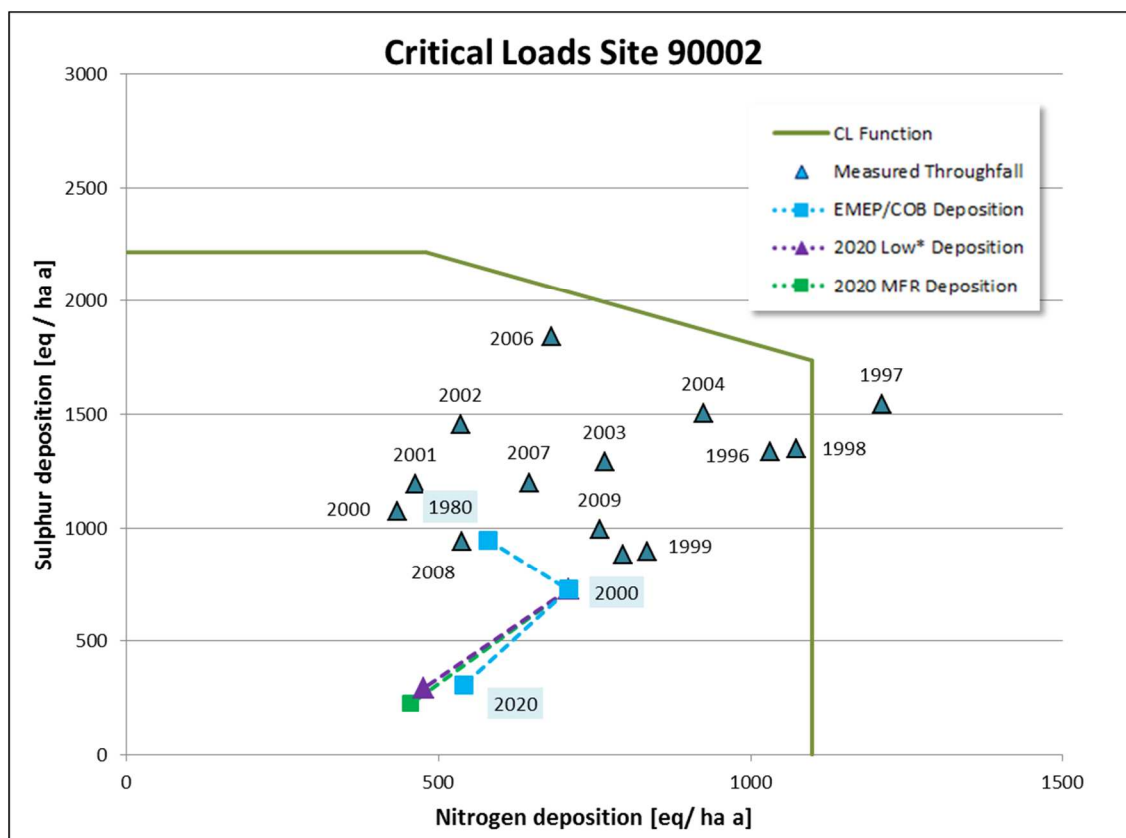
SMB method

Deposition modelled:

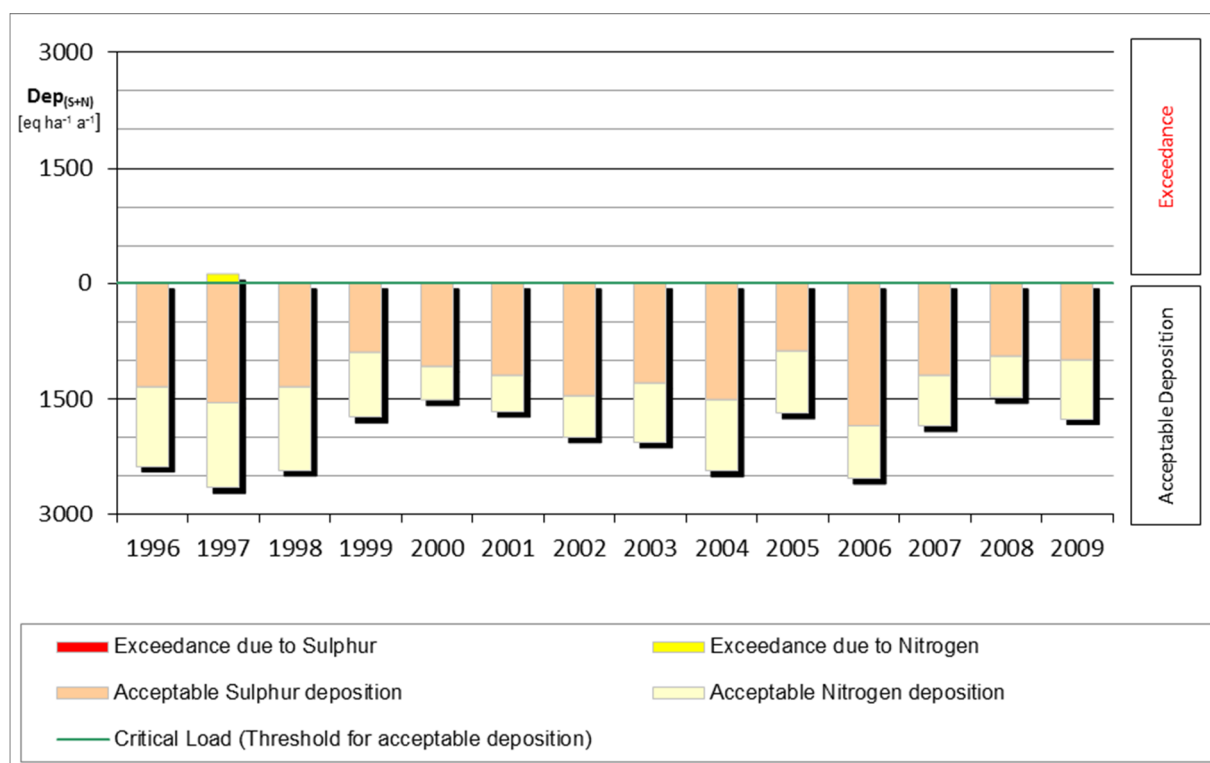
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

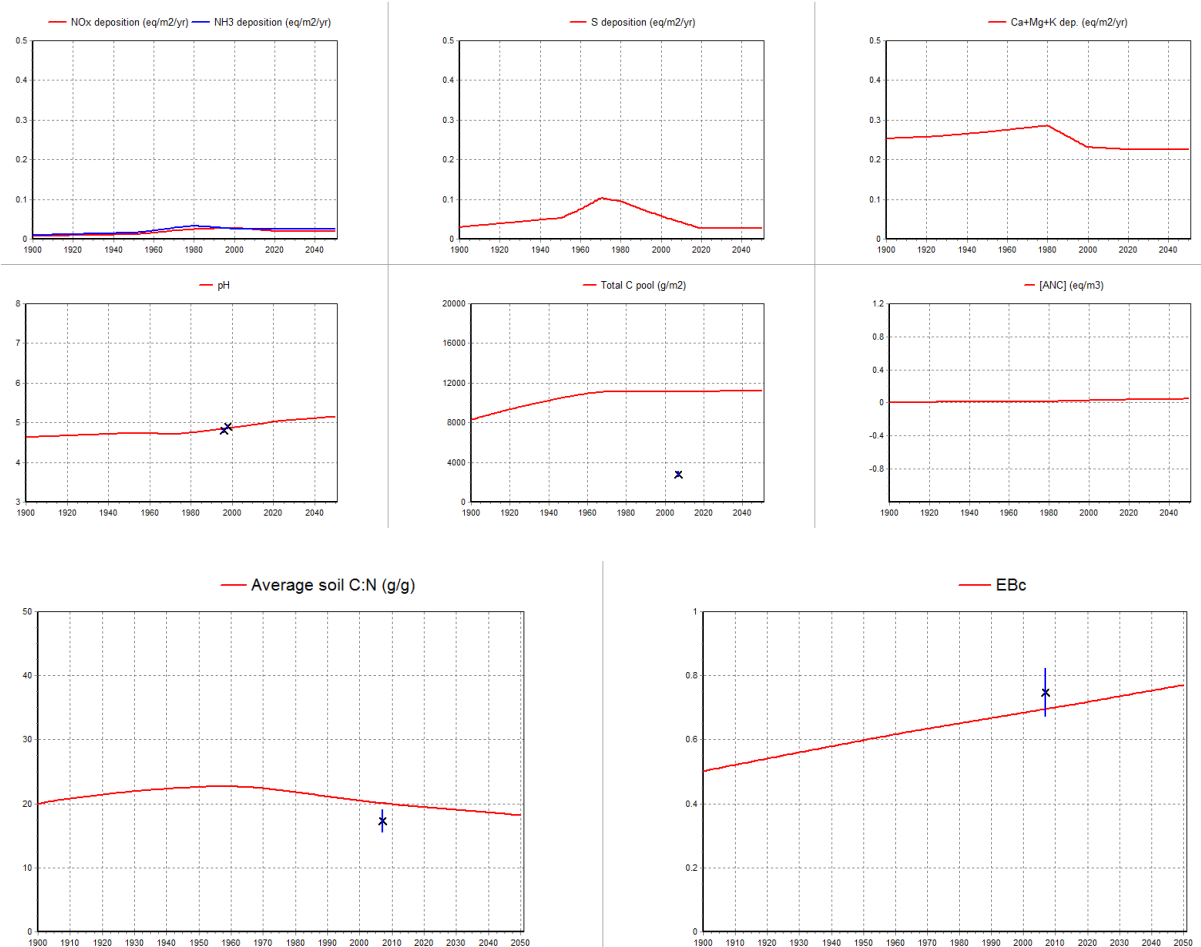
ICP Forest Level II Site

ID 90002

Country: Greece

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

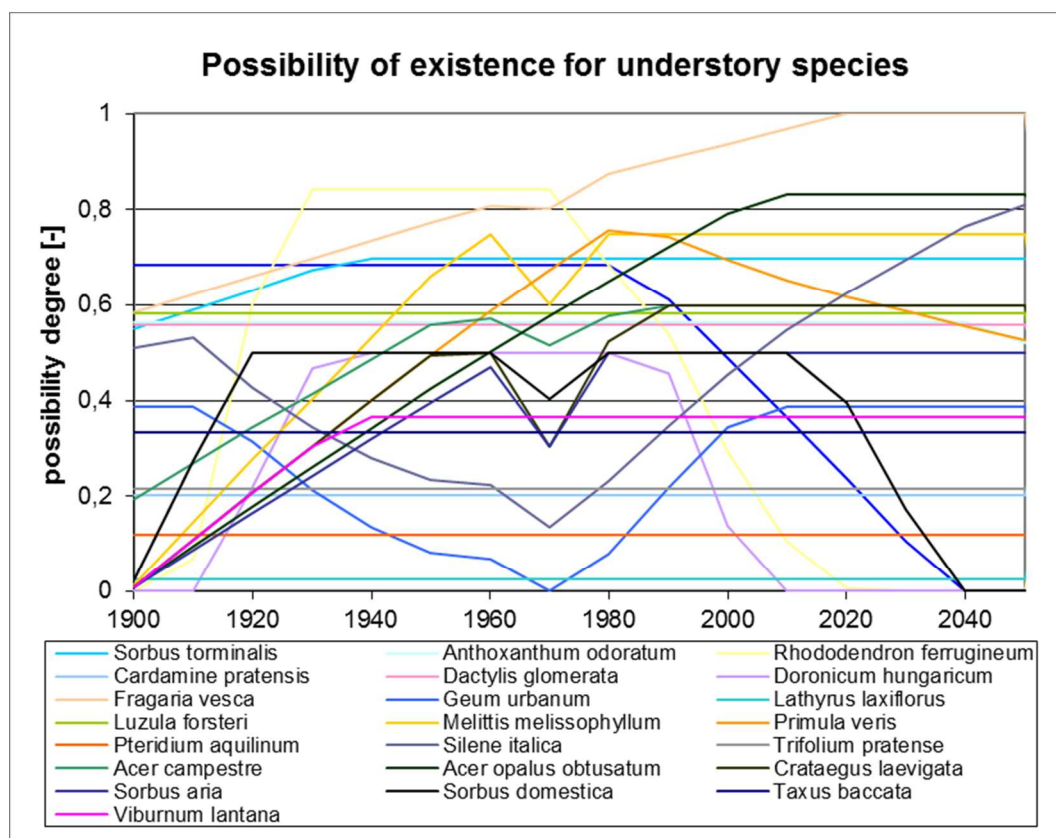
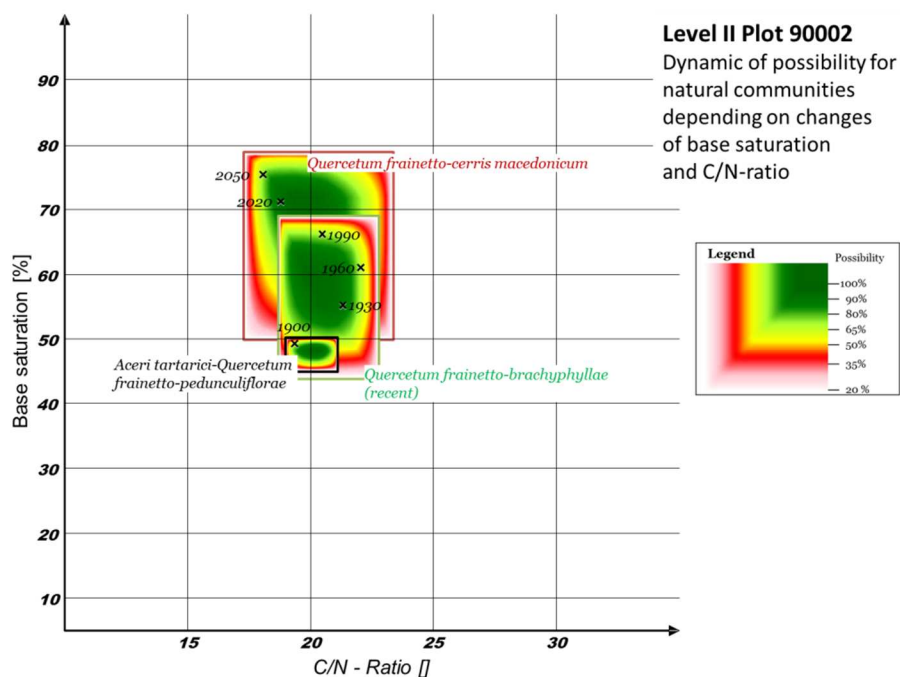
ICP Forest Level II Site

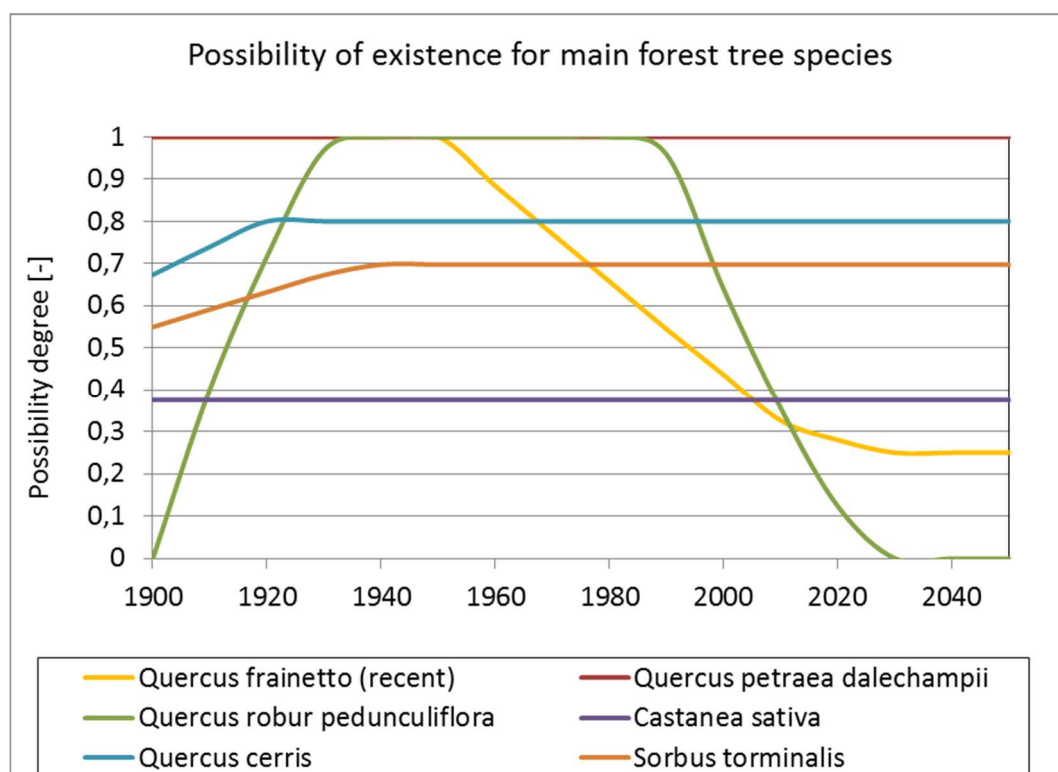
ID 90002

Country: Greece

BERN model

biodiversity effects





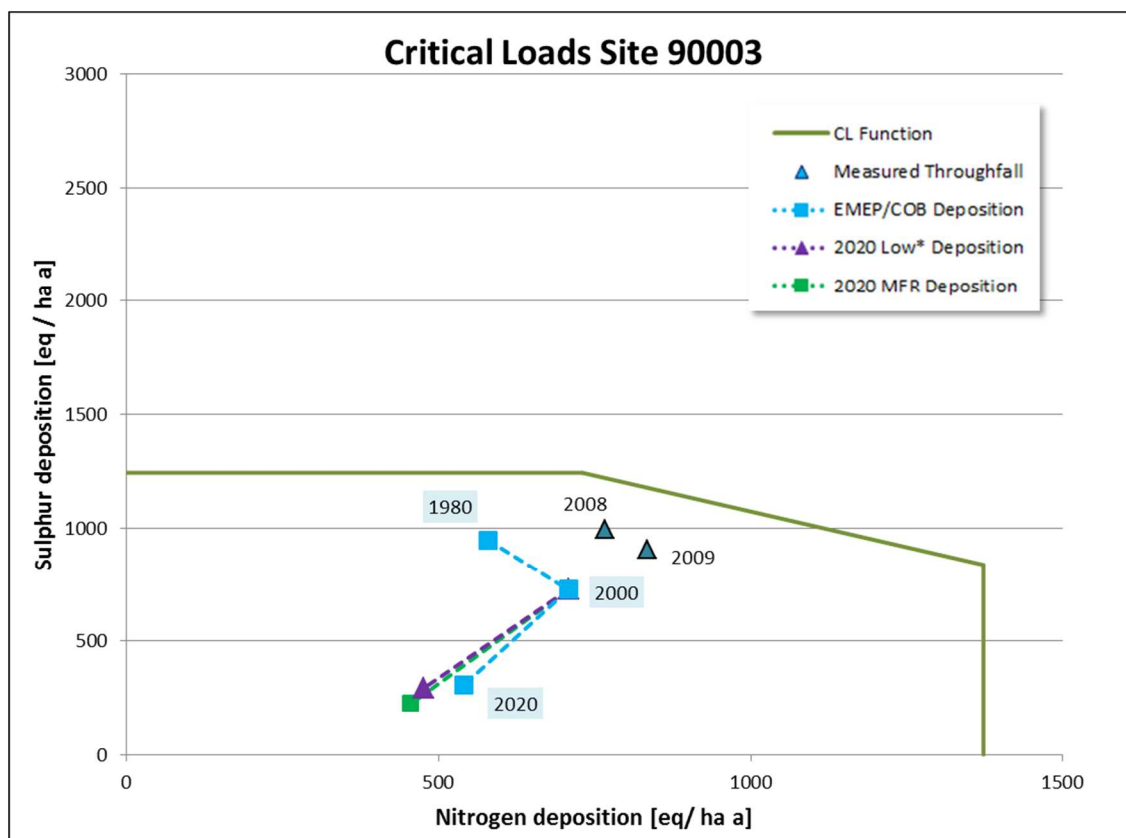
Conclusion: Changes in main tree species are recommended

ICP Forest Level II Site: **ID 90003** Country: Greece

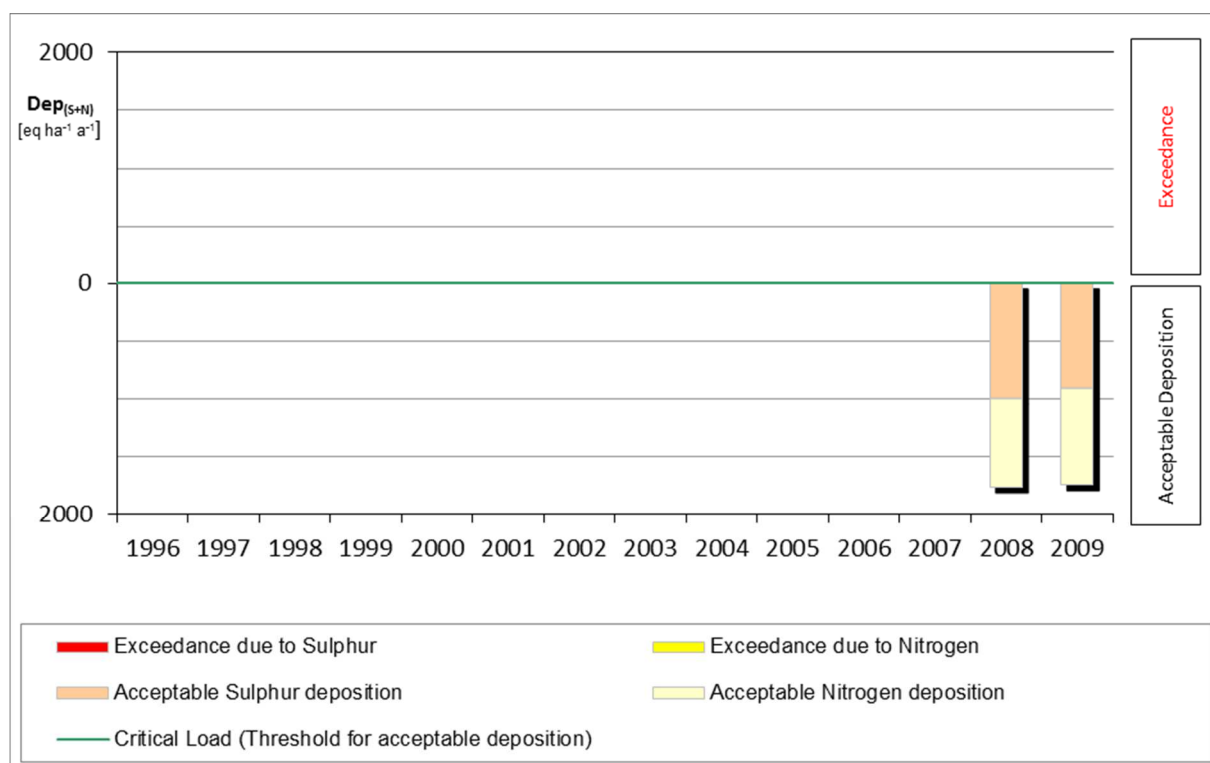
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 2008, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



ICP Forest Level II Site:

ID 90004

Country: Greece

Critical Load calculation:

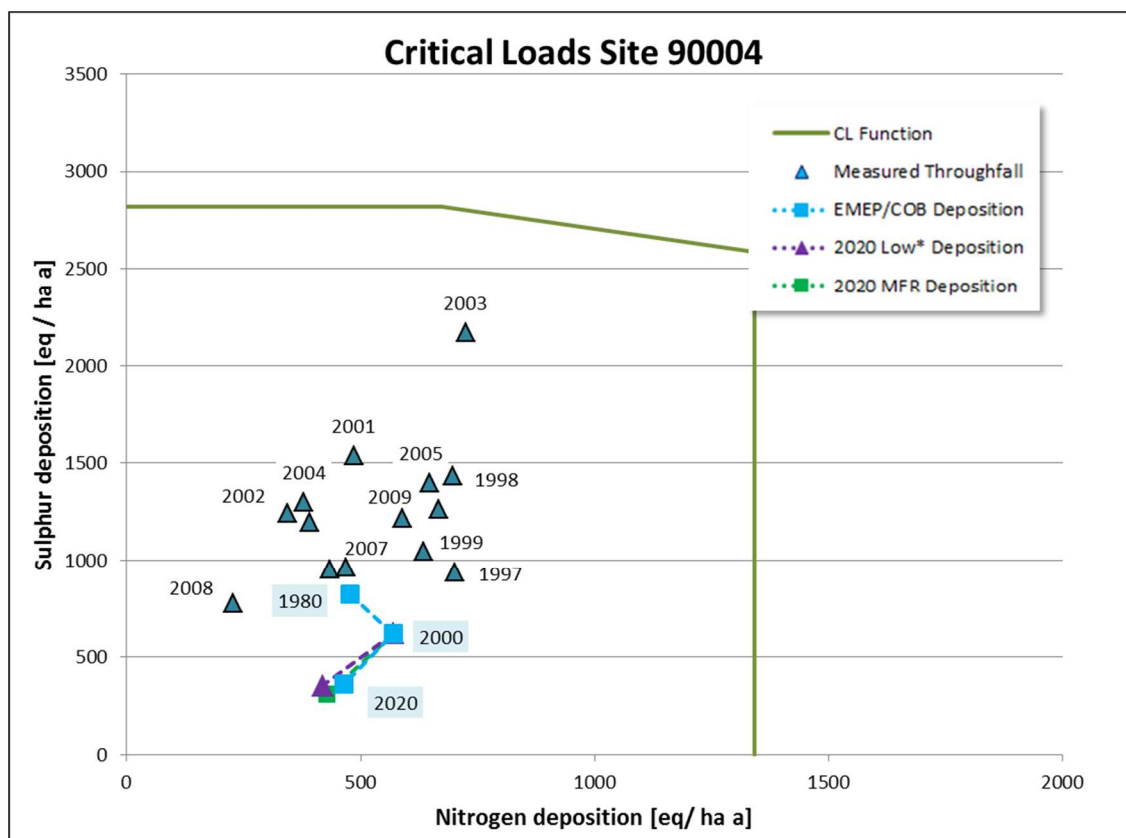
SMB method

Deposition modelled:

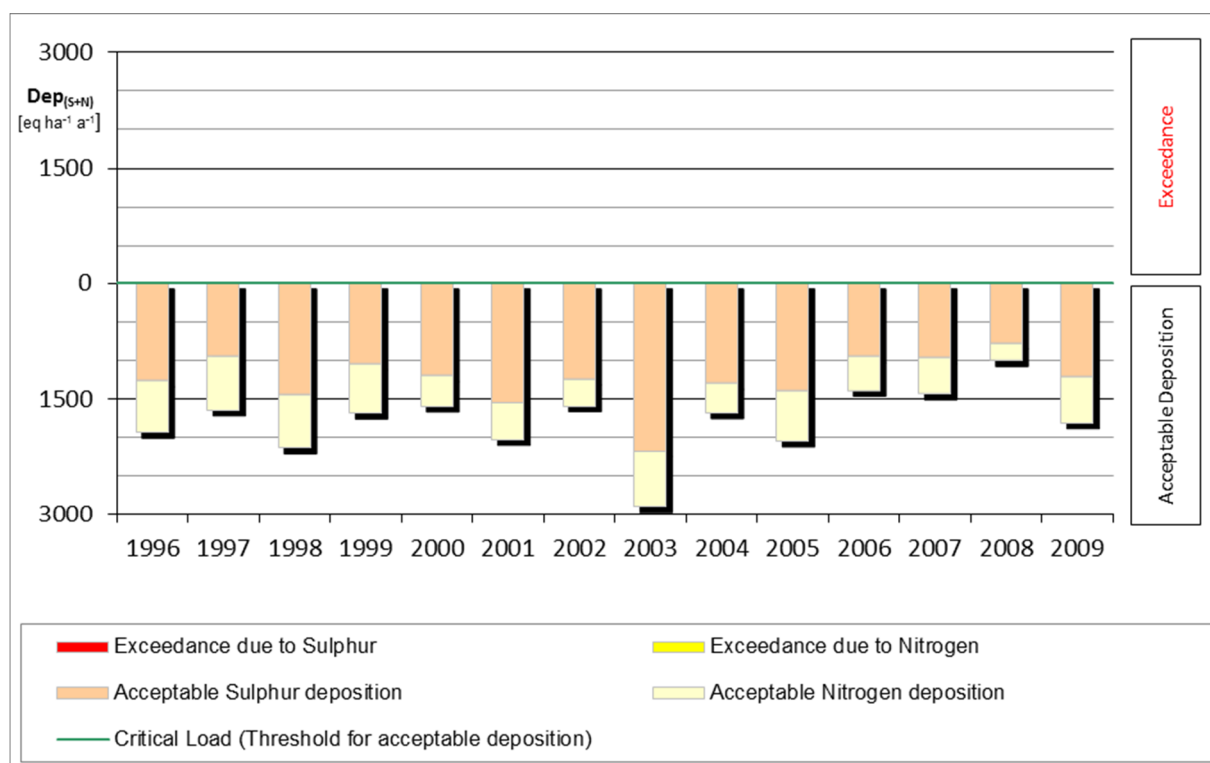
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

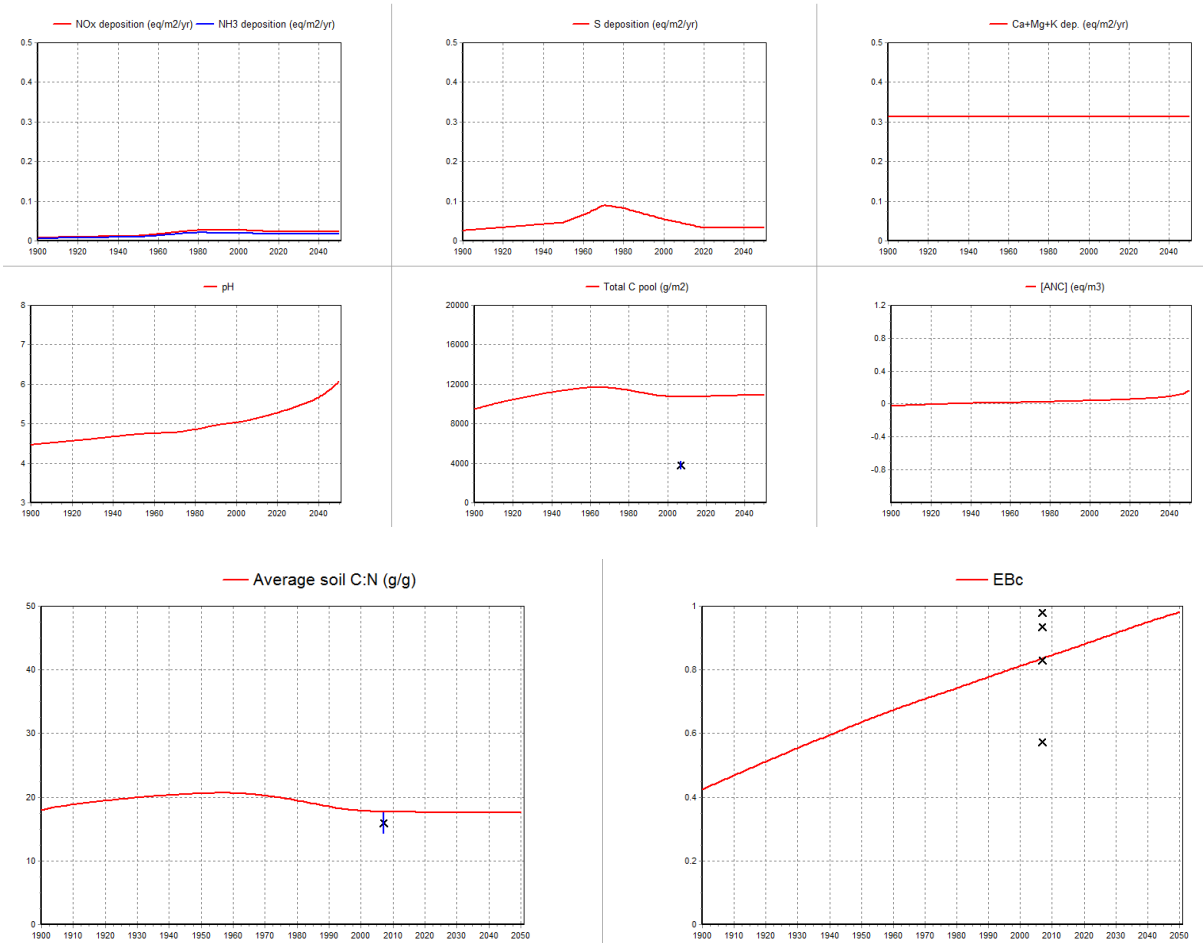
## ICP Forest Level II Site

ID 90004

Country: Greece

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

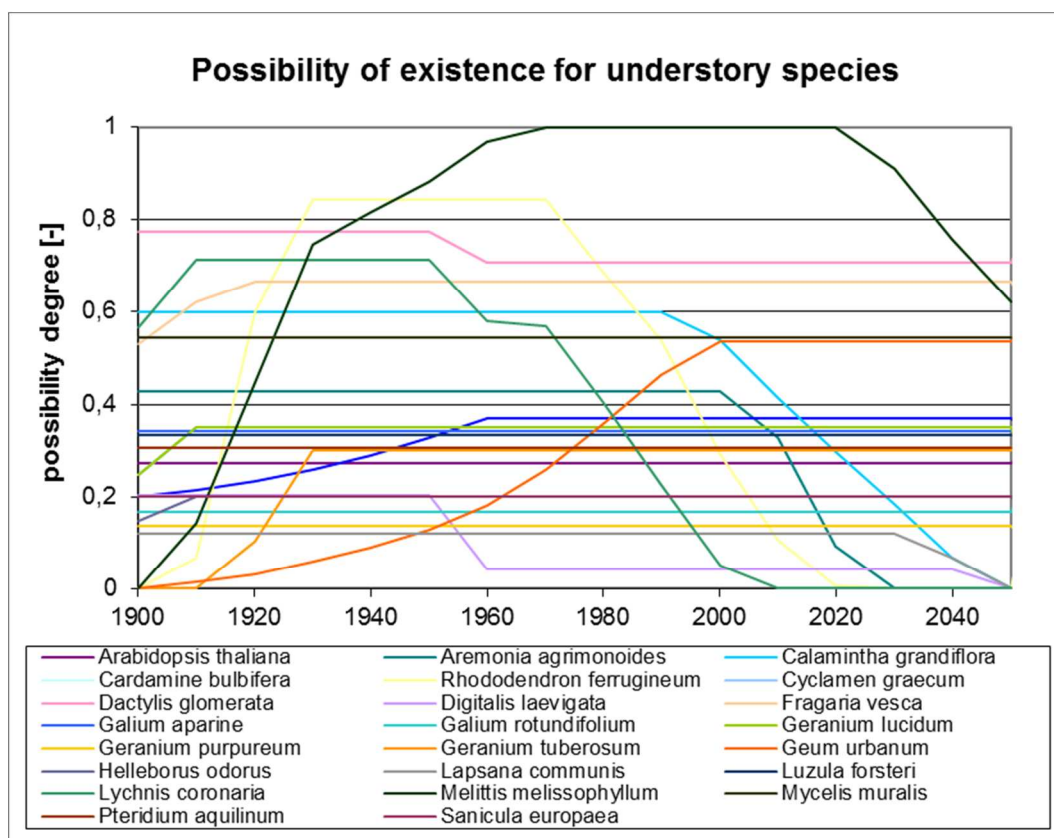
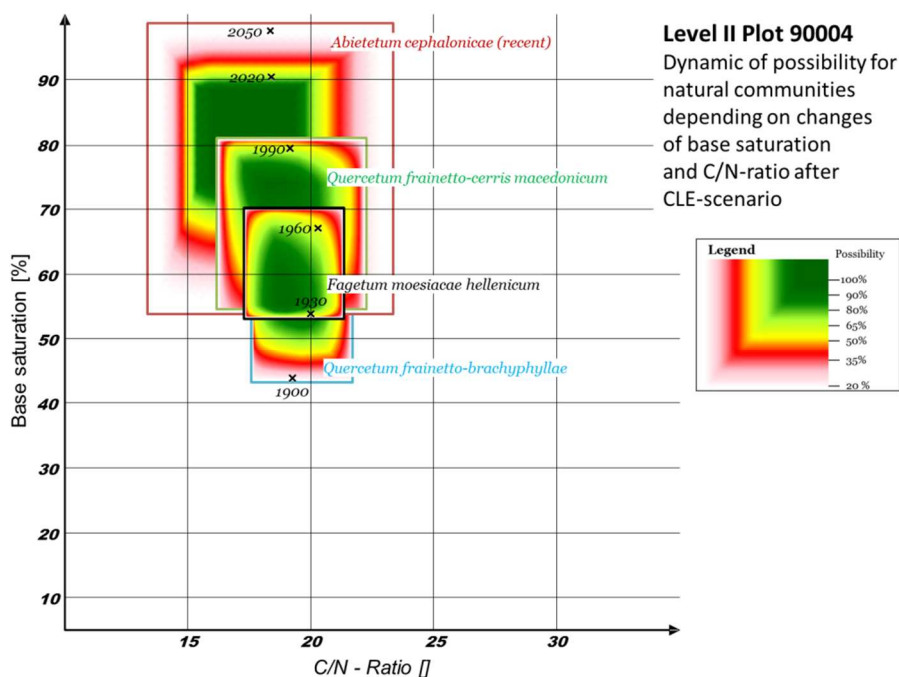
## ICP Forest Level II Site

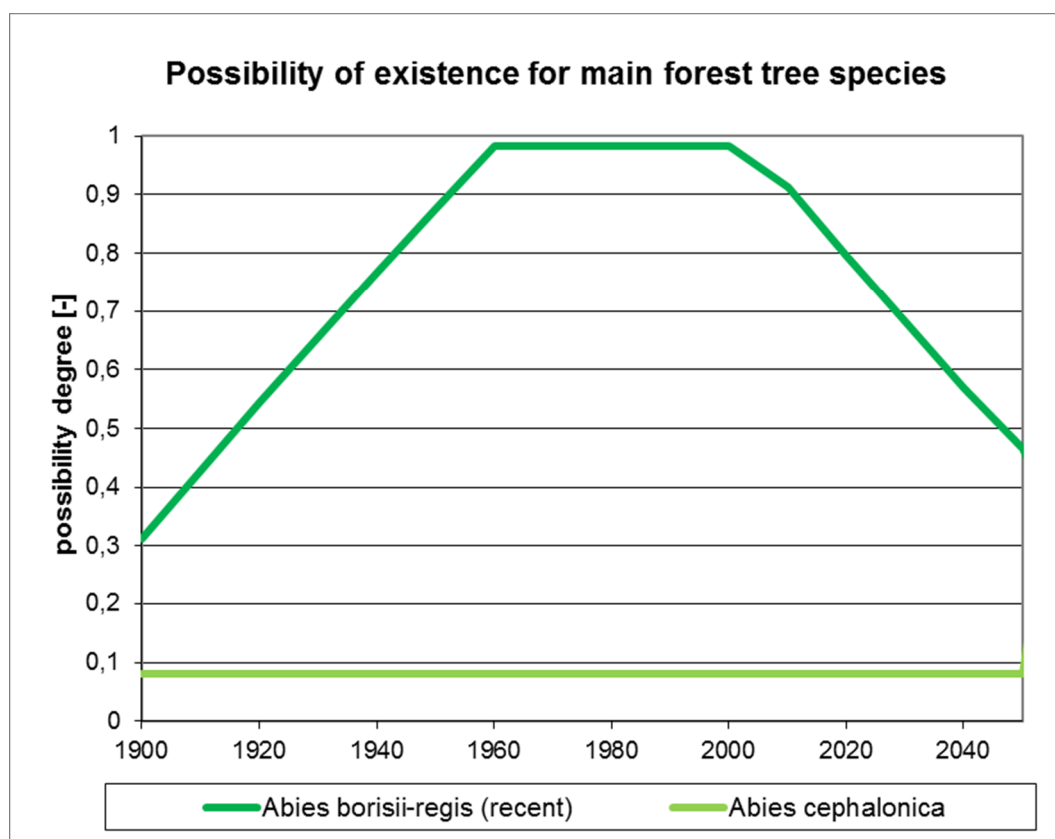
ID 90004

Country: Greece

## BERN model

## biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site:

ID 110054

Country: Spain

Critical Load calculation:

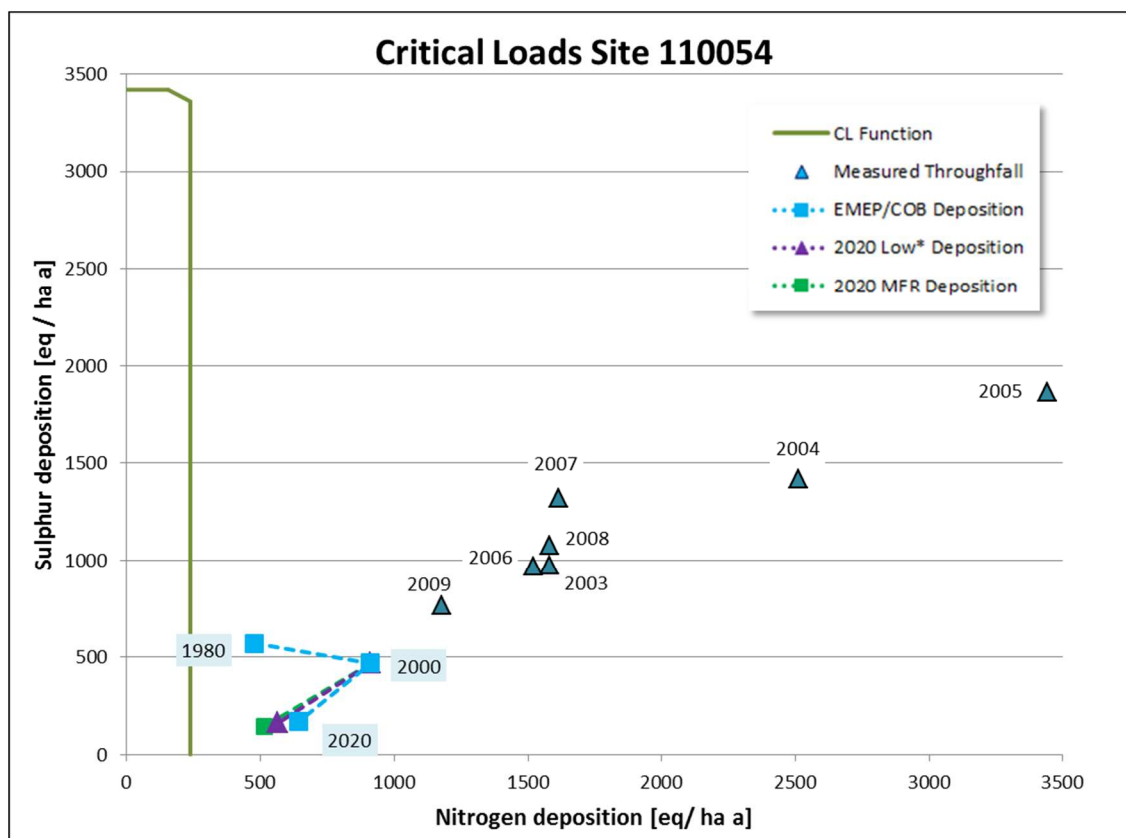
SMB method

Deposition modelled:

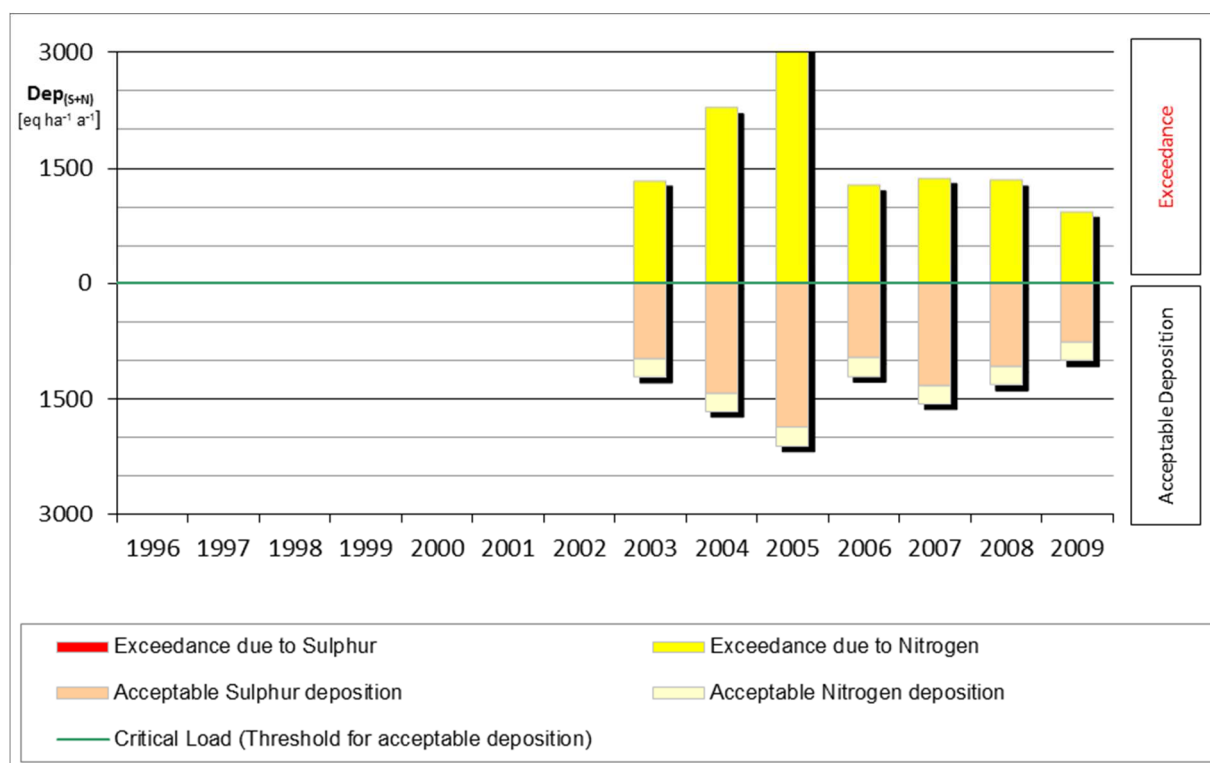
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

2003 - 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

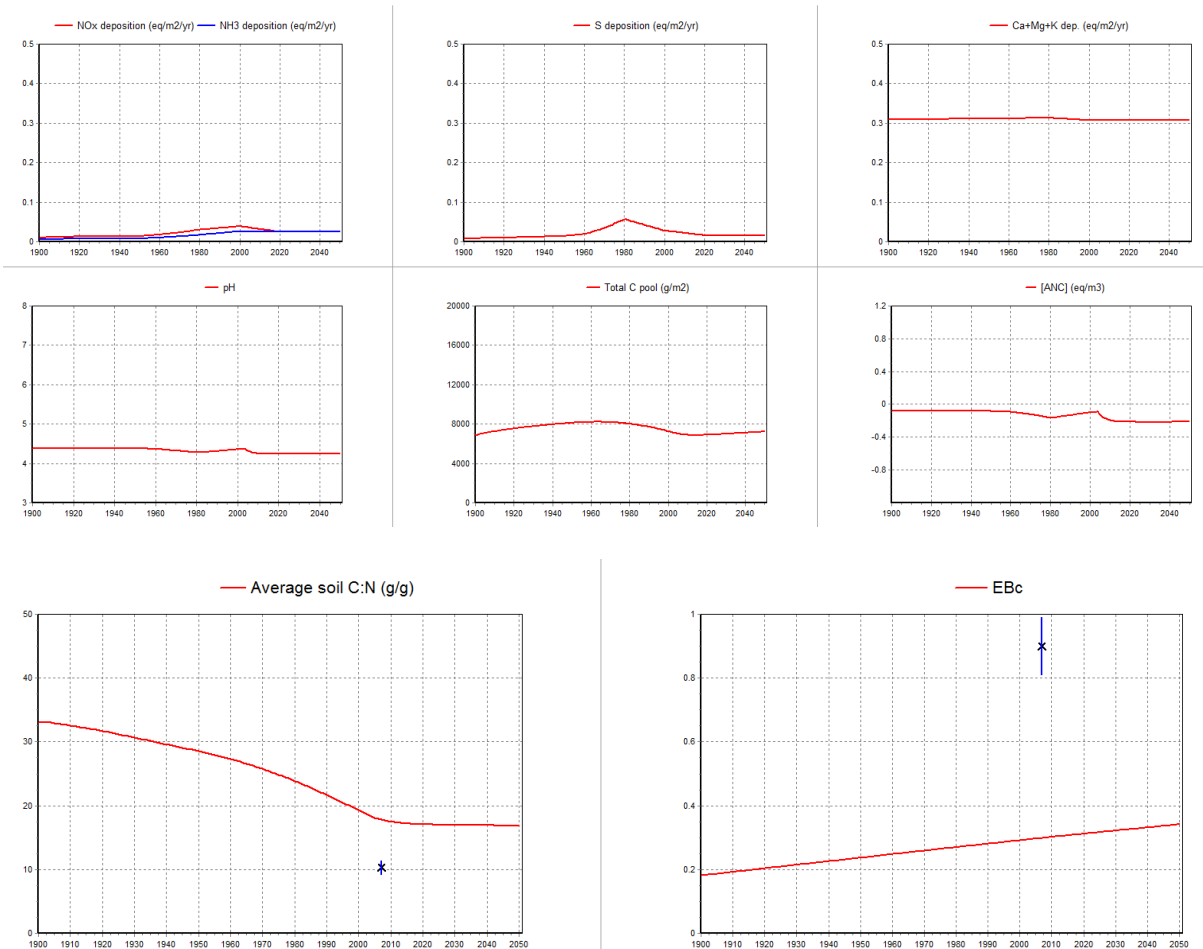
## ICP Forest Level II Site

ID 110054

Country: Spain

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



ICP Forest Level II Site:

ID 140009

Country: Austria

Critical Load calculation:

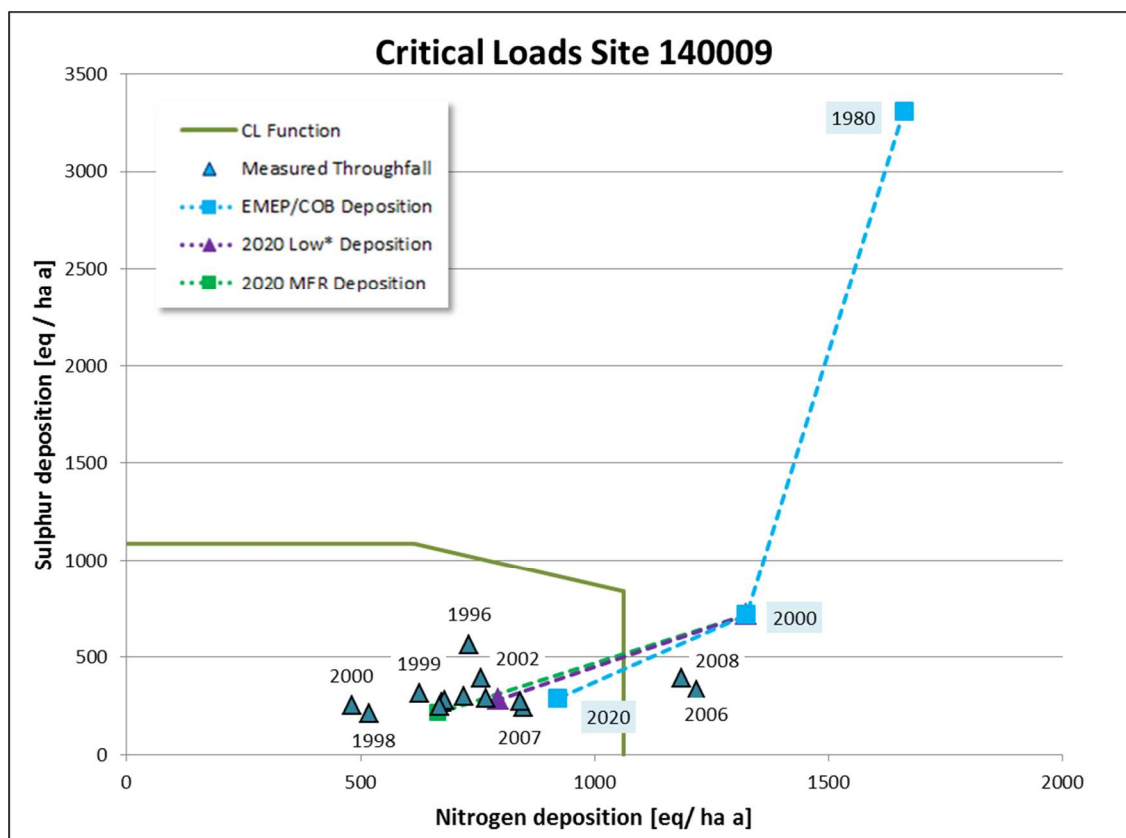
SMB method

Deposition modelled:

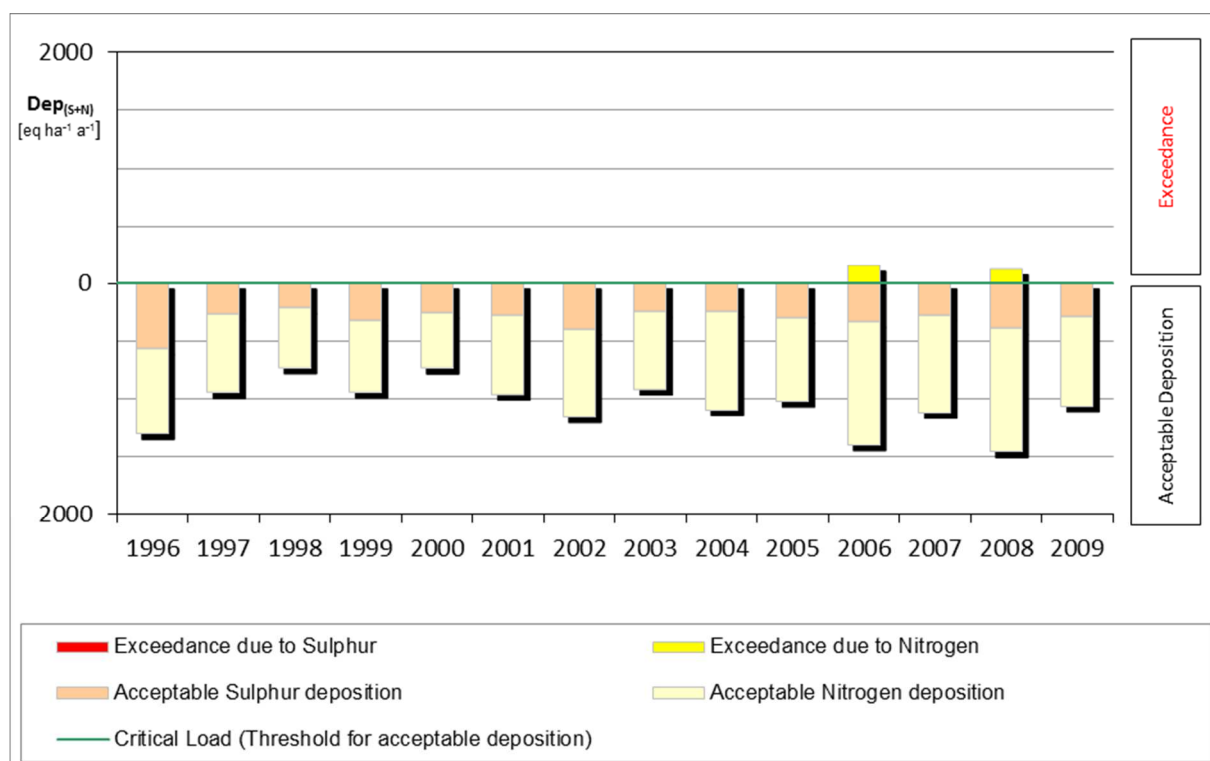
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

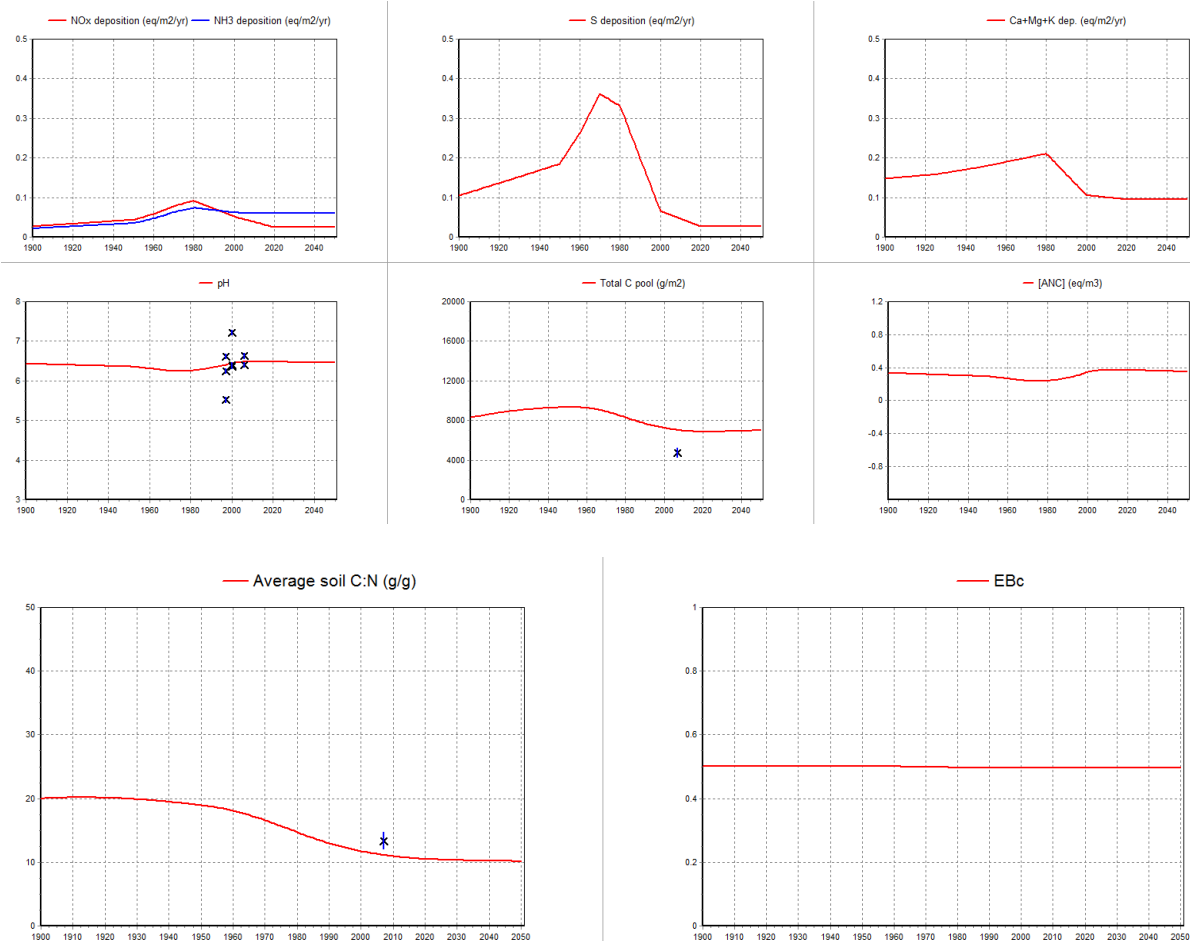
## ICP Forest Level II Site

ID 140009

Country: Austria

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

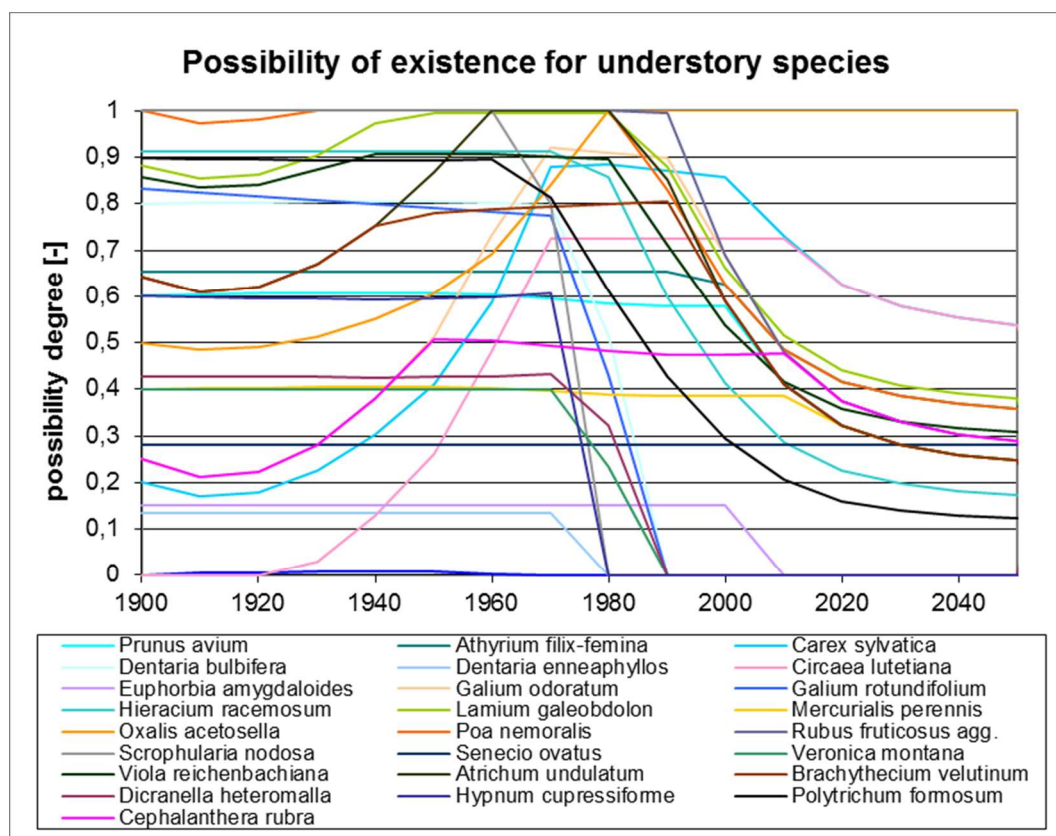
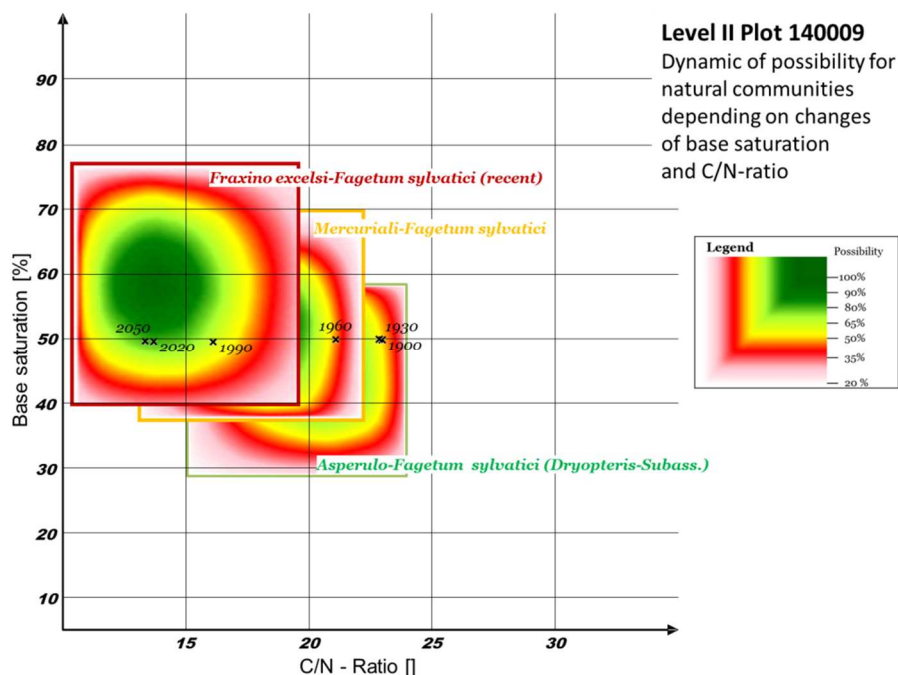
ICP Forest Level II Site

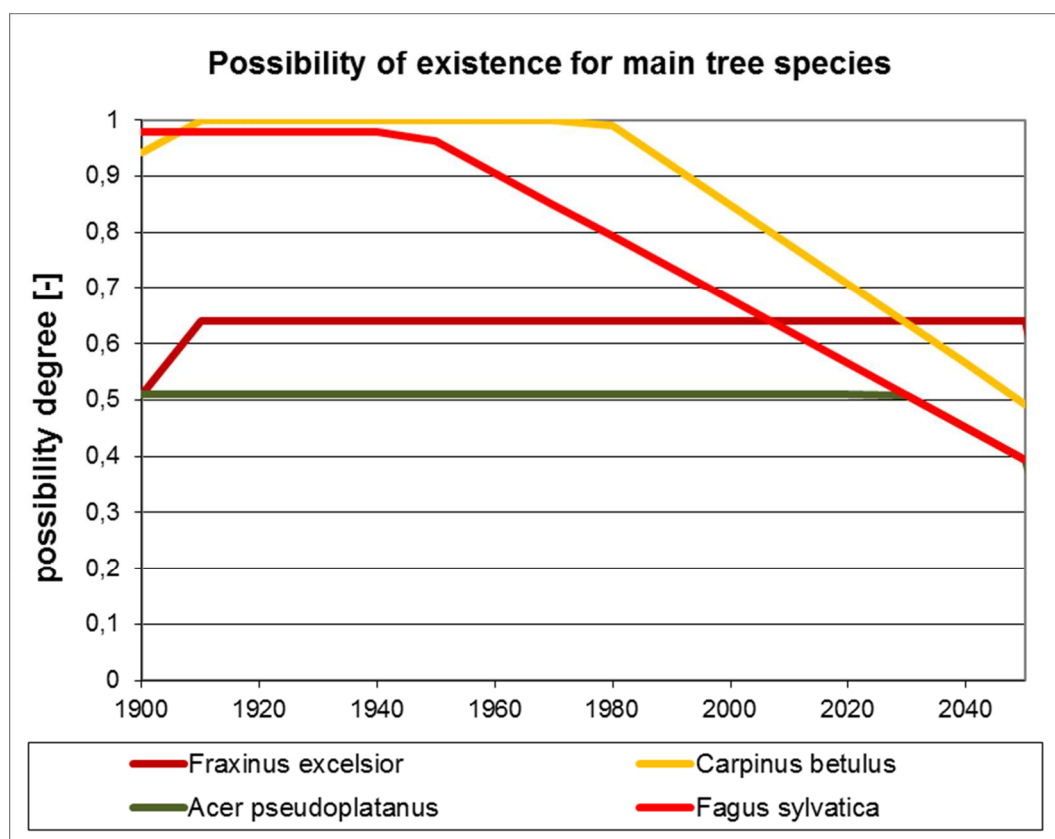
ID 140009

Country: Austria

BERN model

biodiversity effects





Conclusion: Changes in main tree species are recommended

ICP Forest Level II Site:

ID 140016

Country: Austria

Critical Load calculation:

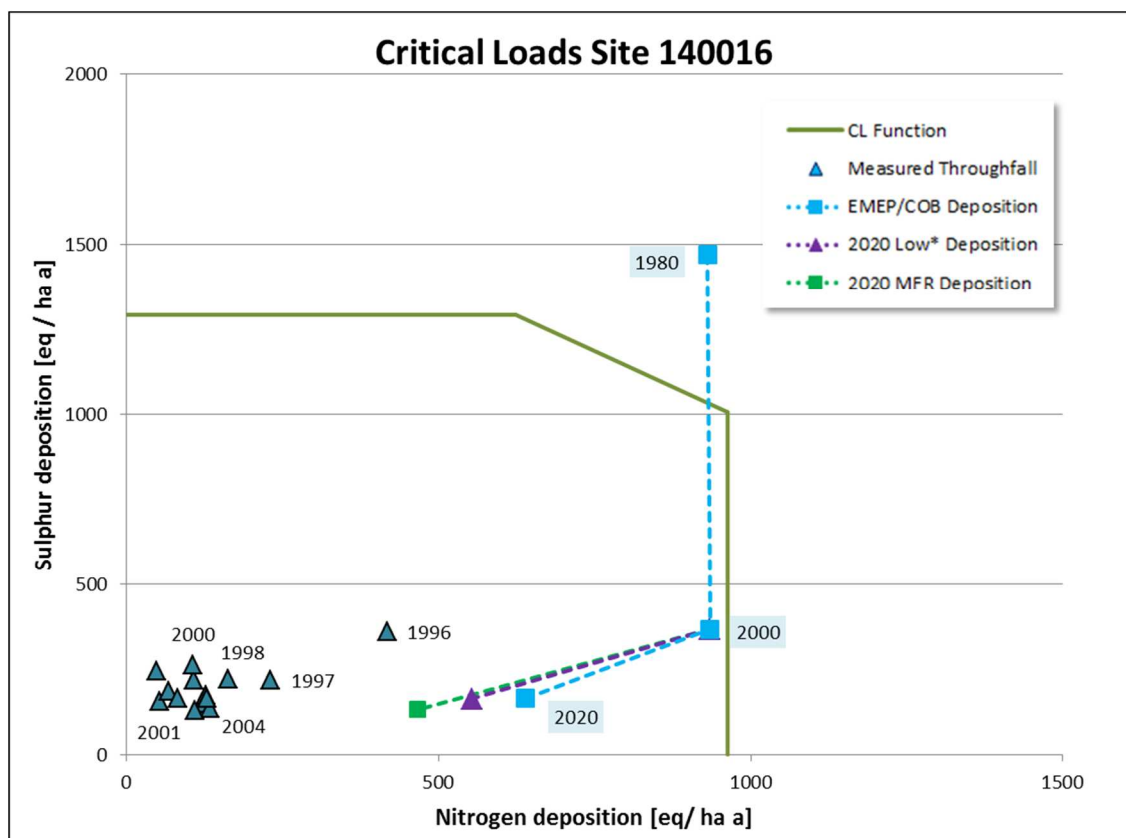
SMB method

Deposition modelled:

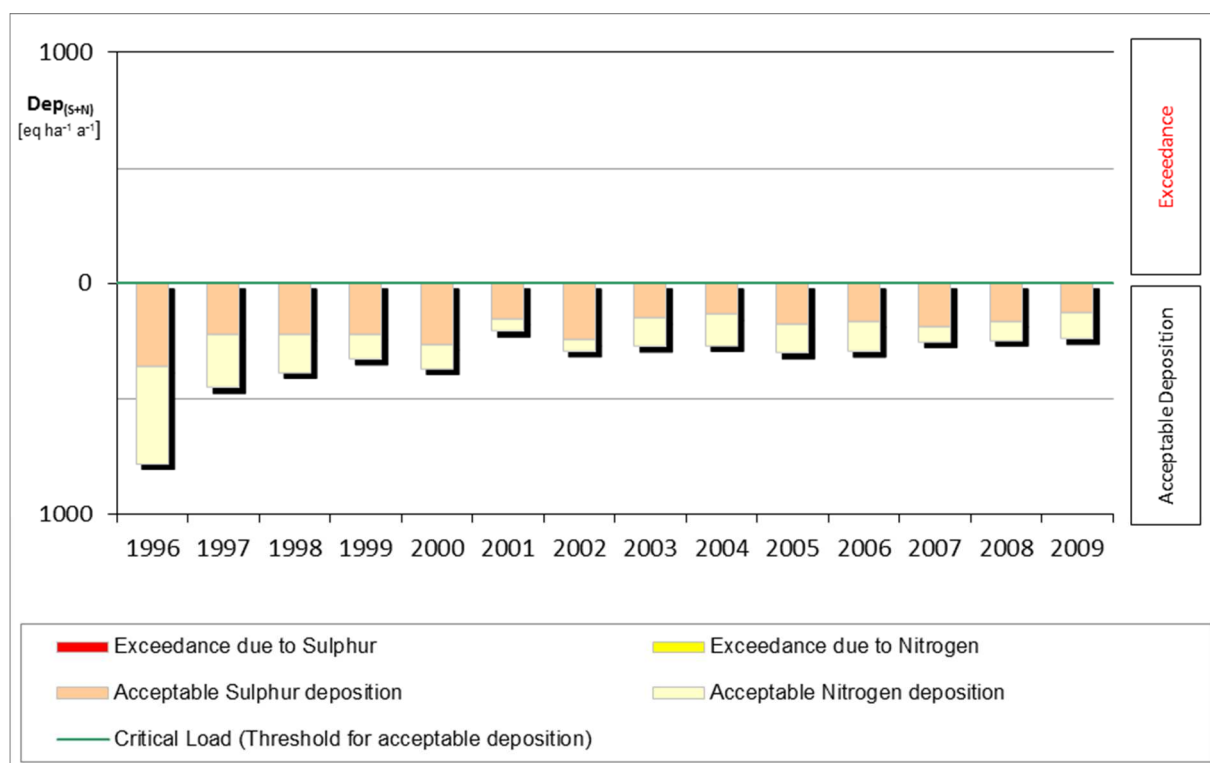
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

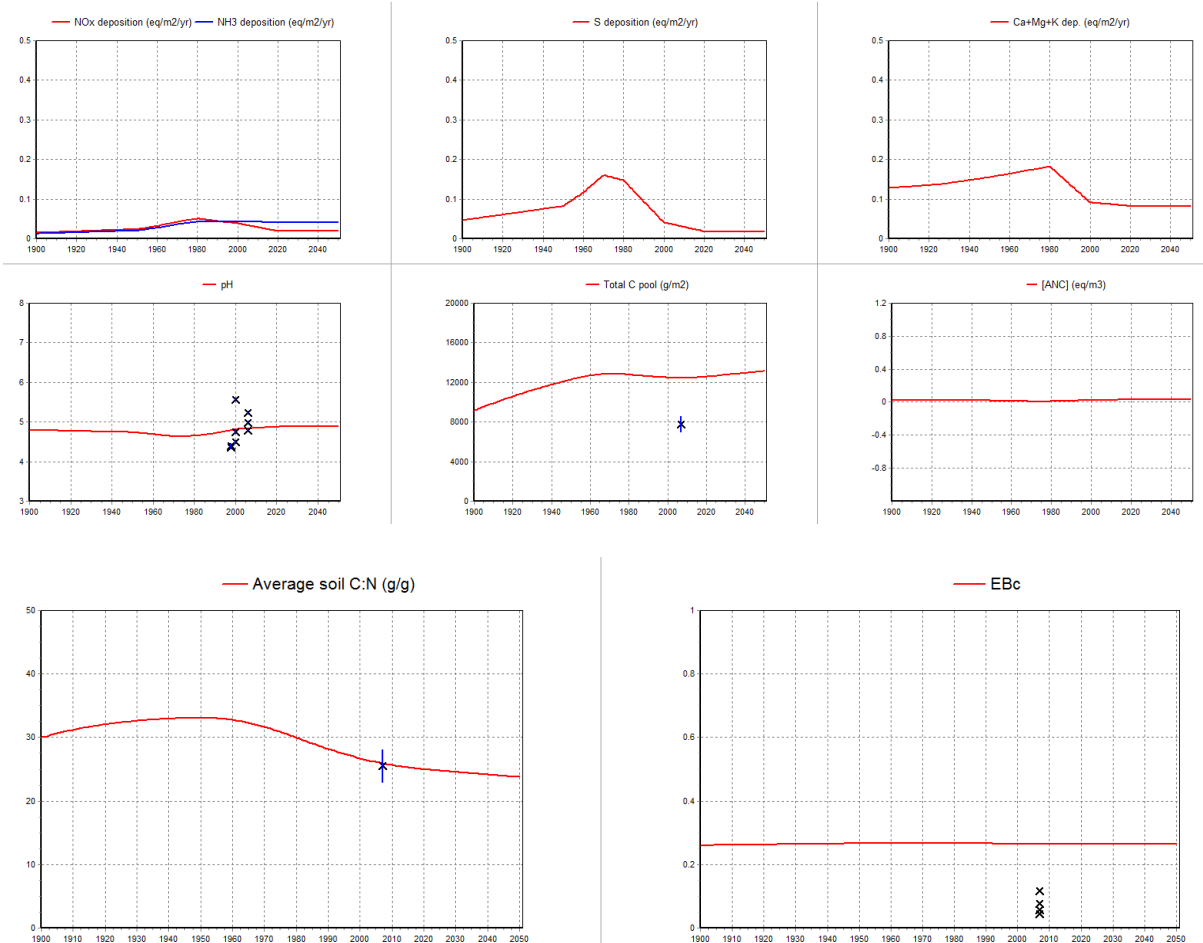
## ICP Forest Level II Site

ID 140016

Country: Austria

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



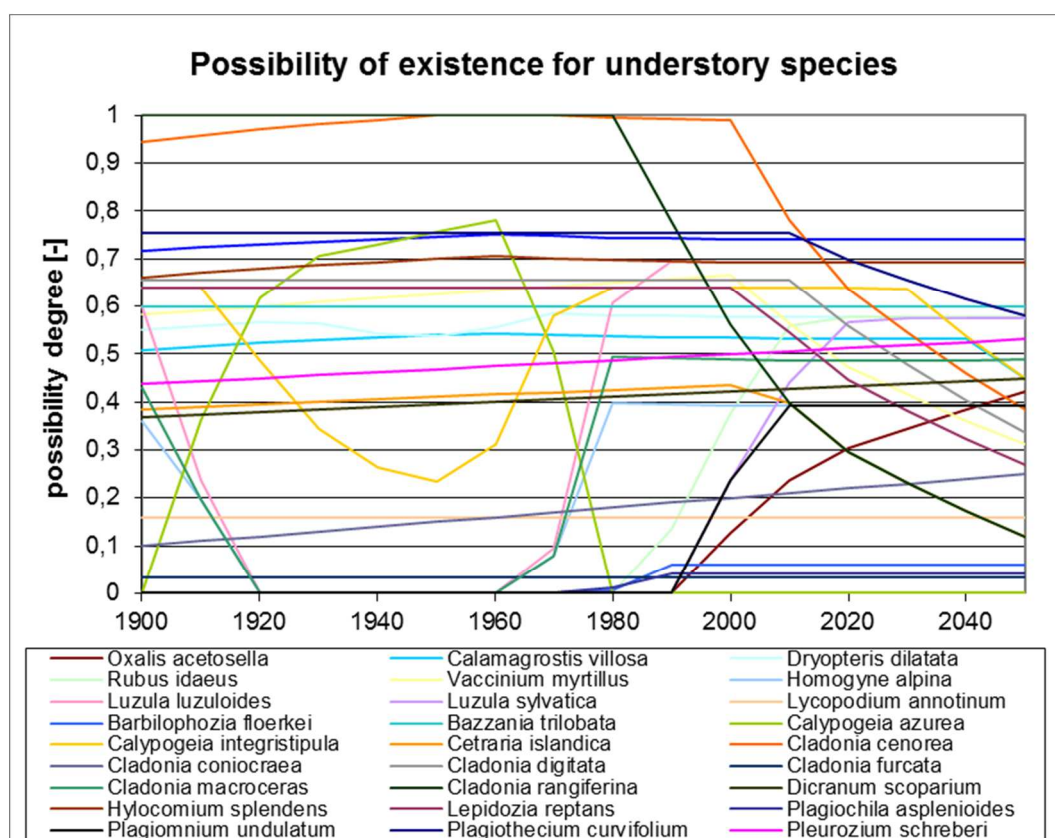
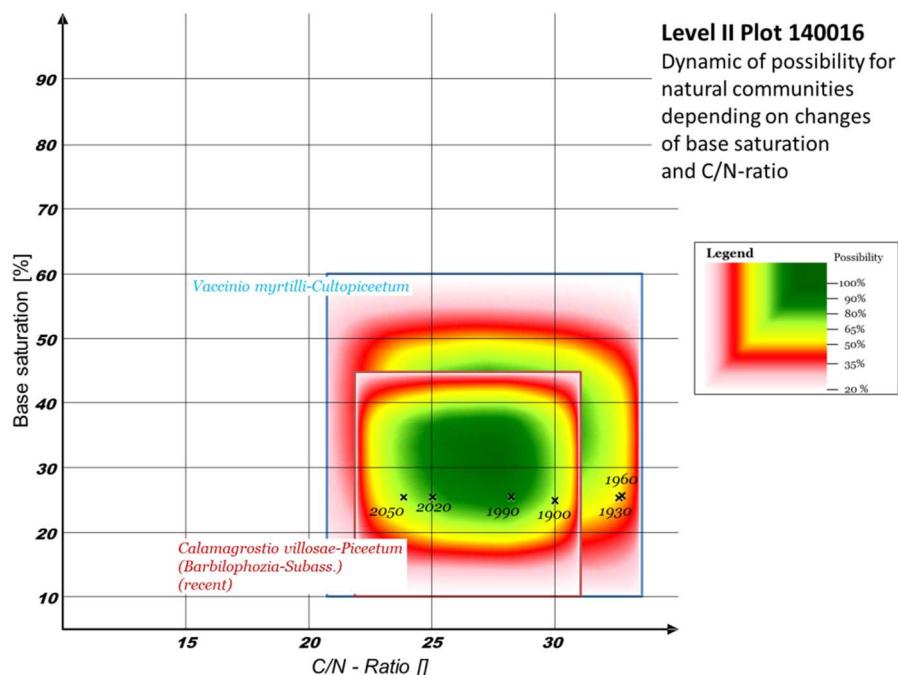
ICP Forest Level II Site

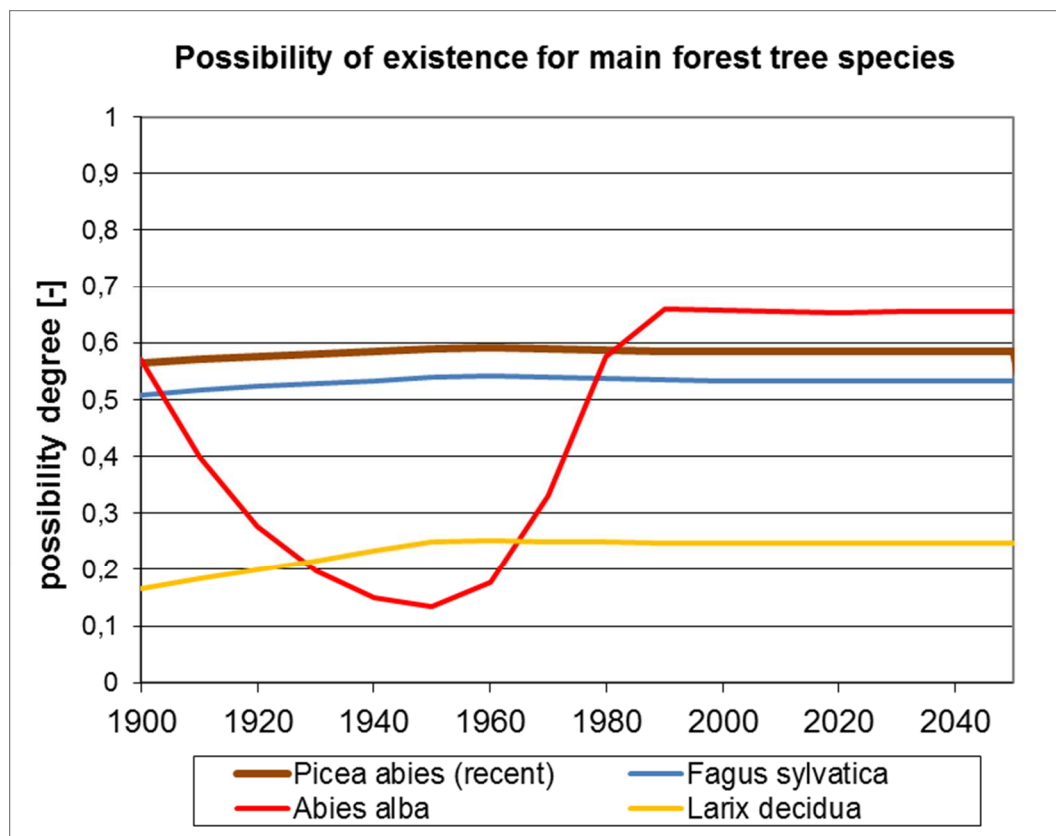
ID 140016

Country: Austria

BERN model

biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site:

ID 150001

Country: Finland

Critical Load calculation:

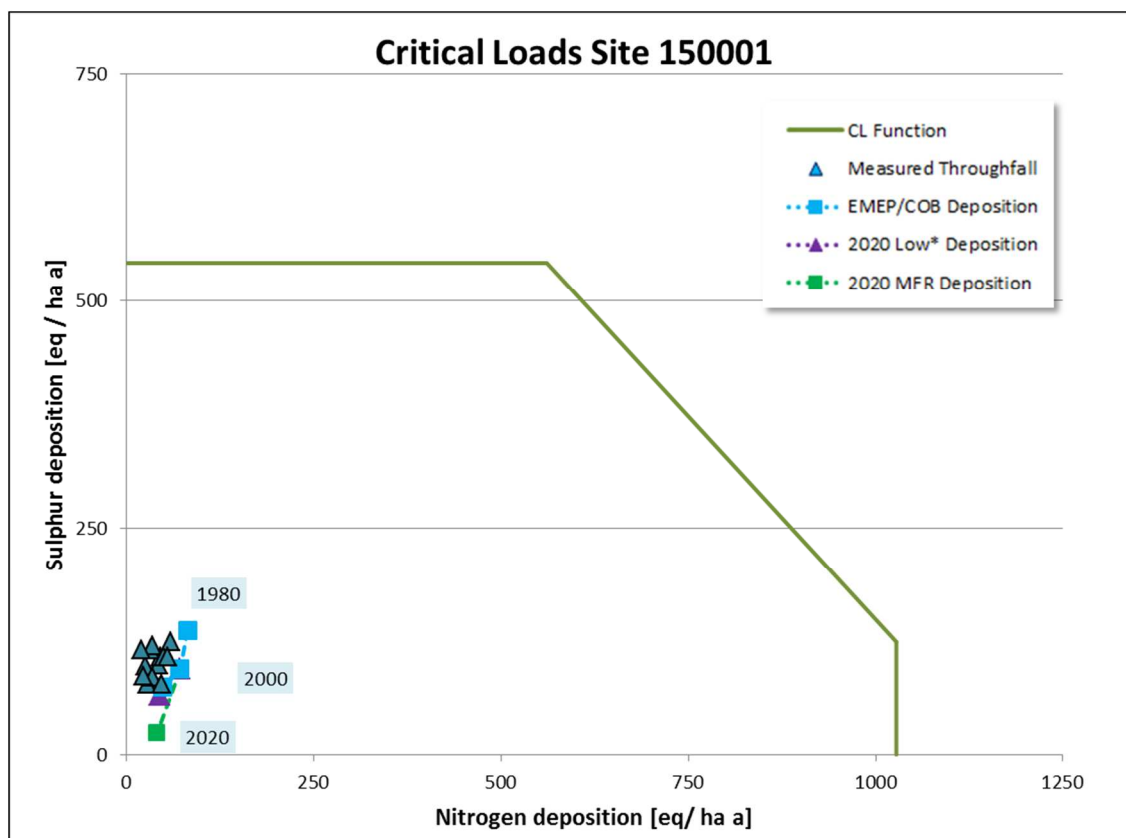
SMB method

Deposition modelled:

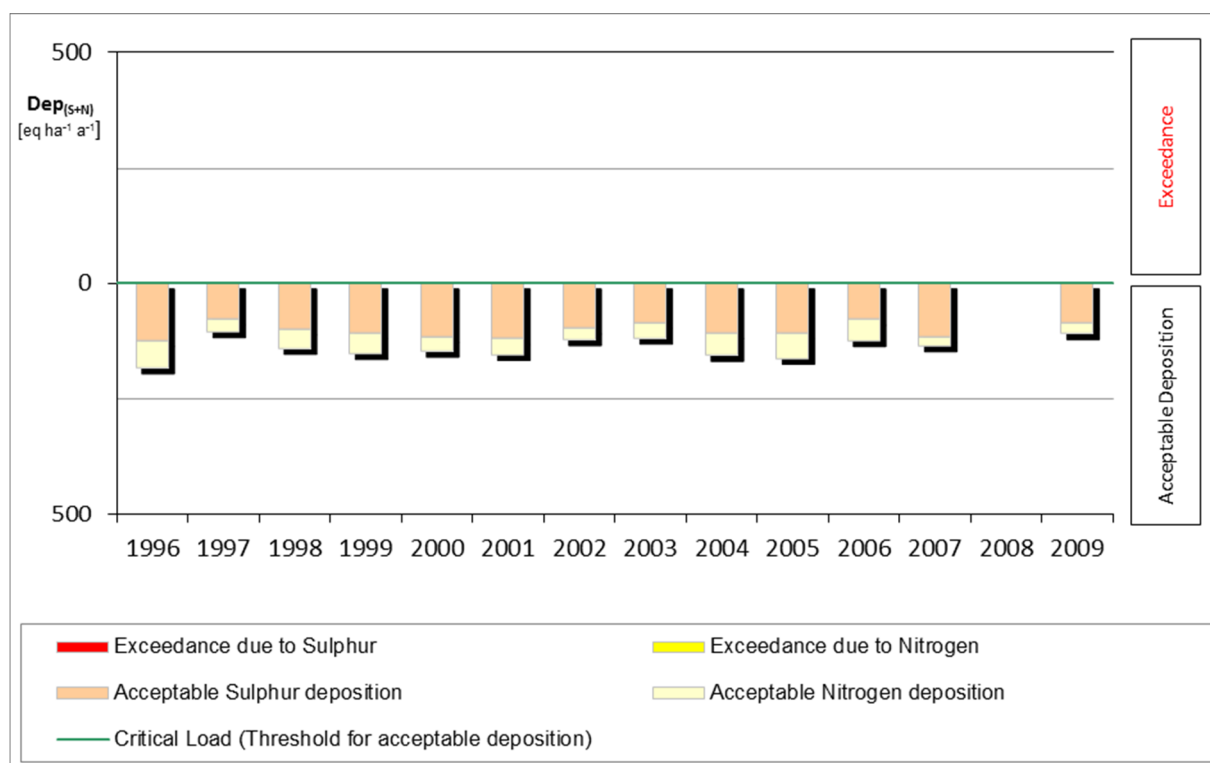
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2007, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 150002

Country: Finland

Critical Load calculation:

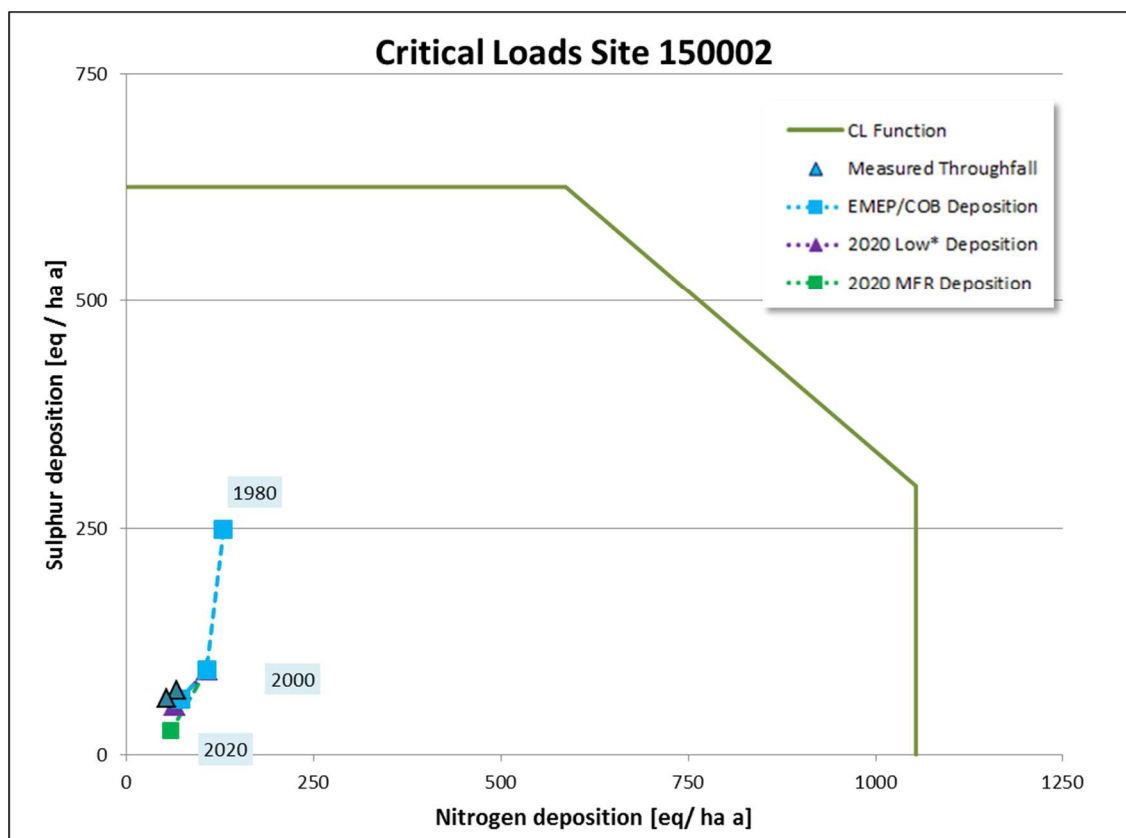
SMB method

Deposition modelled:

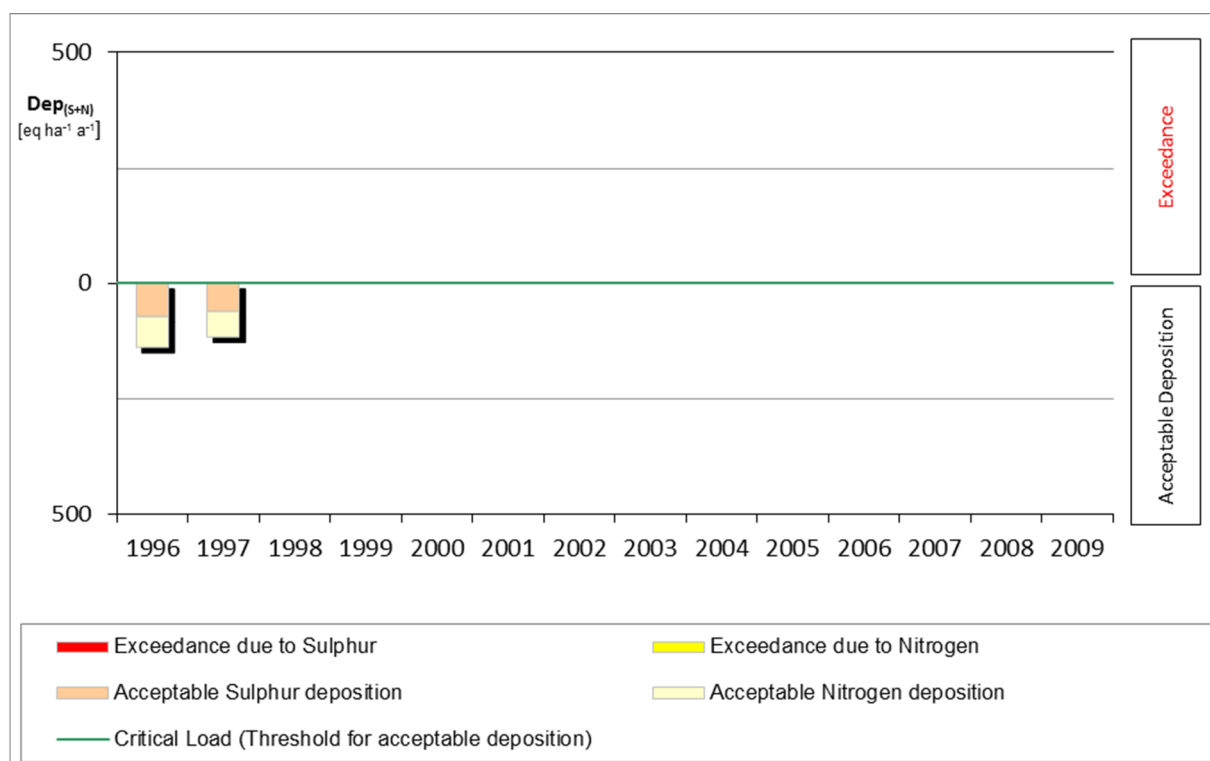
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996, 1997



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



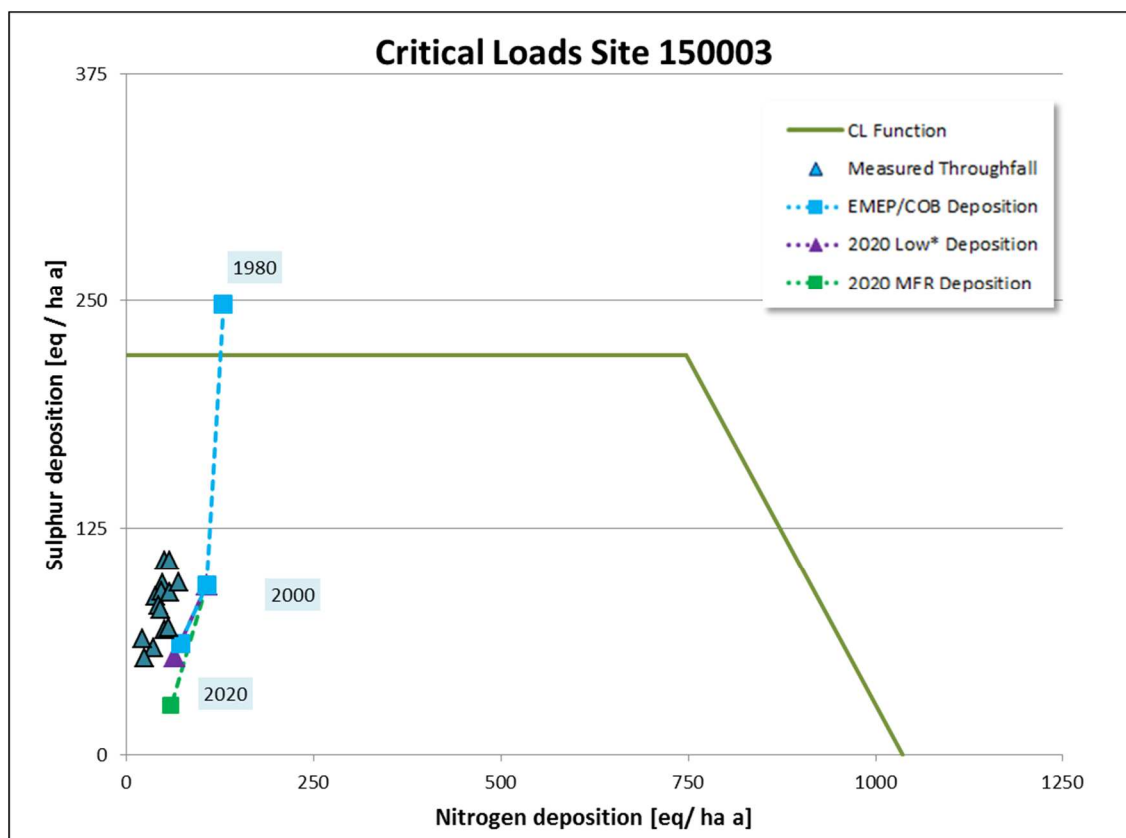
Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site: ID 150003 Country: Finland

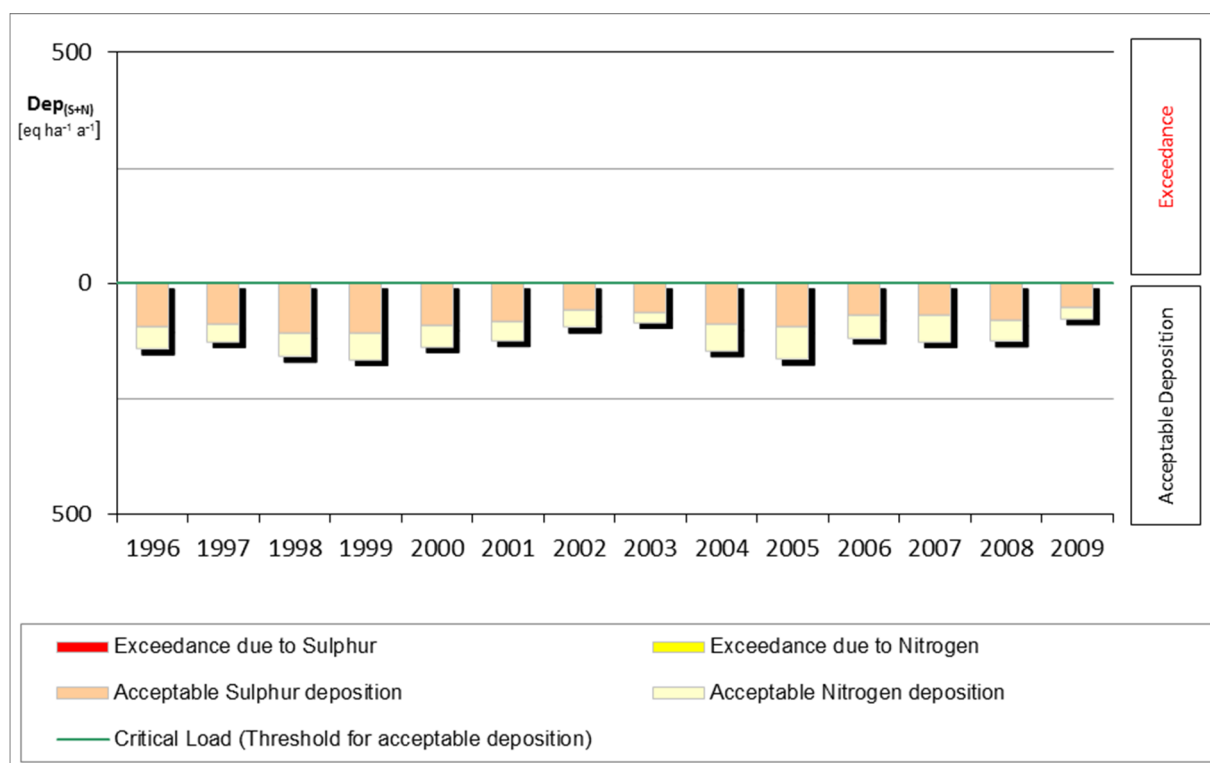
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



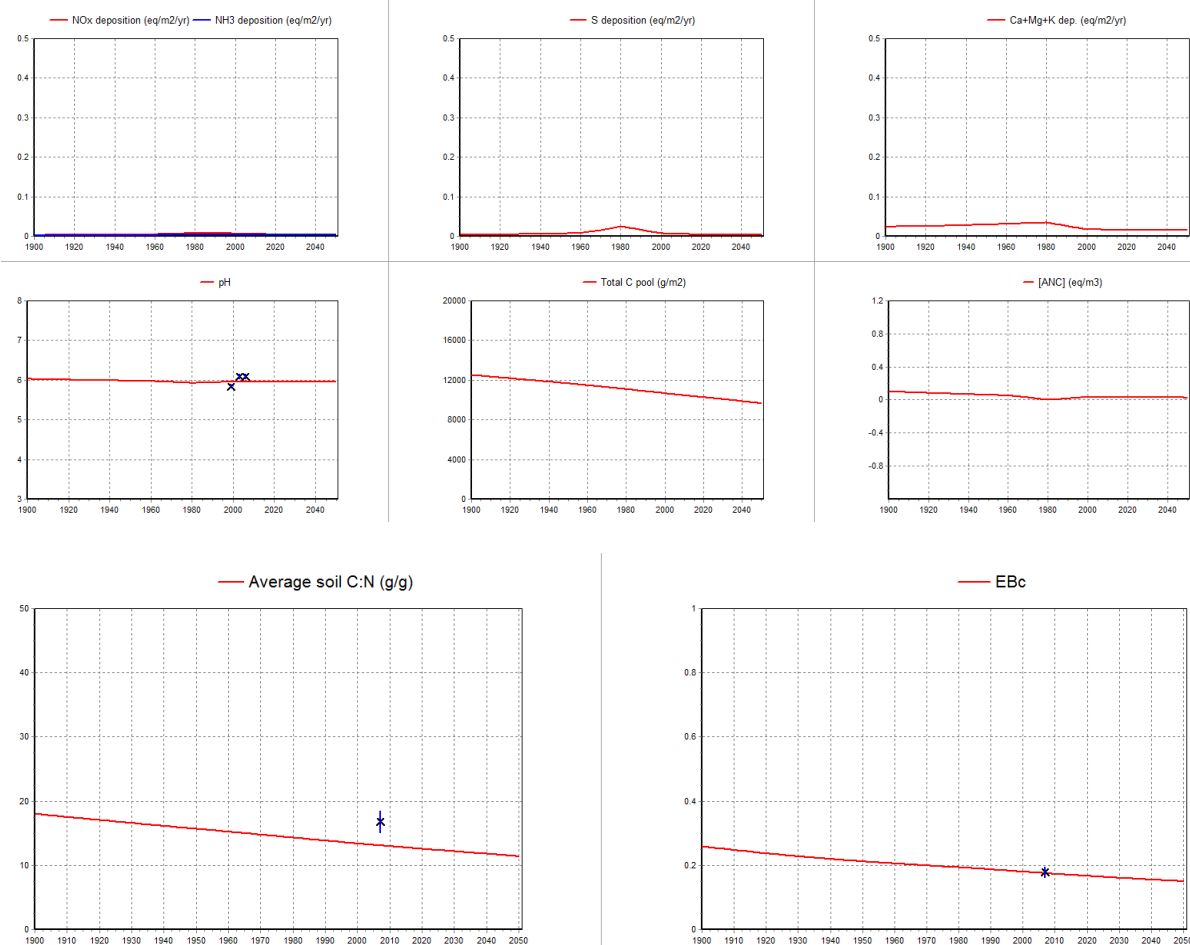
## ICP Forest Level II Site

ID 150003

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150004

Country: Finland

Critical Load calculation:

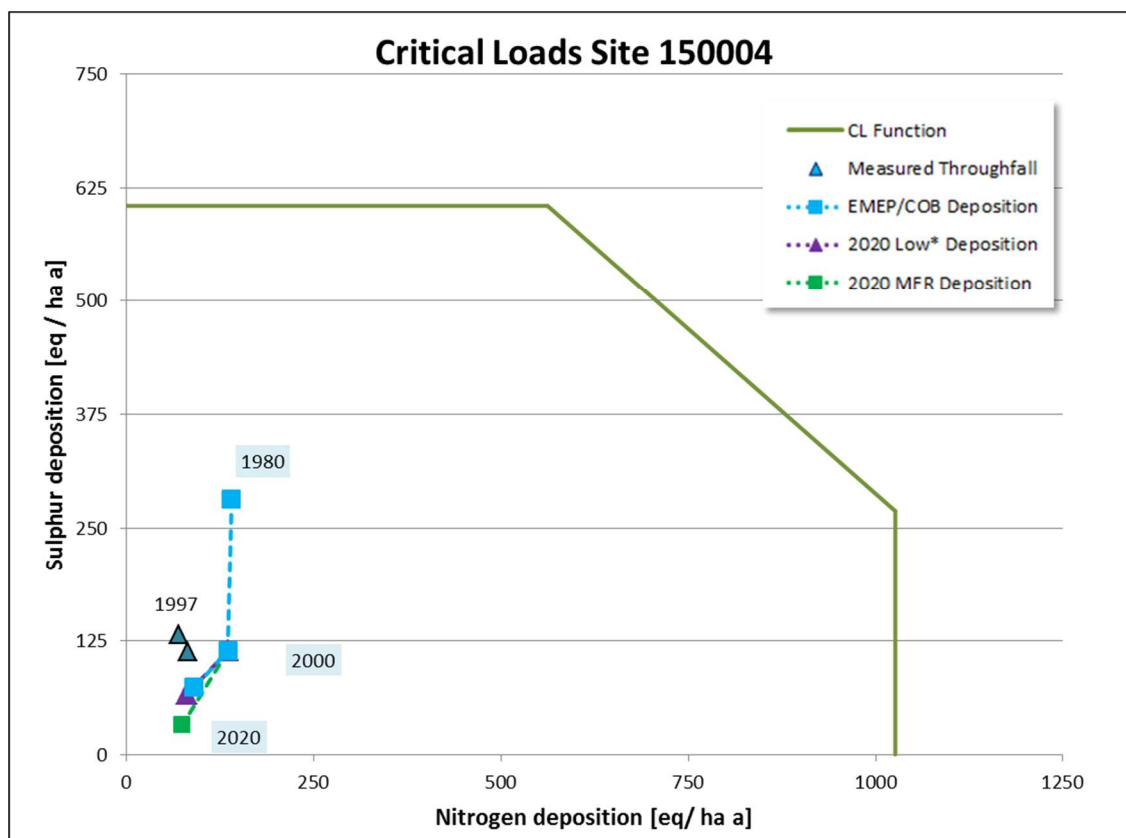
SMB method

Deposition modelled:

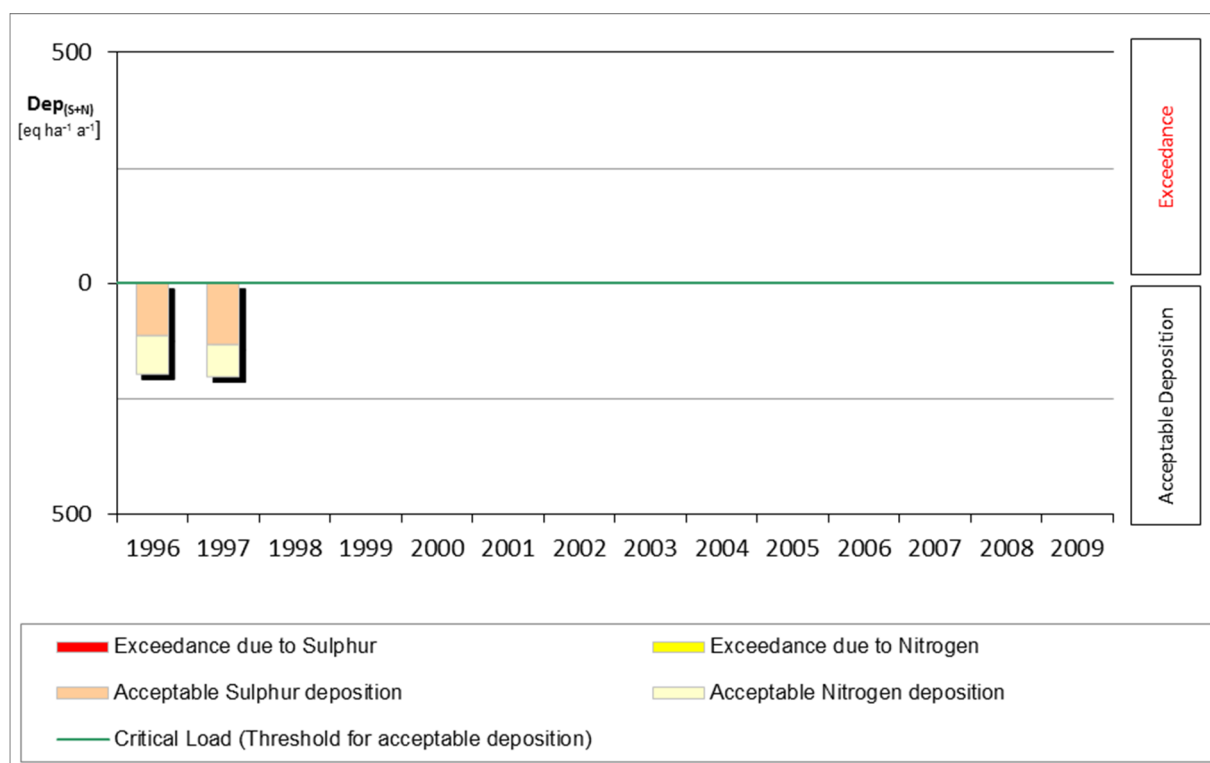
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996, 1997



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

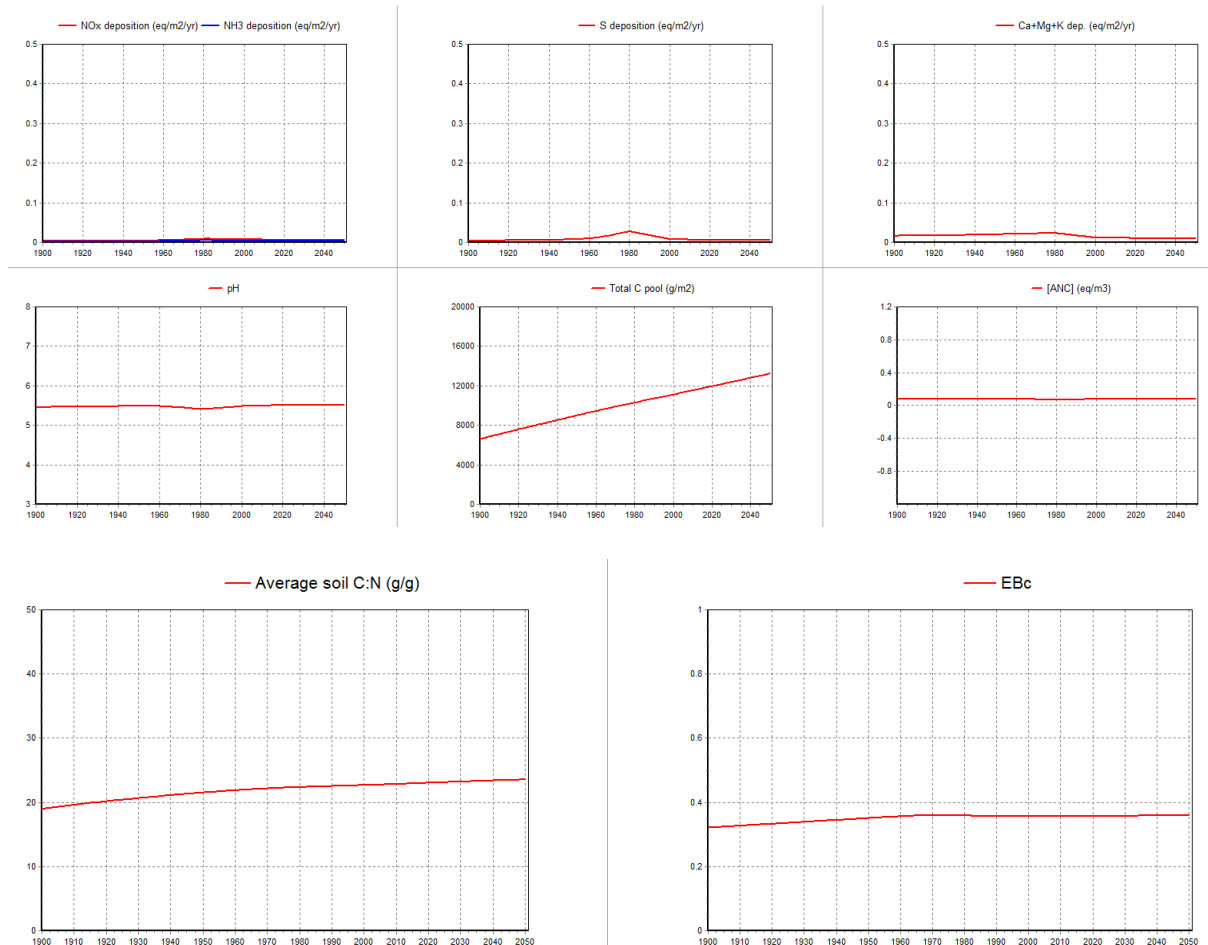
ICP Forest Level II Site

ID 150004

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150005

Country: Finland

Critical Load calculation:

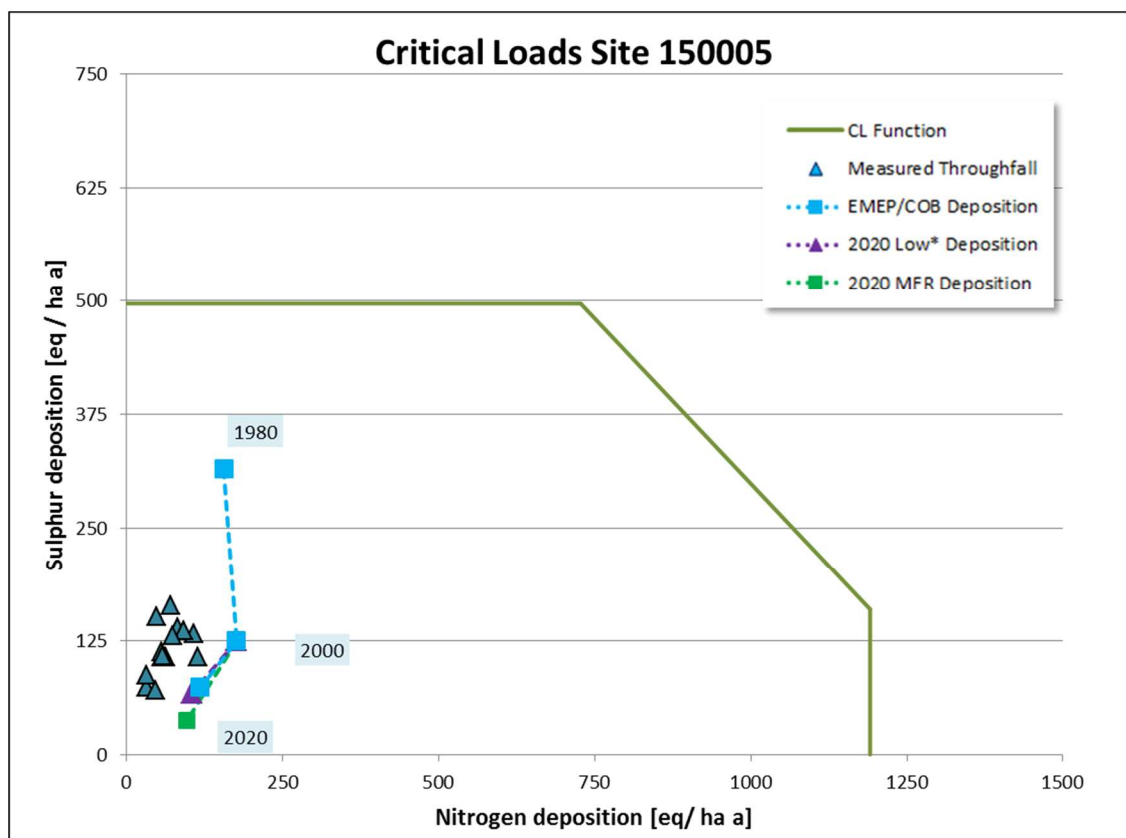
SMB method

Deposition modelled:

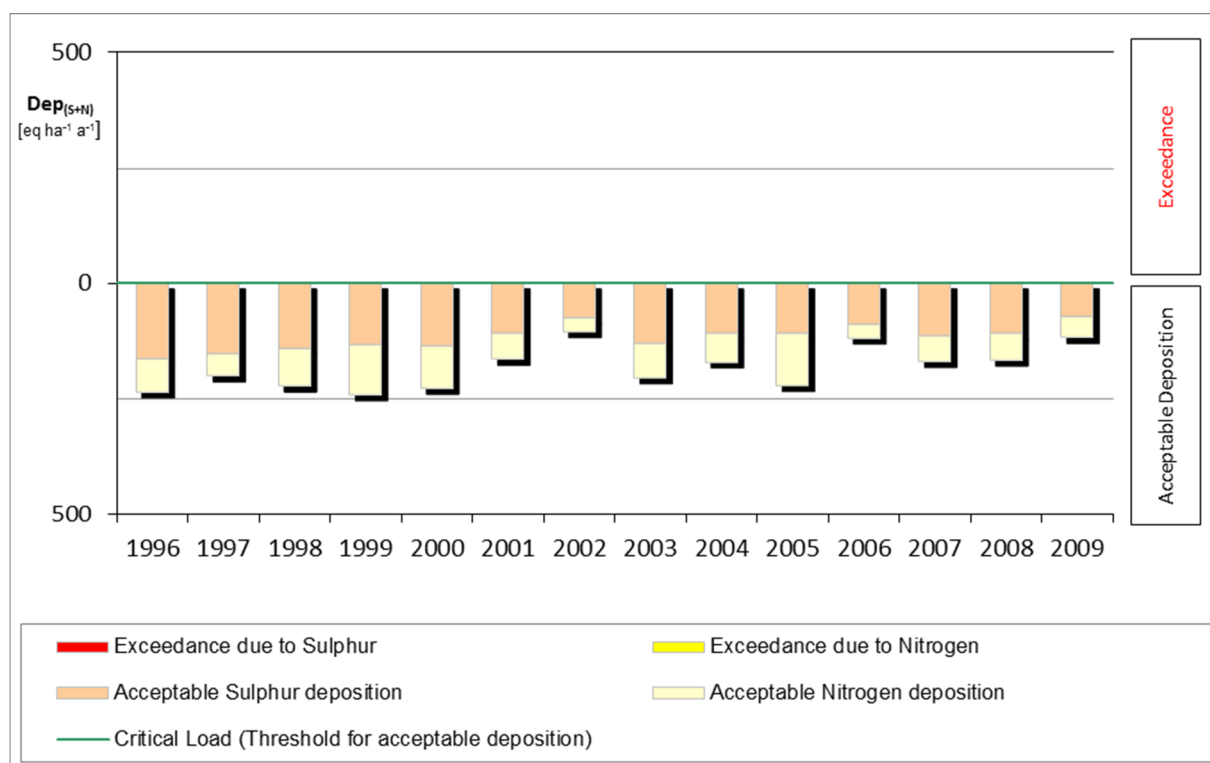
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

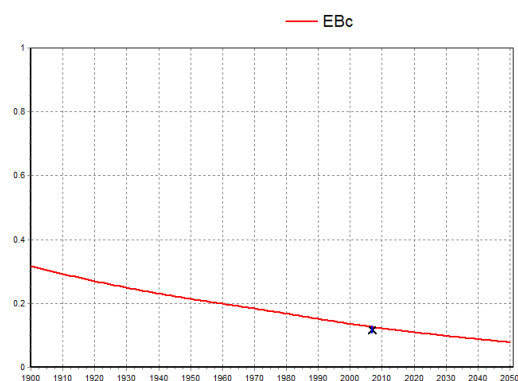
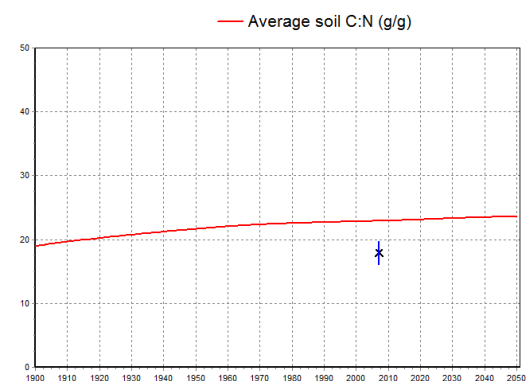
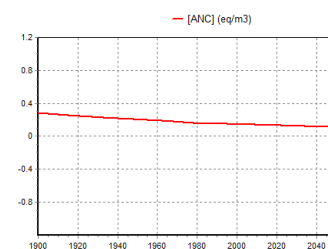
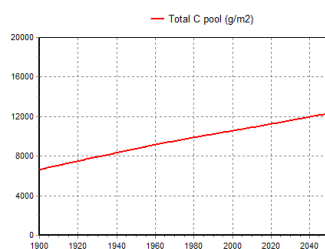
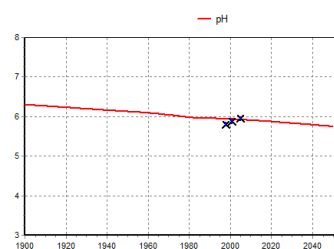
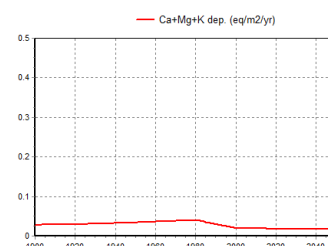
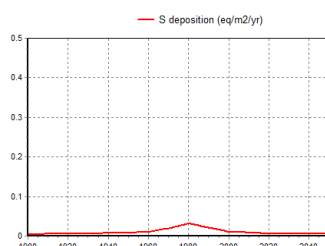
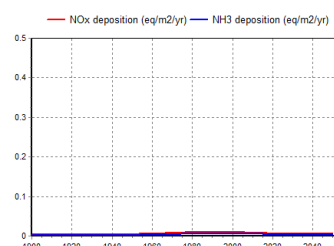
ICP Forest Level II Site

ID 150005

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150006

Country: Finland

Critical Load calculation:

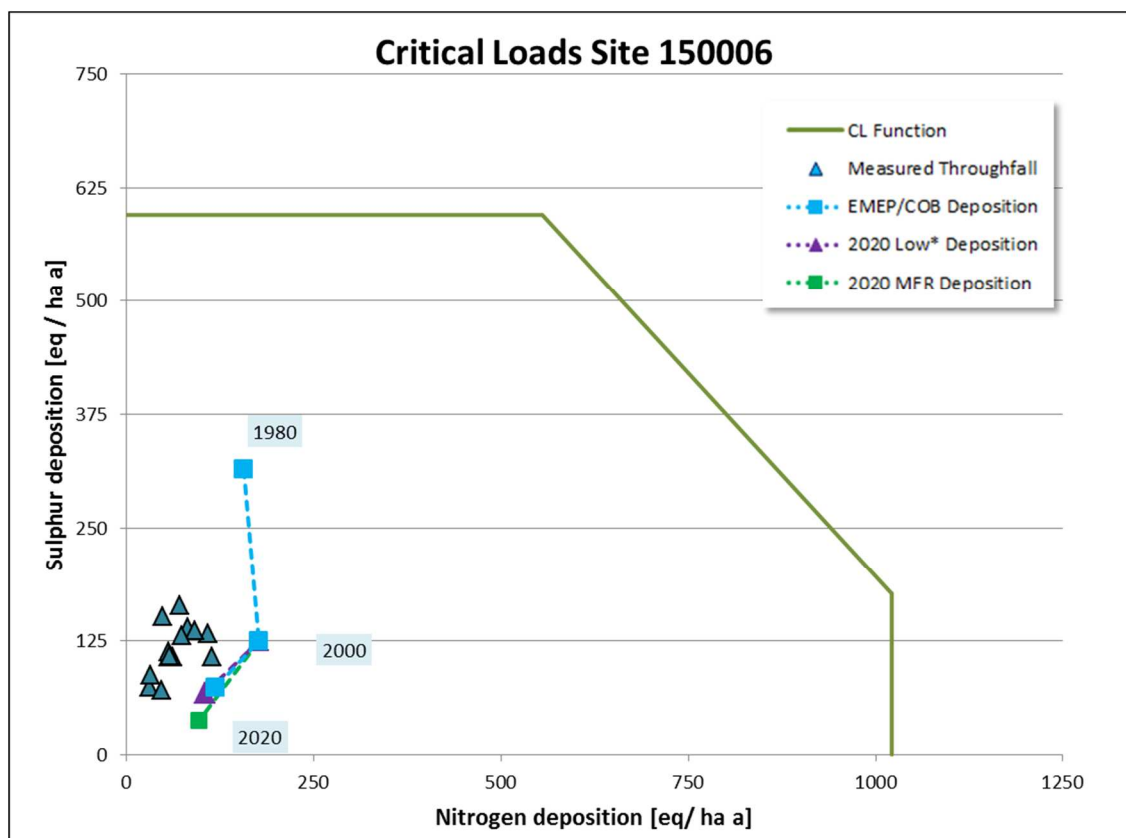
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

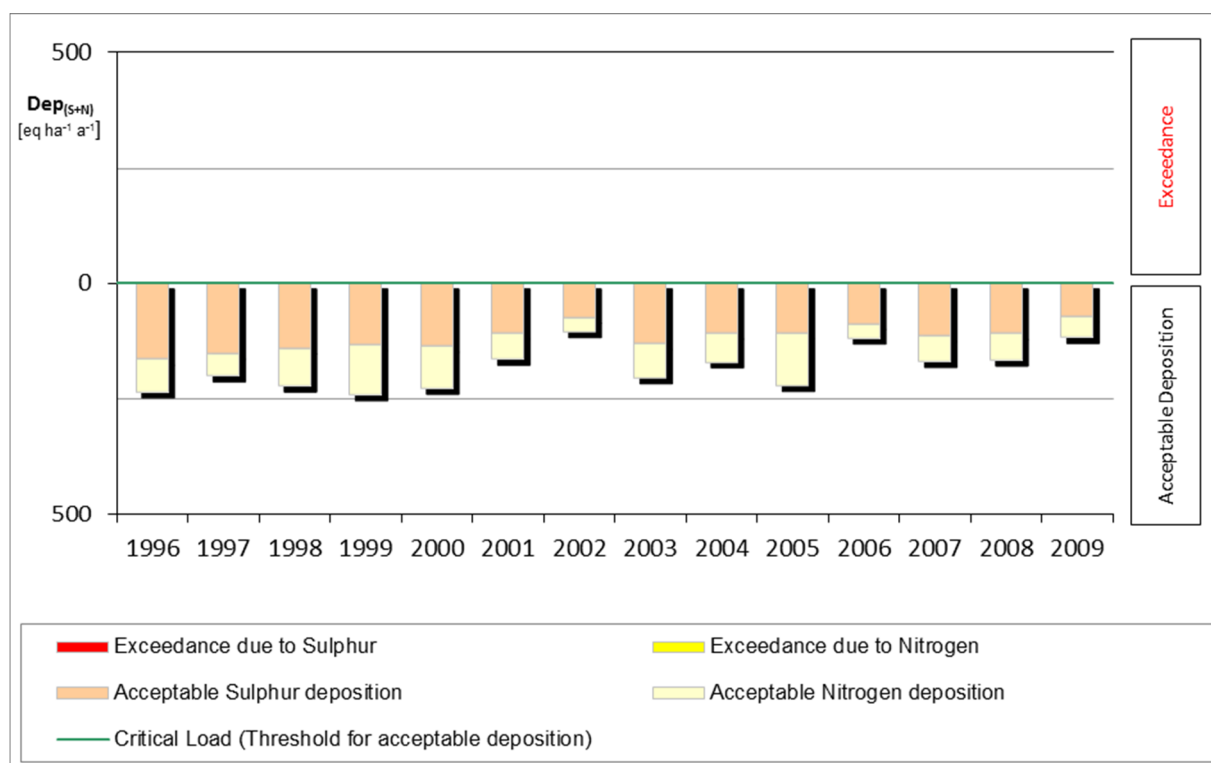
Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 150007

Country: Finland

Critical Load calculation:

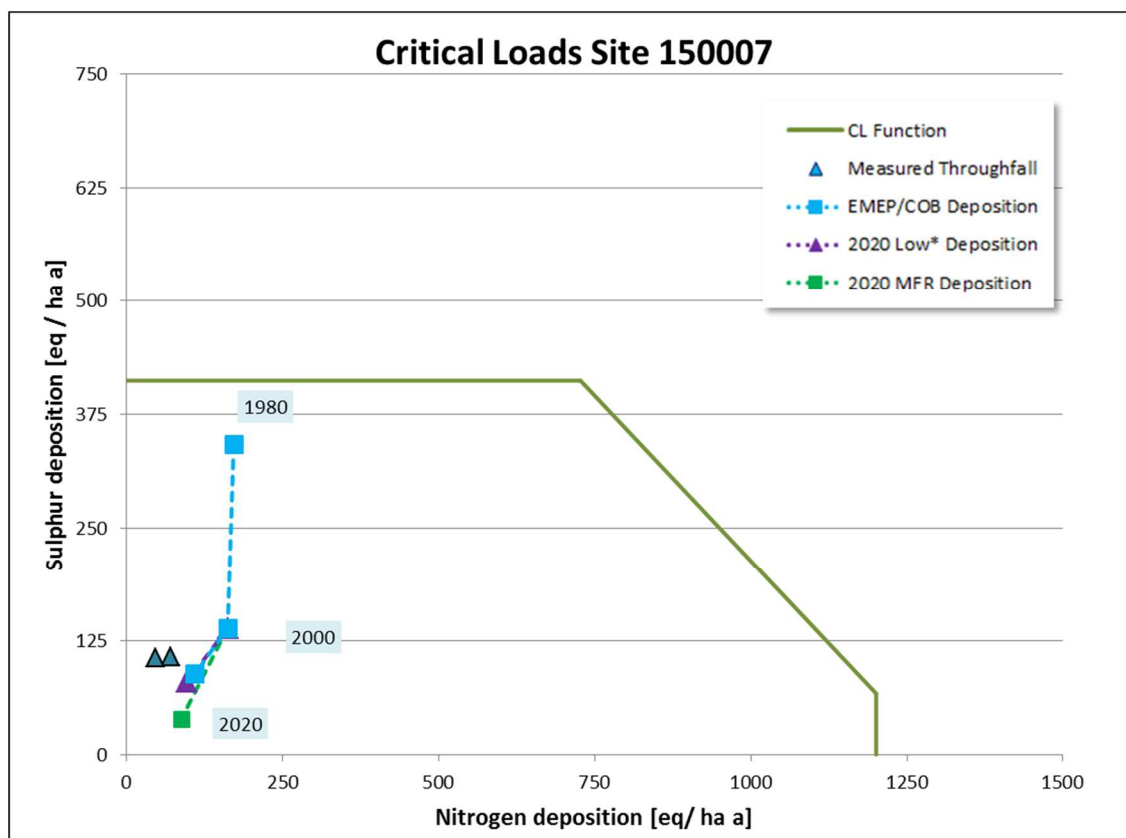
SMB method

Deposition modelled:

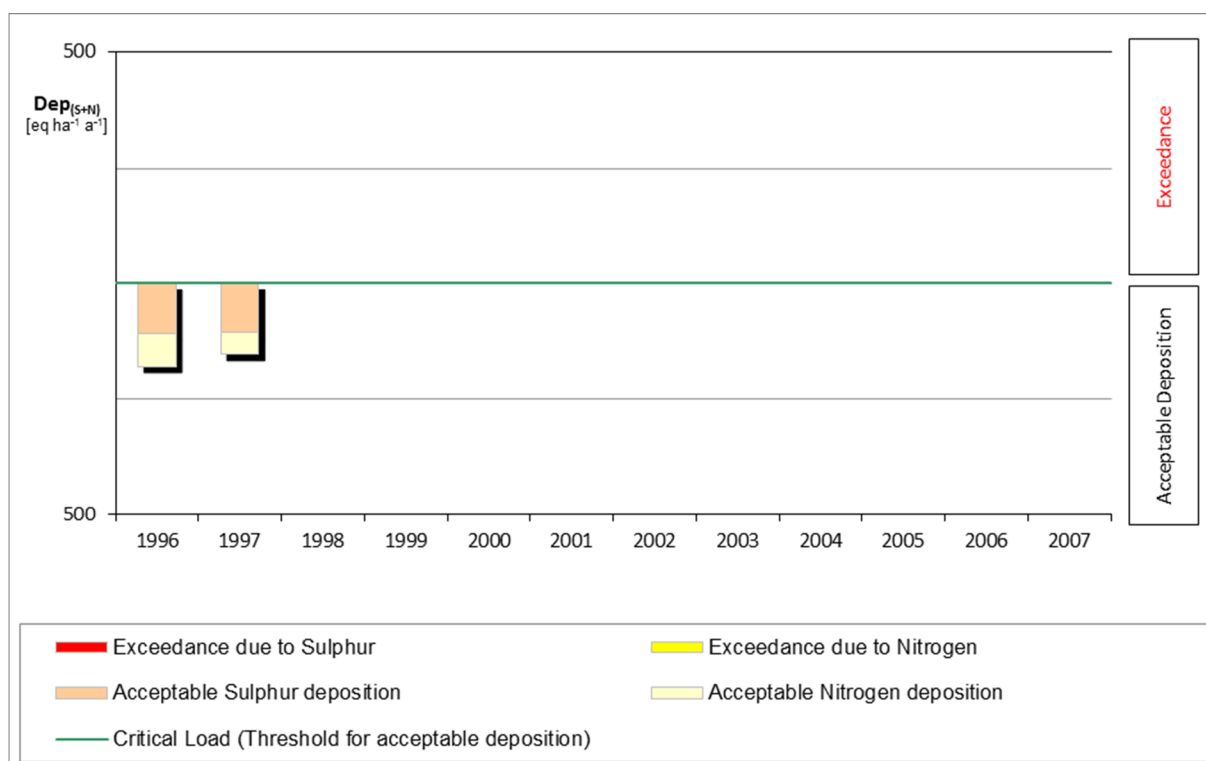
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996, 1997



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 150008

Country: Finland

Critical Load calculation:

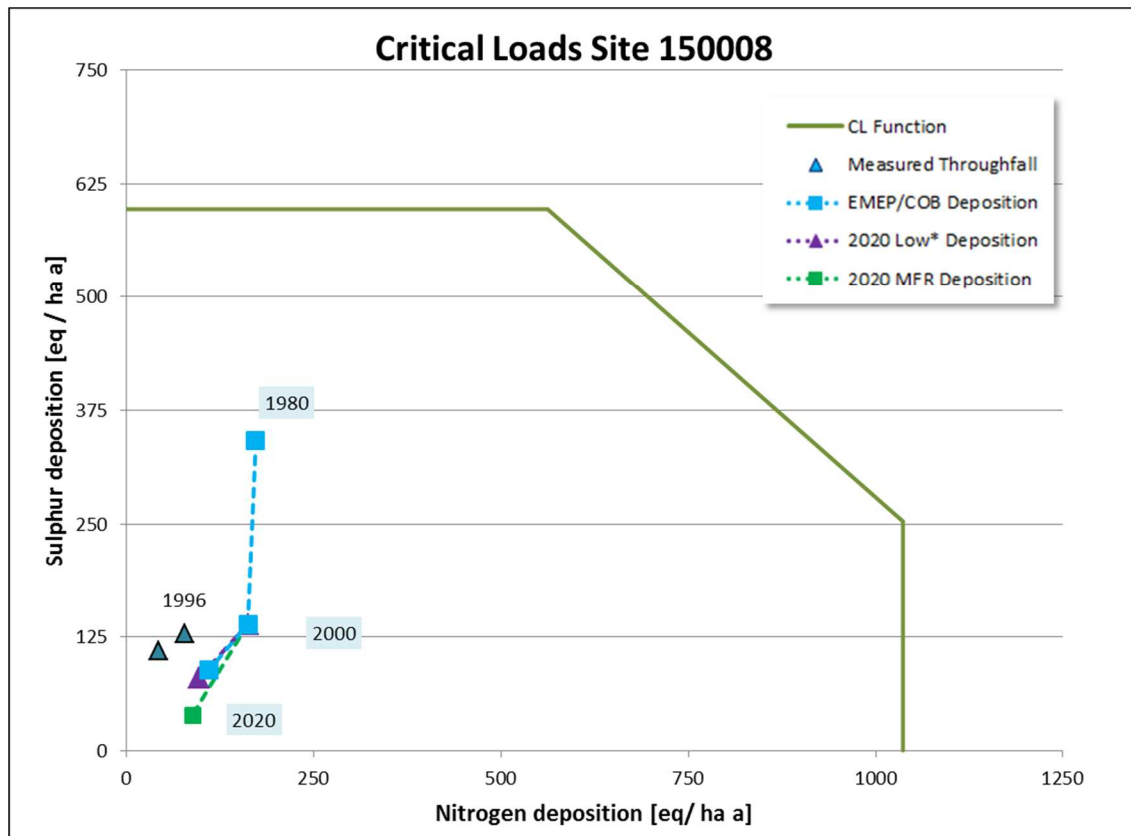
SMB method

Deposition modelled:

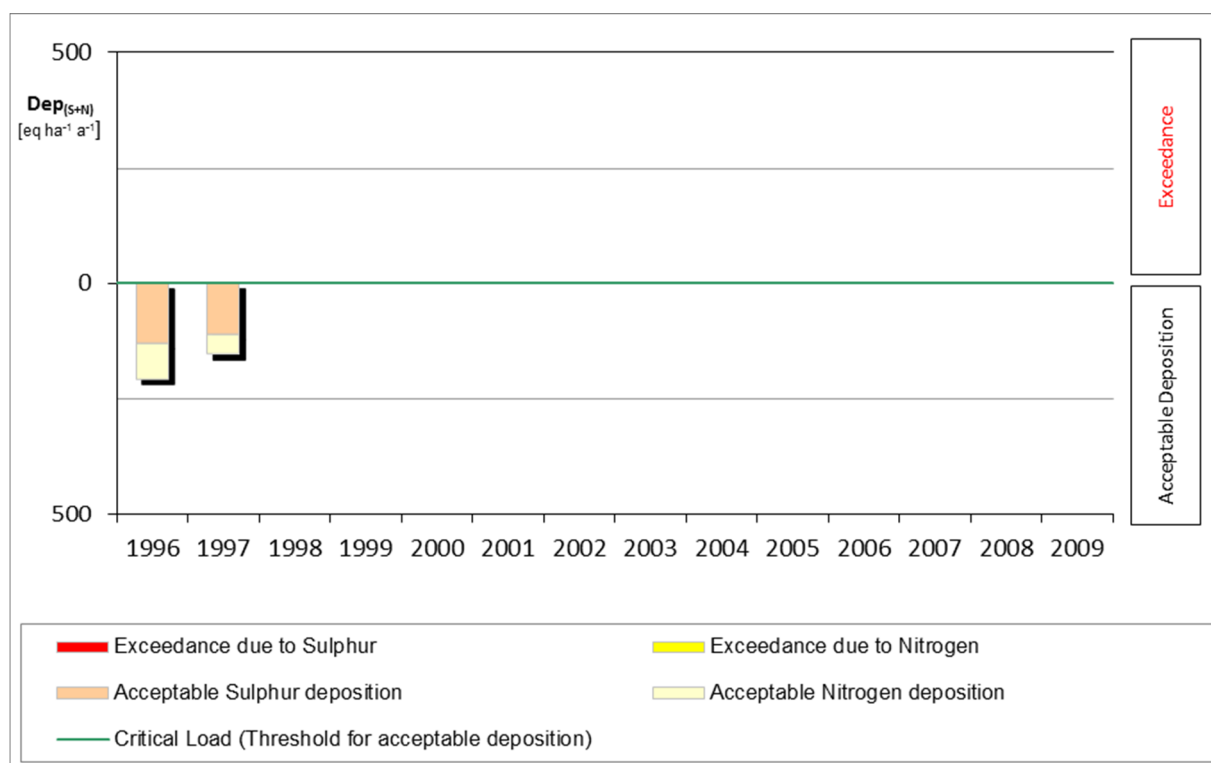
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996, 1997



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

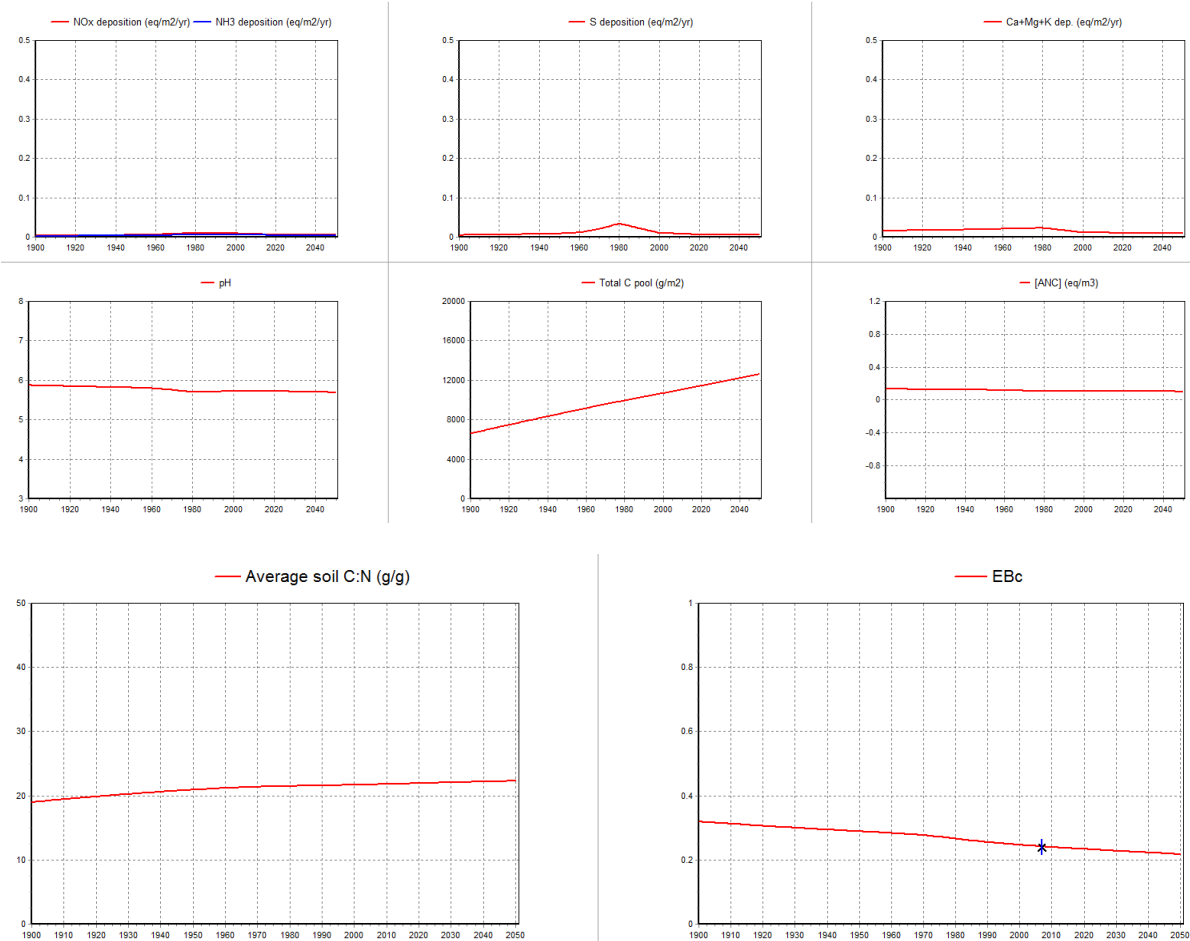
## ICP Forest Level II Site

ID 150008

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150009

Country: Finland

Critical Load calculation:

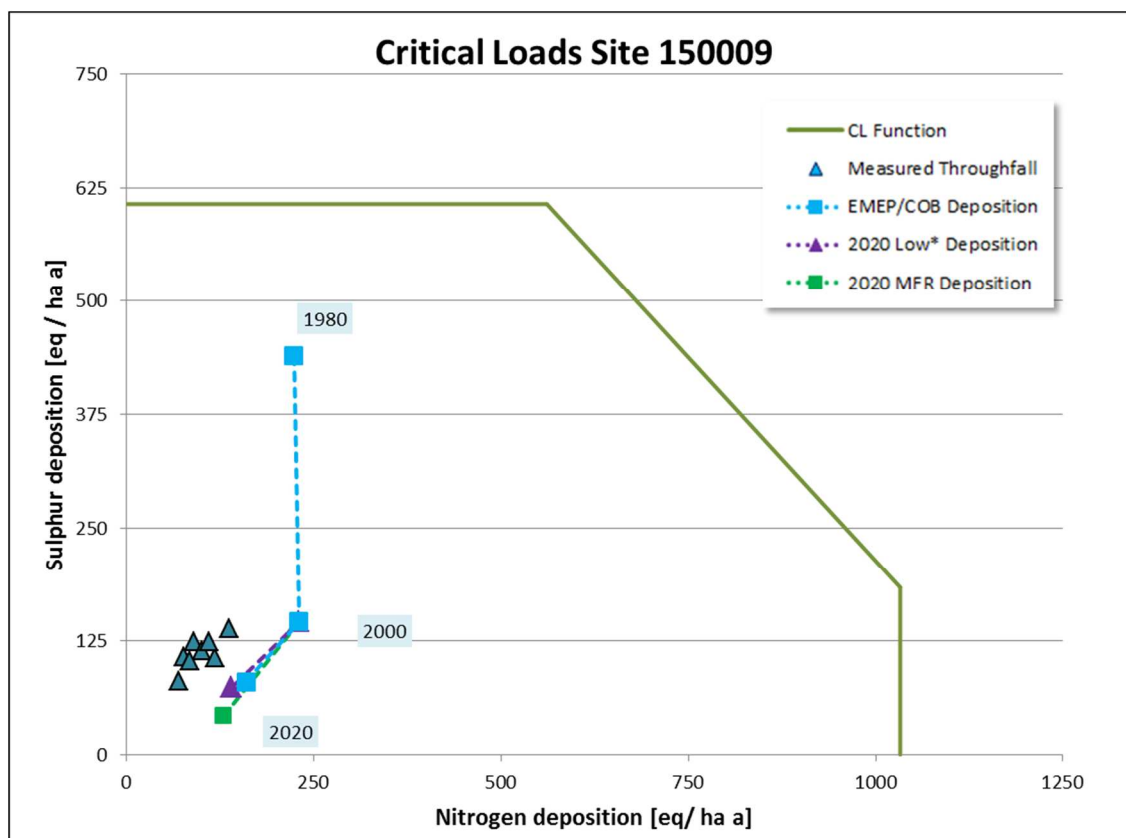
SMB method

Deposition modelled:

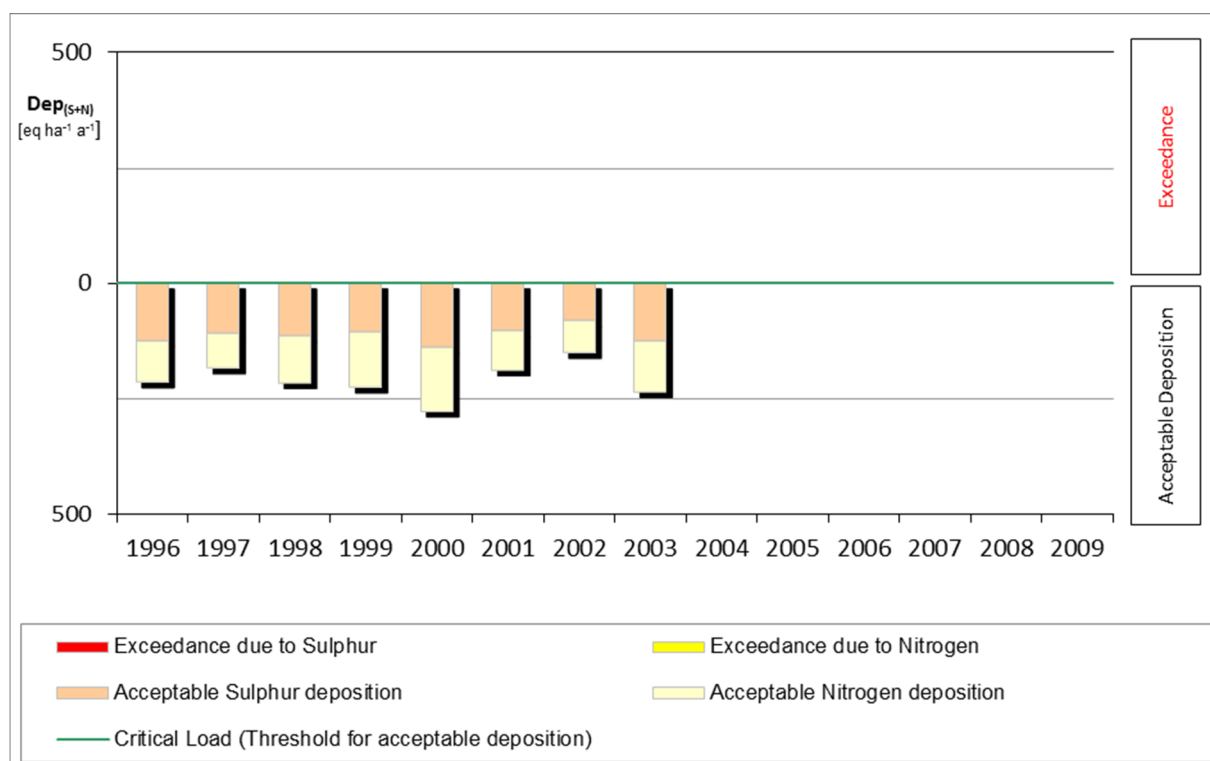
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2003



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



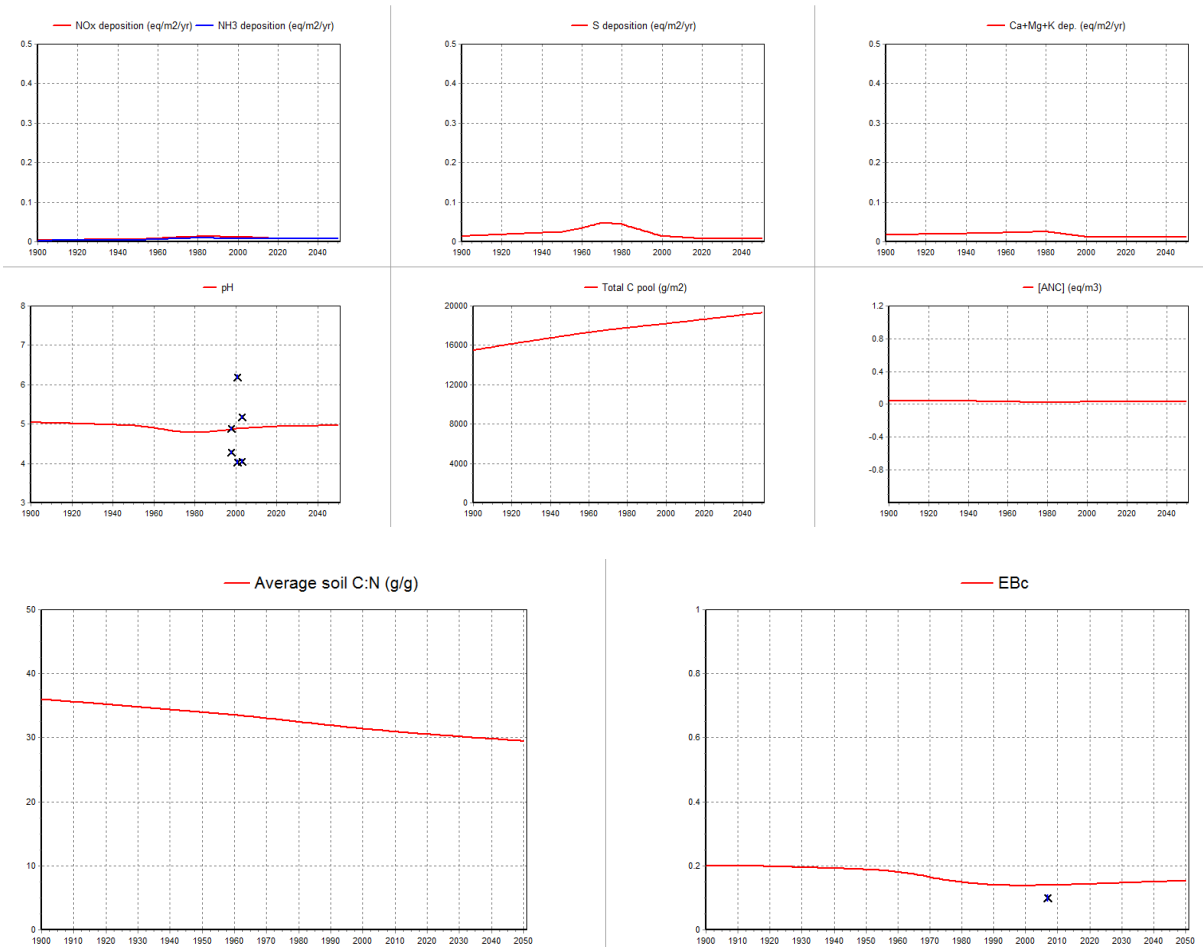
ICP Forest Level II Site

ID 150009

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

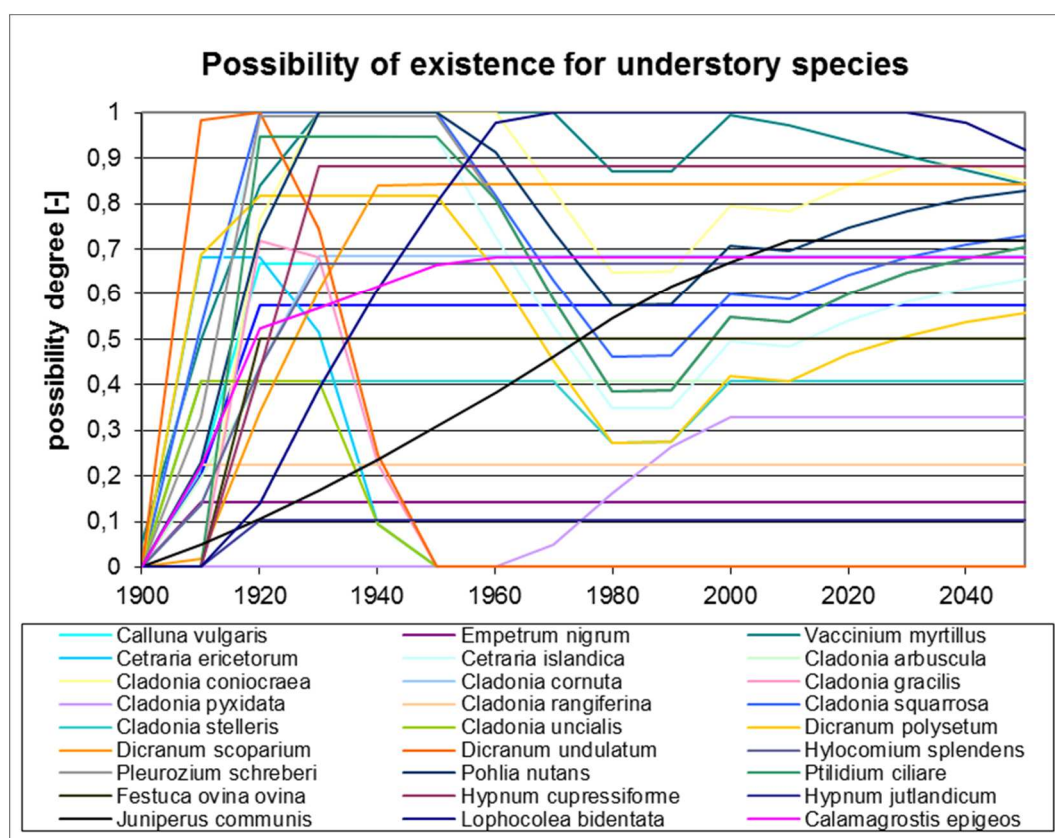
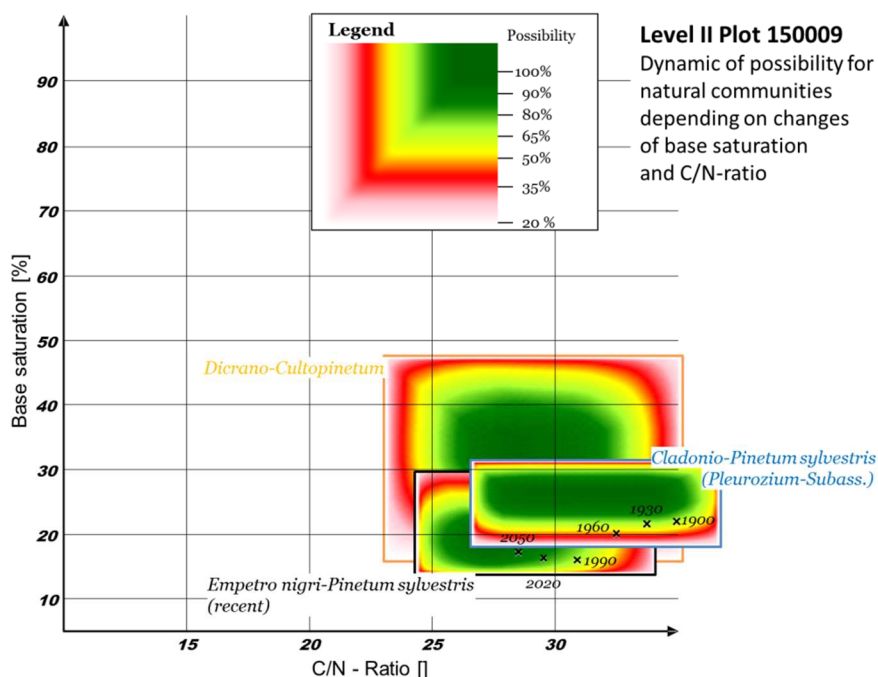
ICP Forest Level II Site

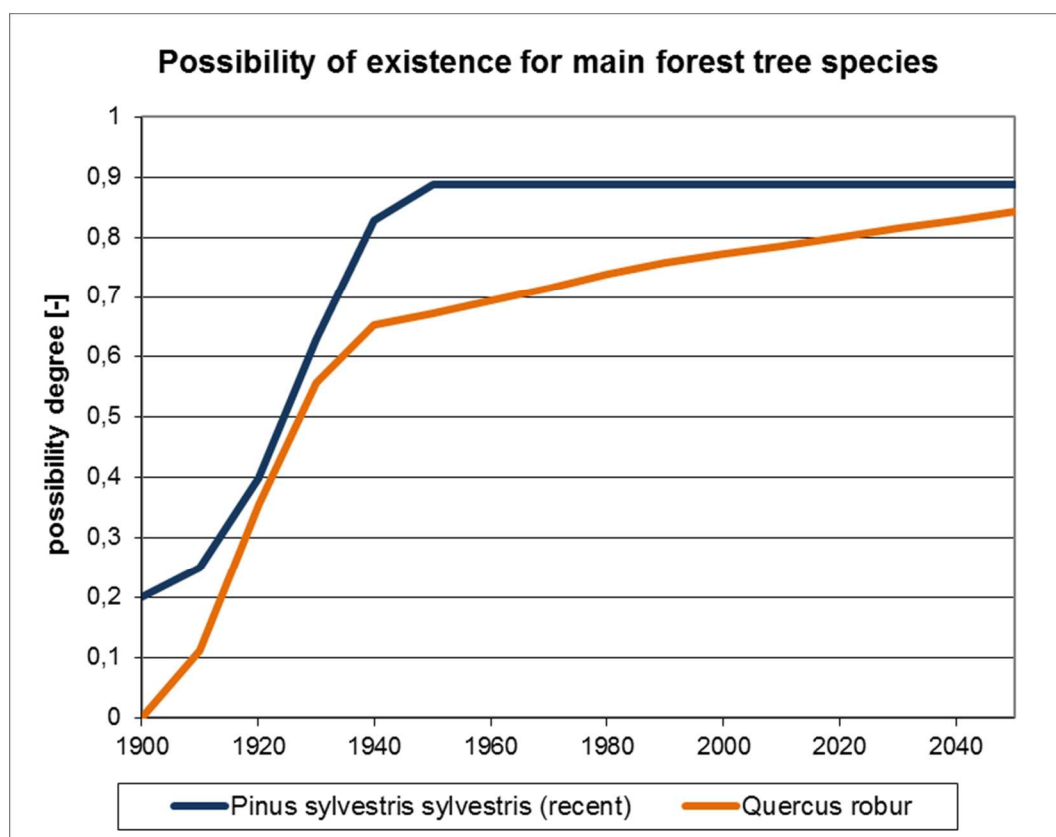
ID 150009

Country: Finland

BERN model

biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site:

ID 150010

Country: Finland

Critical Load calculation:

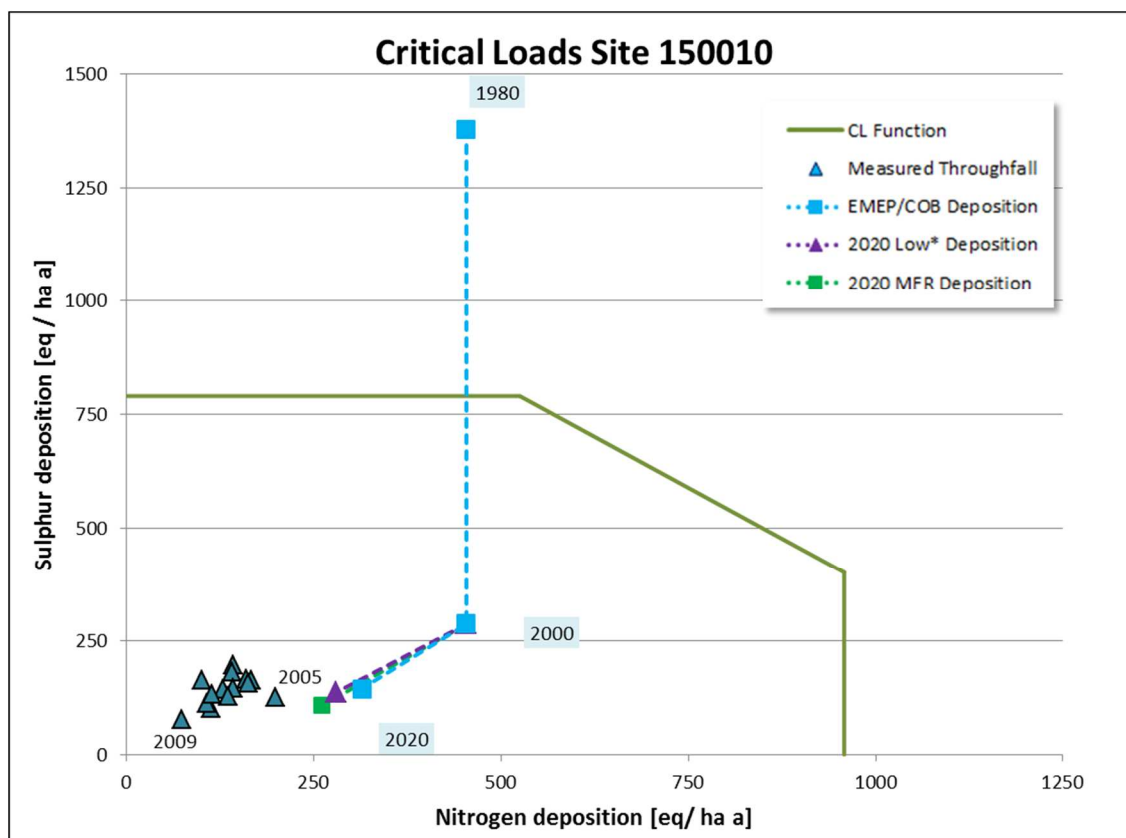
SMB method

Deposition modelled:

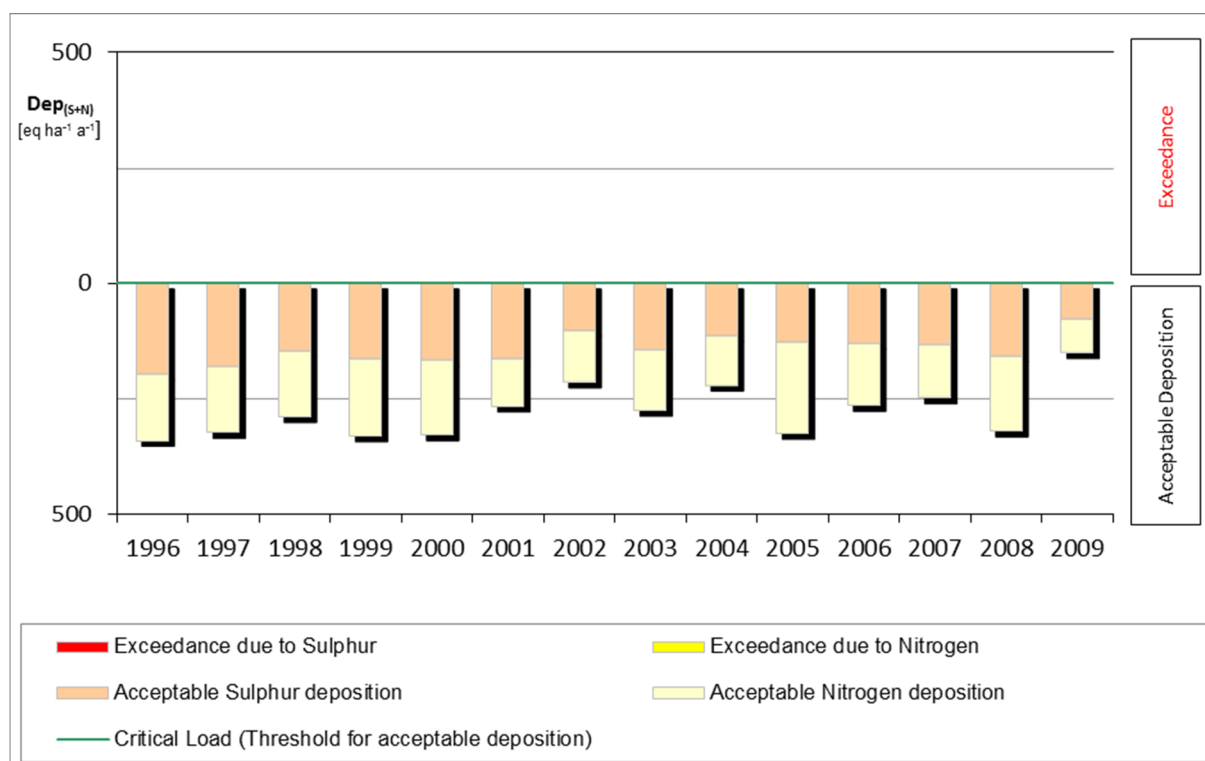
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

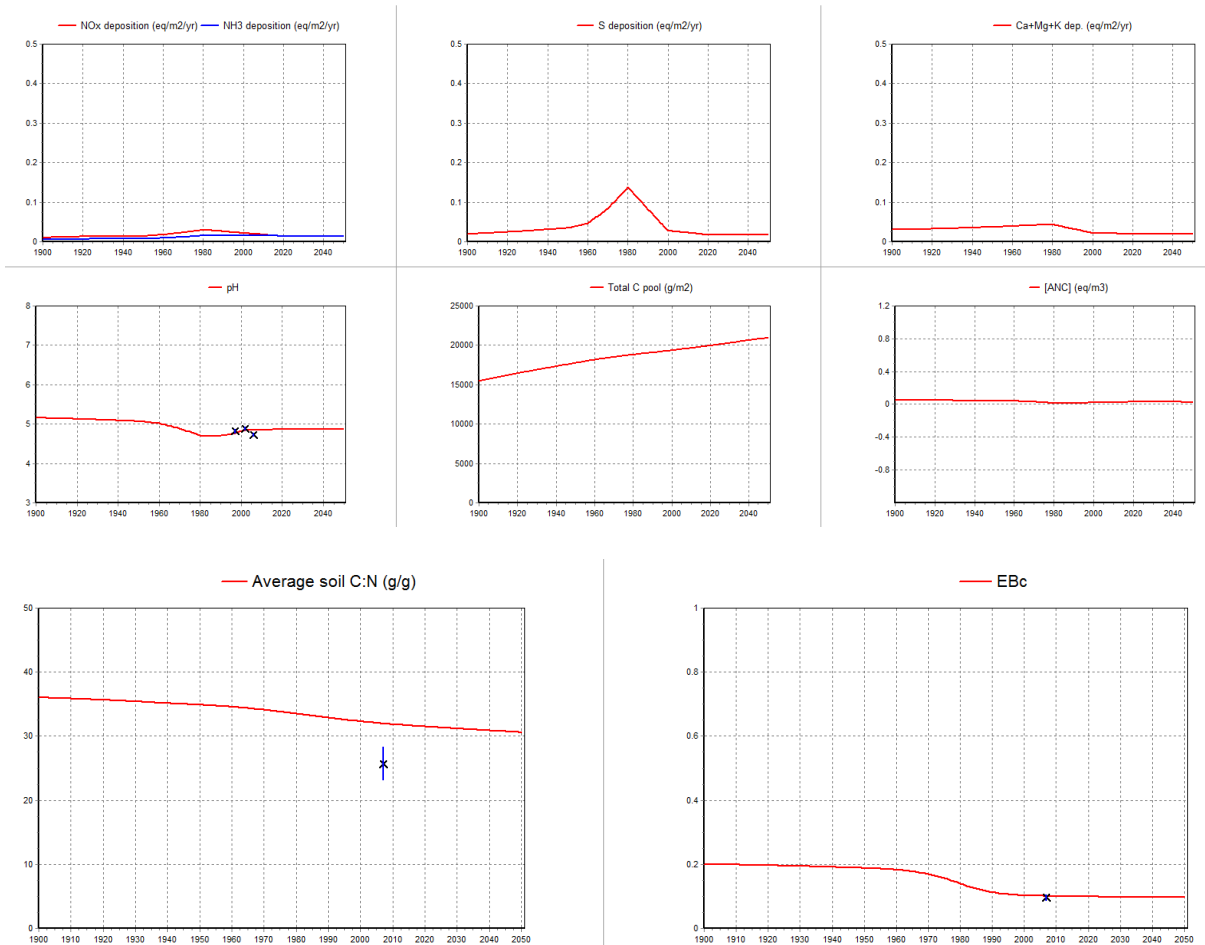
## ICP Forest Level II Site

ID 150010

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150011

Country: Finland

Critical Load calculation:

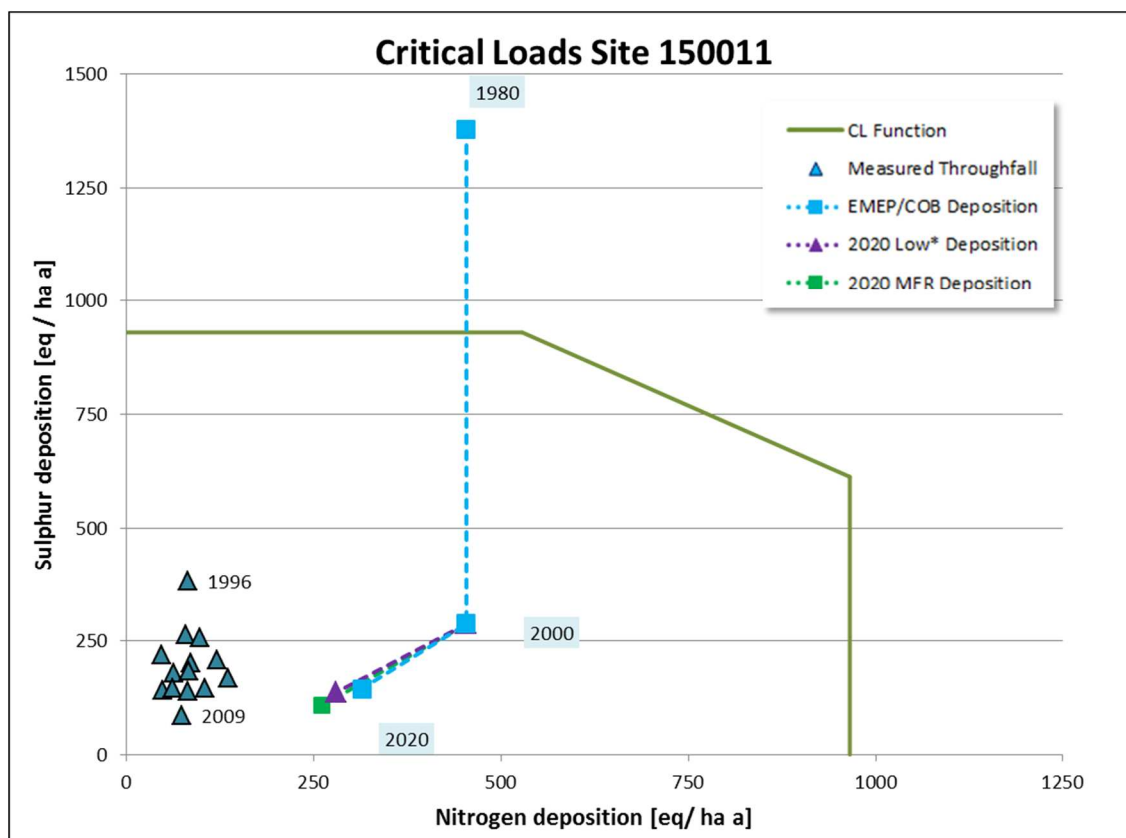
SMB method

Deposition modelled:

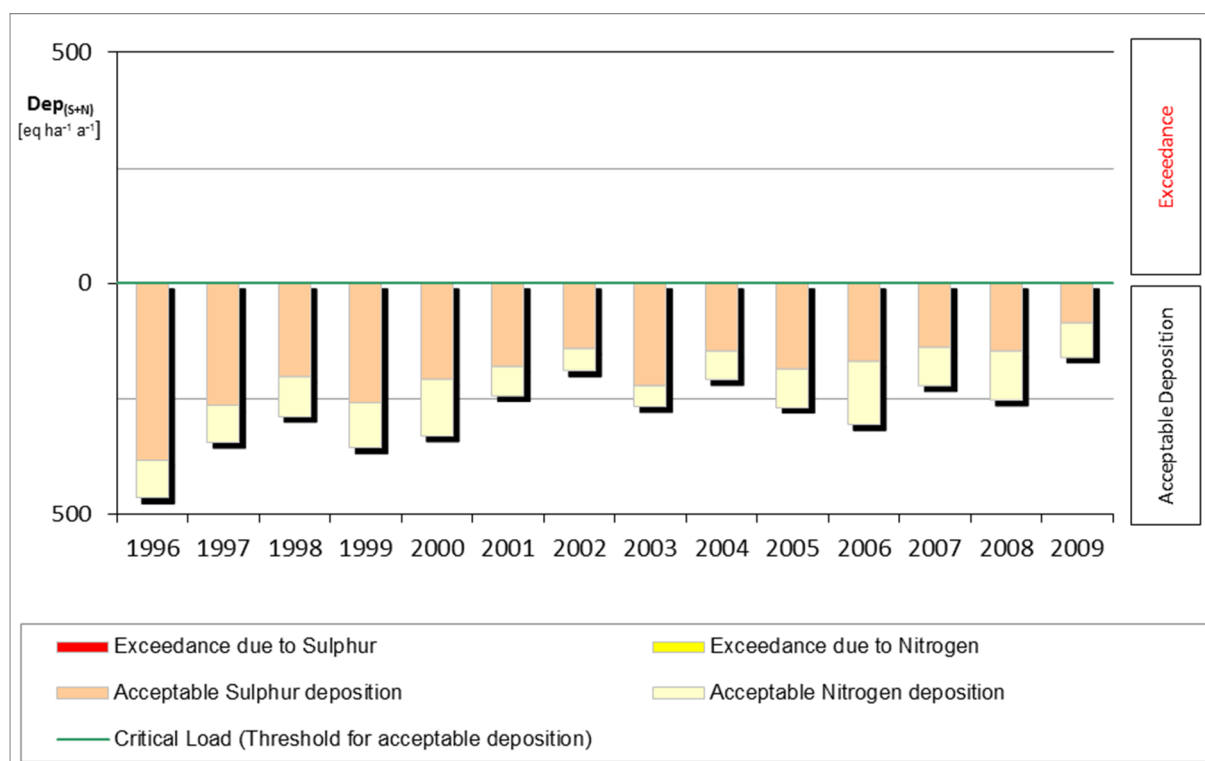
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



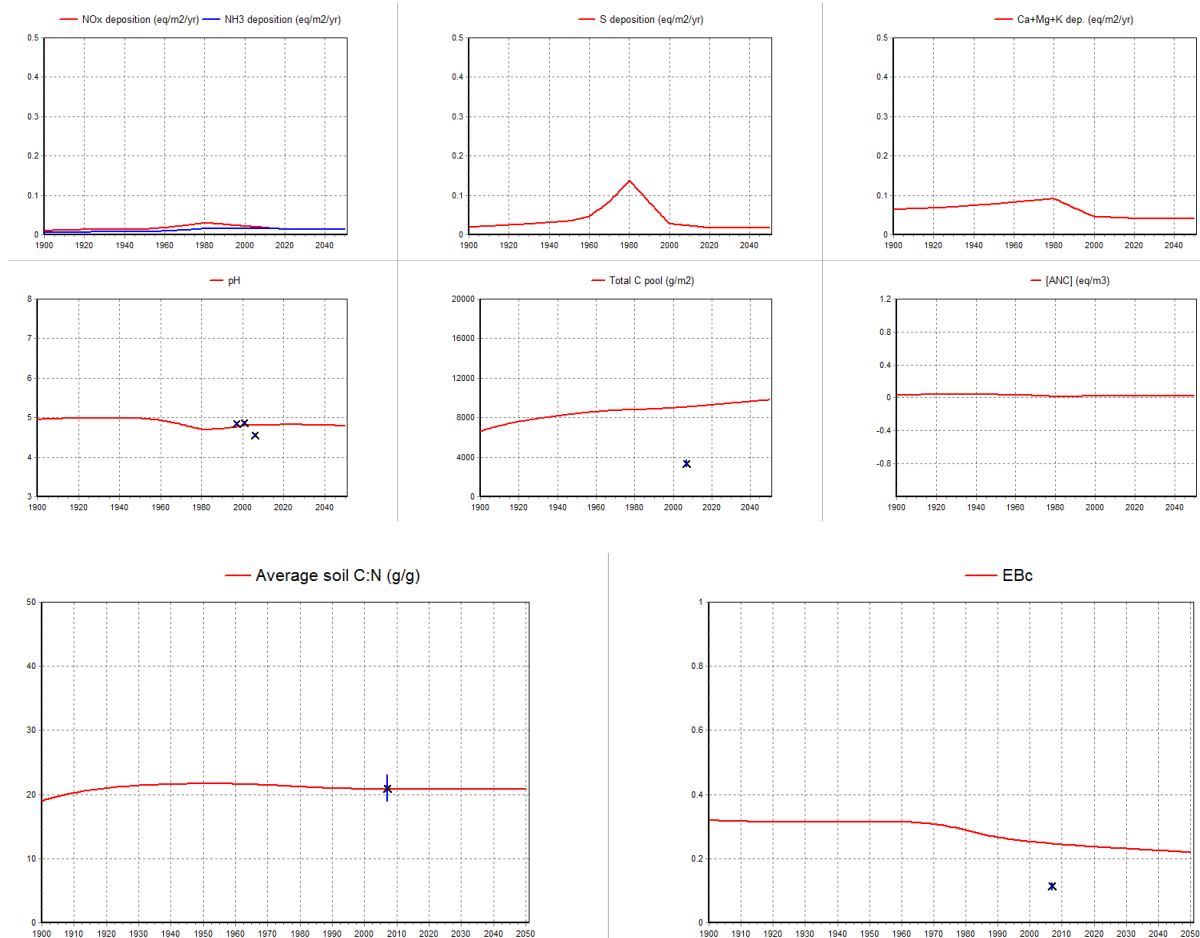
## ICP Forest Level II Site

ID 150011

Country: Finland

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150012

Country: Finland

Critical Load calculation:

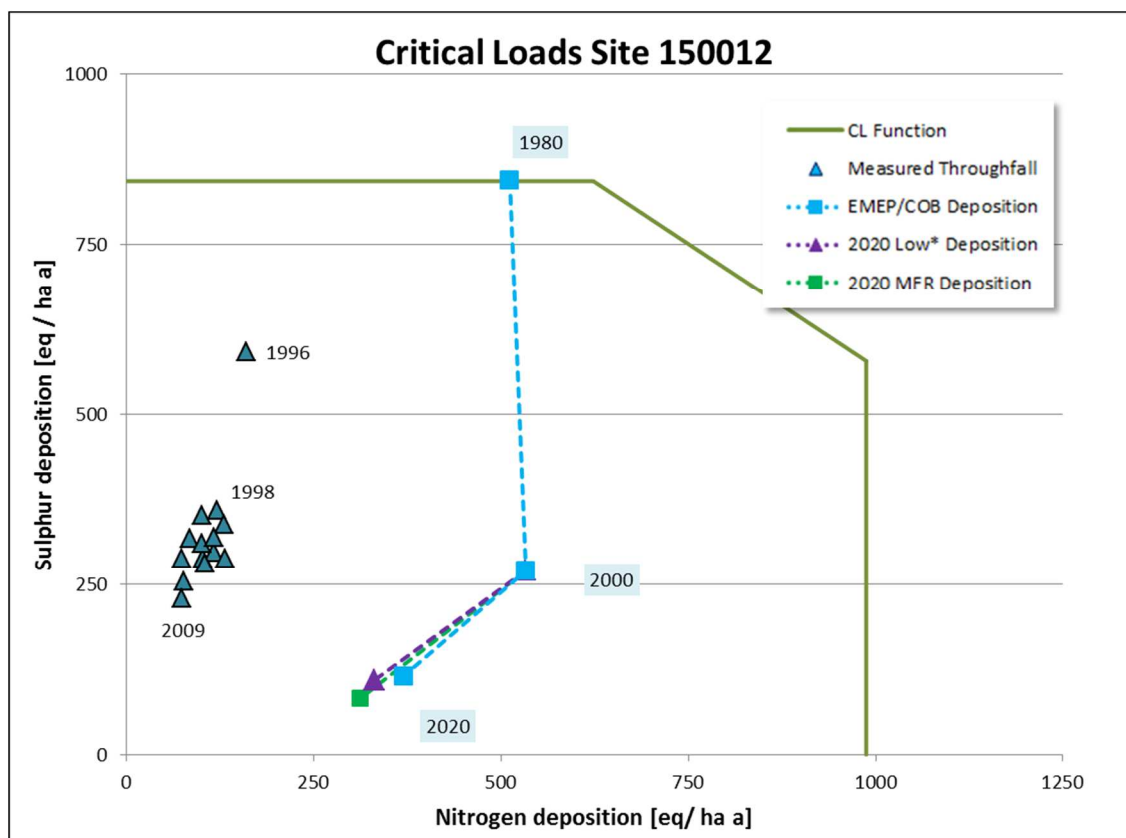
SMB method

Deposition modelled:

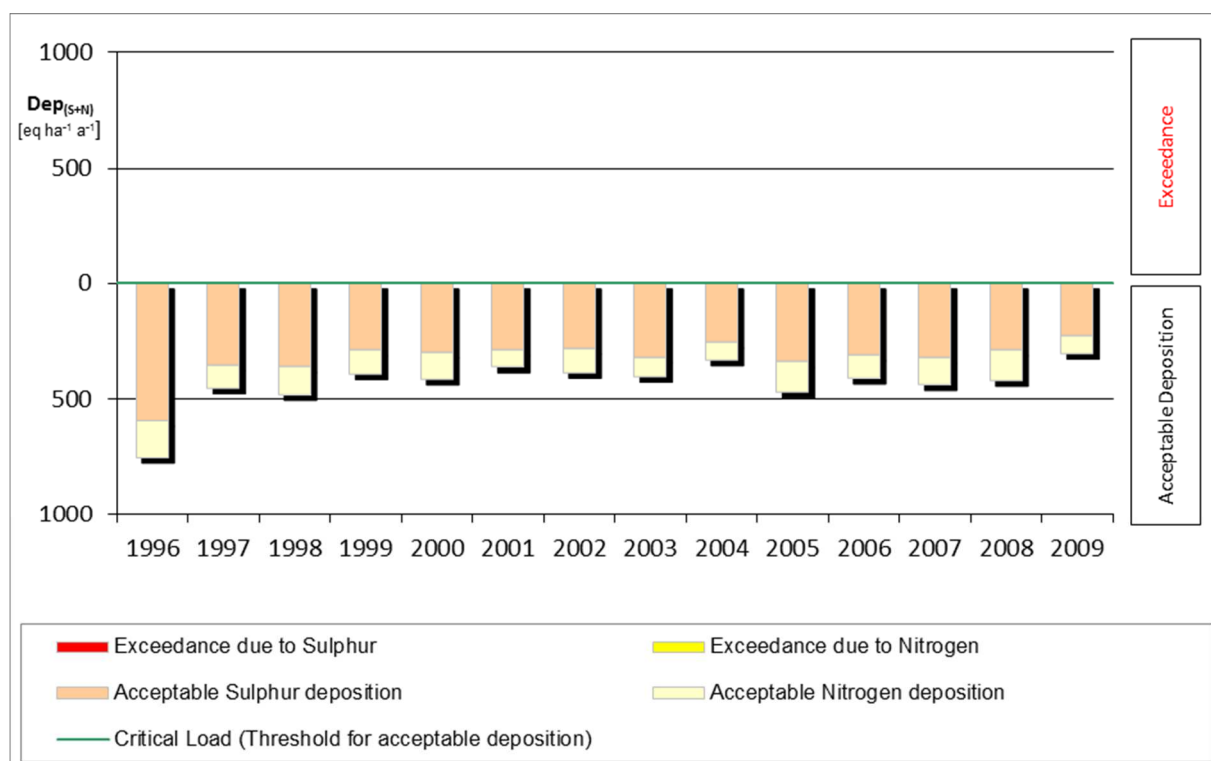
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

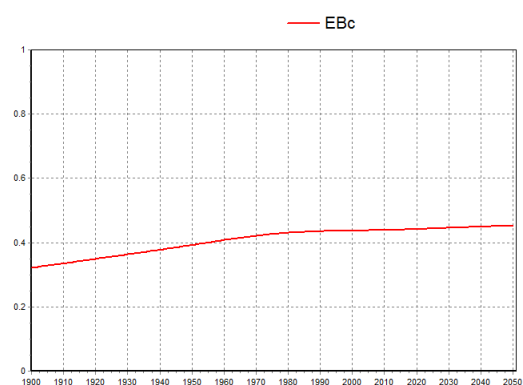
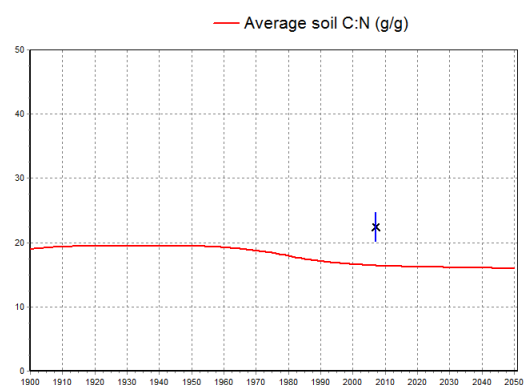
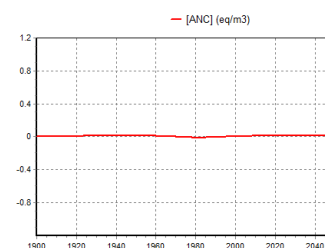
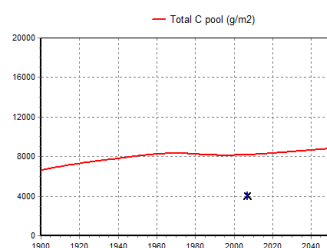
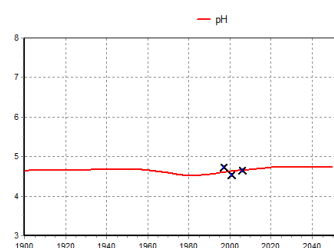
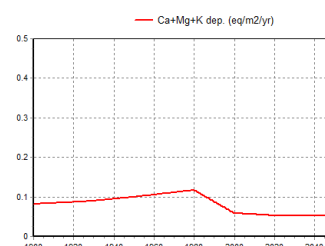
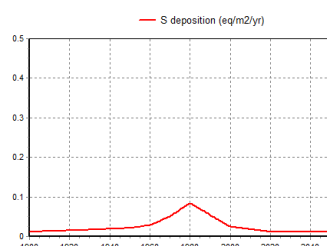
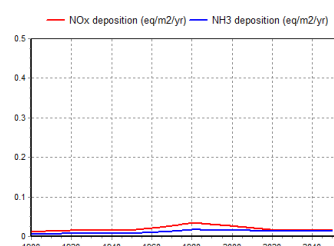
## ICP Forest Level II Site

ID 150012

Country: Finland

VSD+ model

geochemical dynamics



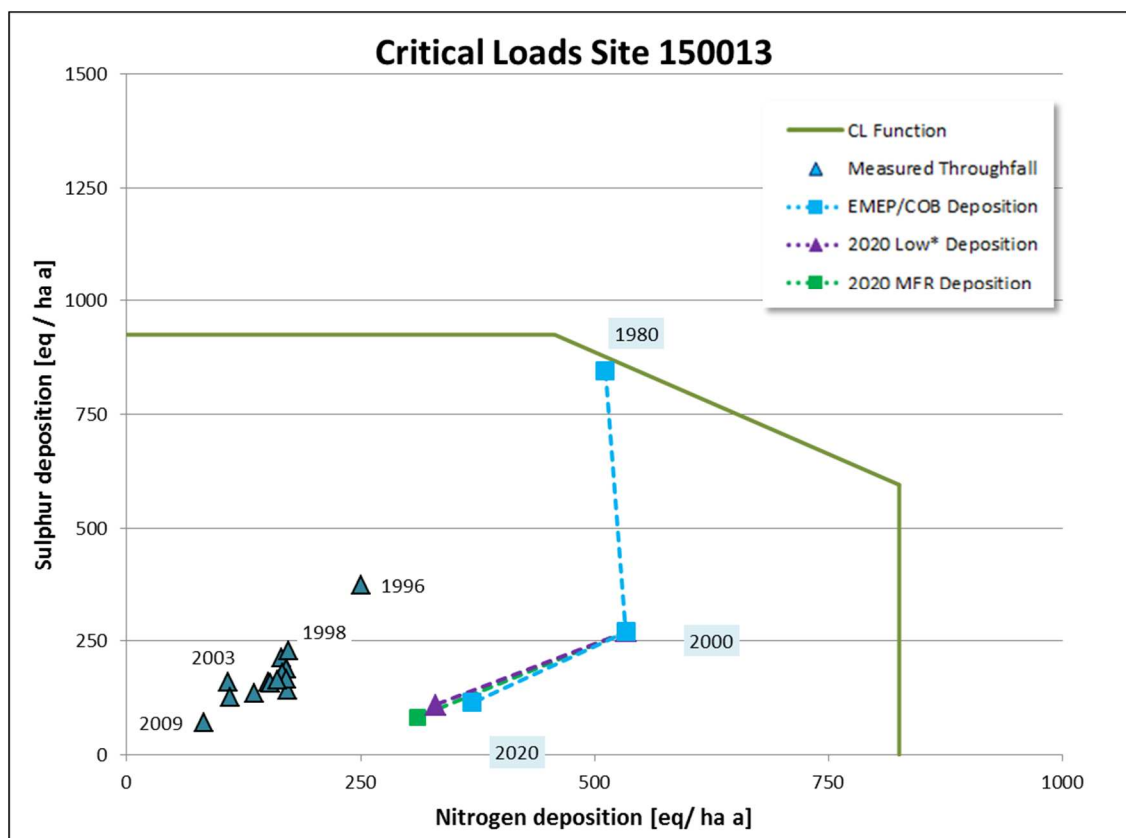
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: **ID 150013** Country: Finland

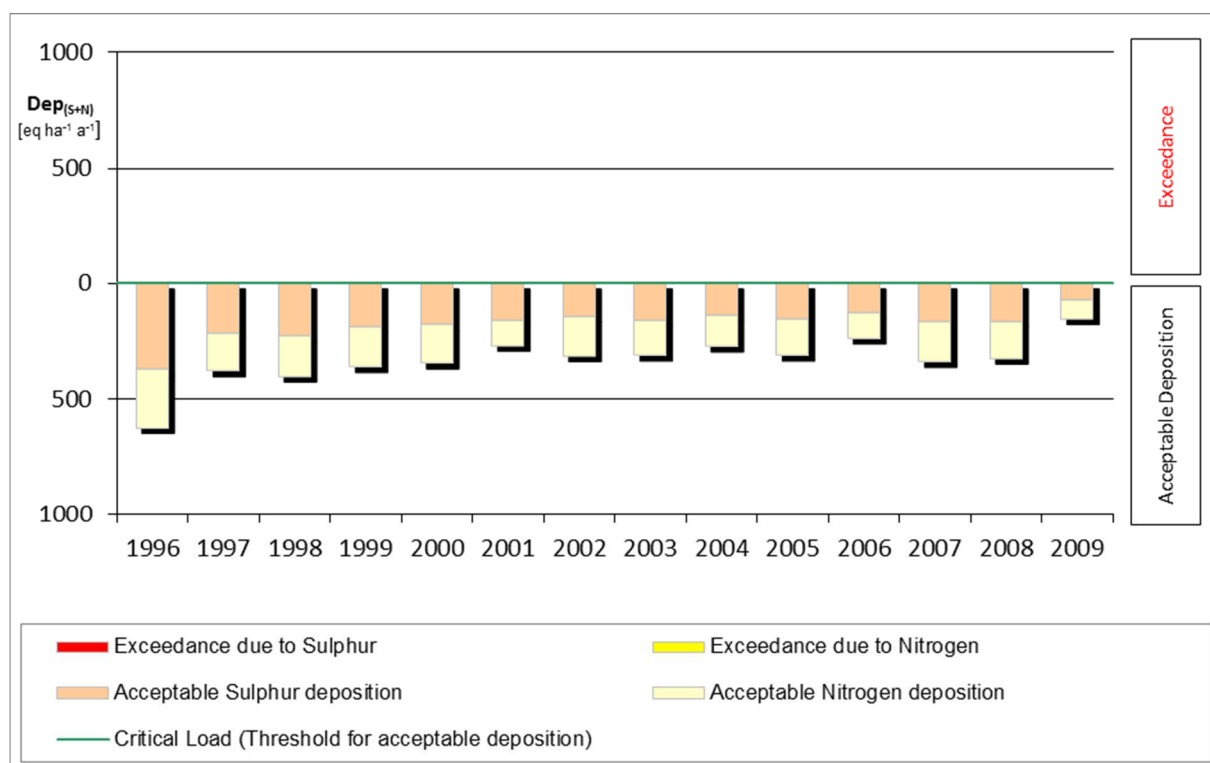
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

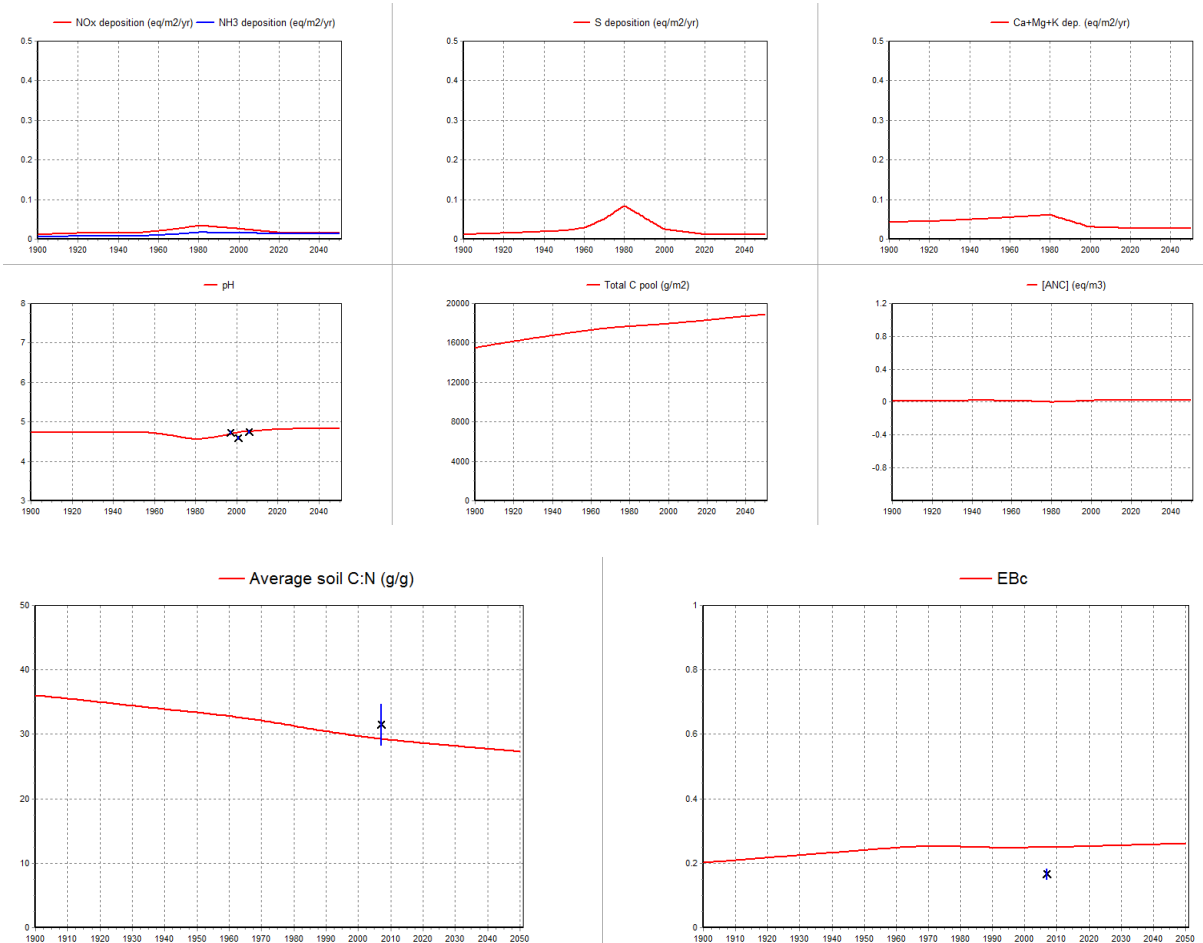
## ICP Forest Level II Site

ID 150013

Country: Finland

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150014

Country: Finland

Critical Load calculation:

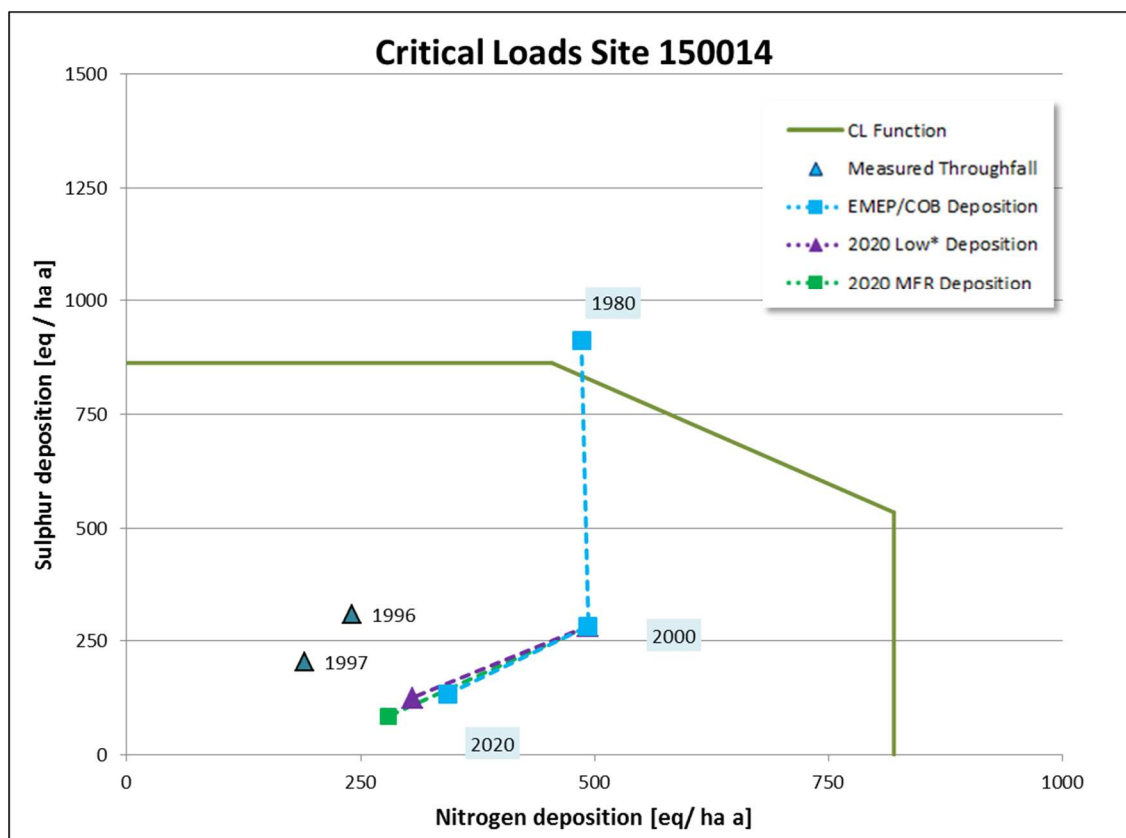
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

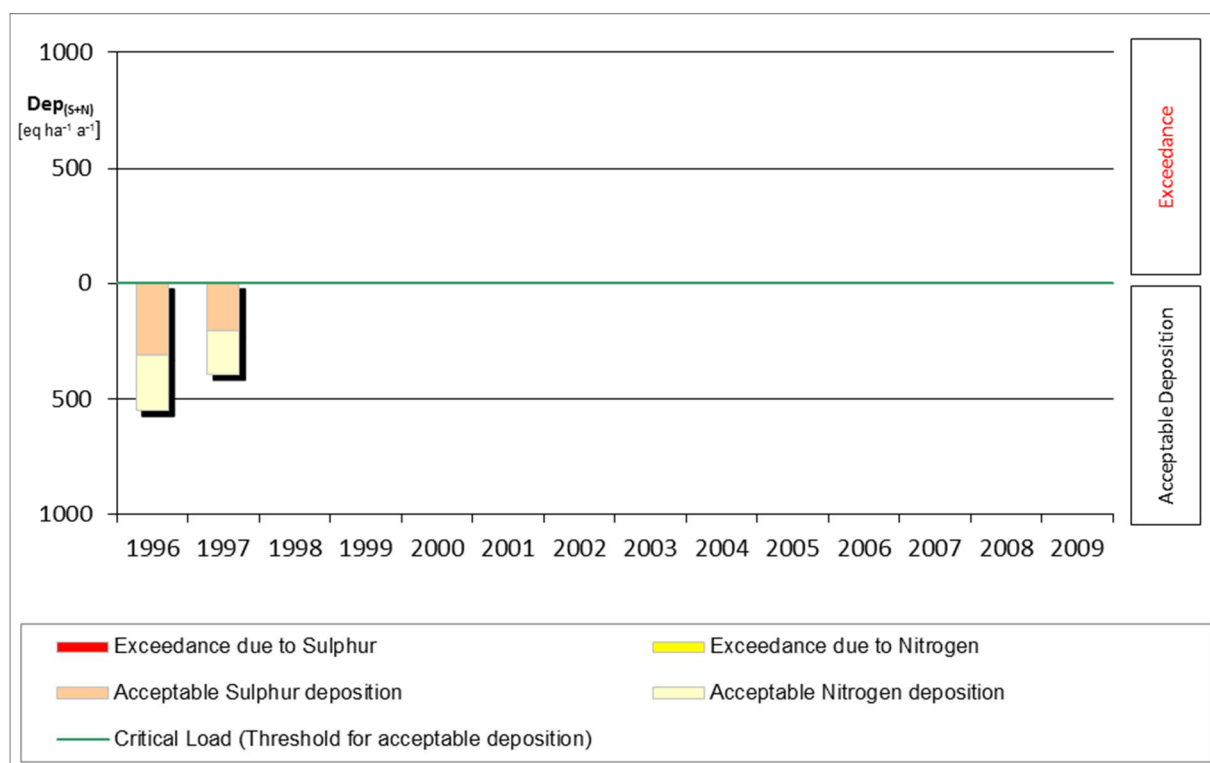
Deposition measured:

1996, 1997



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

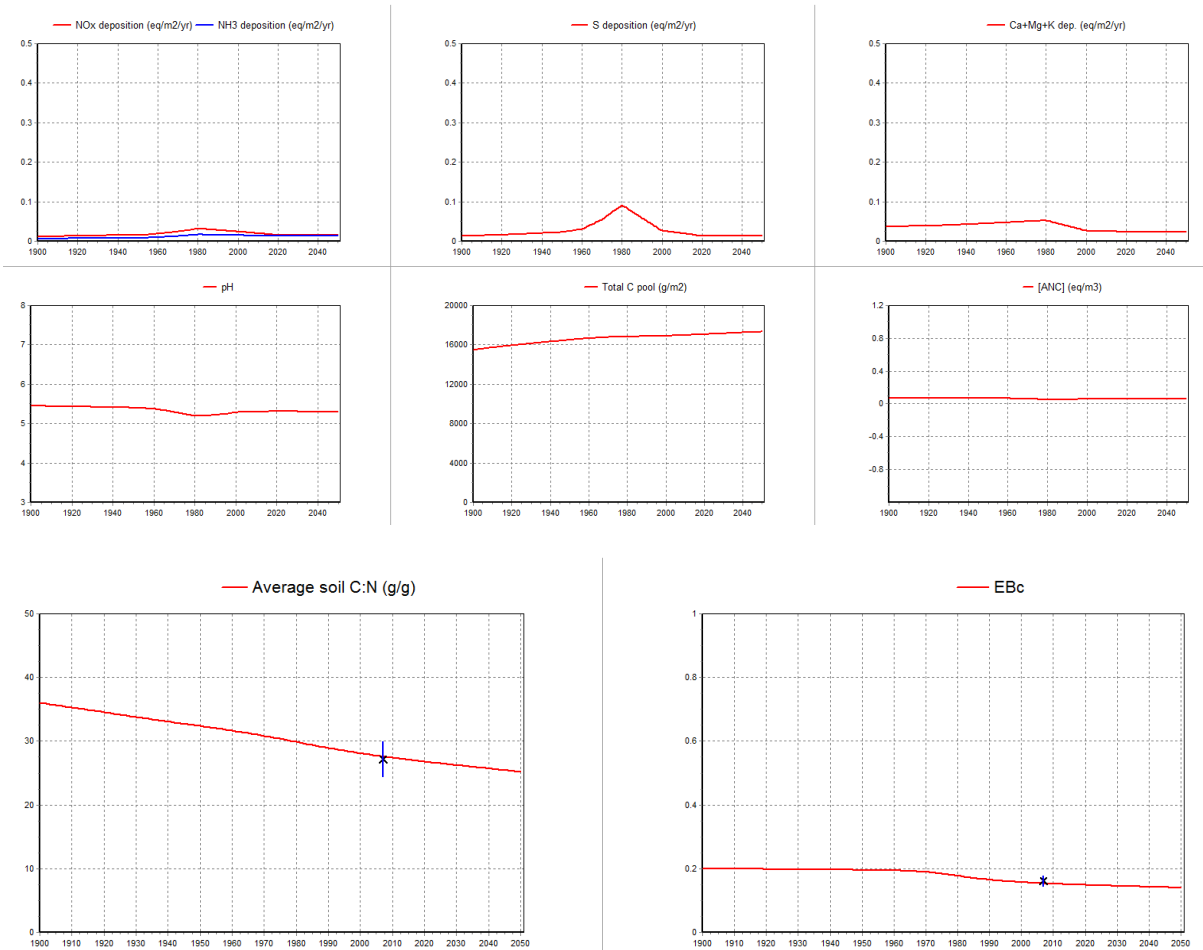
## ICP Forest Level II Site

ID 150014

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150015

Country: Finland

Critical Load calculation:

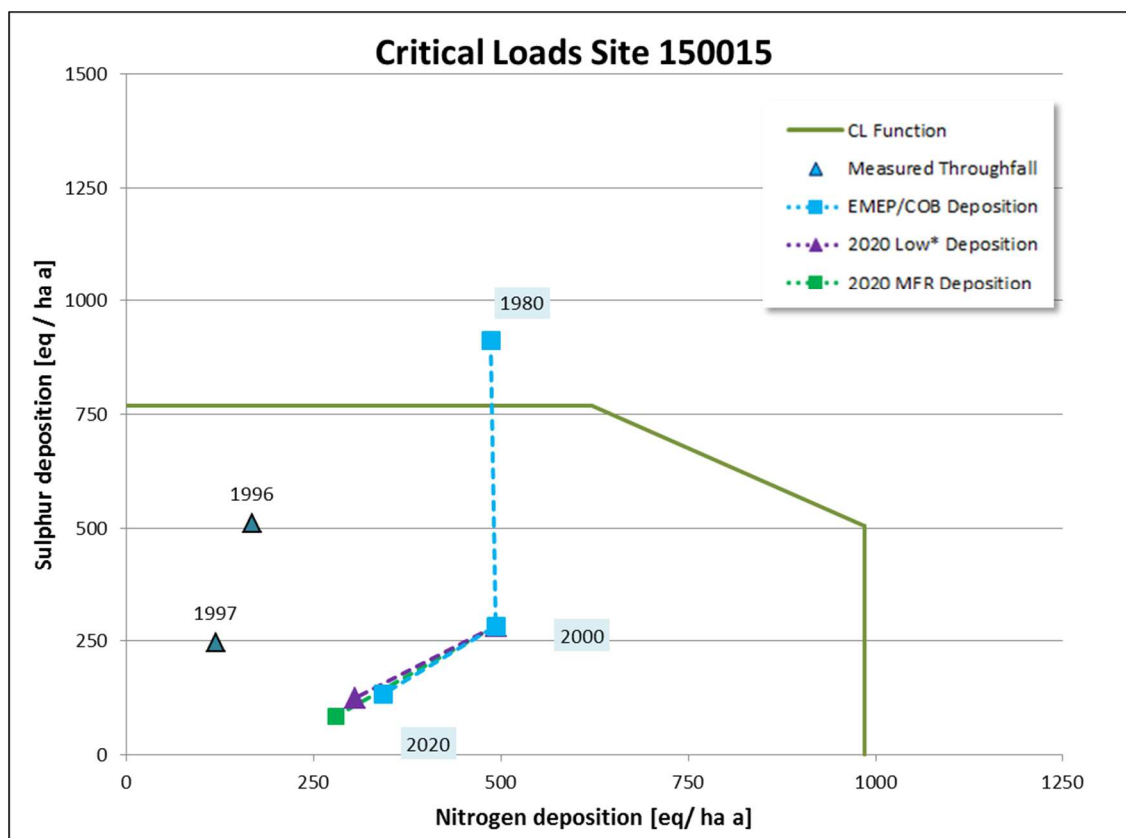
SMB method

Deposition modelled:

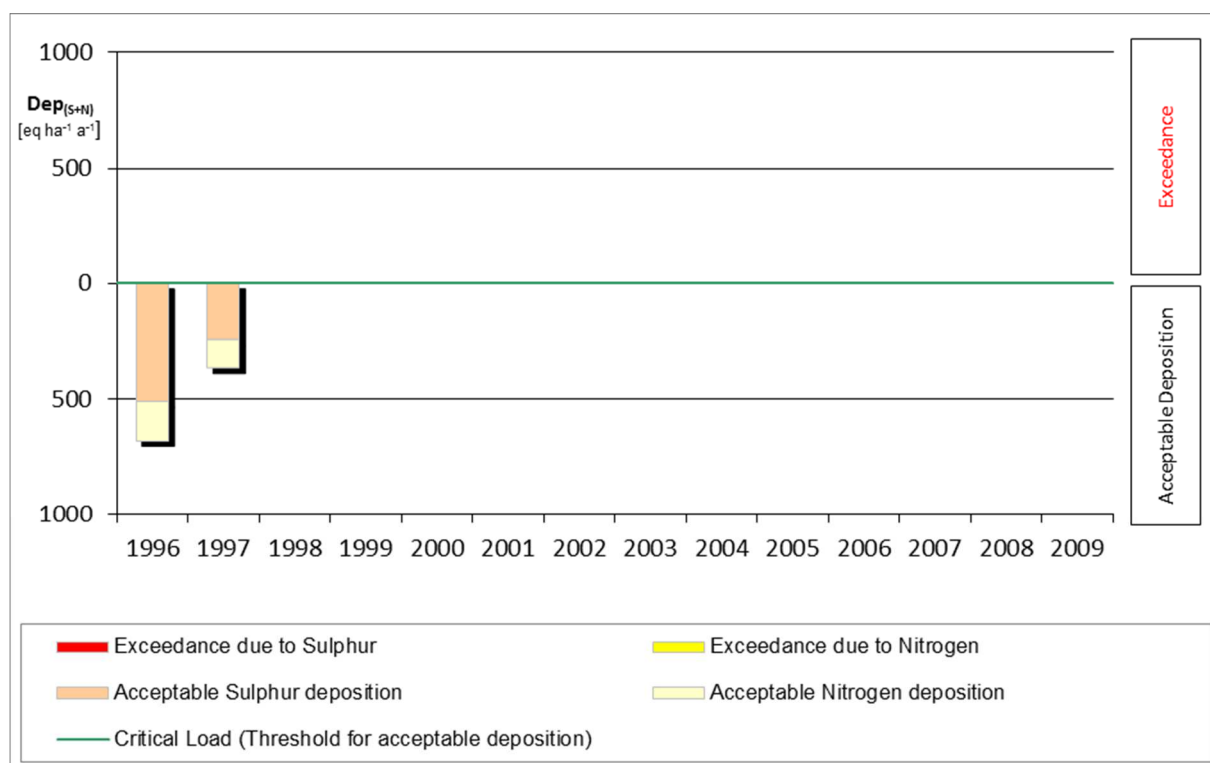
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996, 1997



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

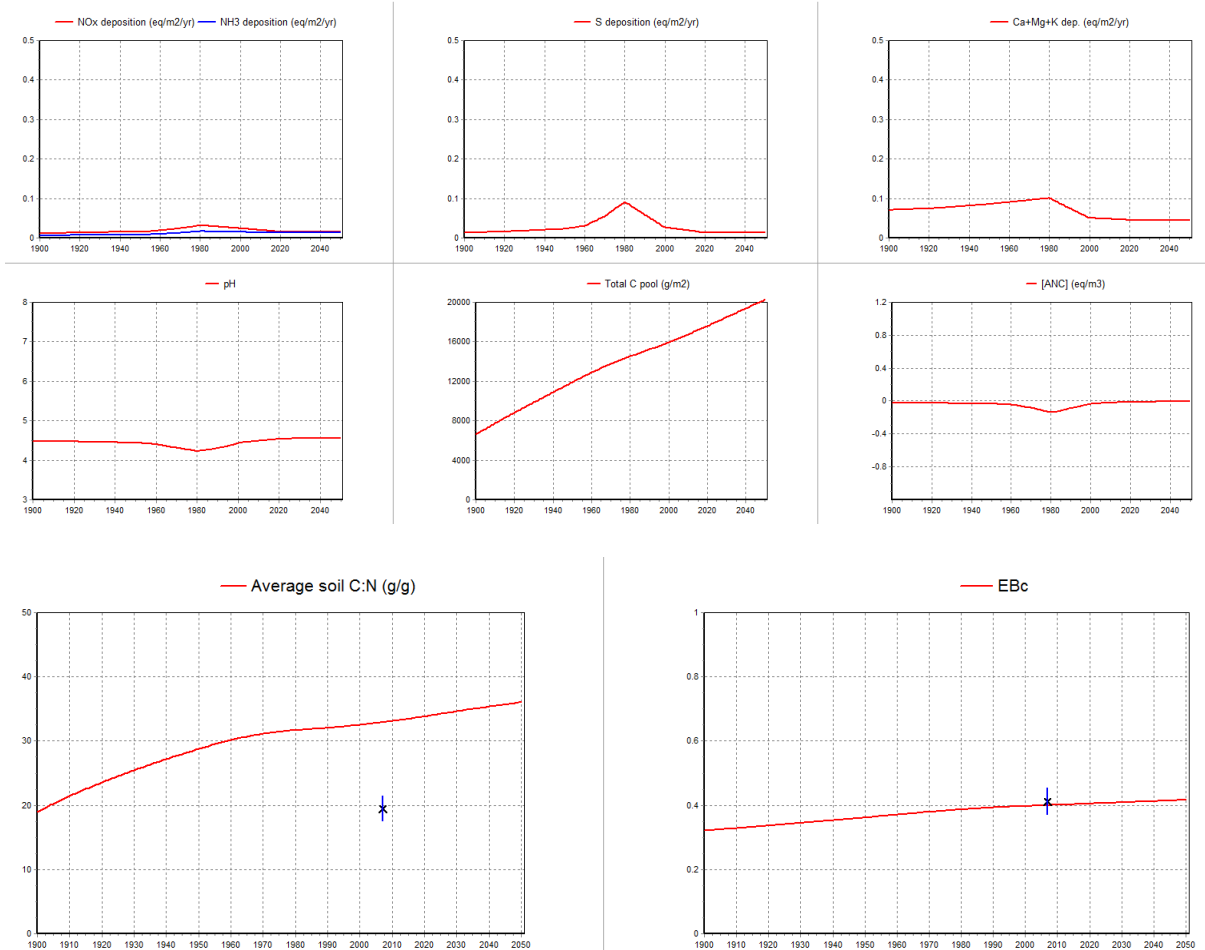
## ICP Forest Level II Site

ID 150015

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150016

Country: Finland

Critical Load calculation:

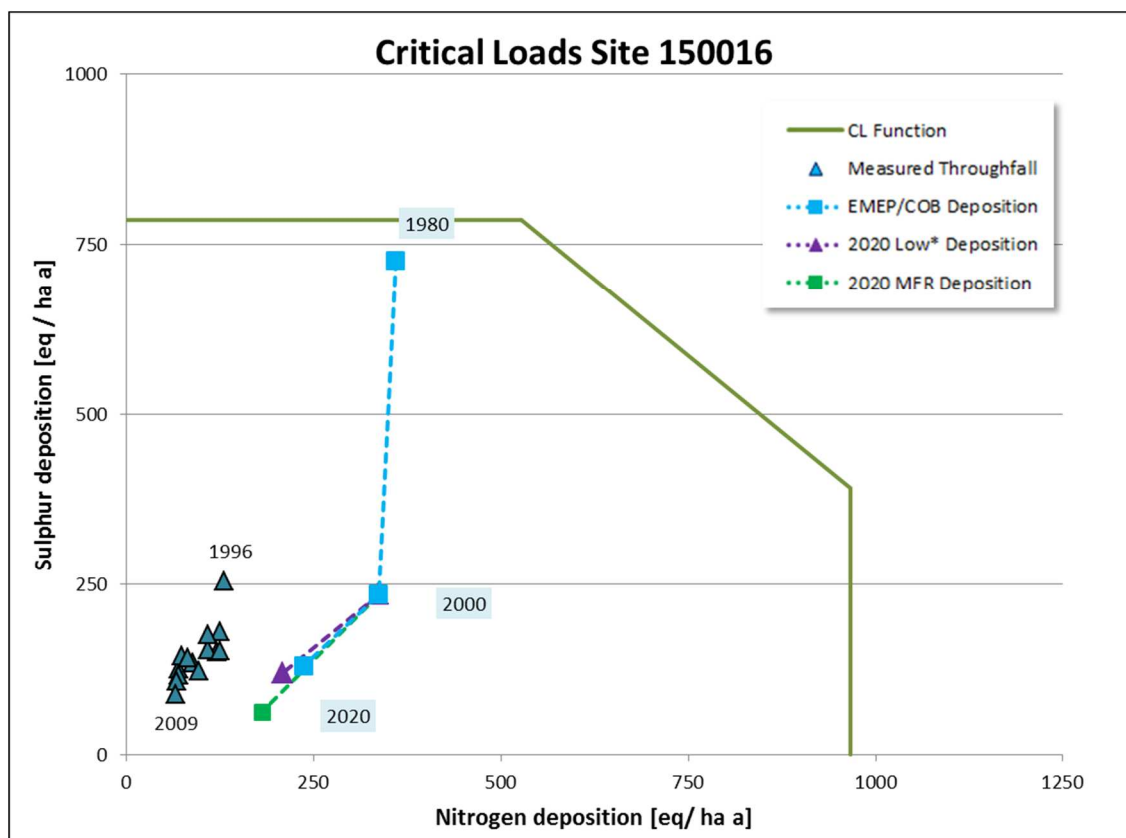
SMB method

Deposition modelled:

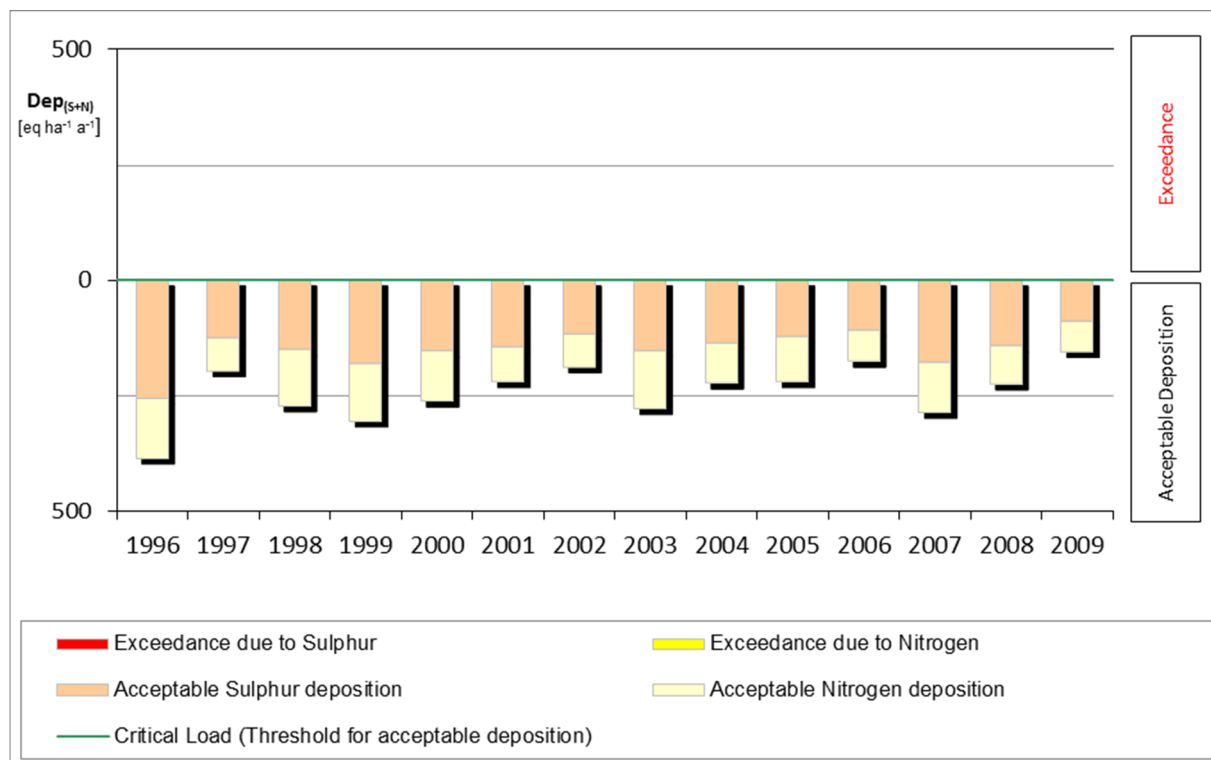
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

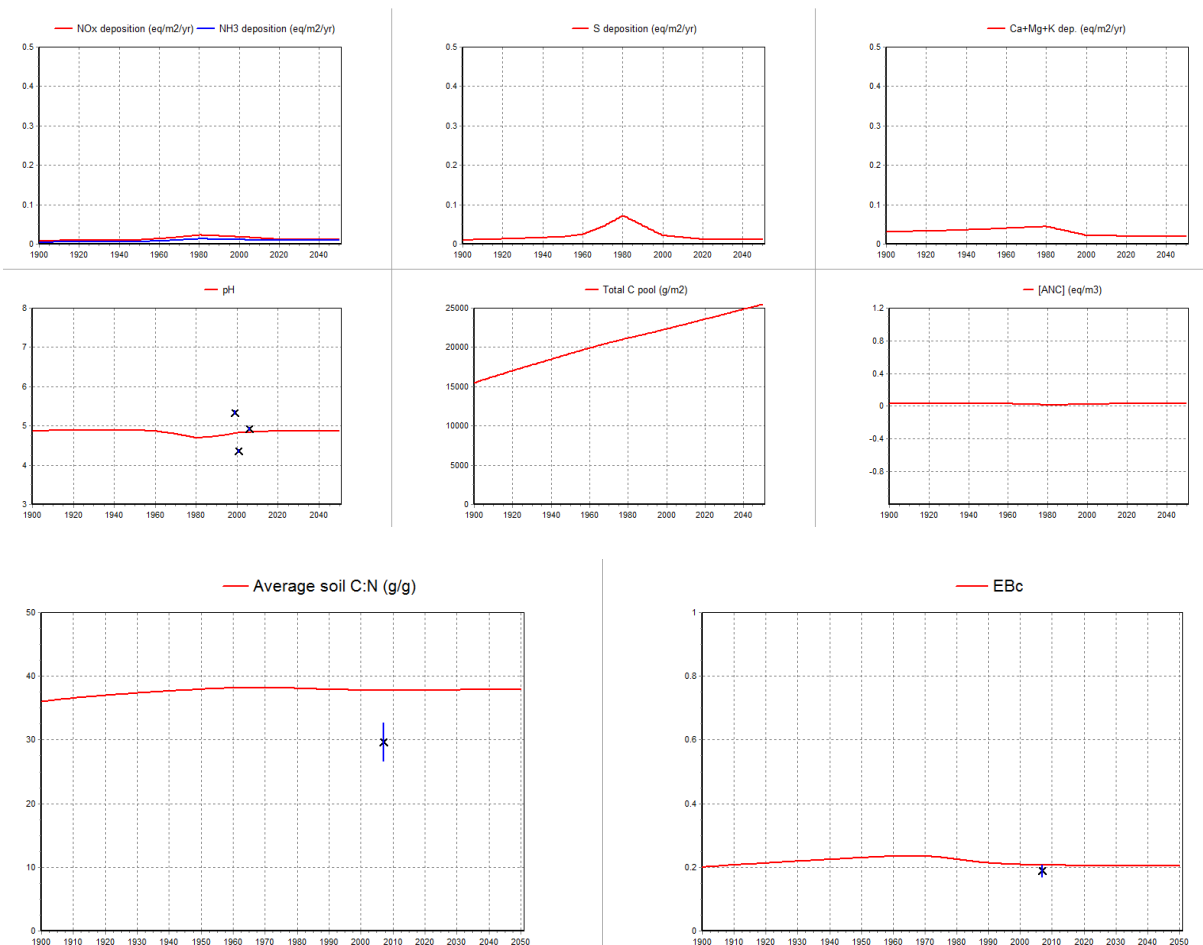
## ICP Forest Level II Site

ID 150016

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



ICP Forest Level II Site:

ID 150017

Country: Finland

Critical Load calculation:

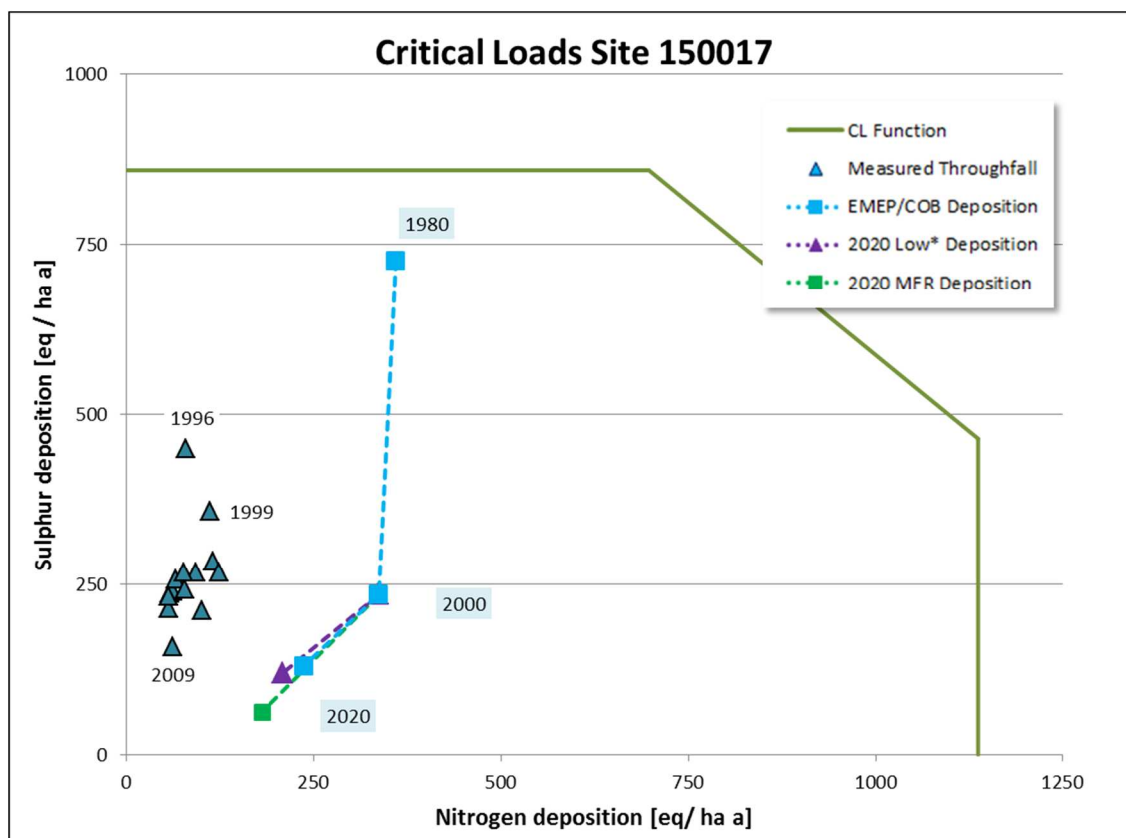
SMB method

Deposition modelled:

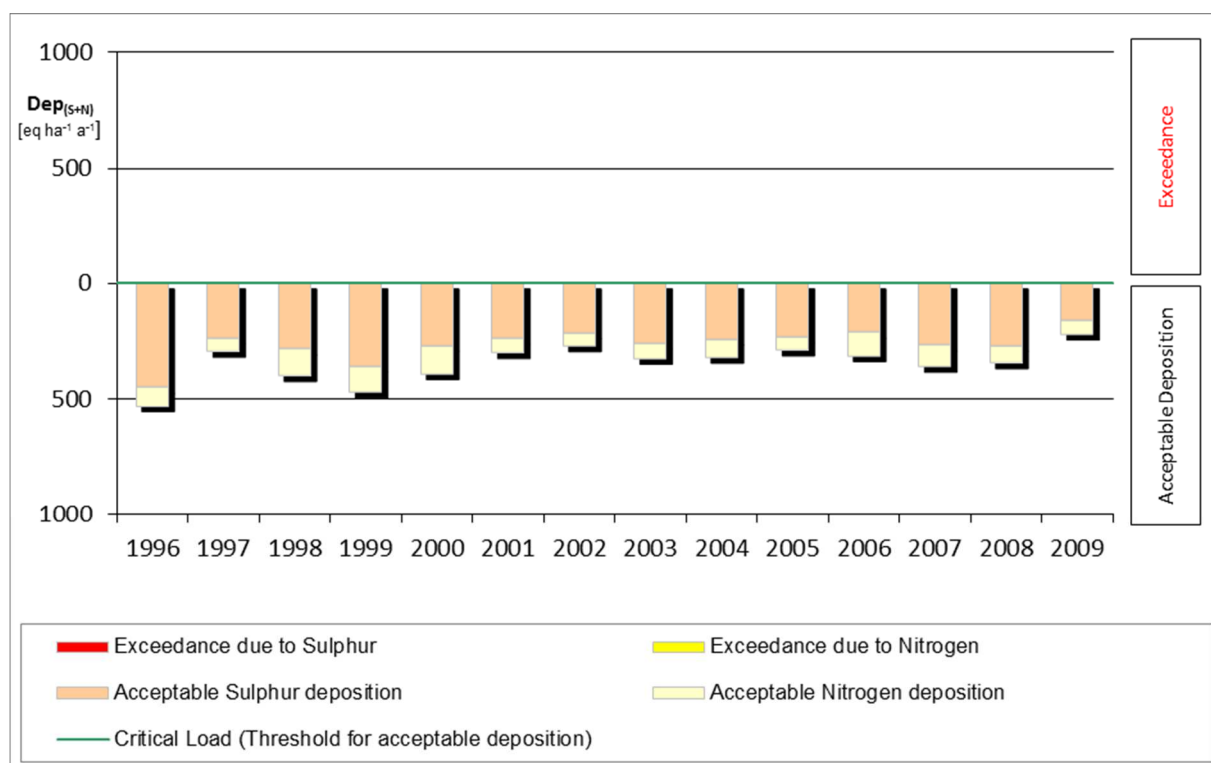
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

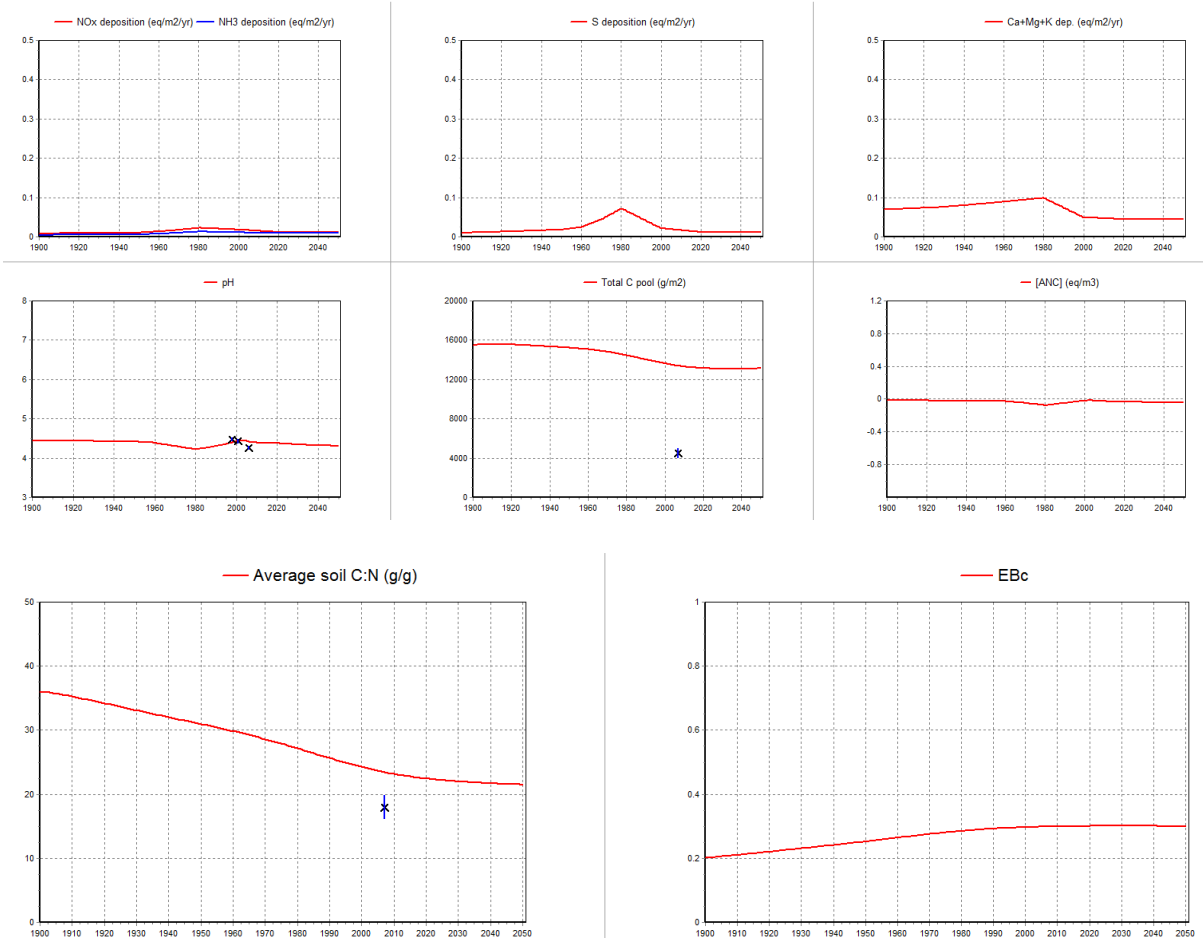
## ICP Forest Level II Site

ID 150017

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150018

Country: Finland

Critical Load calculation:

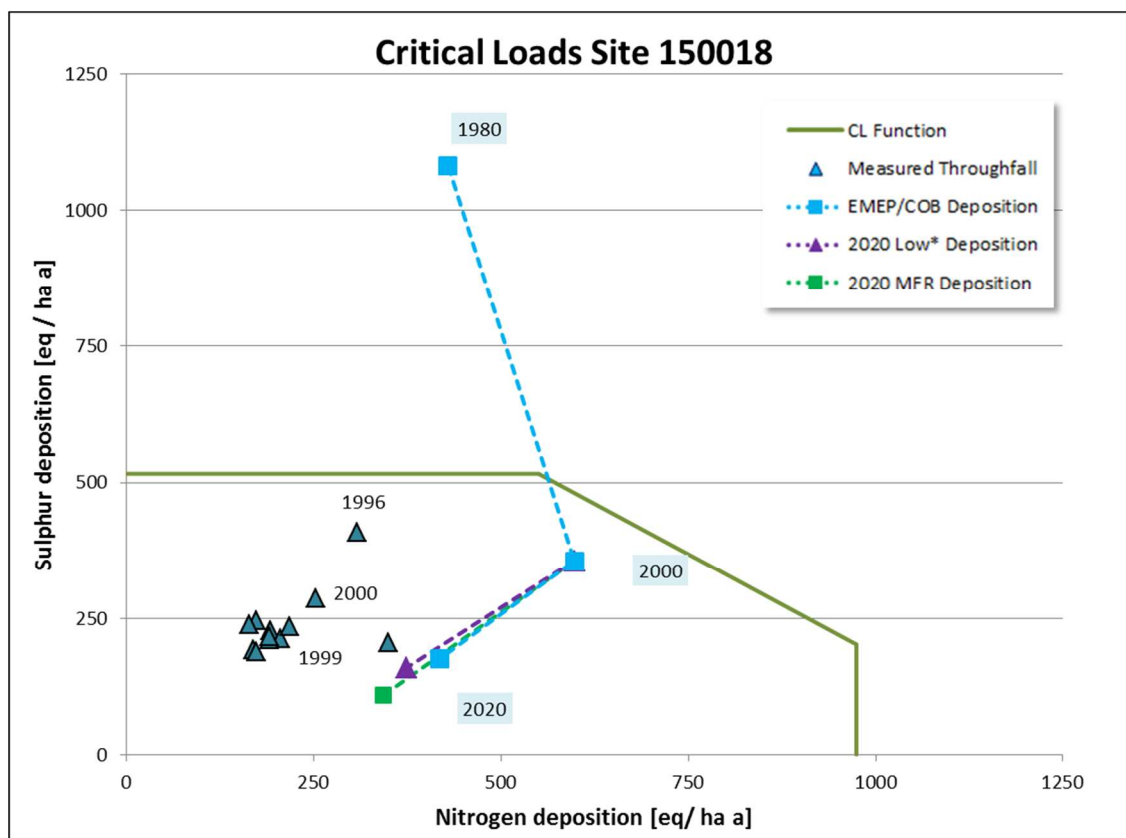
SMB method

Deposition modelled:

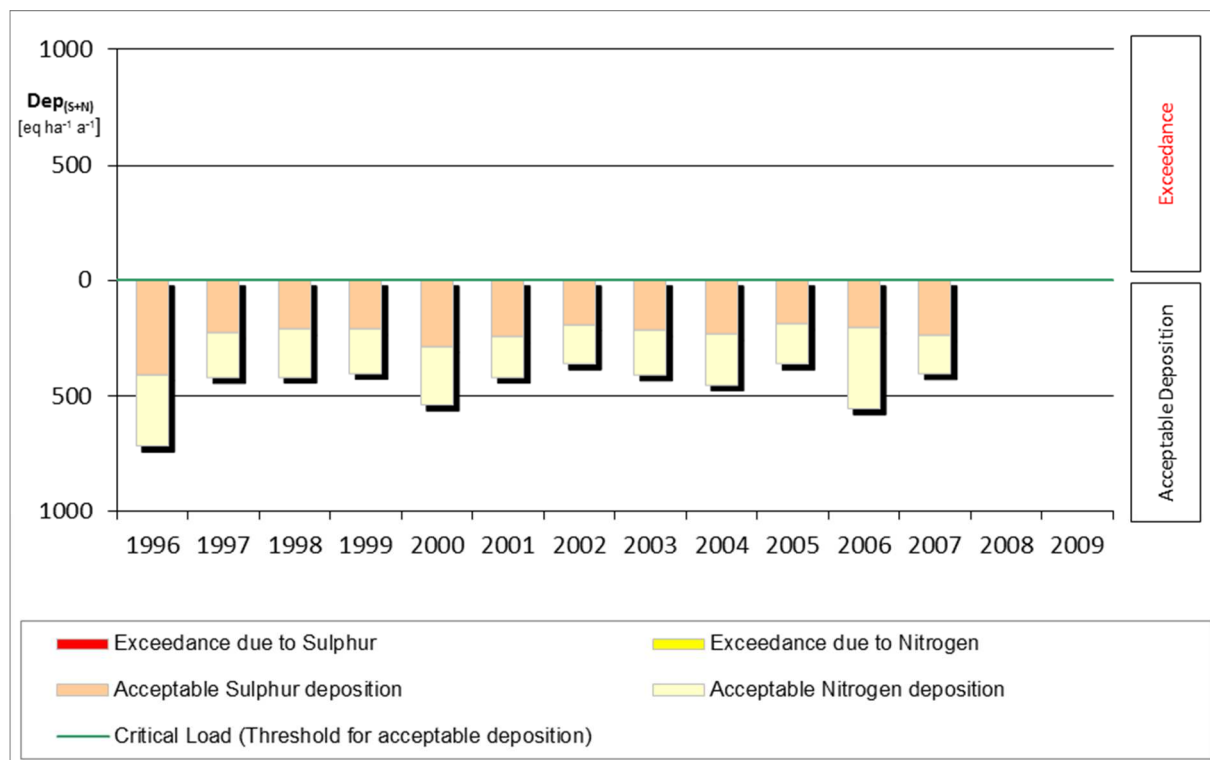
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2007



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 150019

Country: Finland

Critical Load calculation:

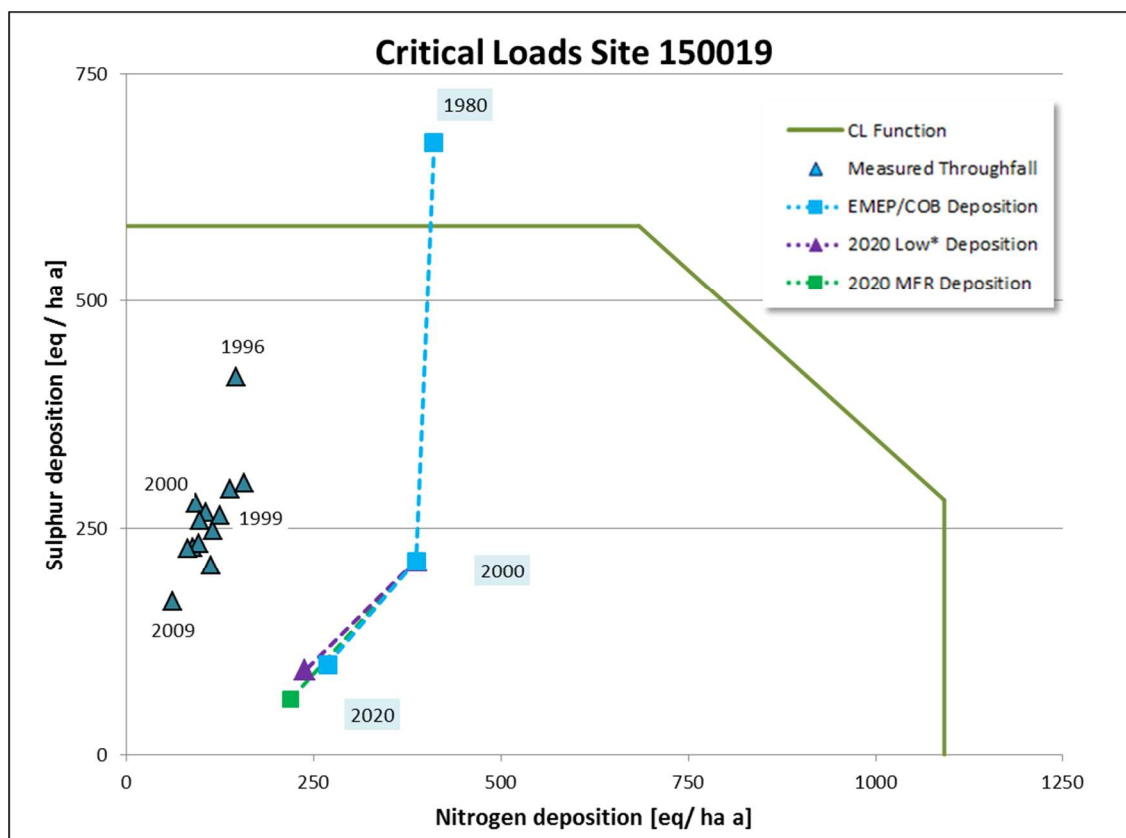
SMB method

Deposition modelled:

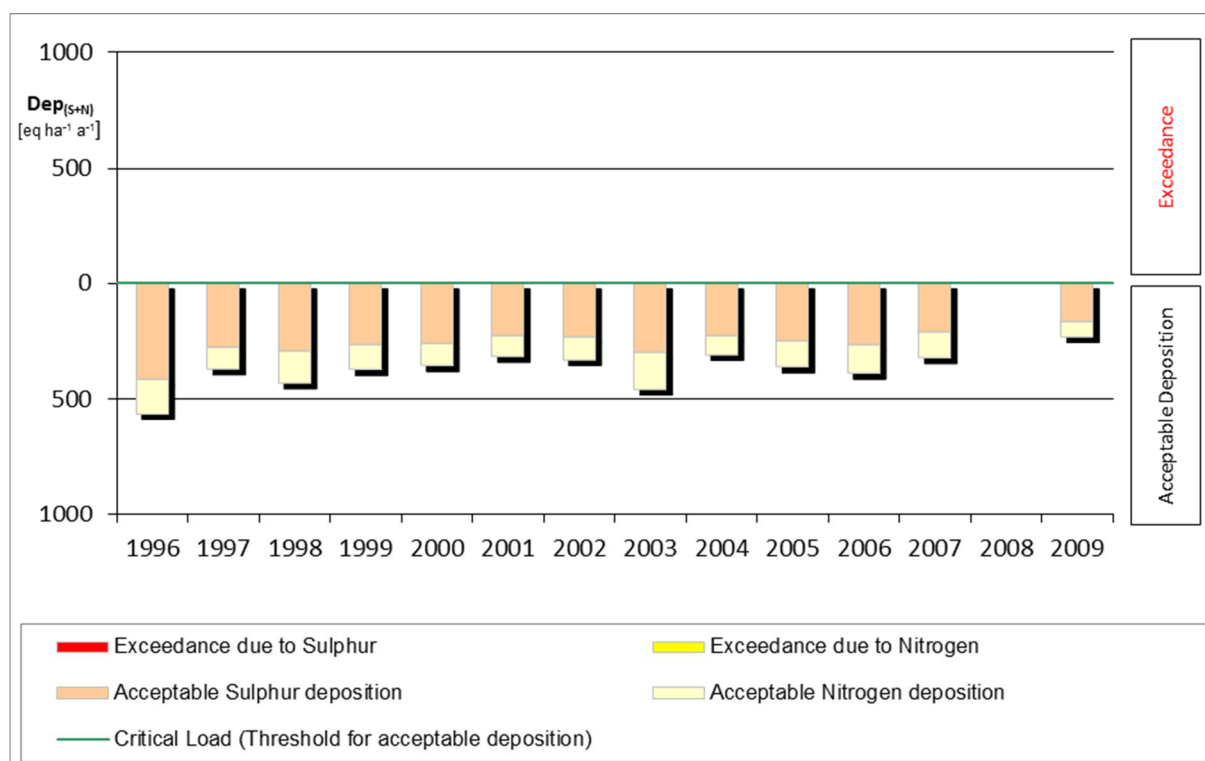
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2007, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

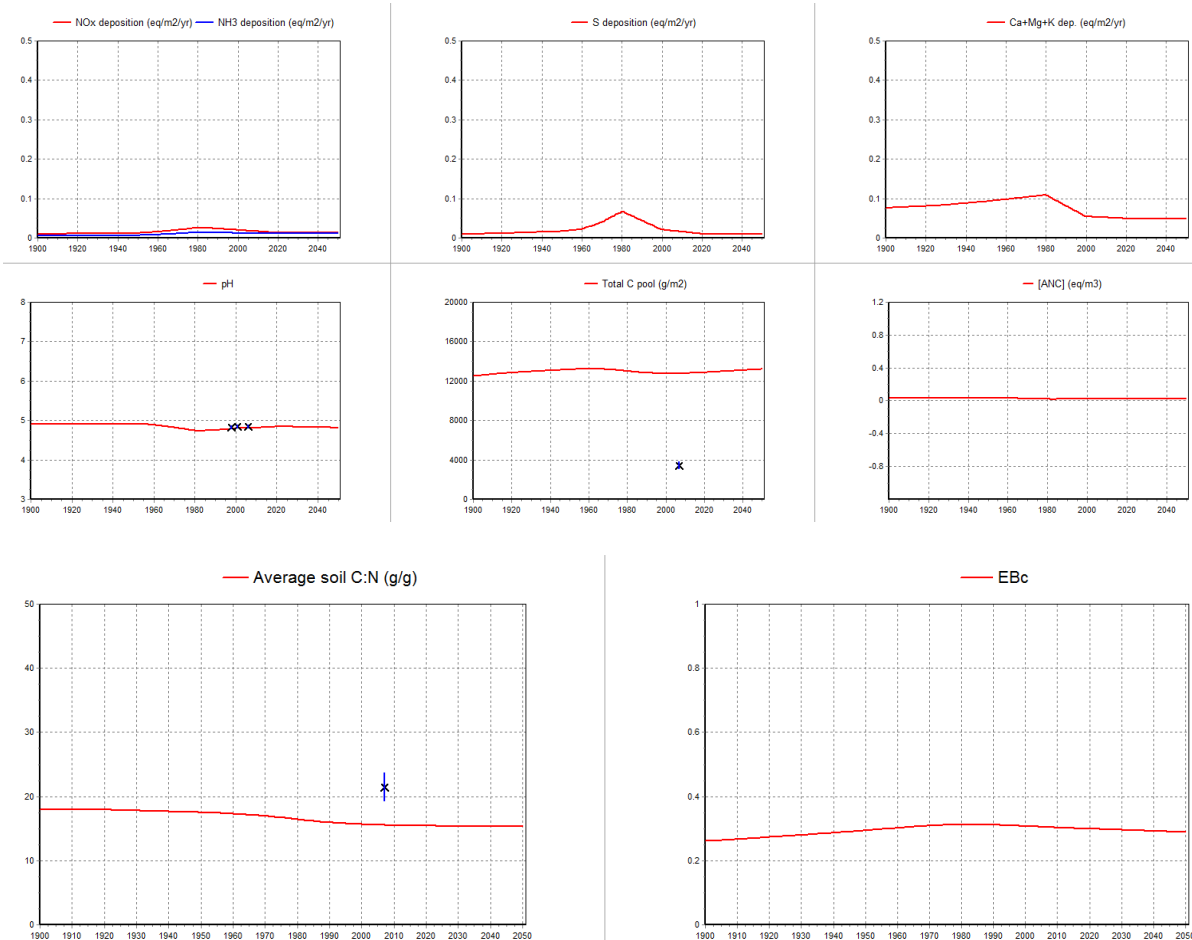
## ICP Forest Level II Site

ID 150019

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



ICP Forest Level II Site:

ID 150020

Country: Finland

Critical Load calculation:

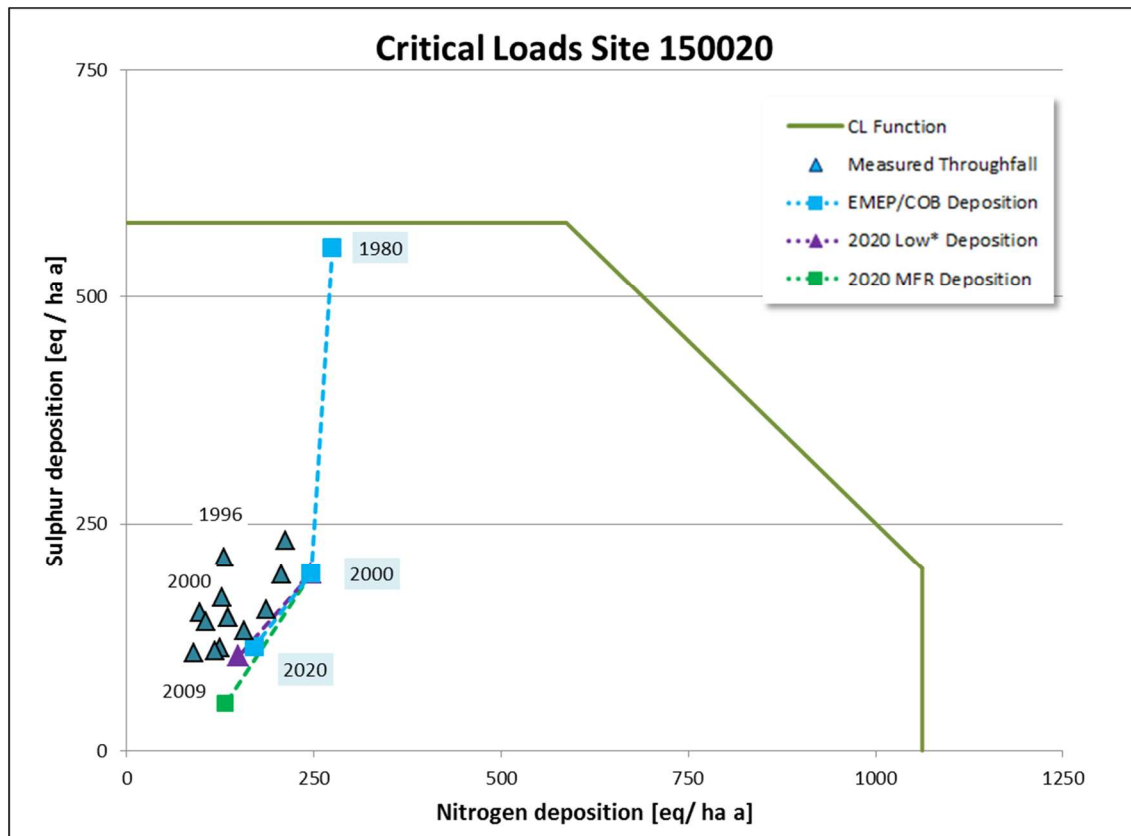
SMB method

Deposition modelled:

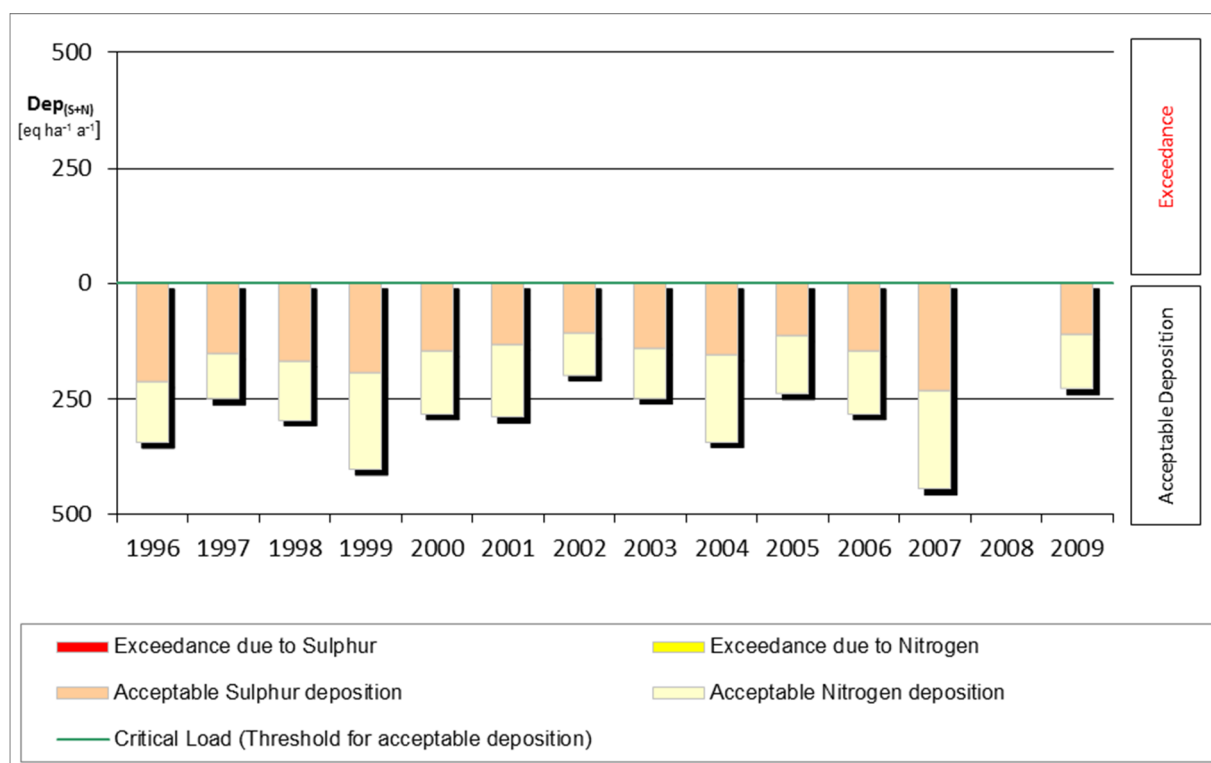
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2007, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

ICP Forest Level II Site:

ID 150021

Country: Finland

Critical Load calculation:

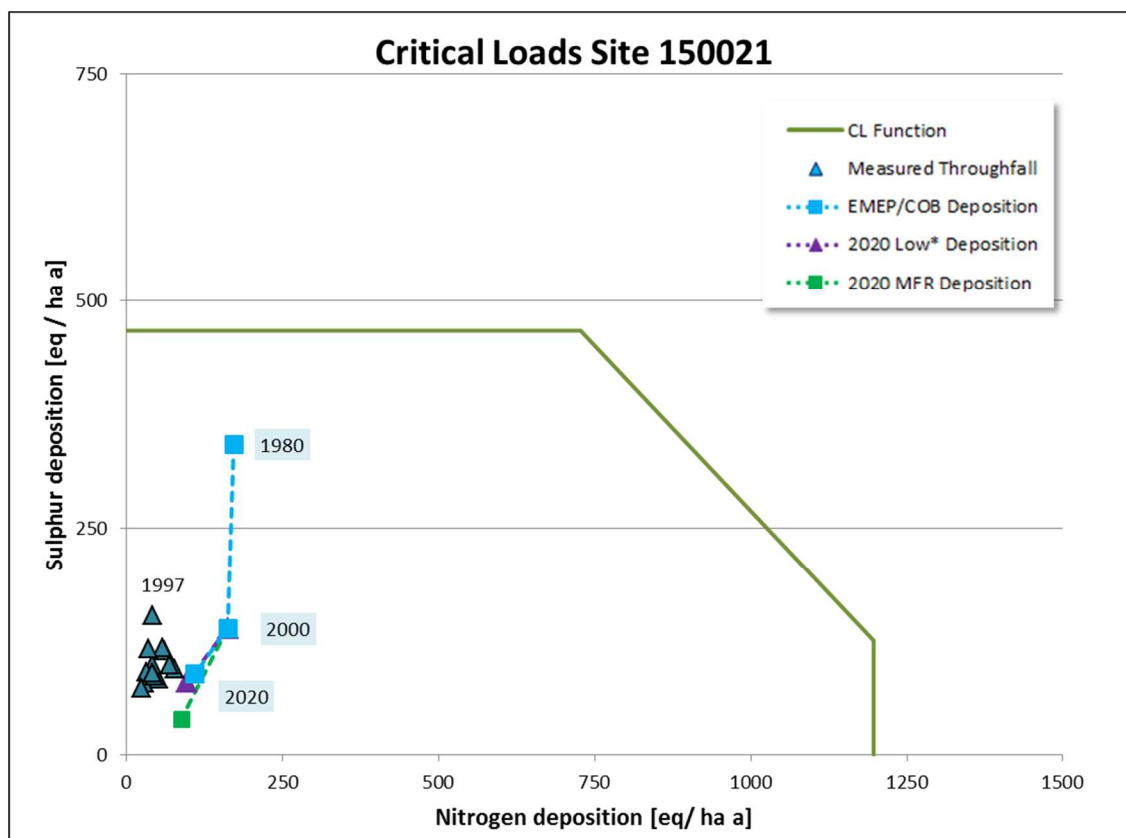
SMB method

Deposition modelled:

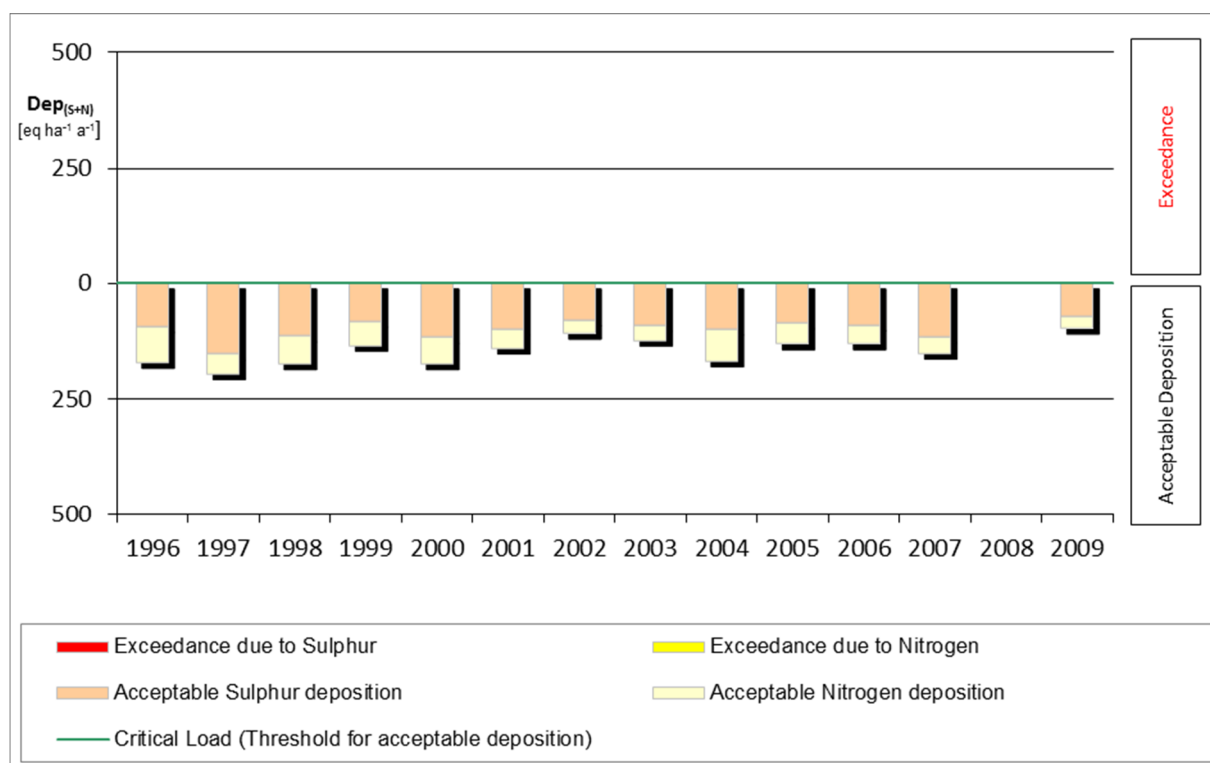
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2007, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

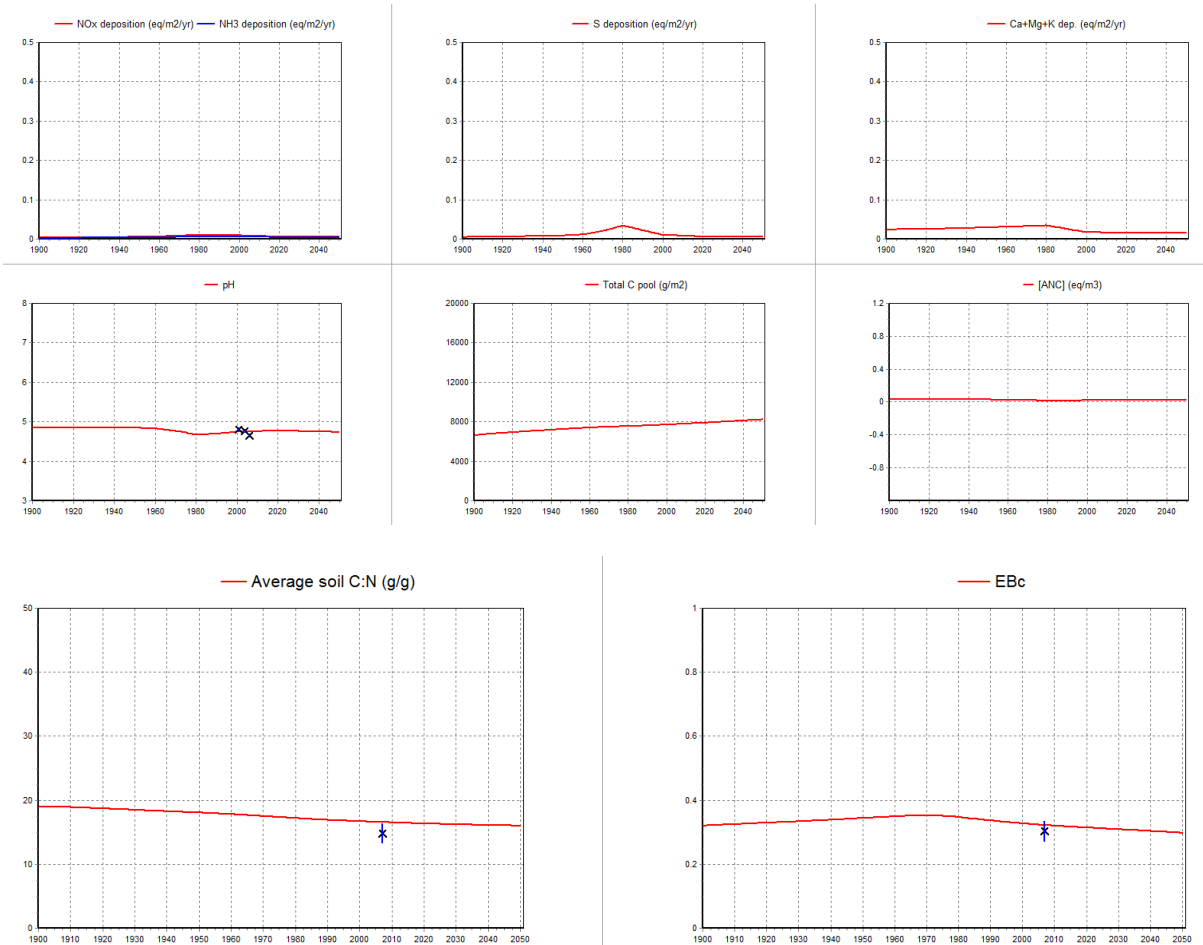
## ICP Forest Level II Site

ID 150021

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150022

Country: Finland

Critical Load calculation:

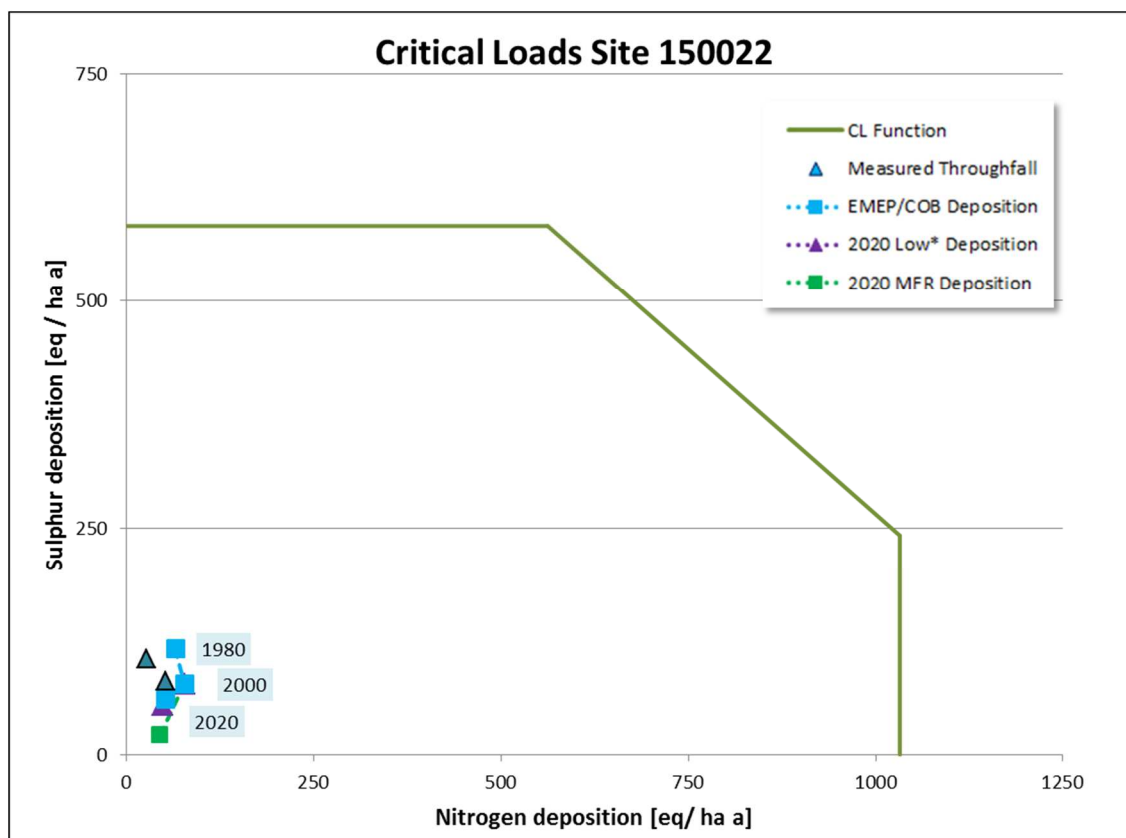
SMB method

Deposition modelled:

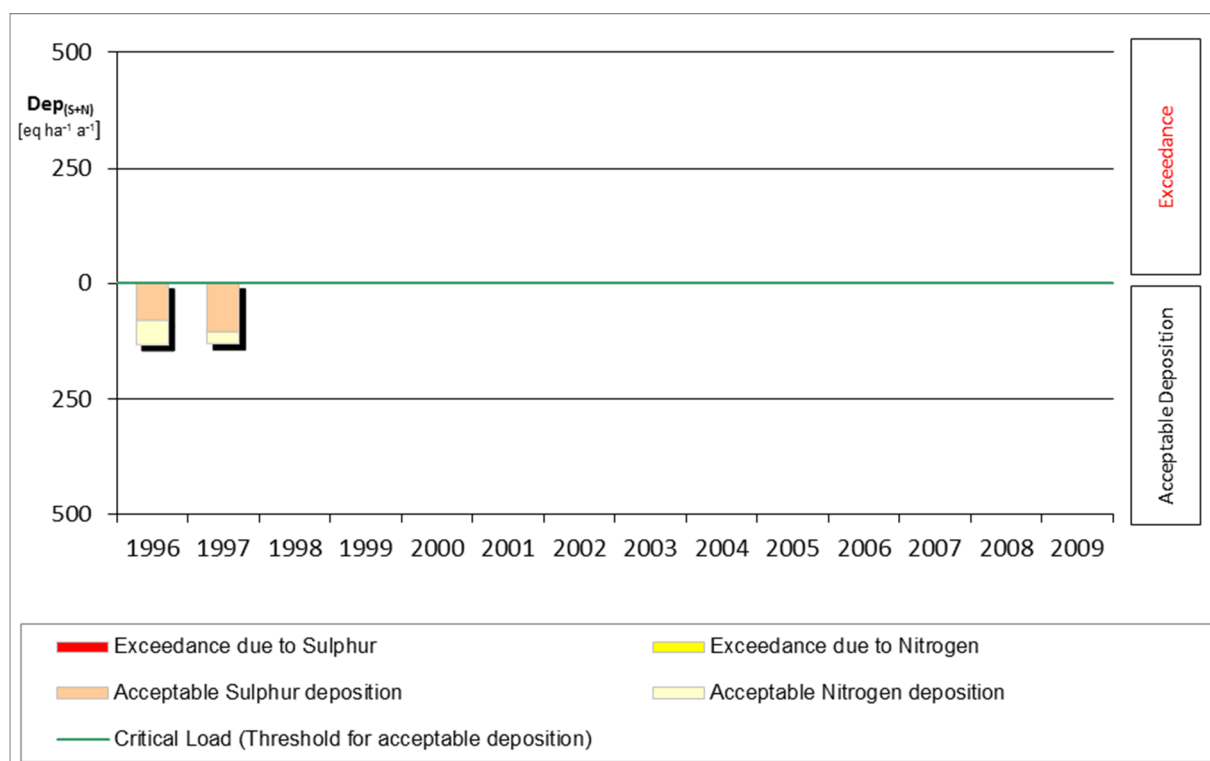
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996, 1997



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

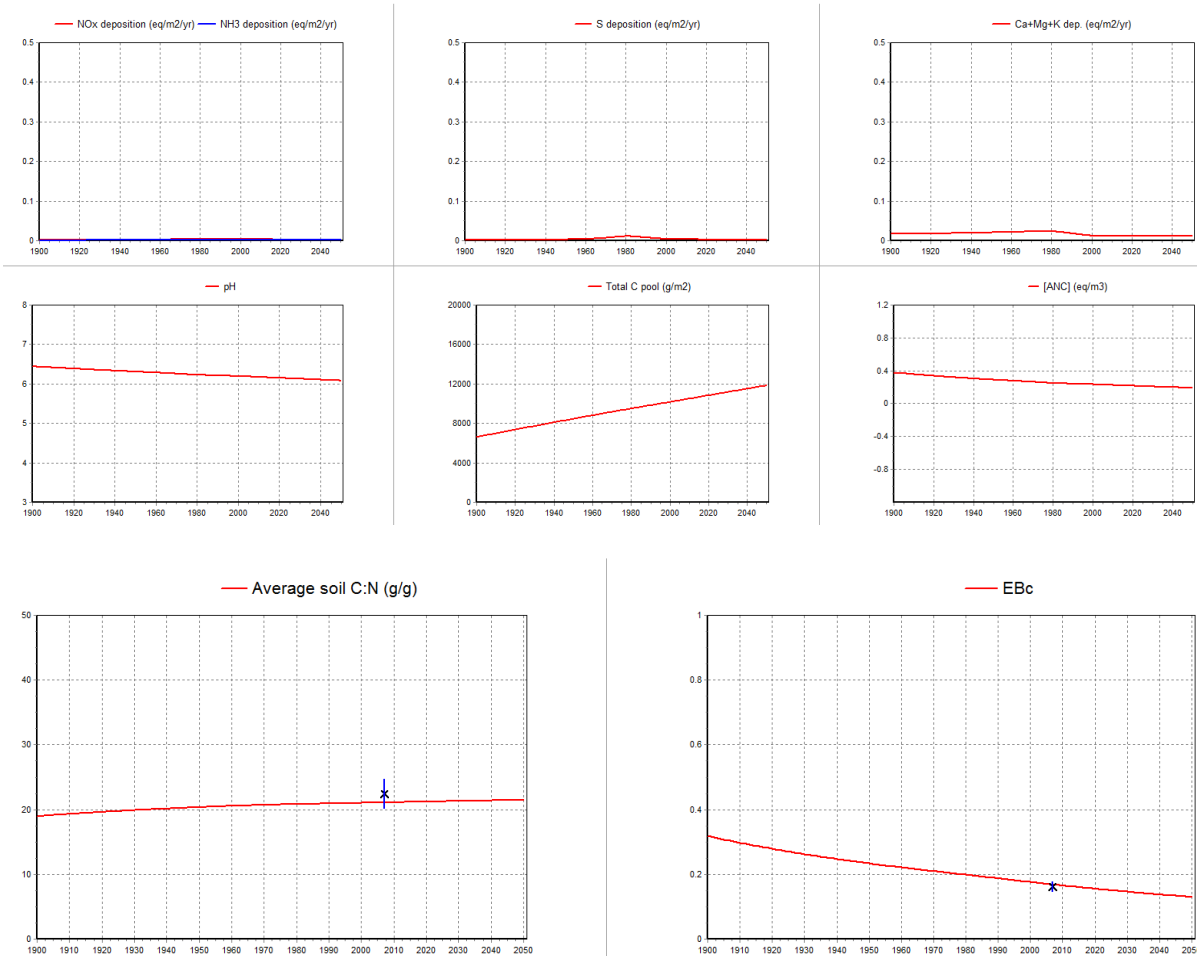
## ICP Forest Level II Site

ID 150022

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



ICP Forest Level II Site:

ID 150023

Country: Finland

Critical Load calculation:

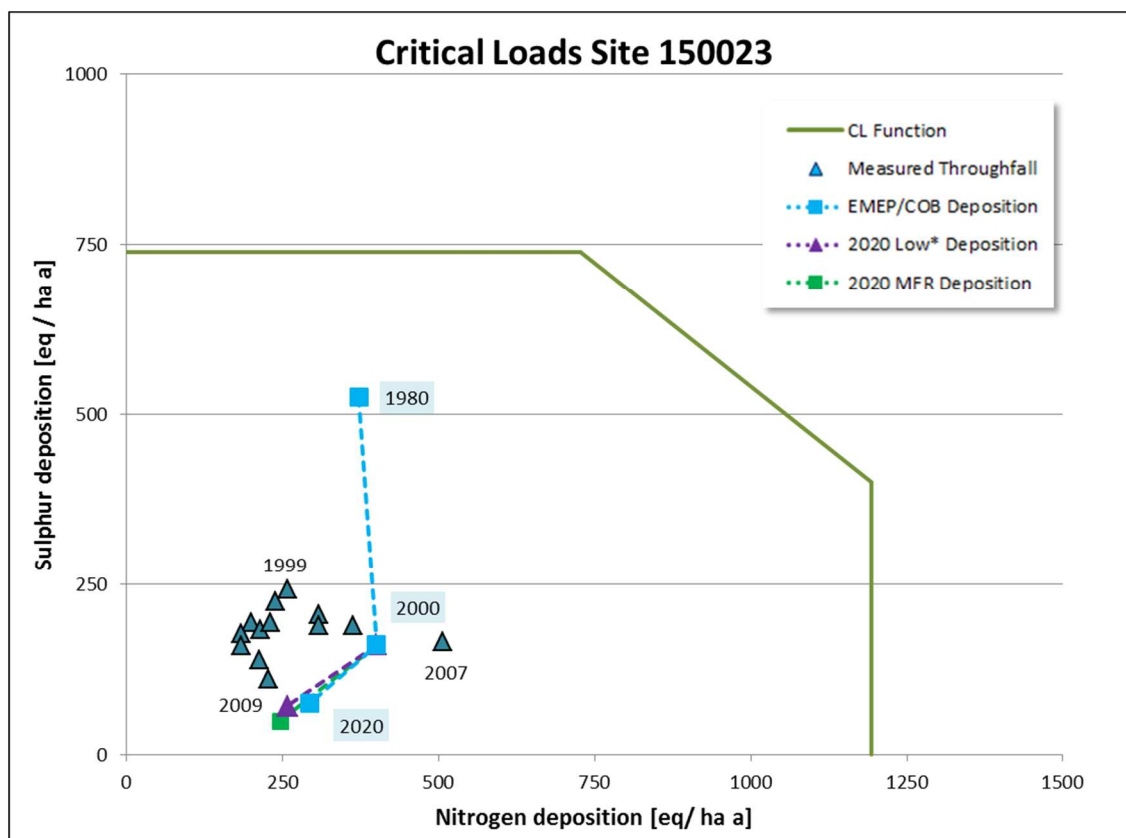
SMB method

Deposition modelled:

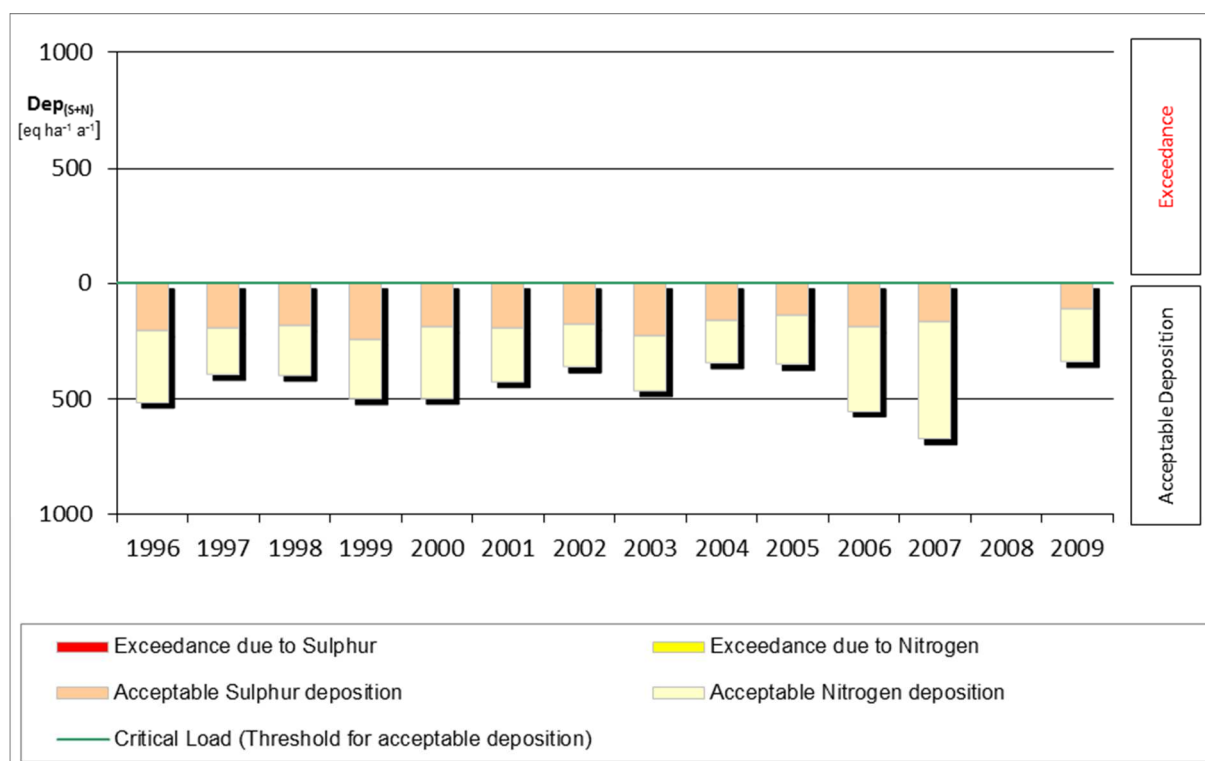
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2007, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

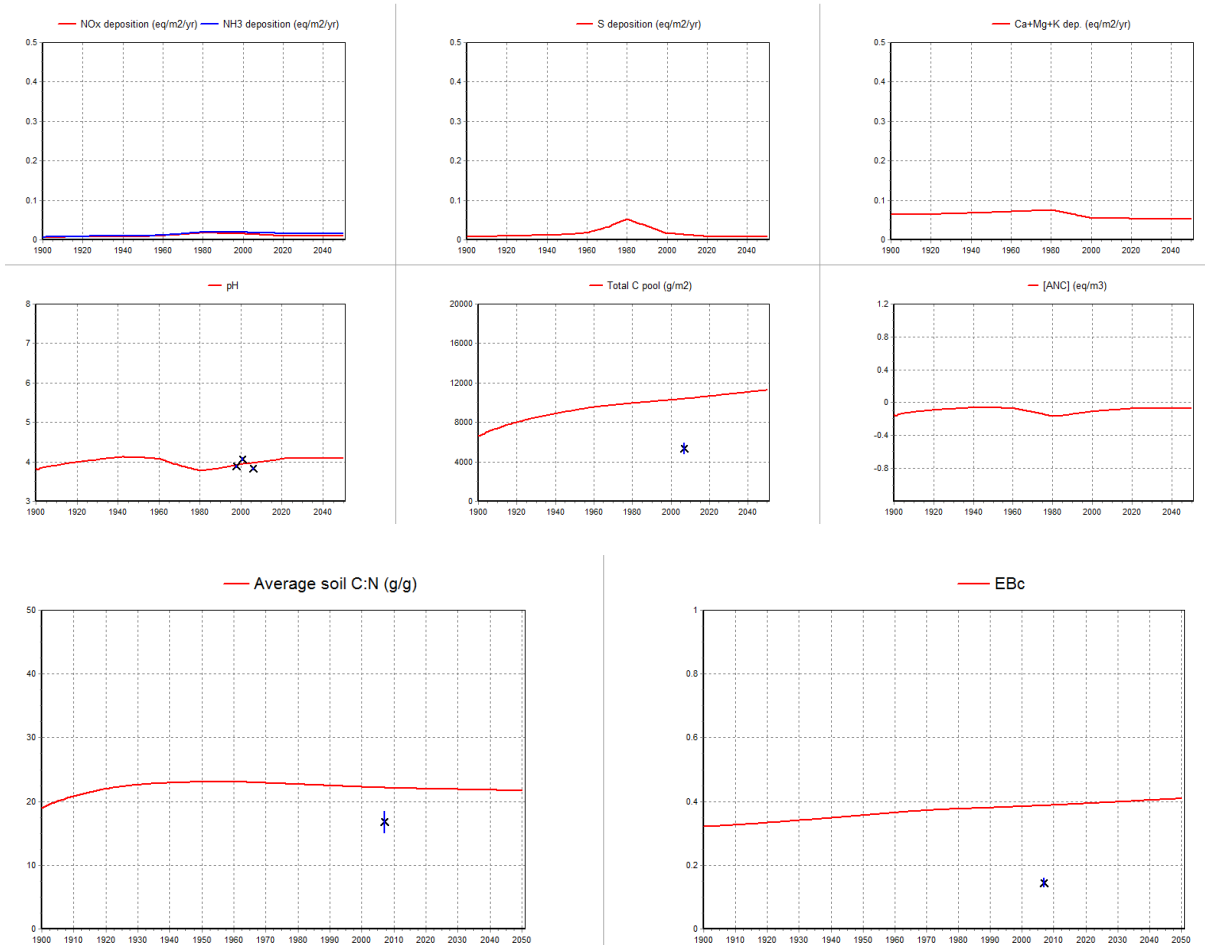
## ICP Forest Level II Site

ID 150023

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150025

Country: Finland

Critical Load calculation:

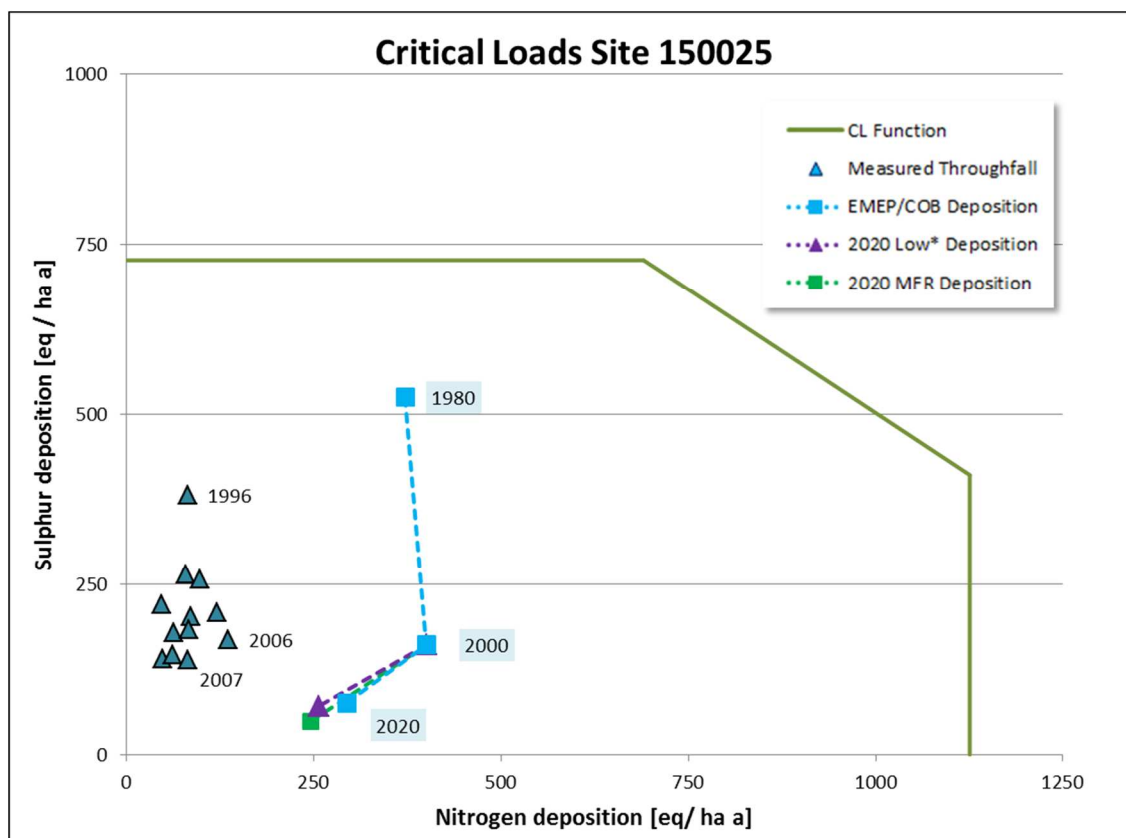
SMB method

Deposition modelled:

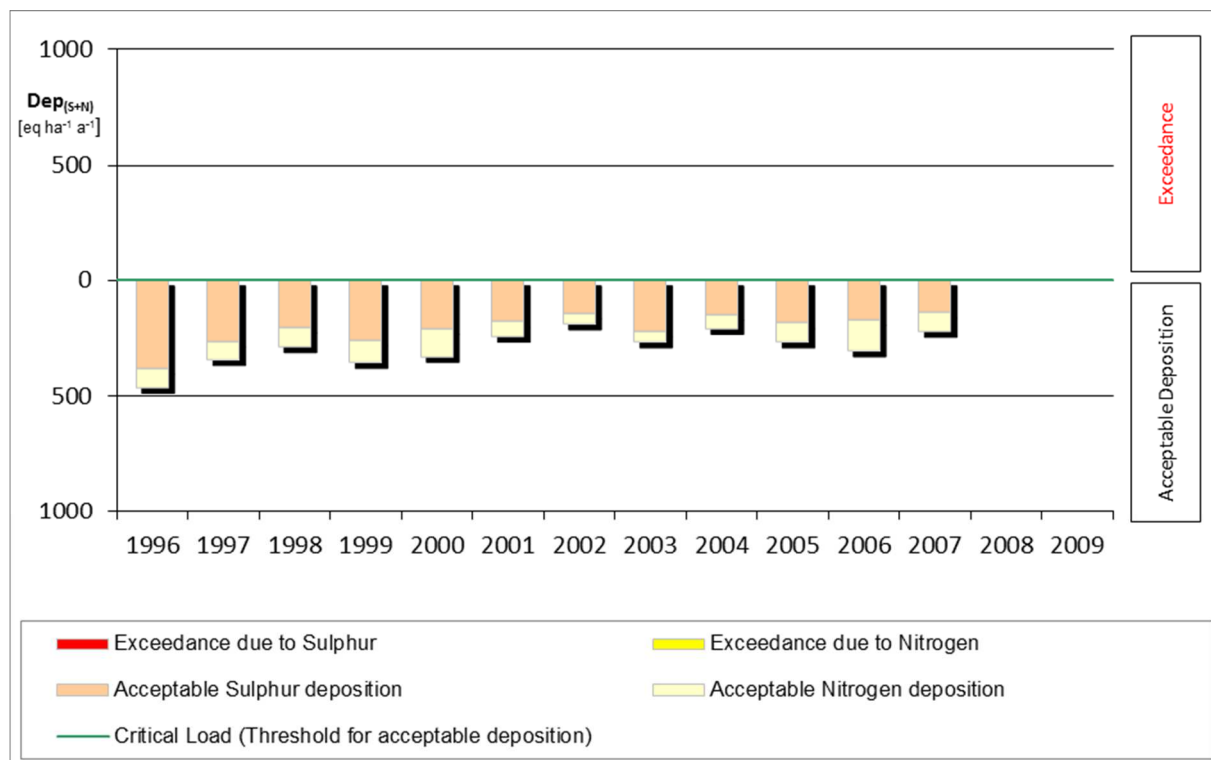
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

1996 – 2007



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

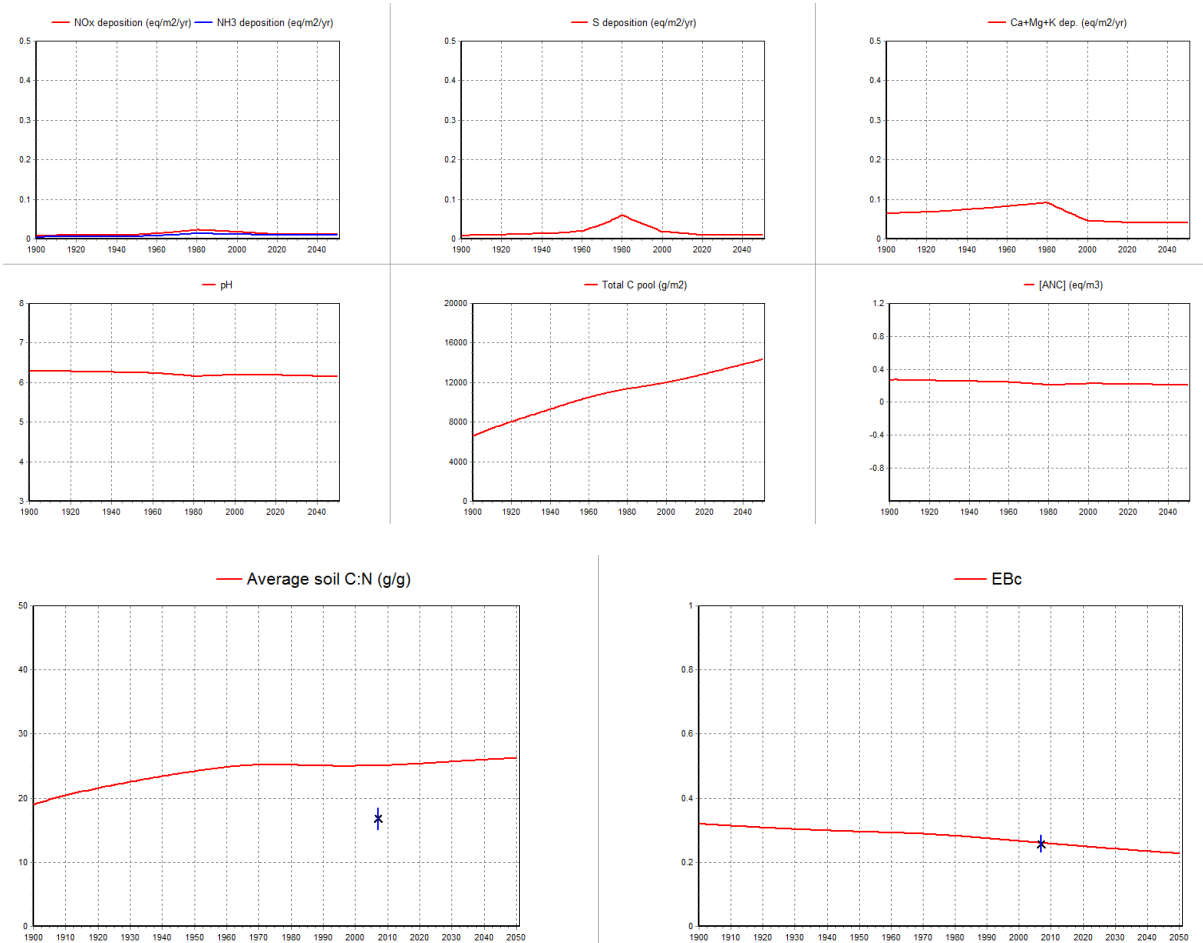
## ICP Forest Level II Site

ID 150025

Country: Finland

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150026

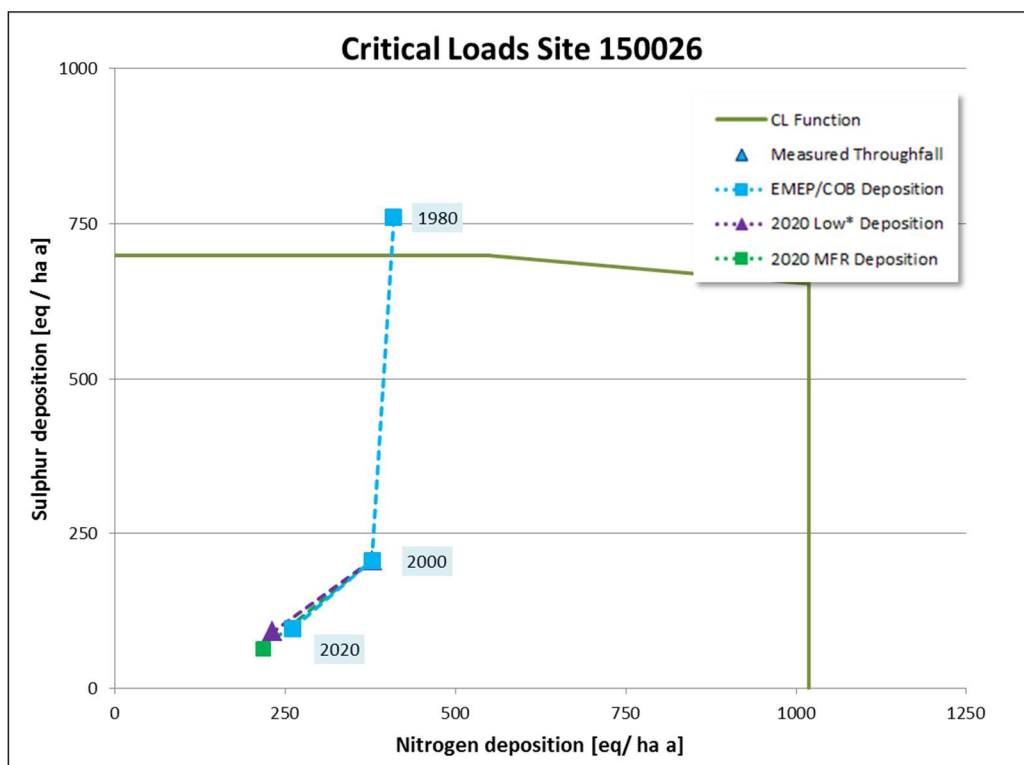
Country: Finland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years,

ICP Forest Level II Site:

ID 150027

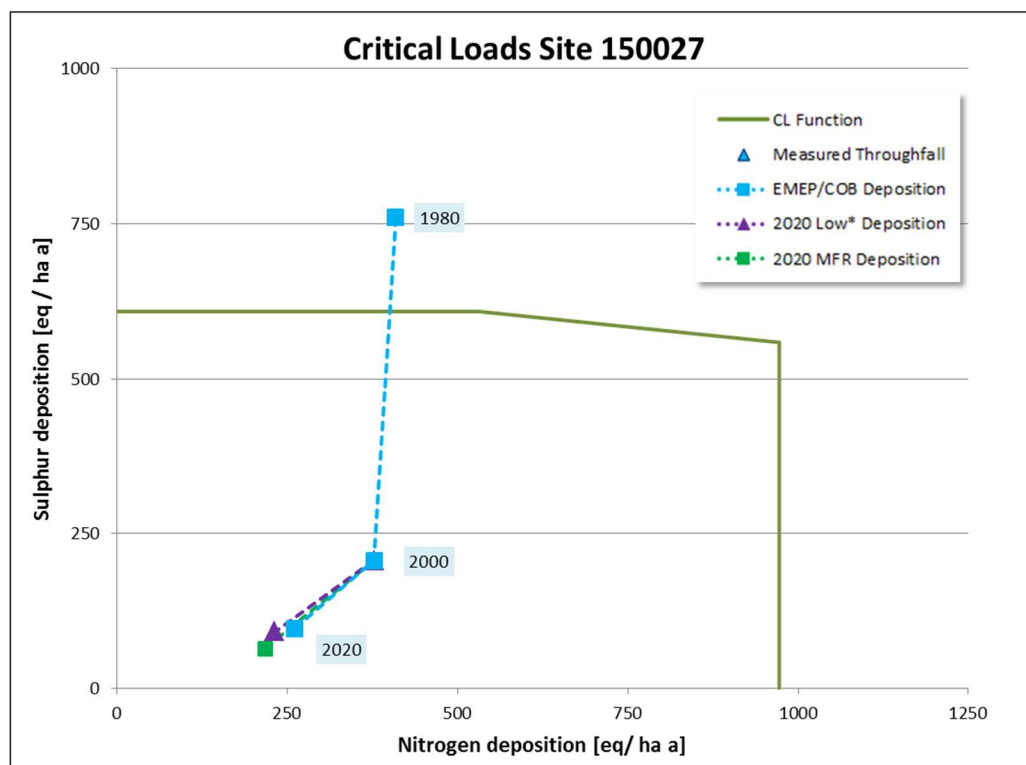
Country: Finland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years



ICP Forest Level II Site:

ID 150028

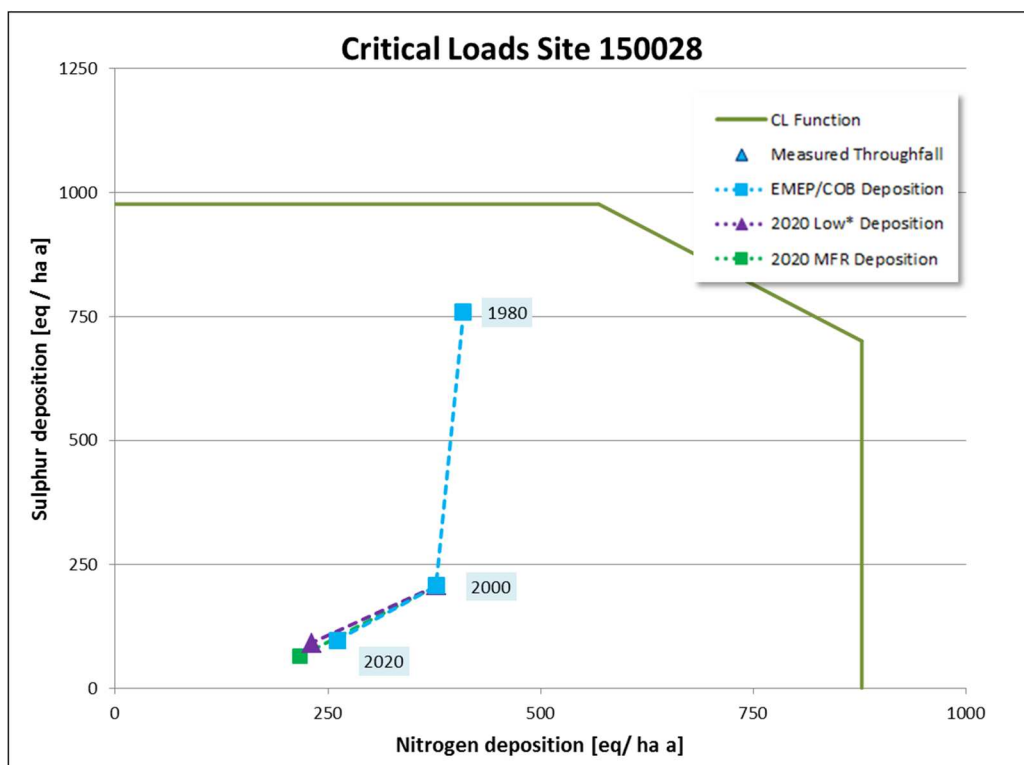
Country: Finland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 150029

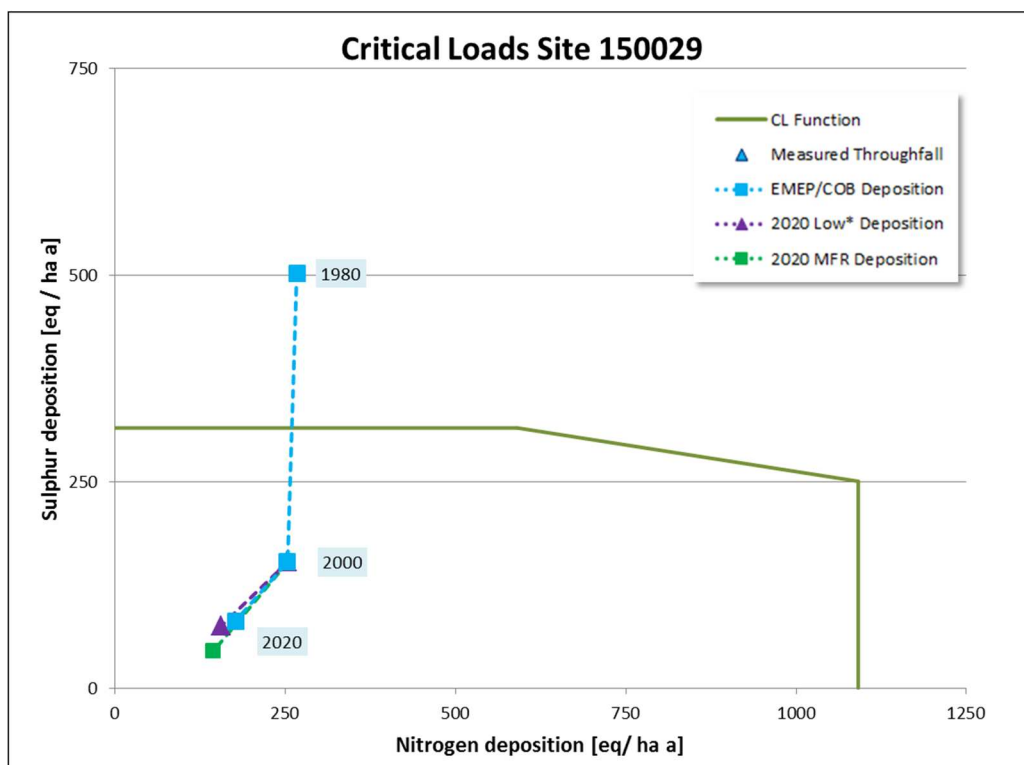
Country: Finland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 150030

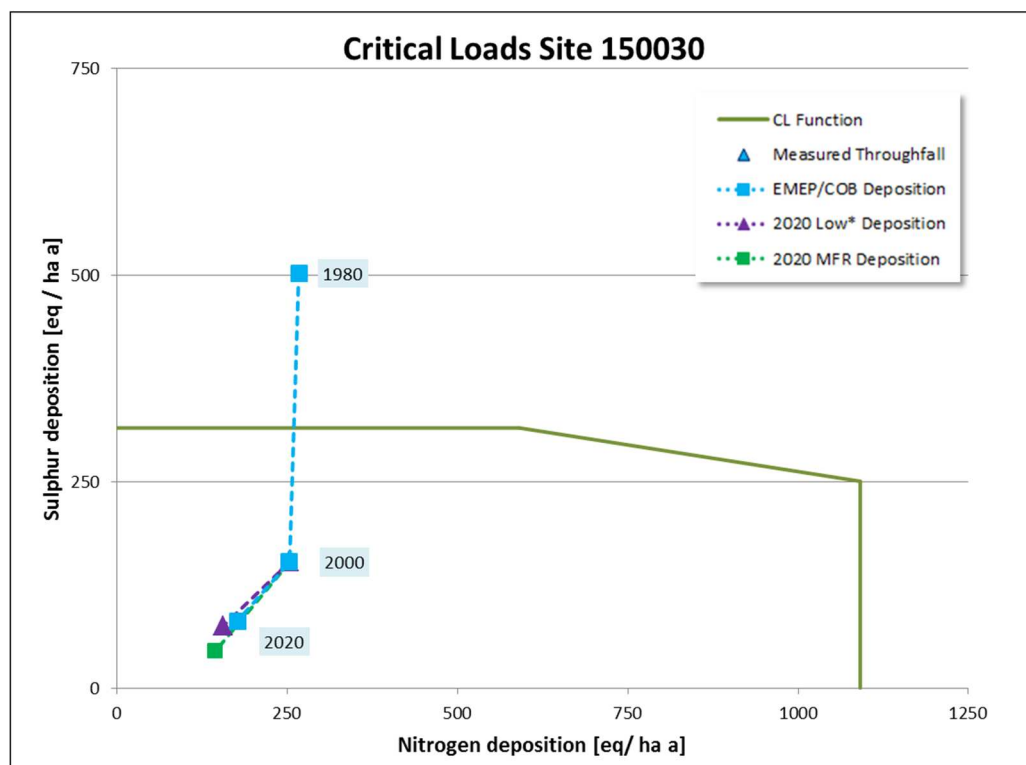
Country: Finland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 150031

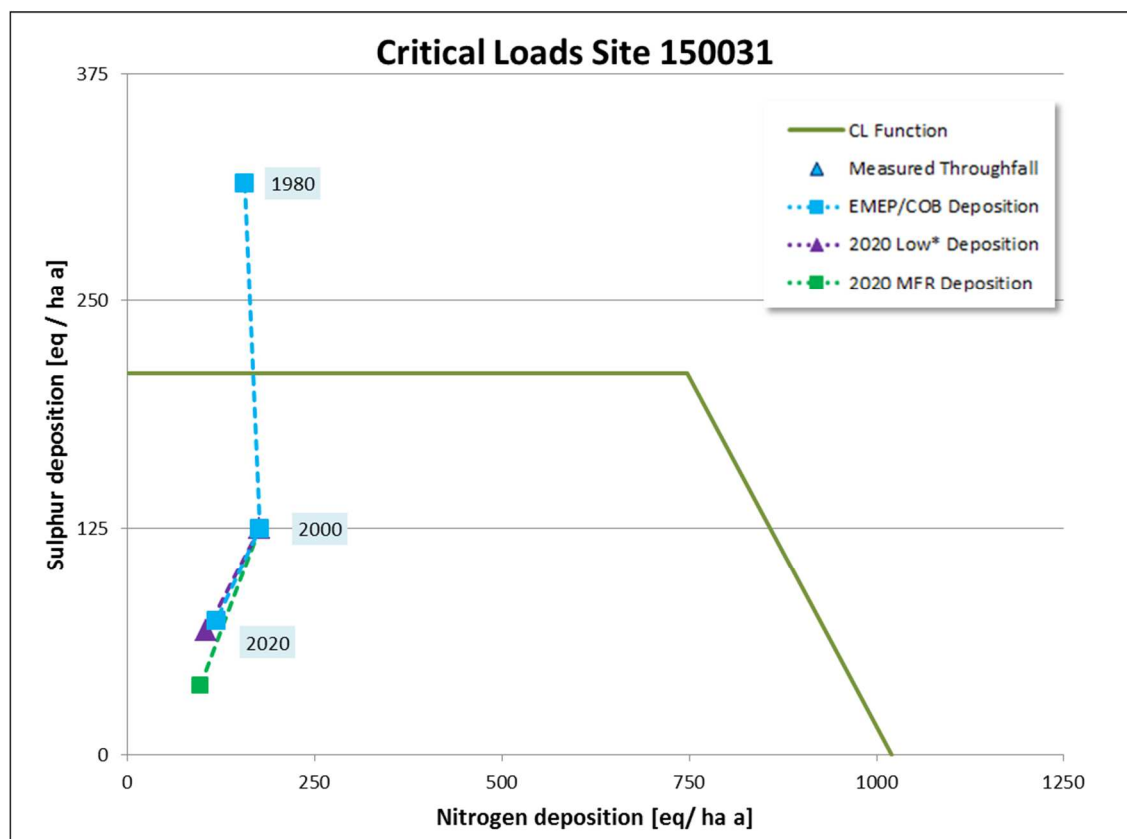
Country: Finland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 150032

Country: Finland

Critical Load calculation:

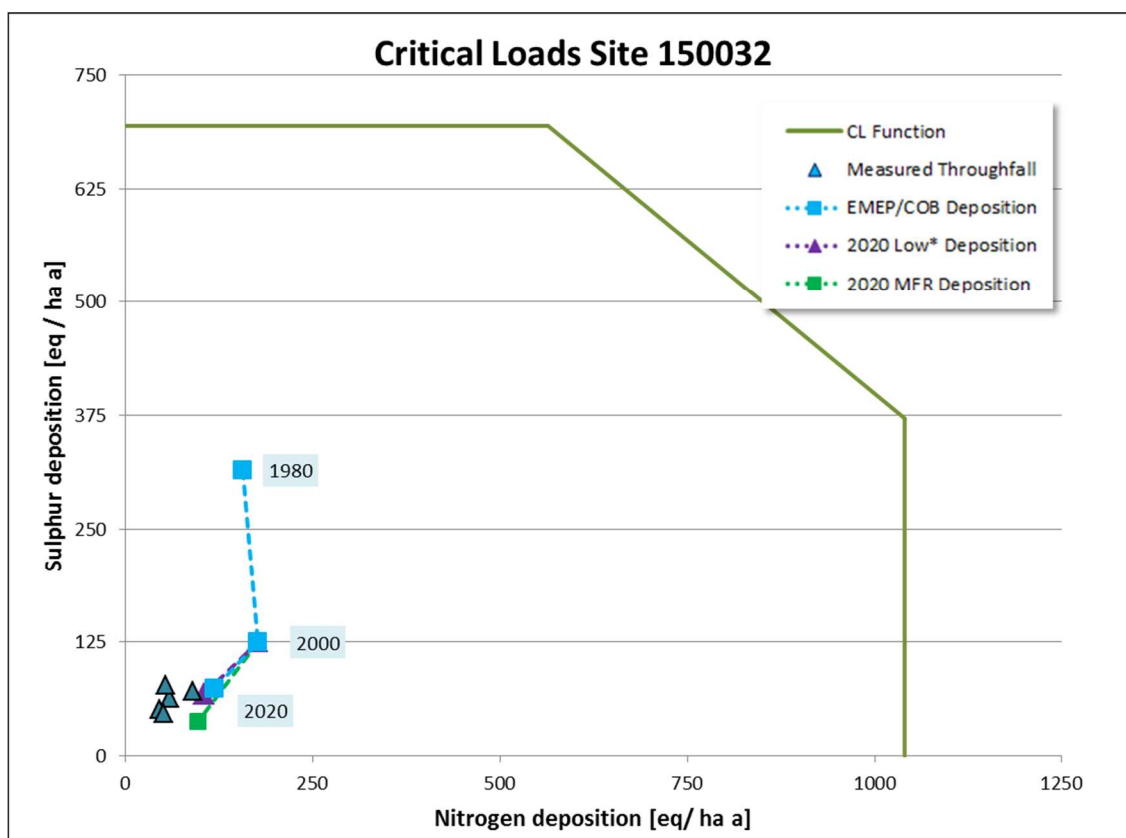
SMB method

Deposition modelled:

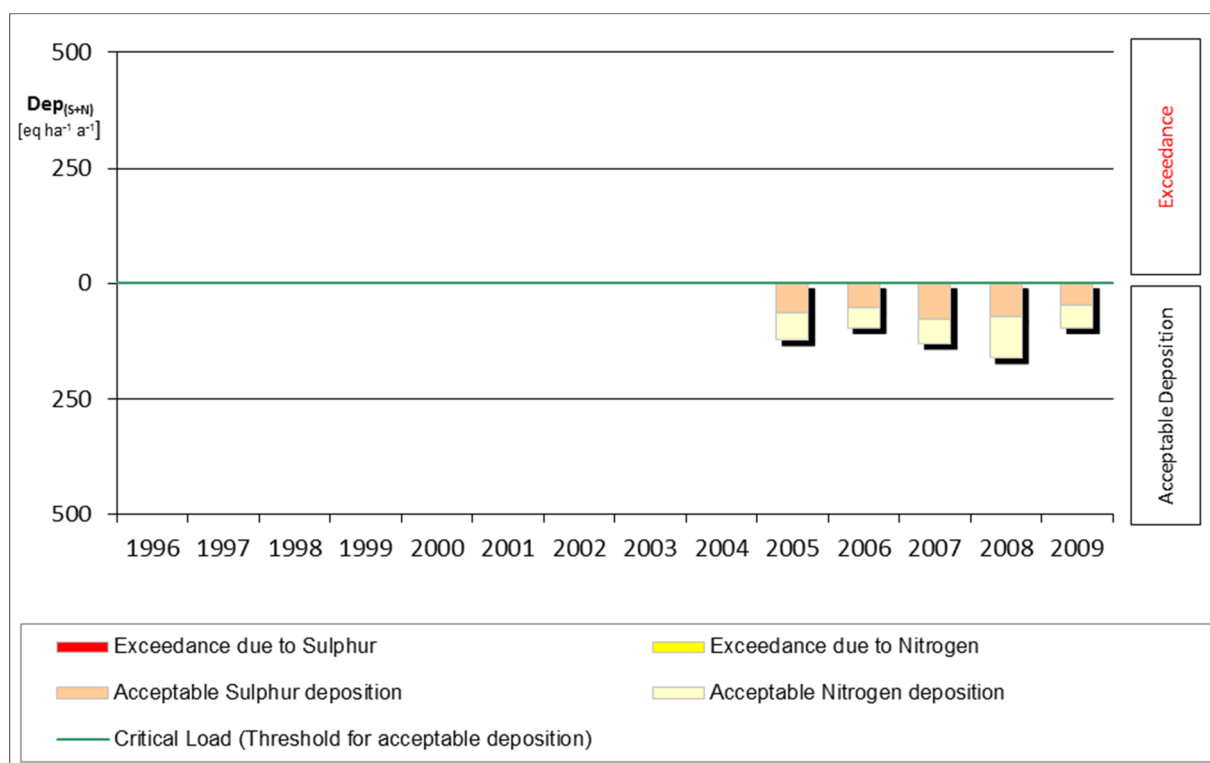
EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured:

2005 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

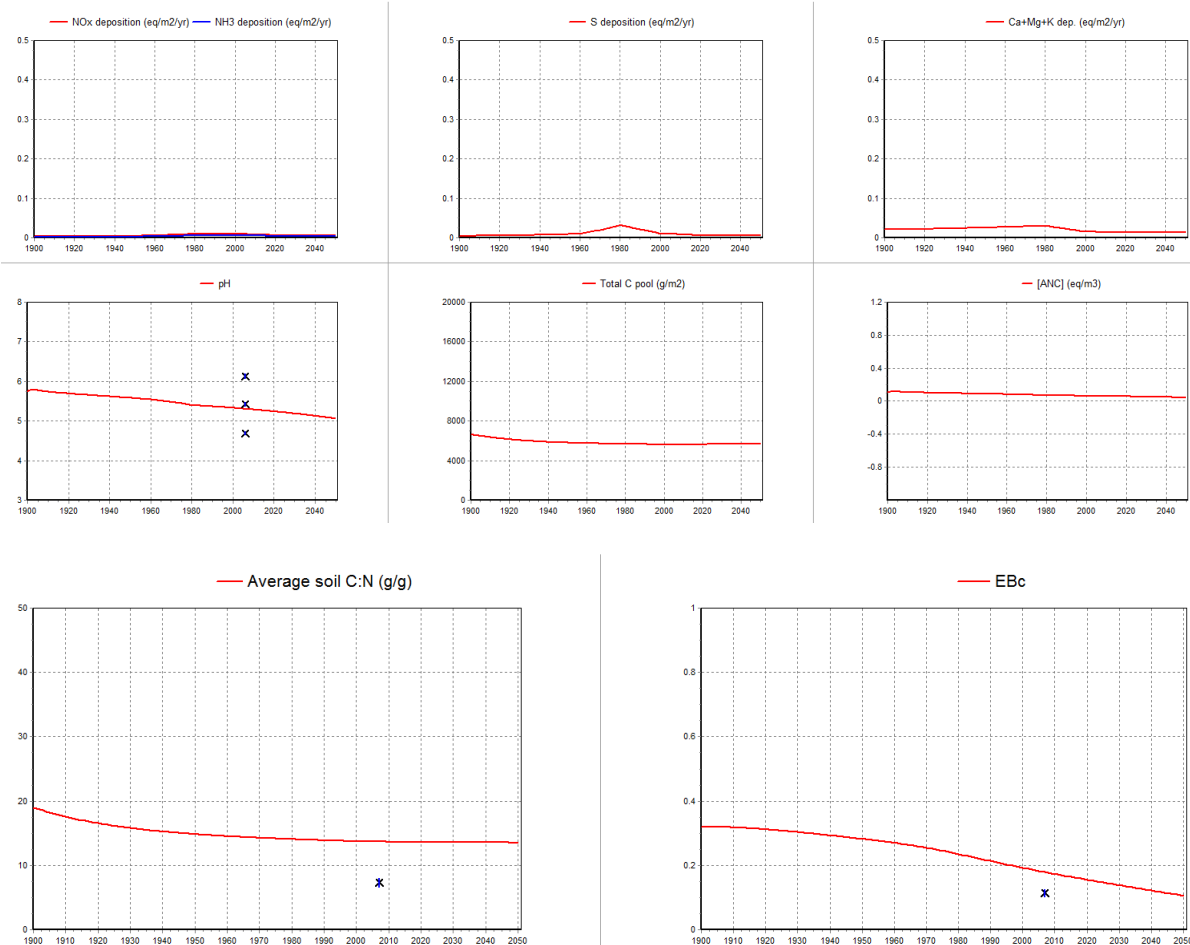
## ICP Forest Level II Site

ID 150032

Country: Finland

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 150033

Country: Finland

Critical Load calculation:

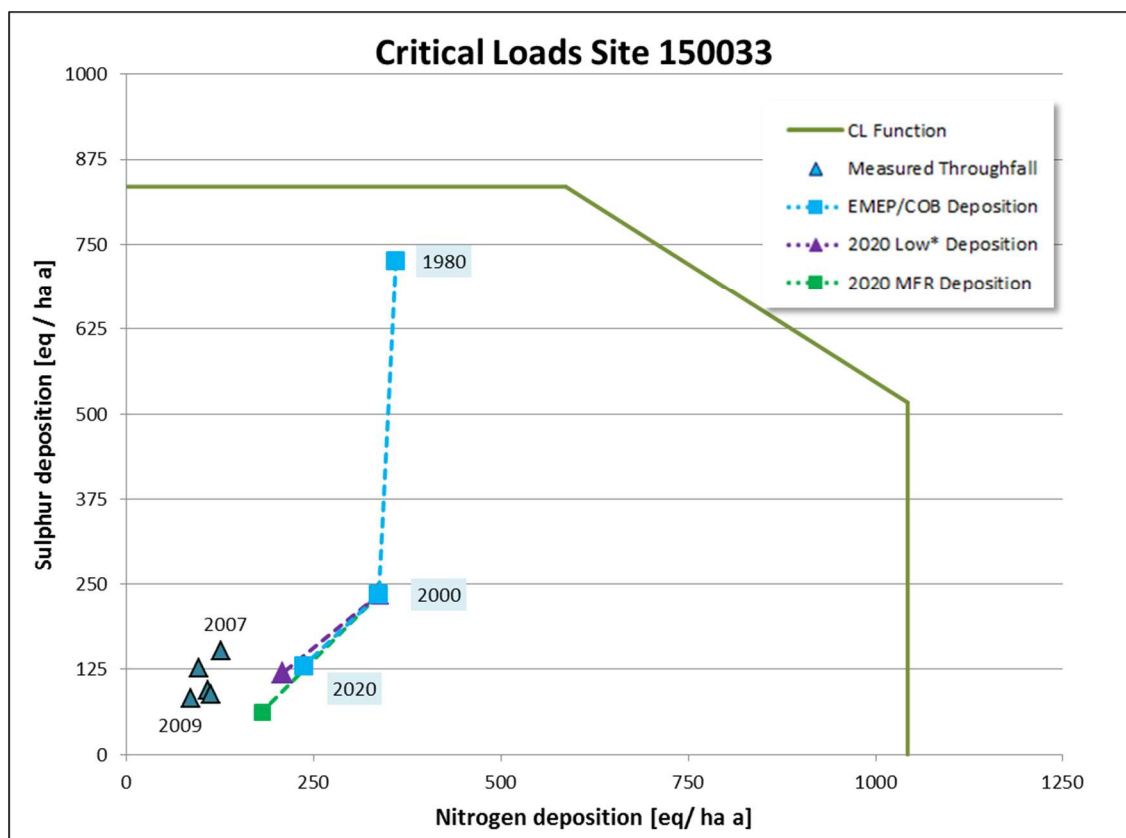
SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

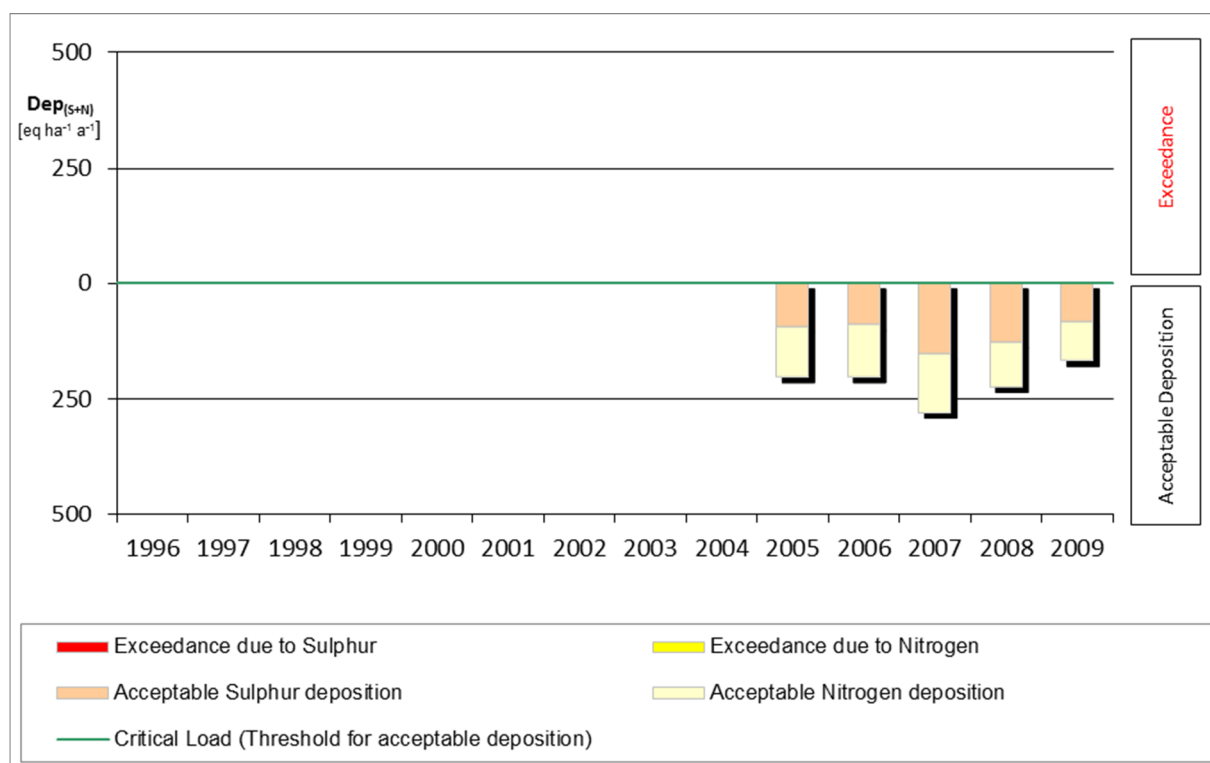
Deposition measured:

2005 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

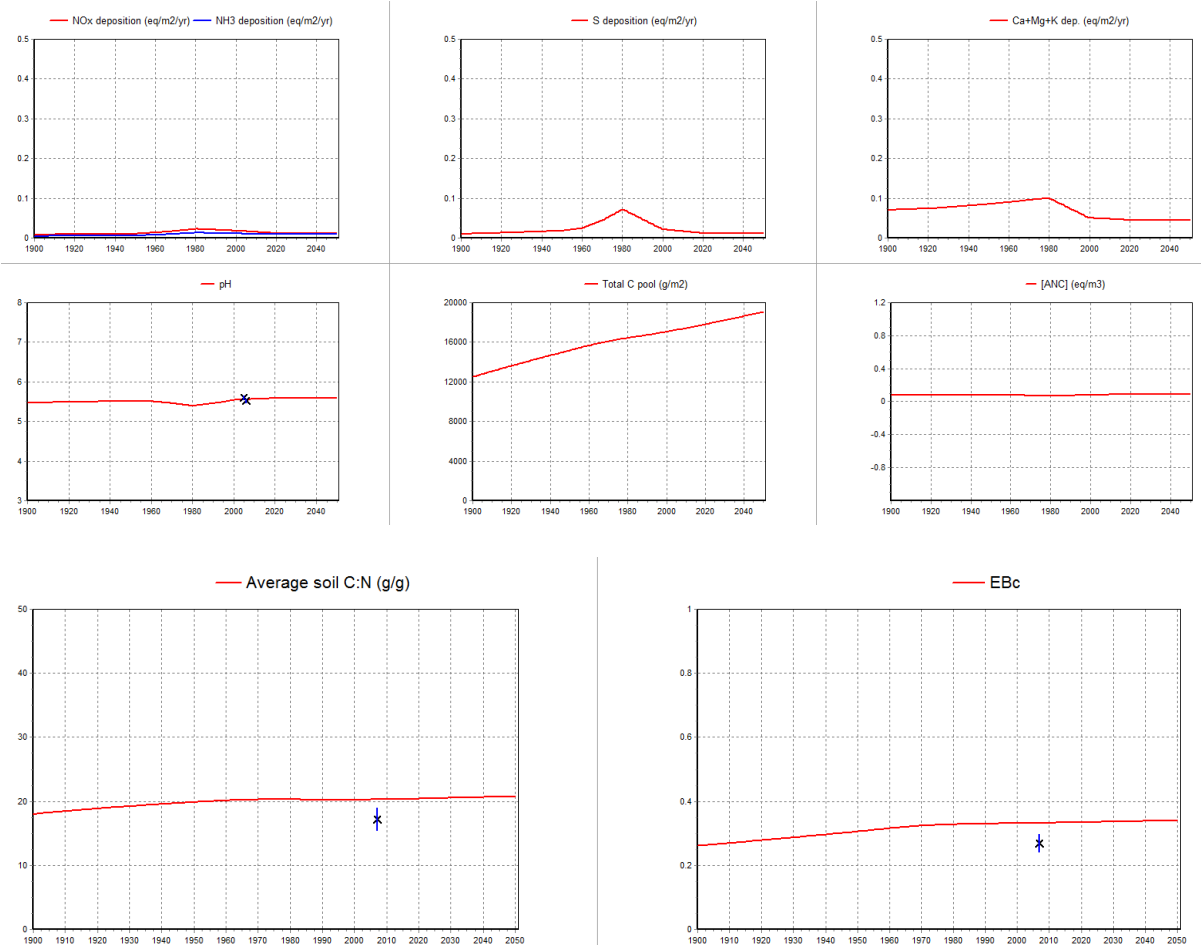
## ICP Forest Level II Site

ID 150033

Country: Finland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 530001

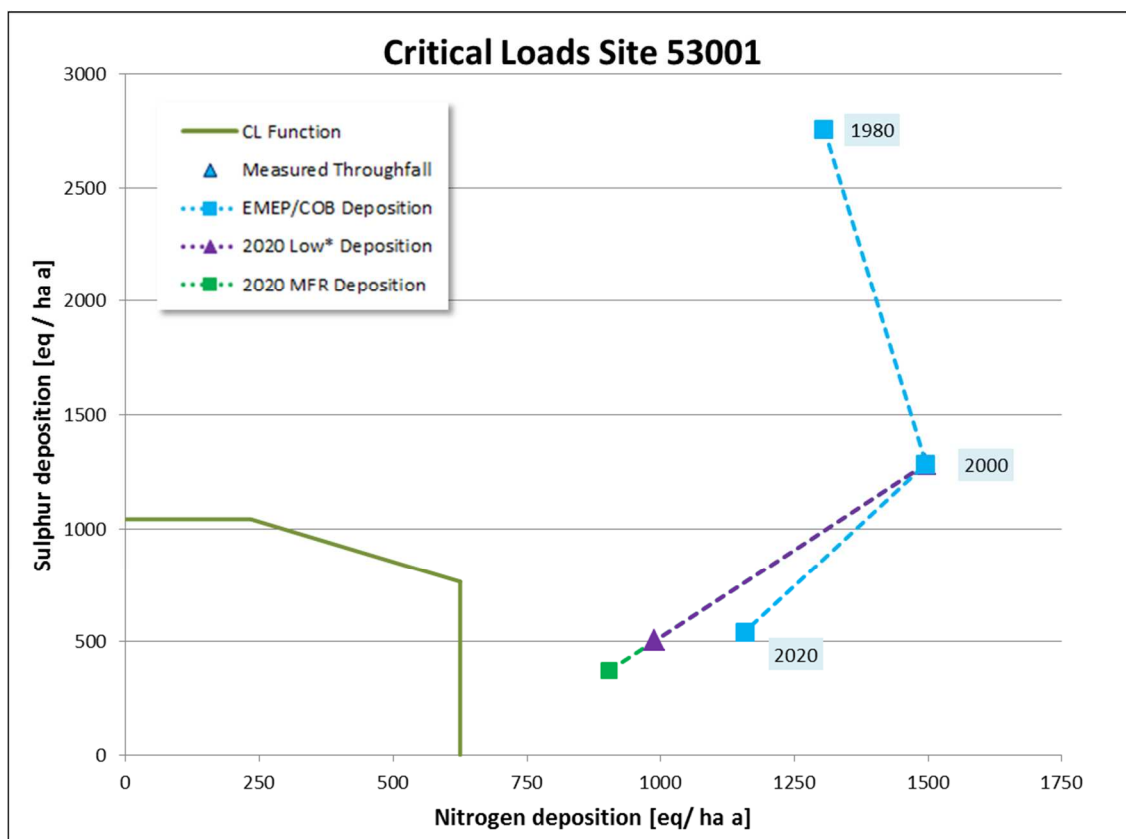
Country: Poland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge

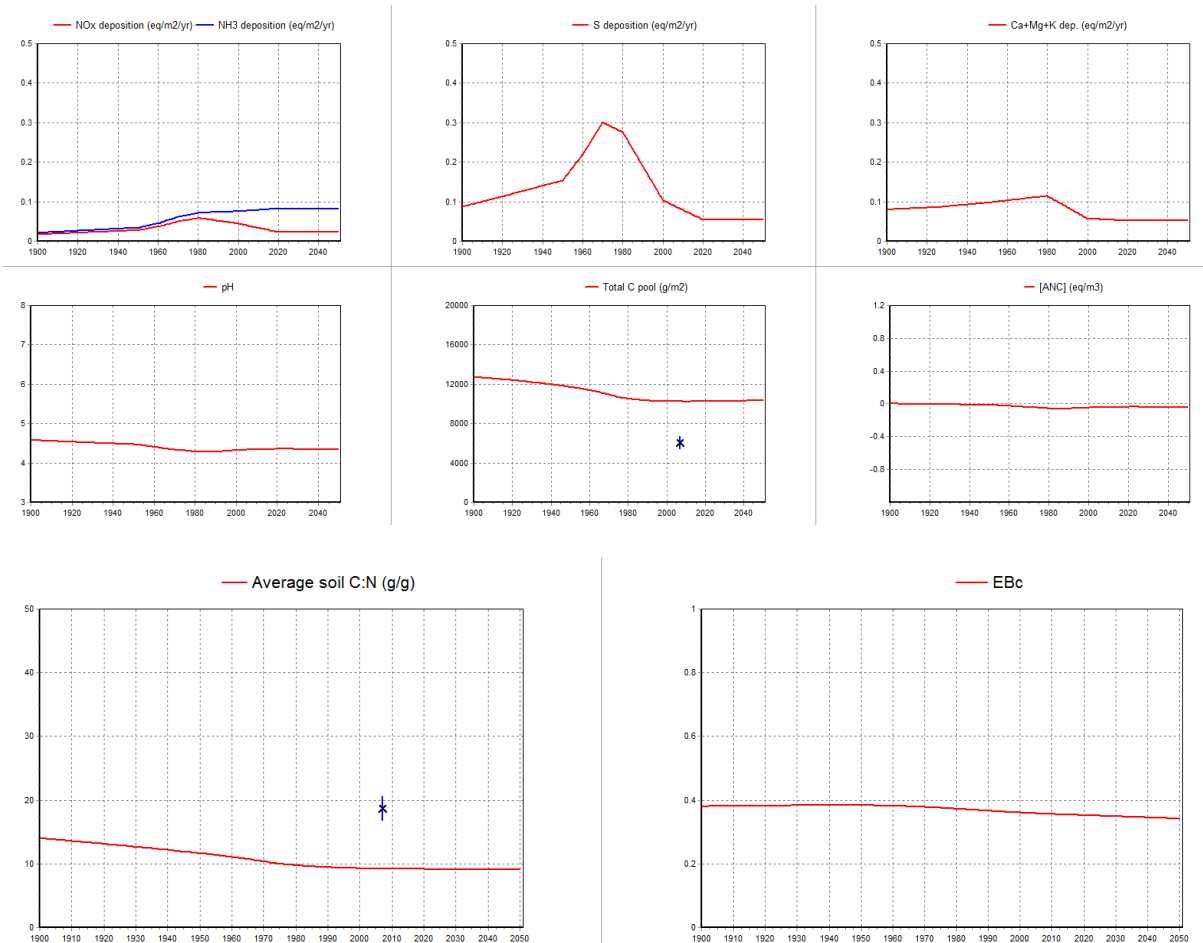
## ICP Forest Level II Site

ID 530001

Country: Poland

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site:

ID 530002

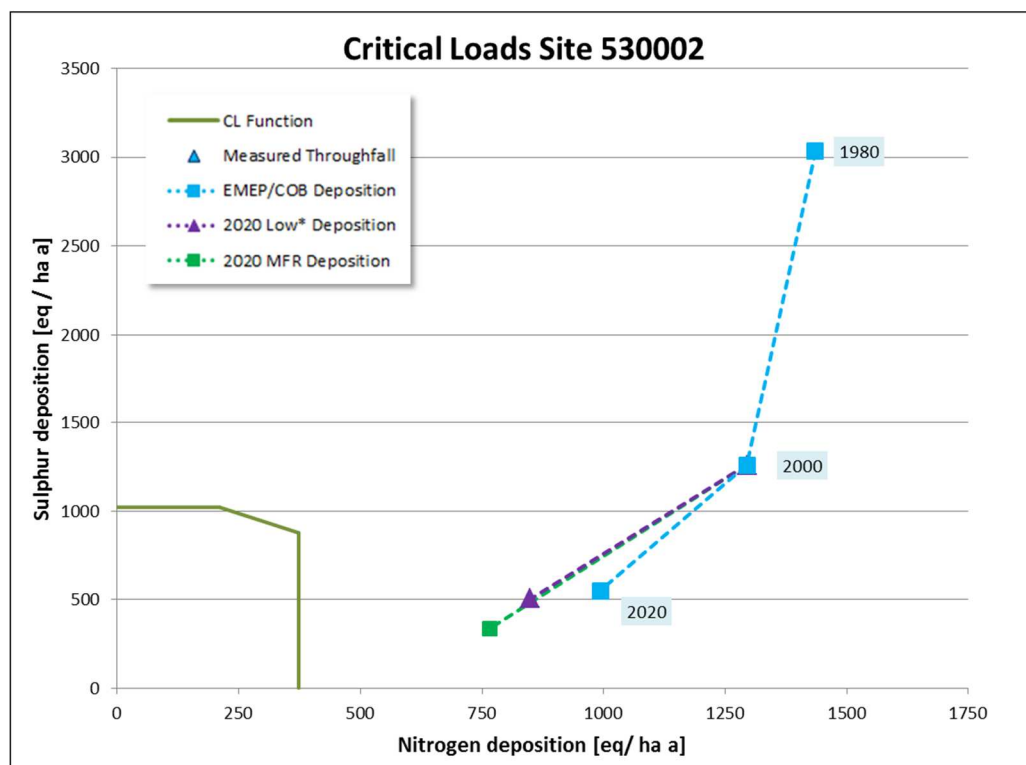
Country: Poland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 530003

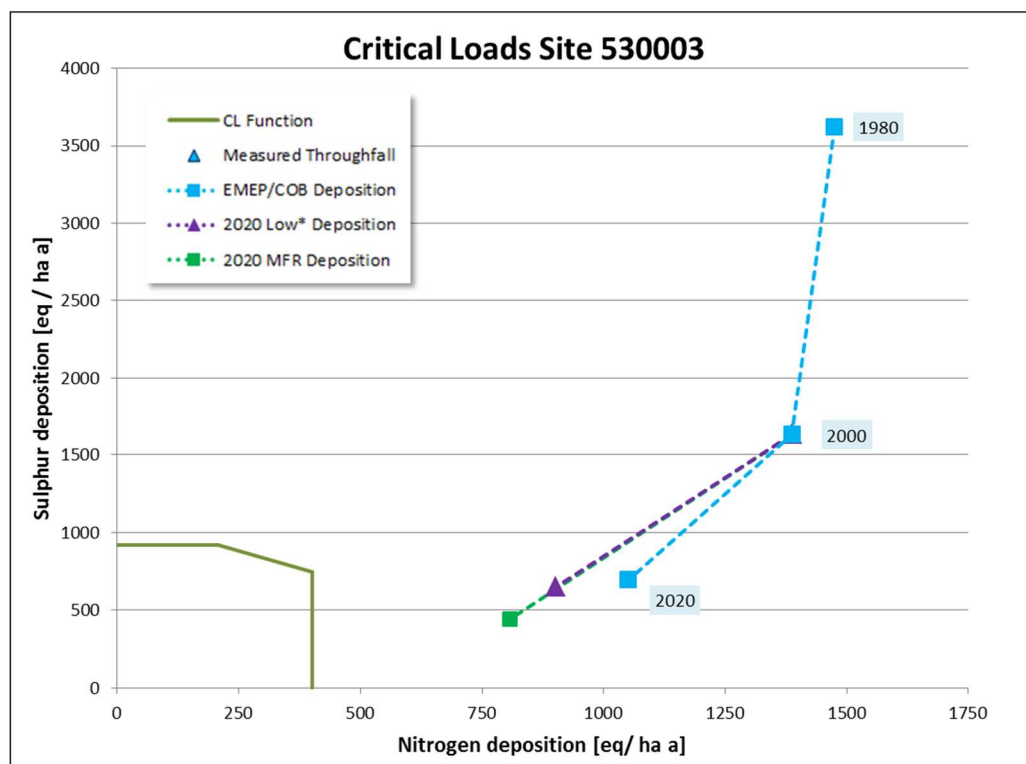
Country: Poland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 530004

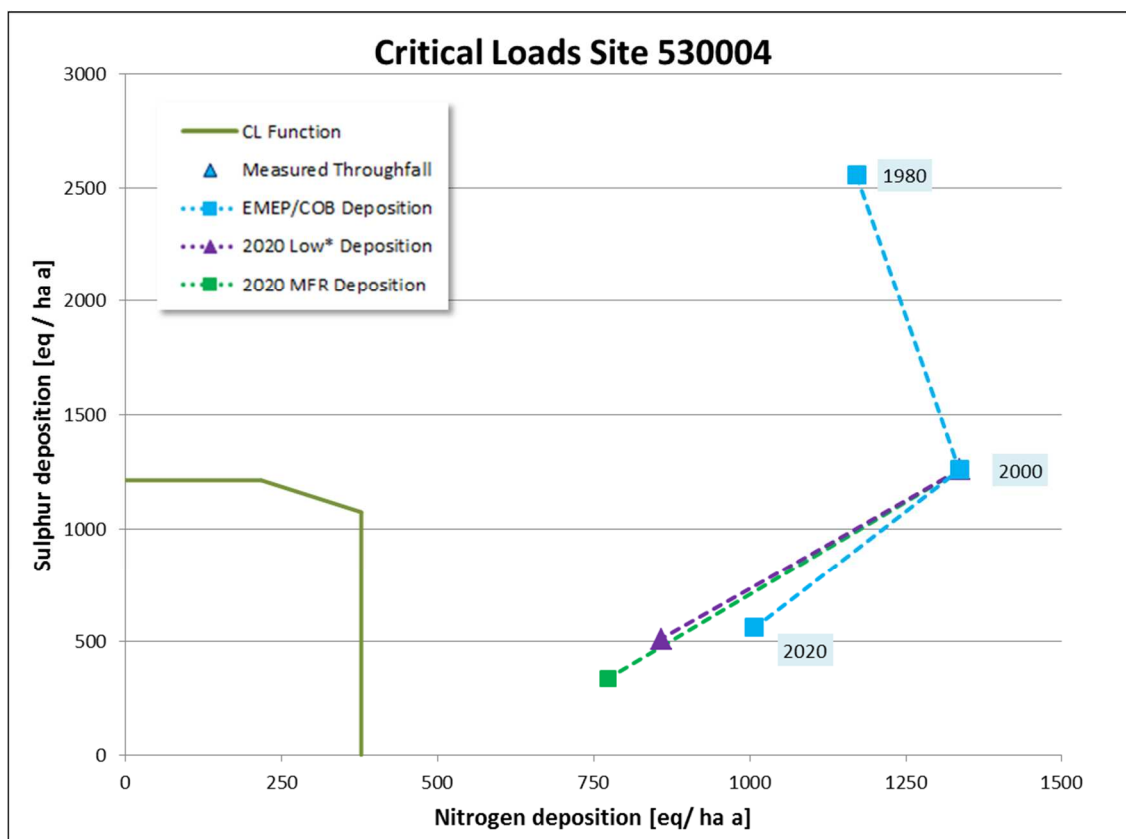
Country: Poland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge

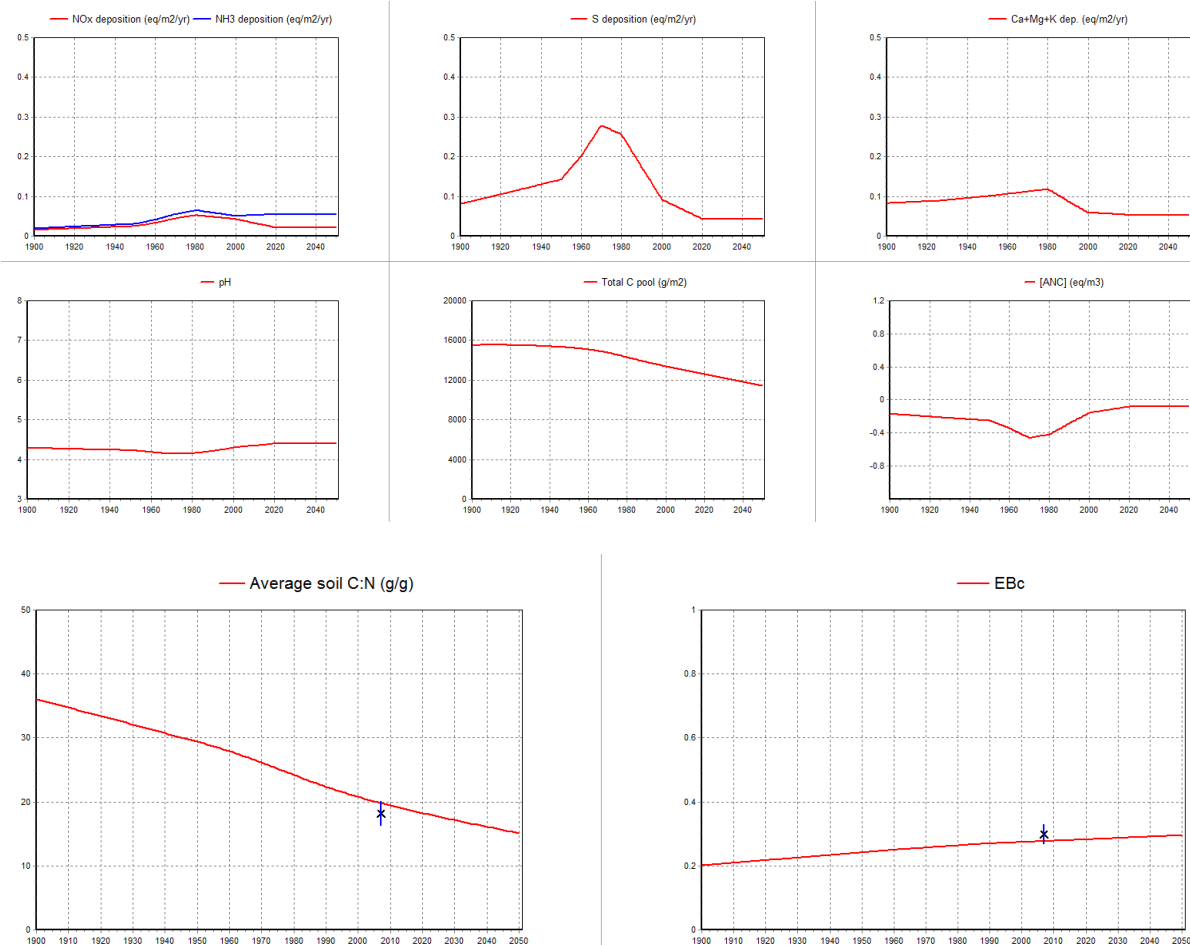
ICP Forest Level II Site

ID 530004

Country: Poland

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



ICP Forest Level II Site:

ID 530005

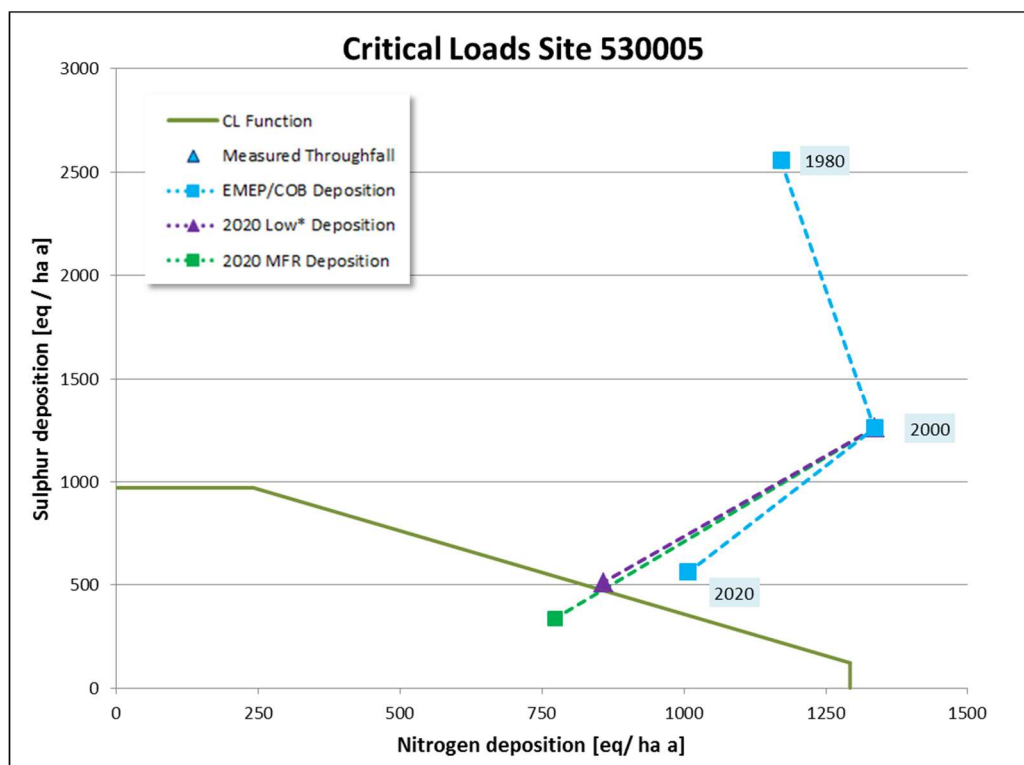
Country: Poland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site:

ID 530006

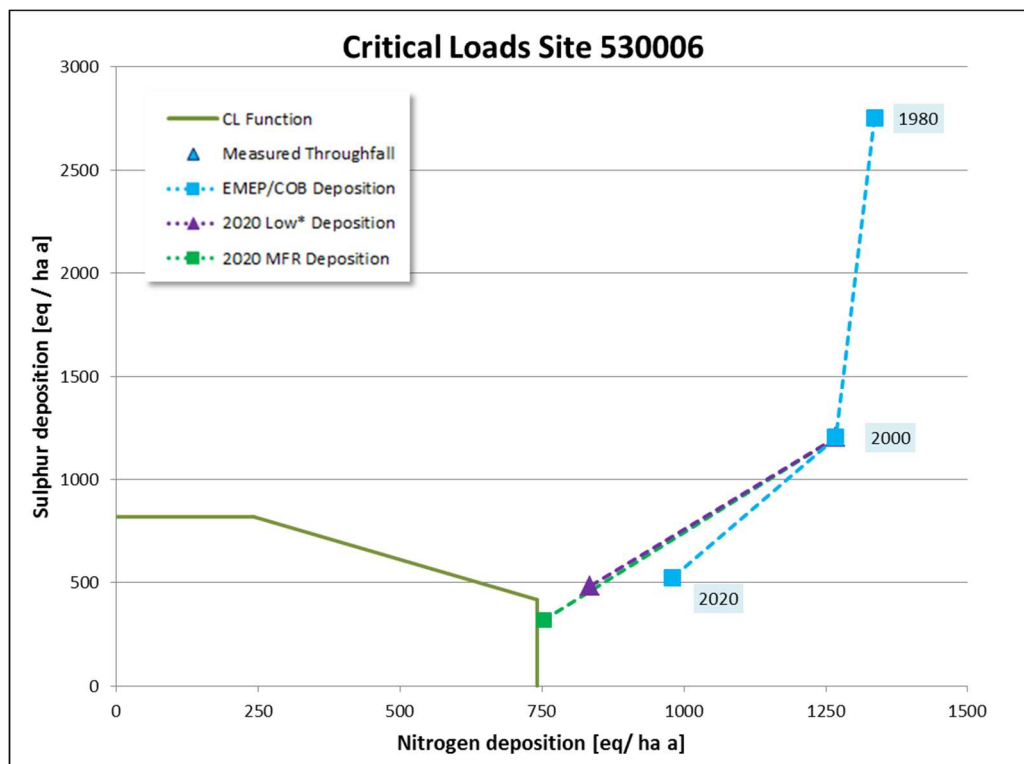
Country: Poland

Critical Load calculation:

SMB method

Deposition modelled:

EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



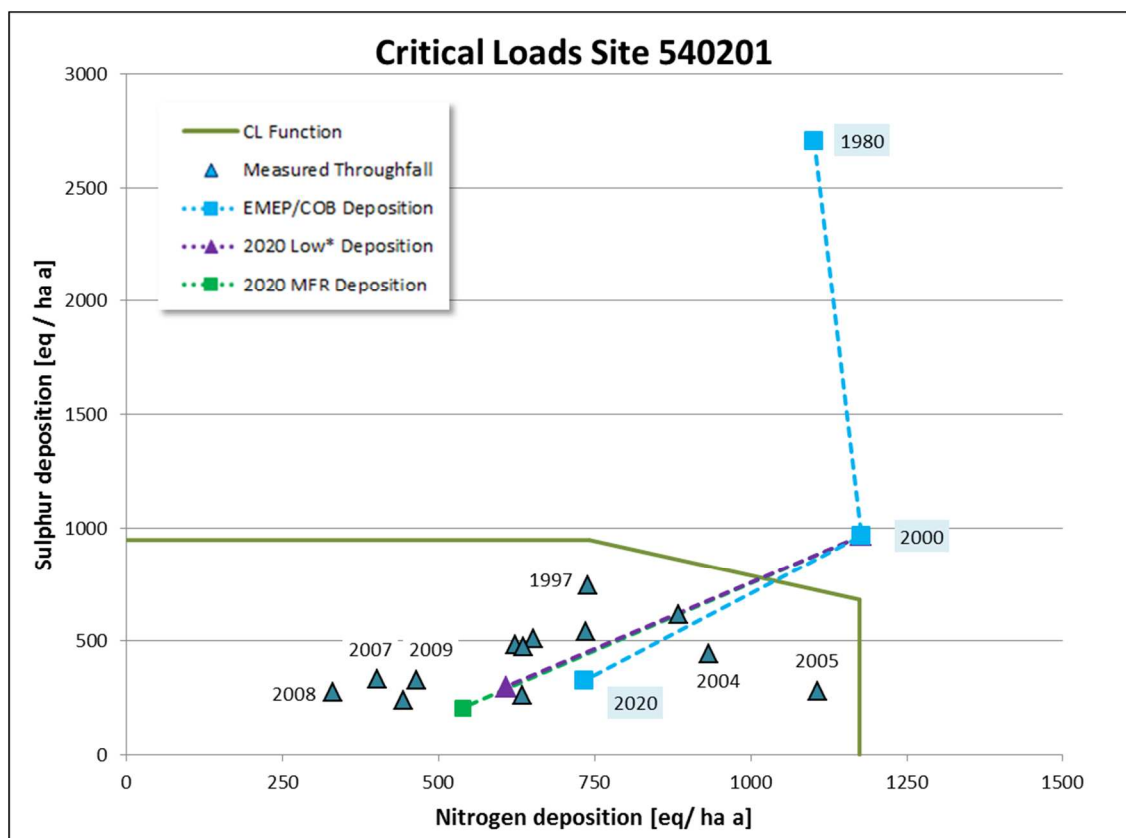
Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site: ID 540201 Country: Slovak Republic

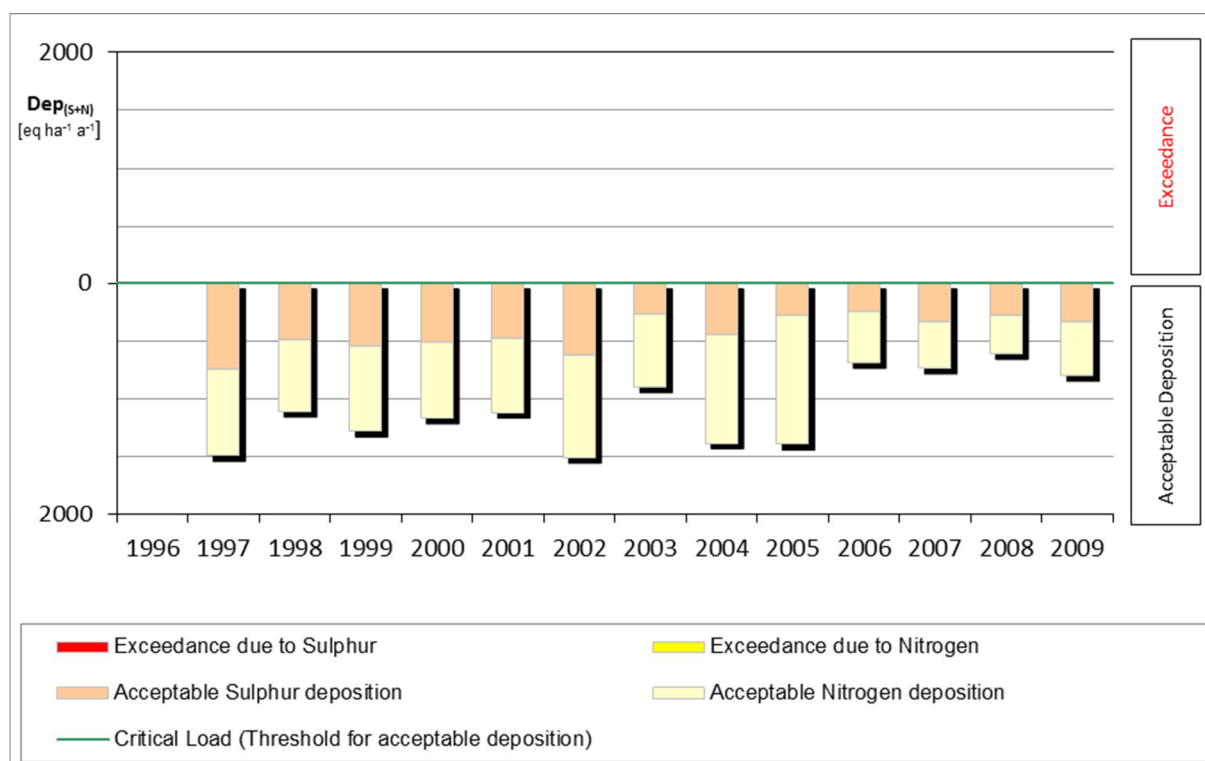
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1997 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

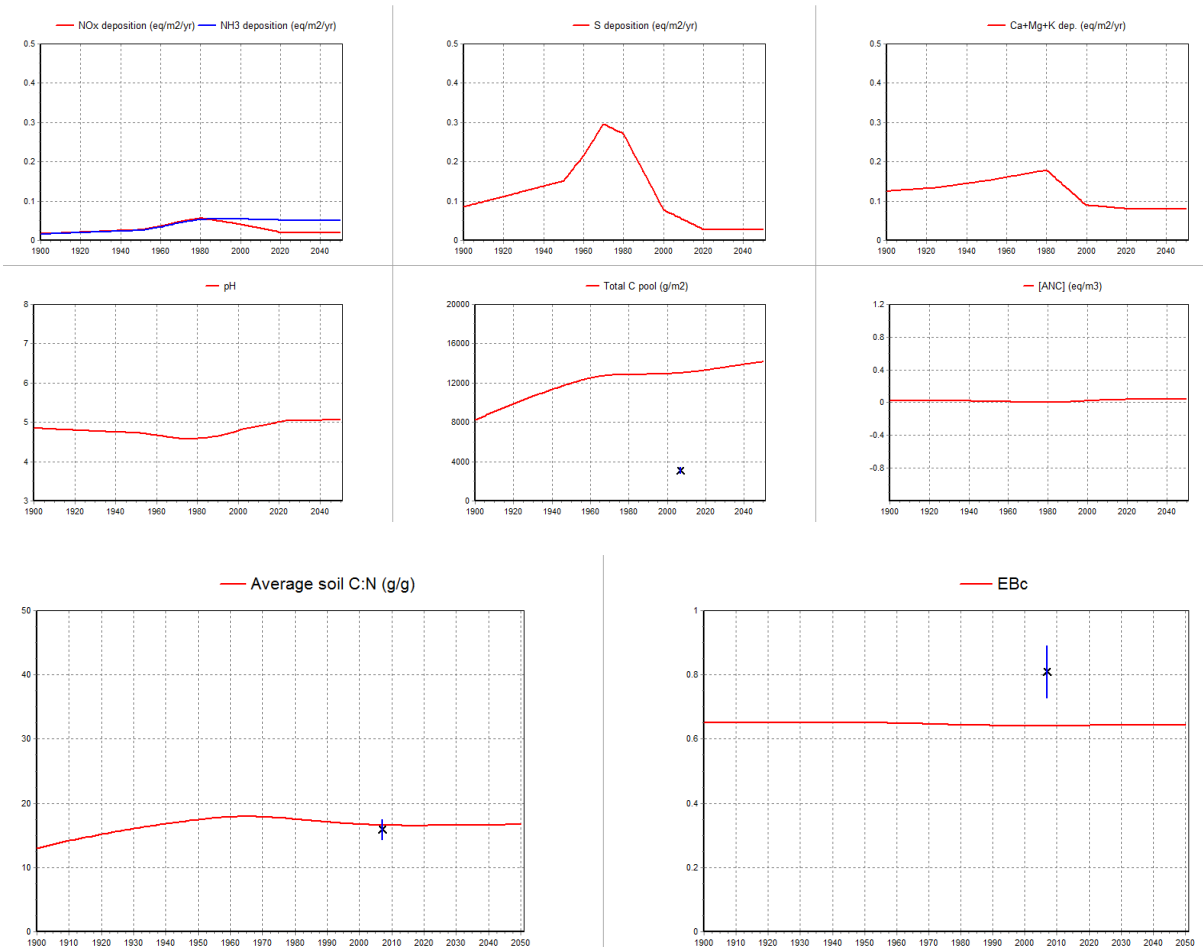
## ICP Forest Level II Site

ID 540201

Country: Slovak Republic

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

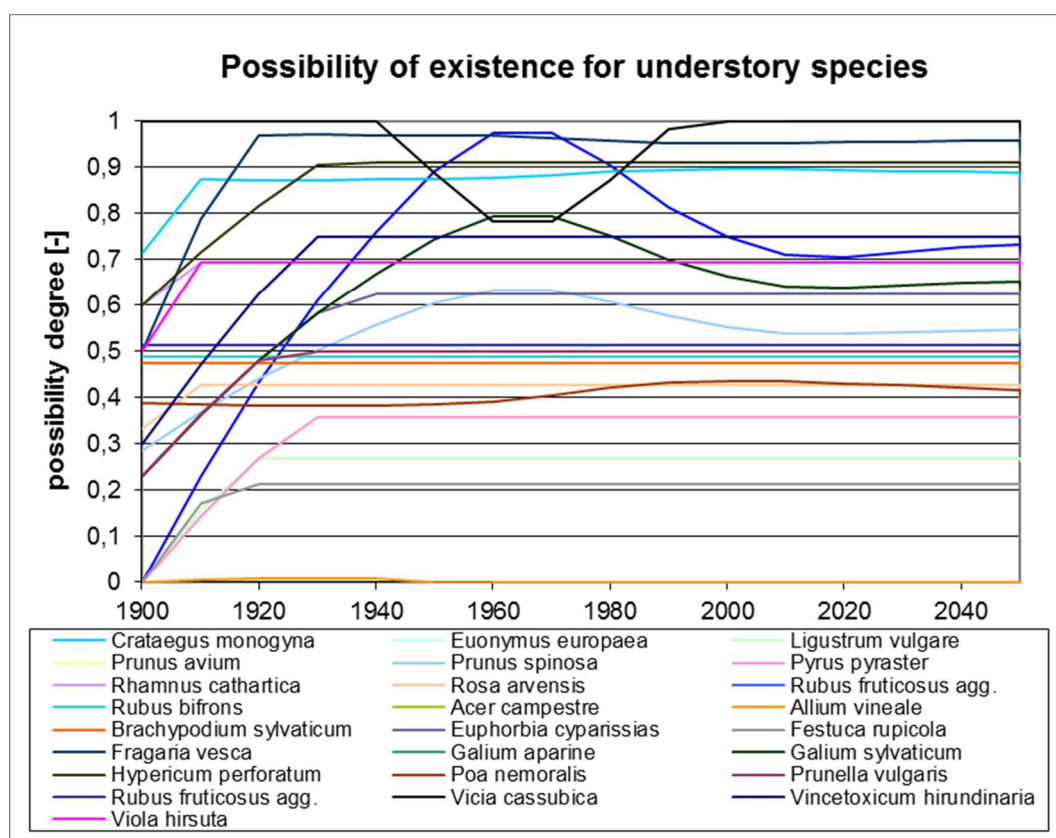
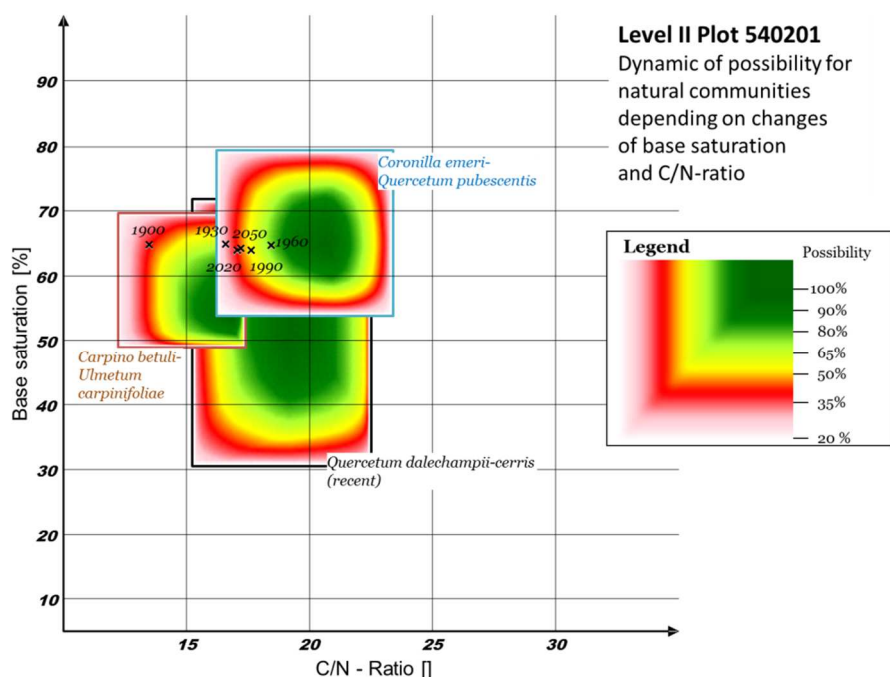
ICP Forest Level II Site

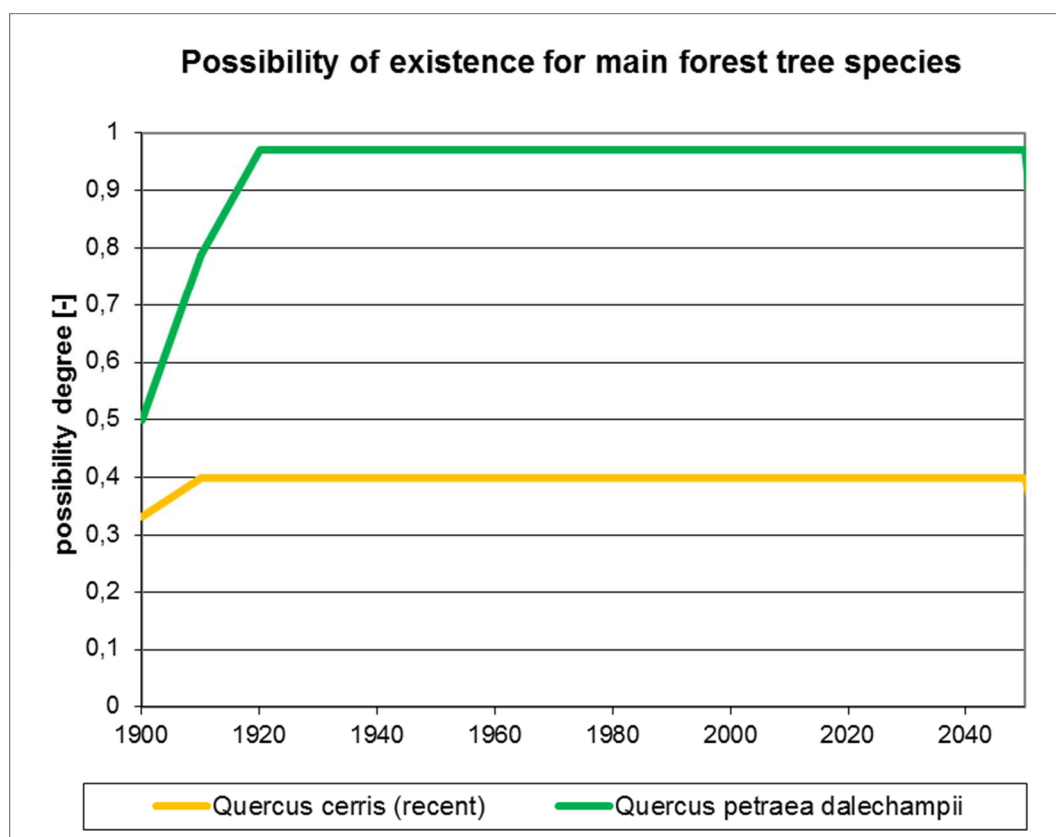
ID 540201

Country: Slovak Republic

BERN model

biodiversity effects





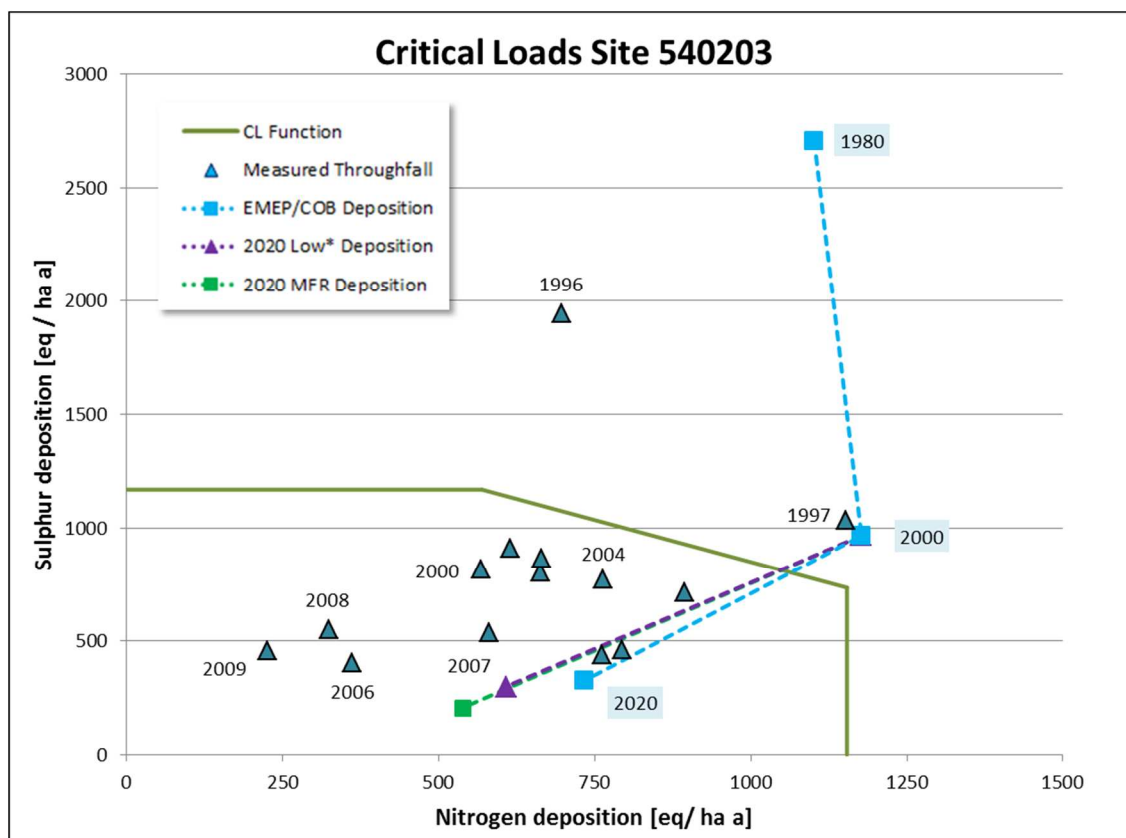
Conclusion: Changes in main tree species are recommended

ICP Forest Level II Site: ID 540203 Country: Slovak Republic

Critical Load calculation: SMB method

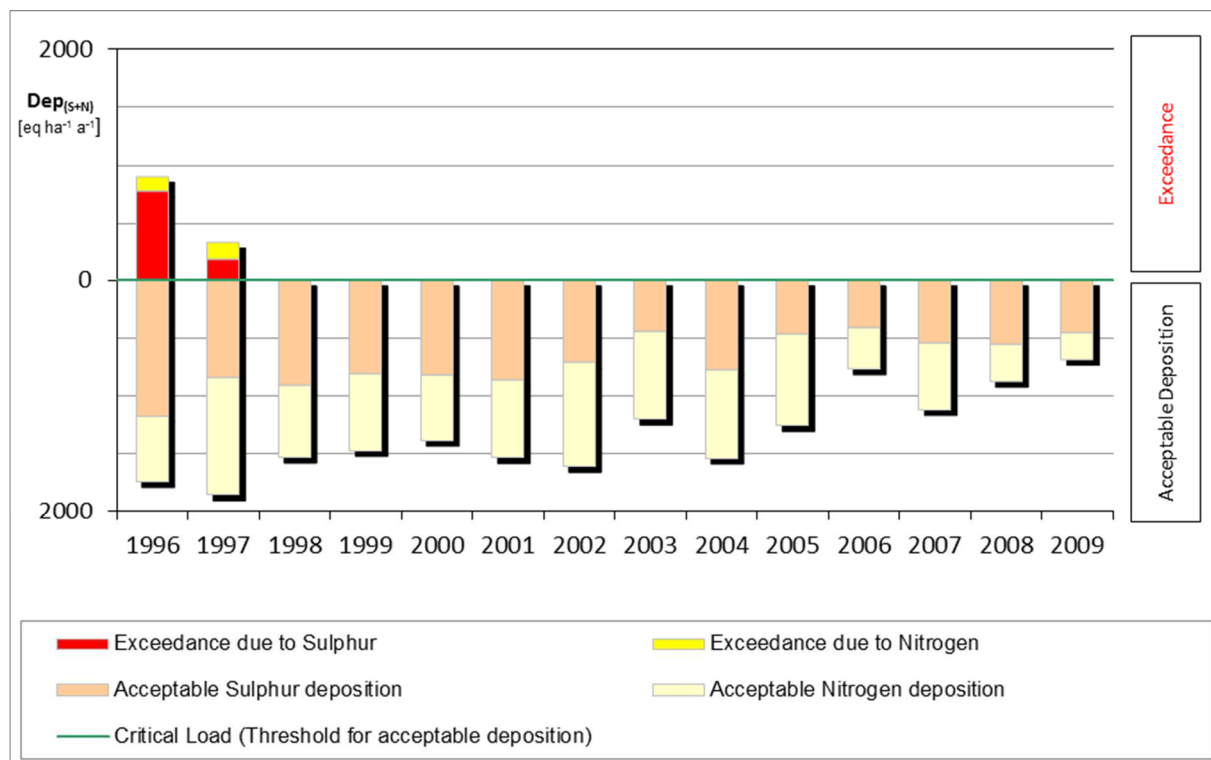
Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

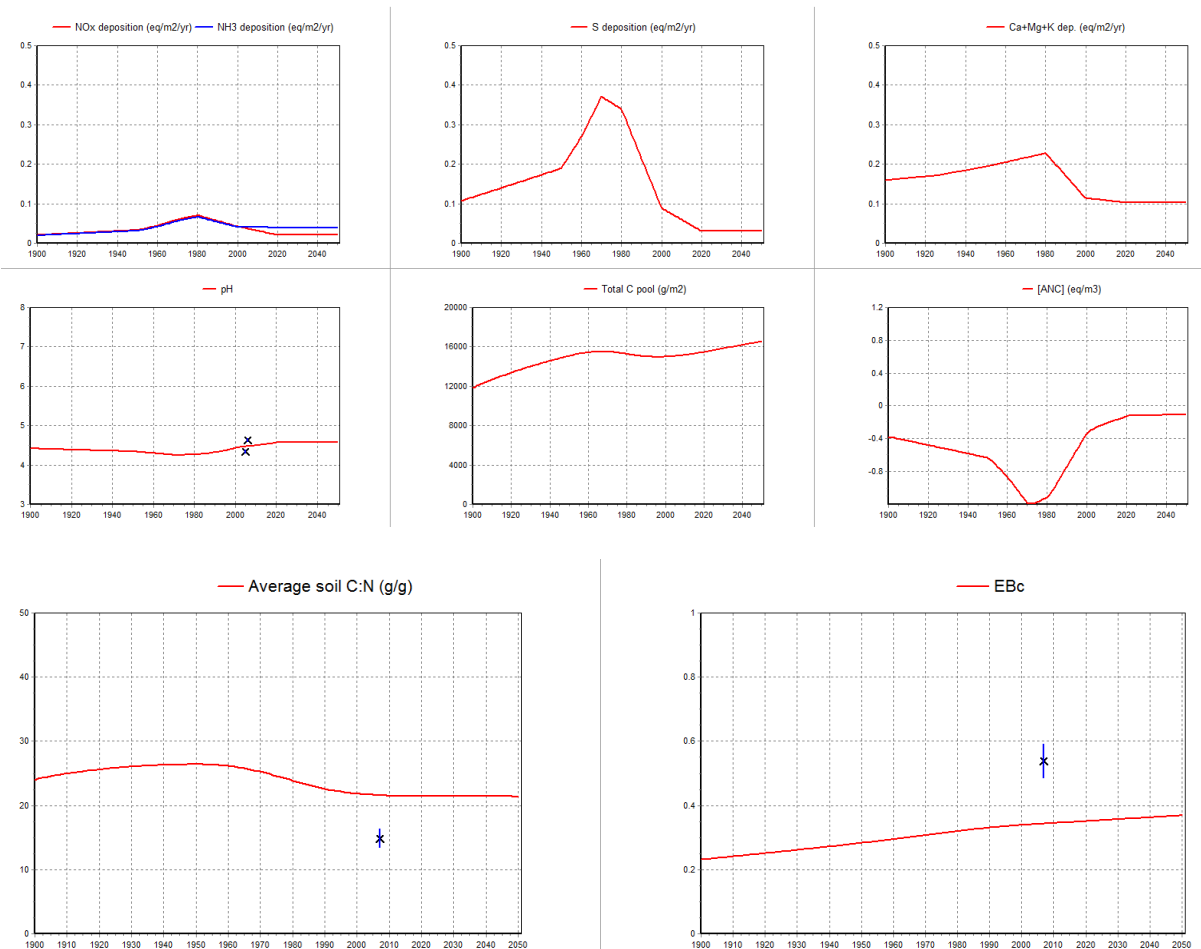
## ICP Forest Level II Site

ID 540203

Country: Slovak Republic

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

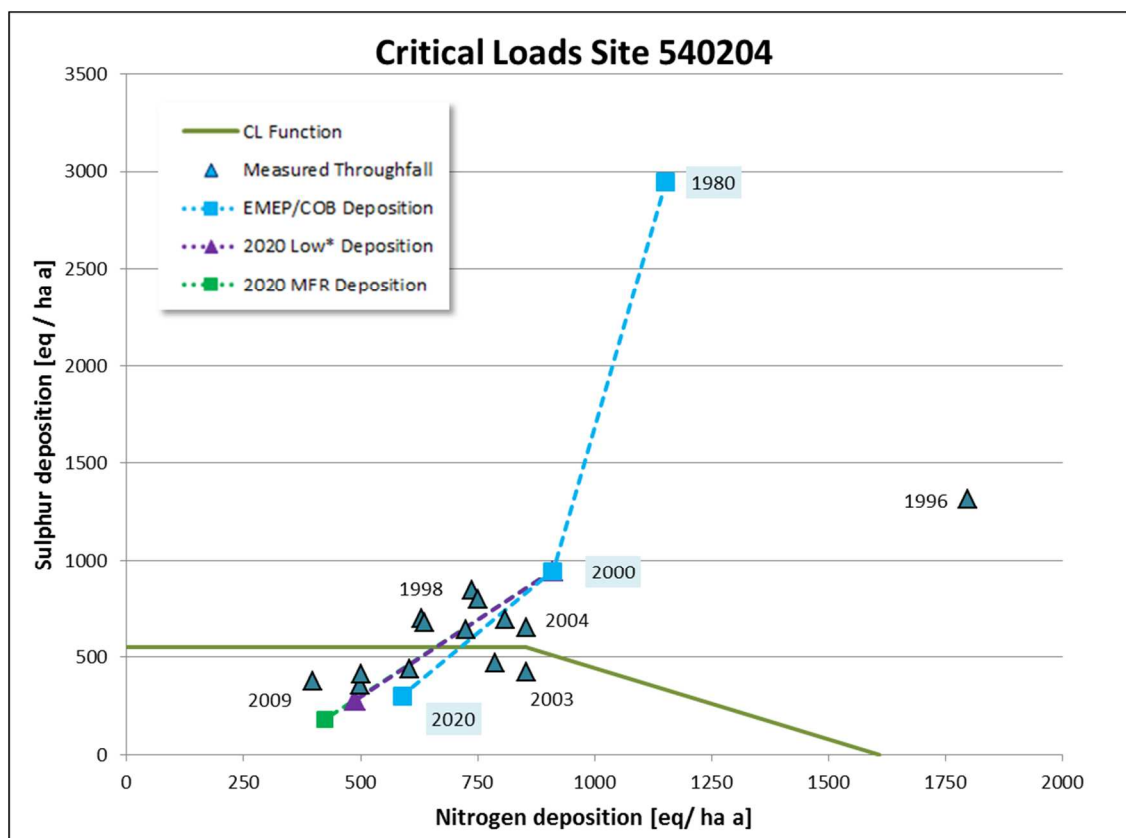
ICP Forest Level II Site: ID 540204

Country: Slovak Republic

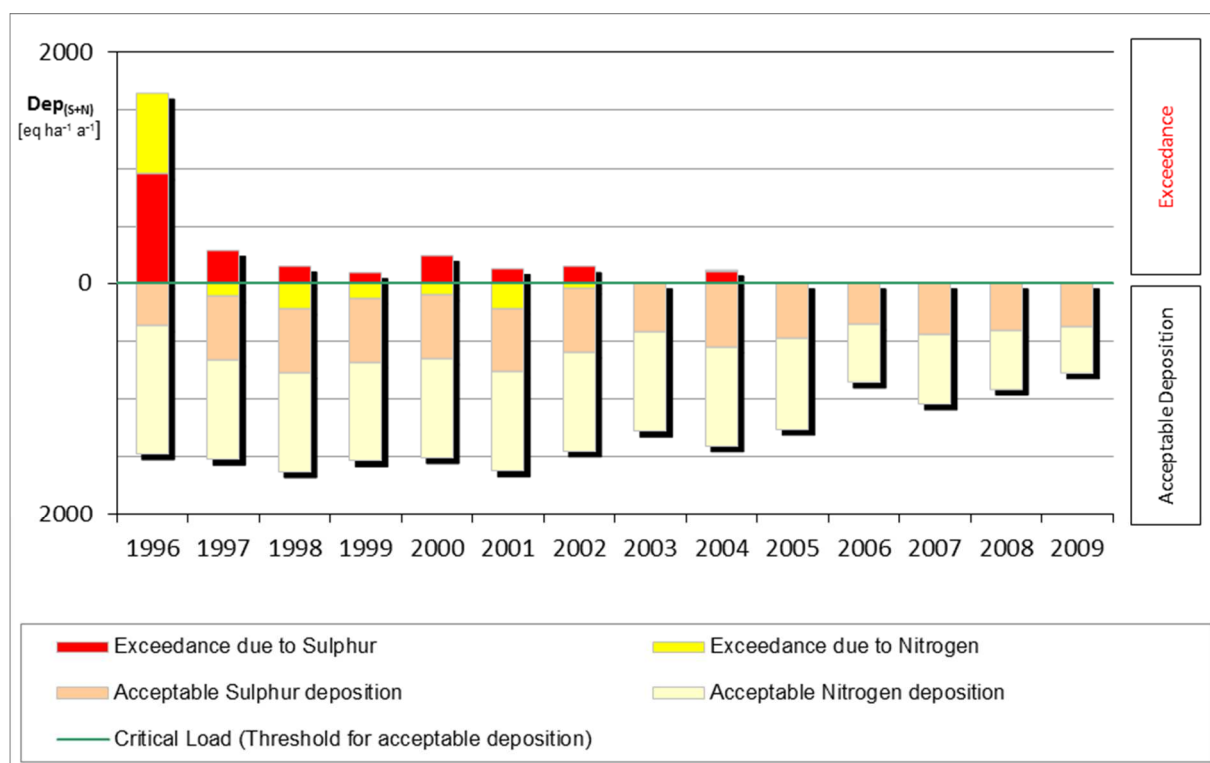
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

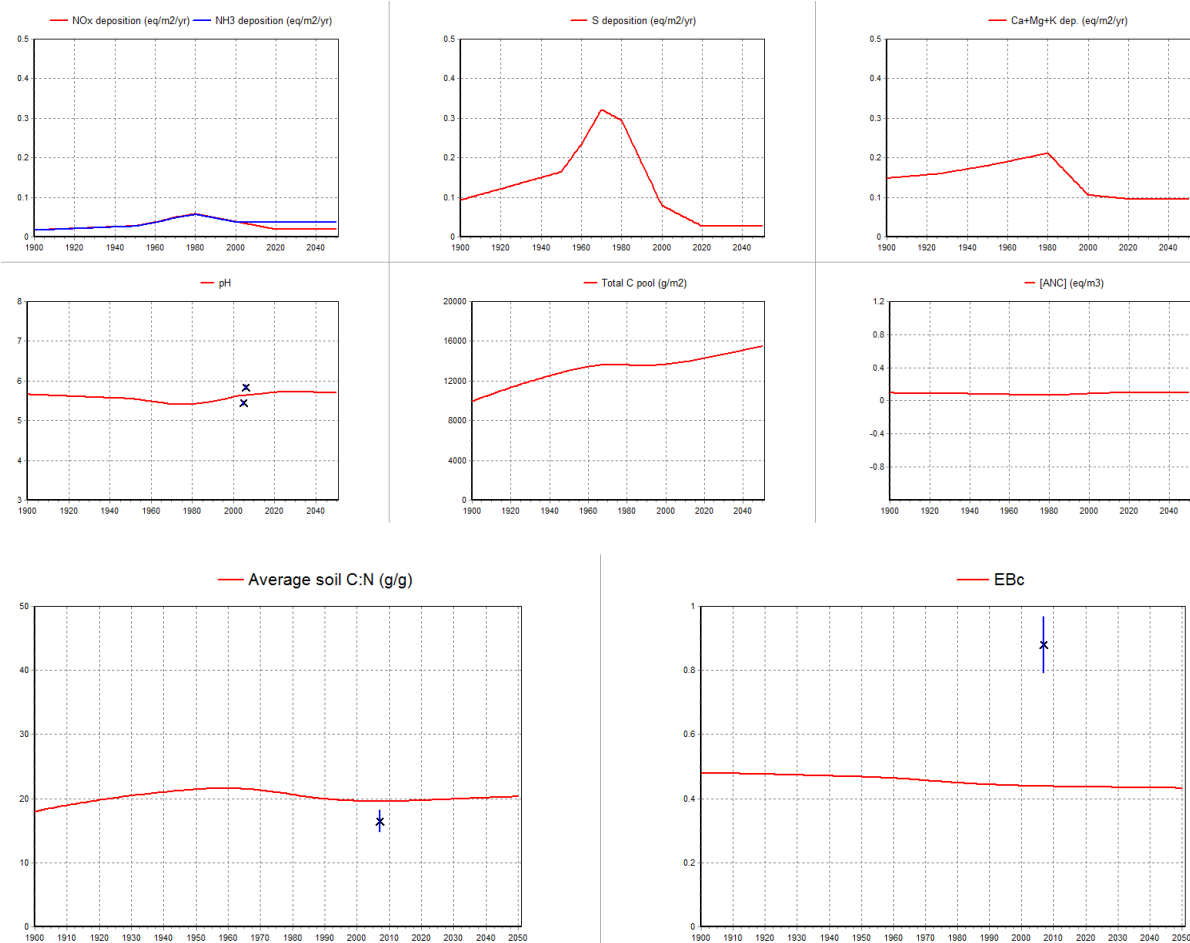
## ICP Forest Level II Site

ID 540204

Country: Slovak Republic

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

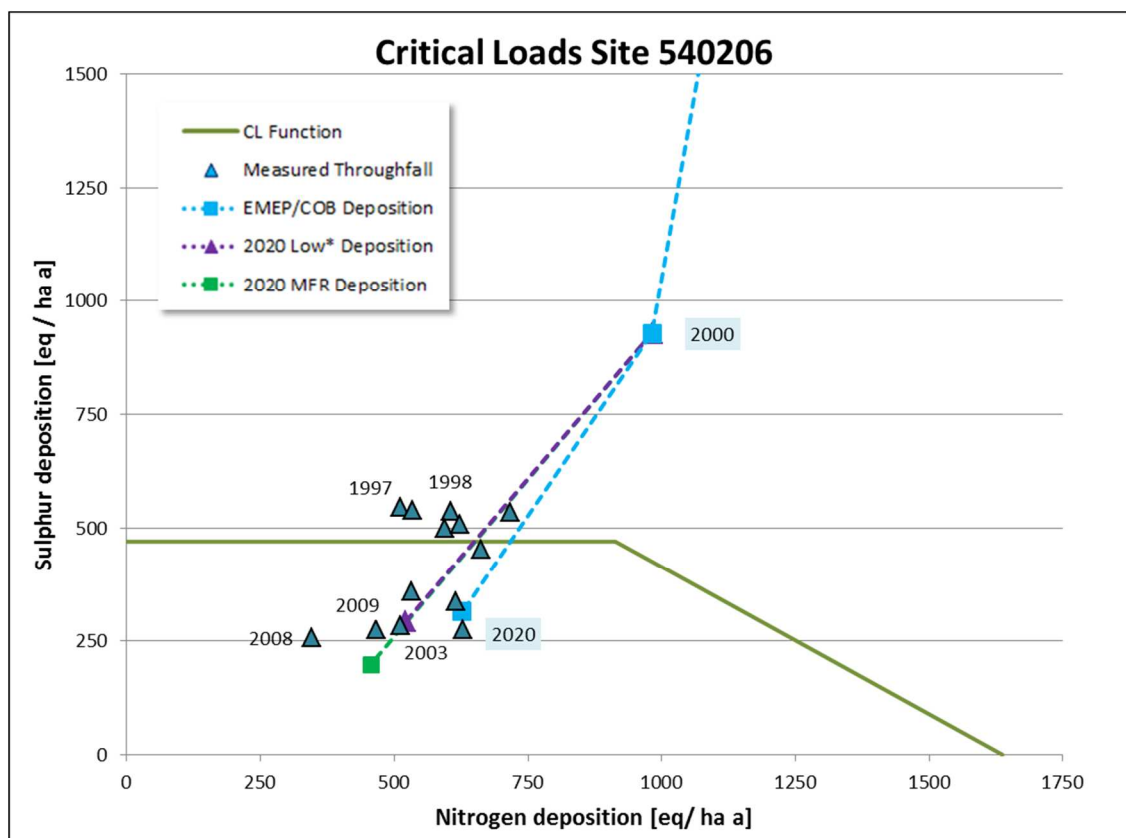
ICP Forest Level II Site: ID 540206

Country: Slovak Republic

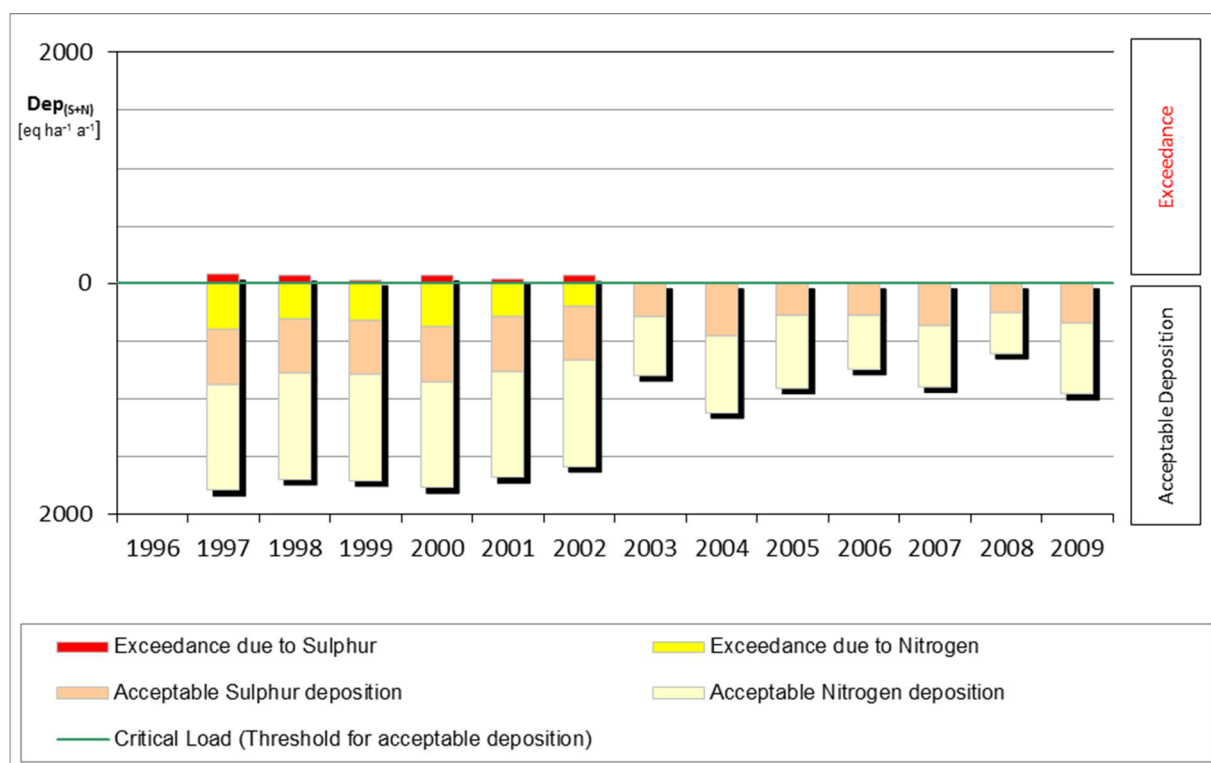
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1997 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

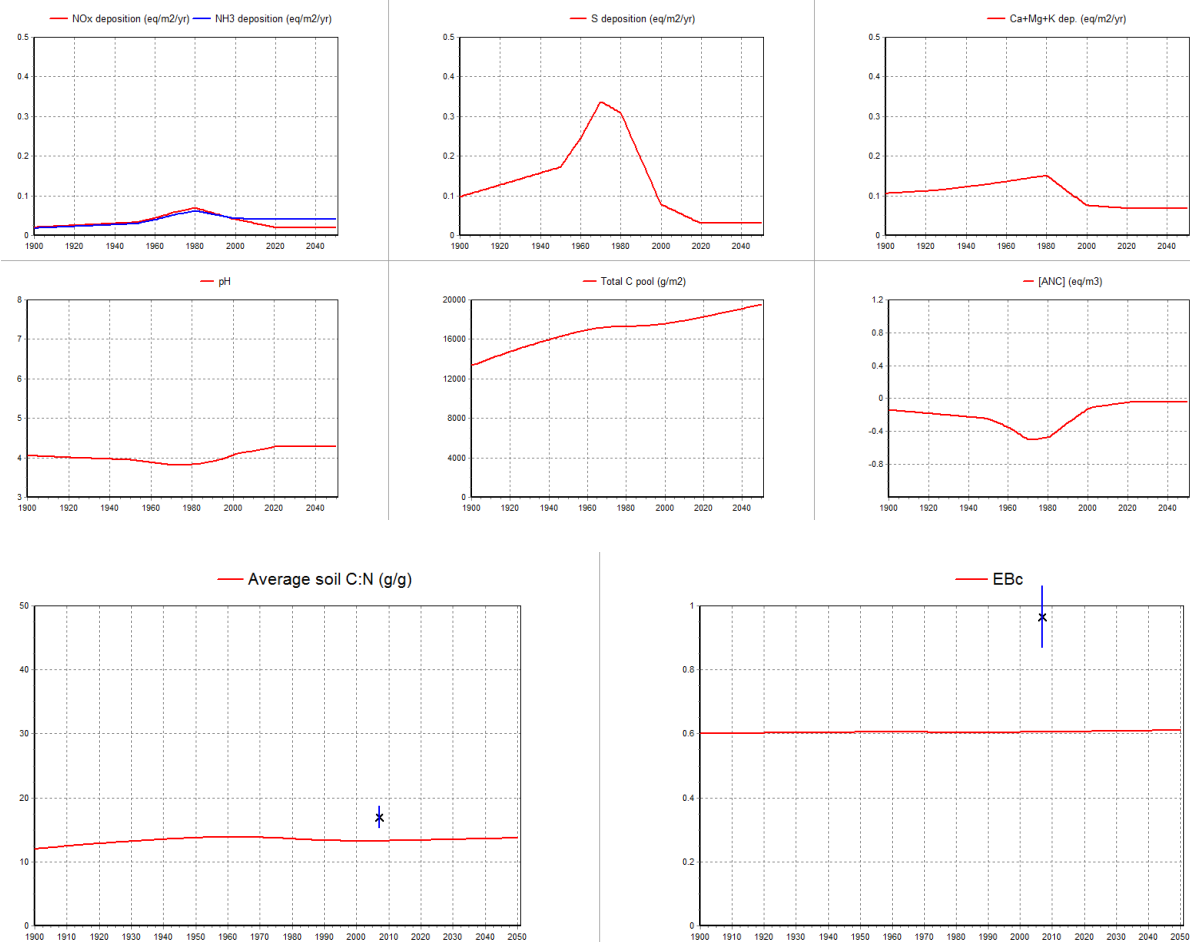
ICP Forest Level II Site

ID 540206

Country: Slovak Republic

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)



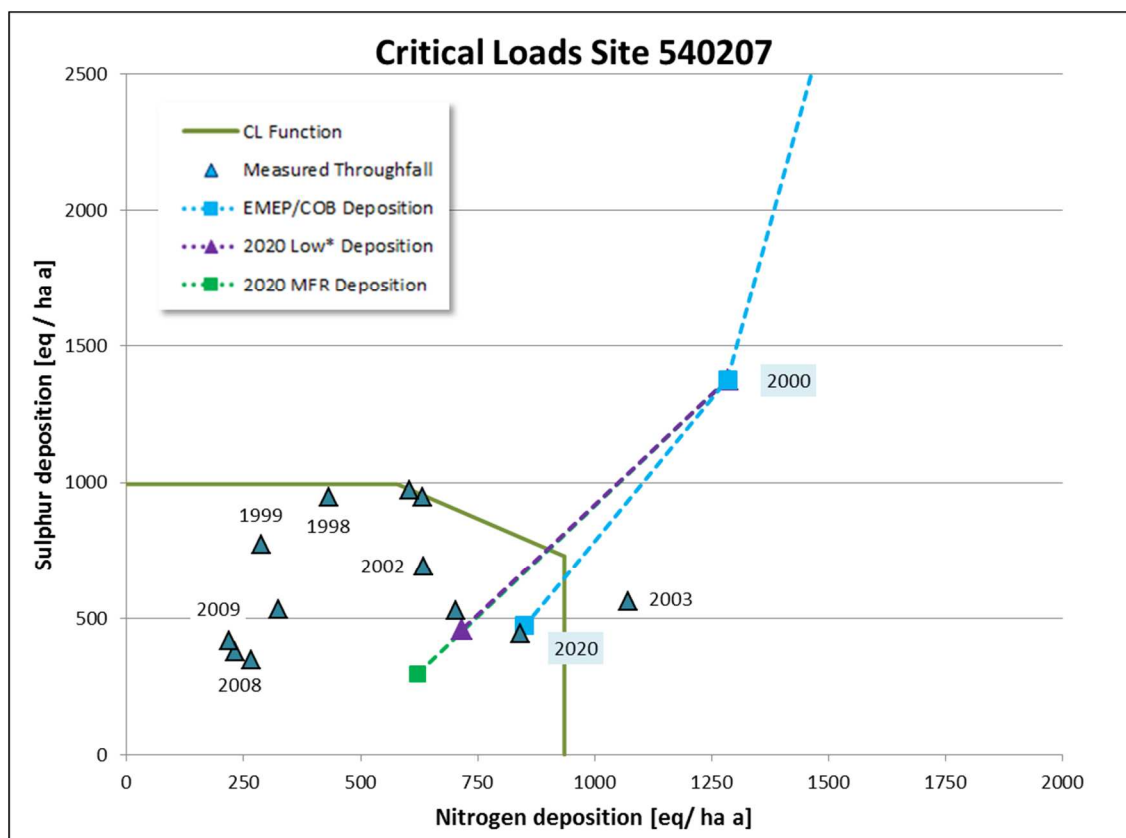
ICP Forest Level II Site: ID 540207

Country: Slovak Republic

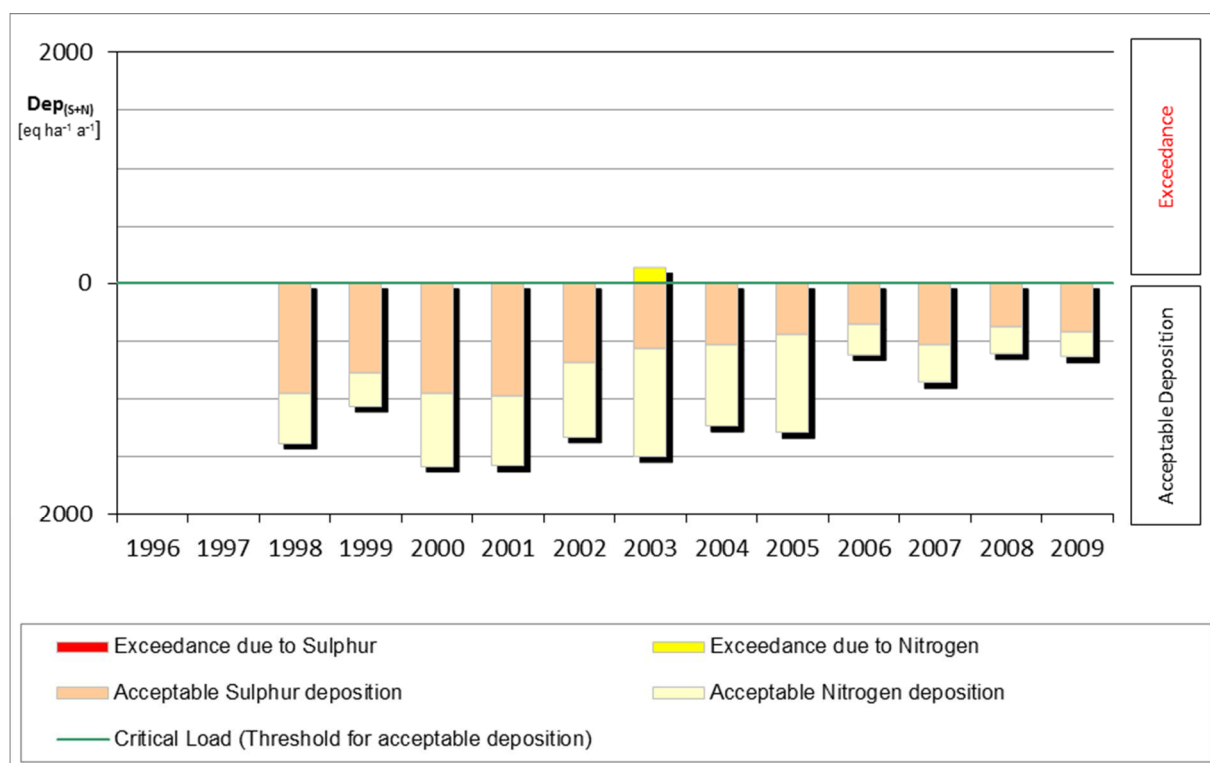
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1998 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

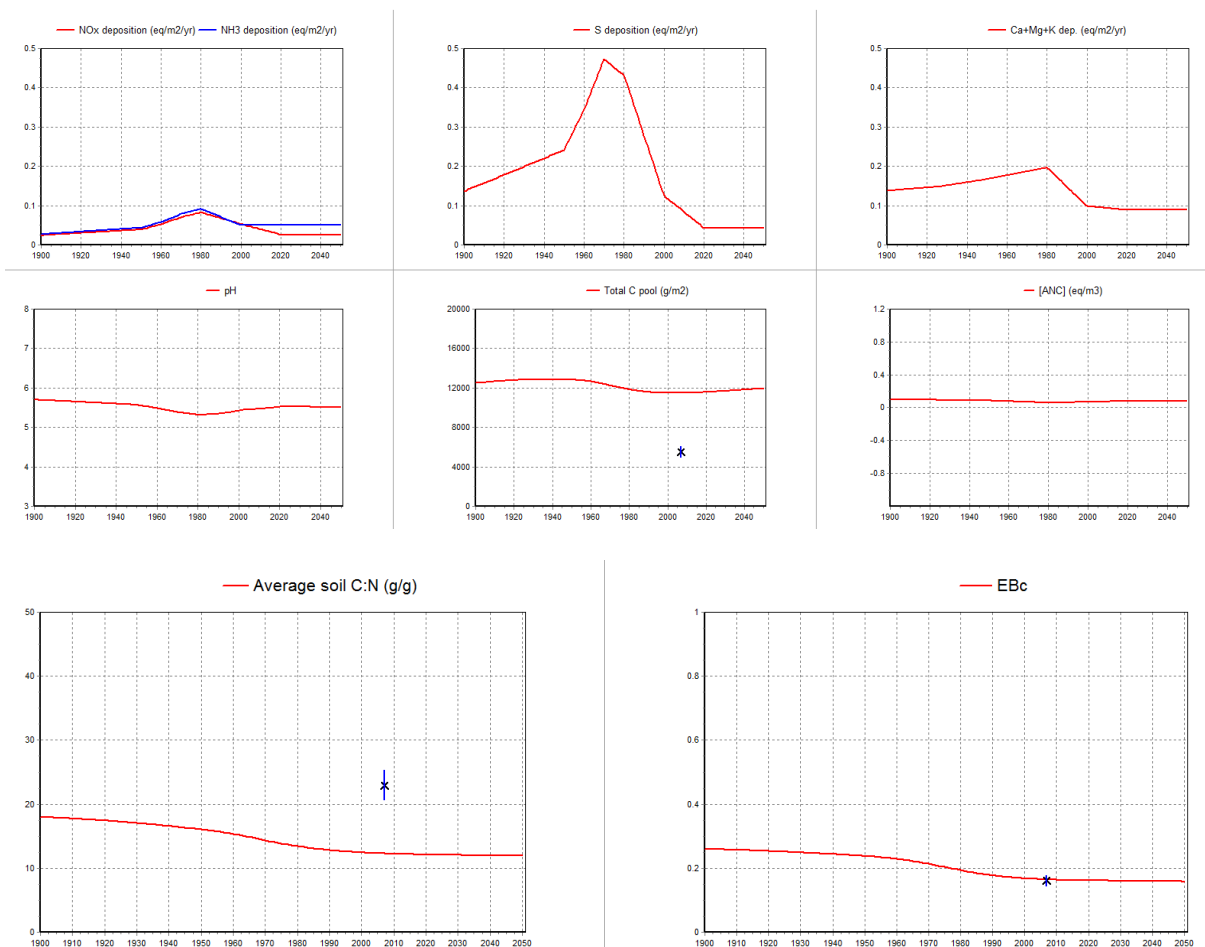
## ICP Forest Level II Site

ID 540207

Country: Slovak Republic

VSD+ model

geochemical dynamics



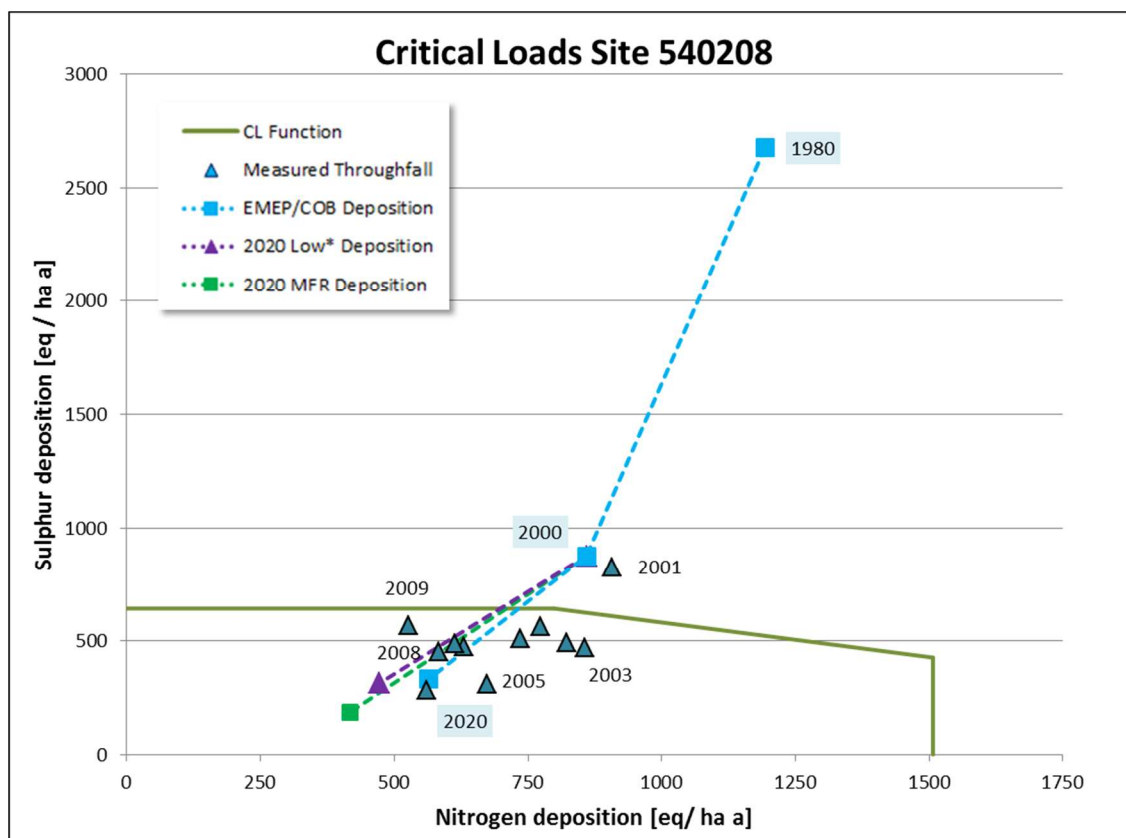
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: ID 540208 Country: Slovak Republic

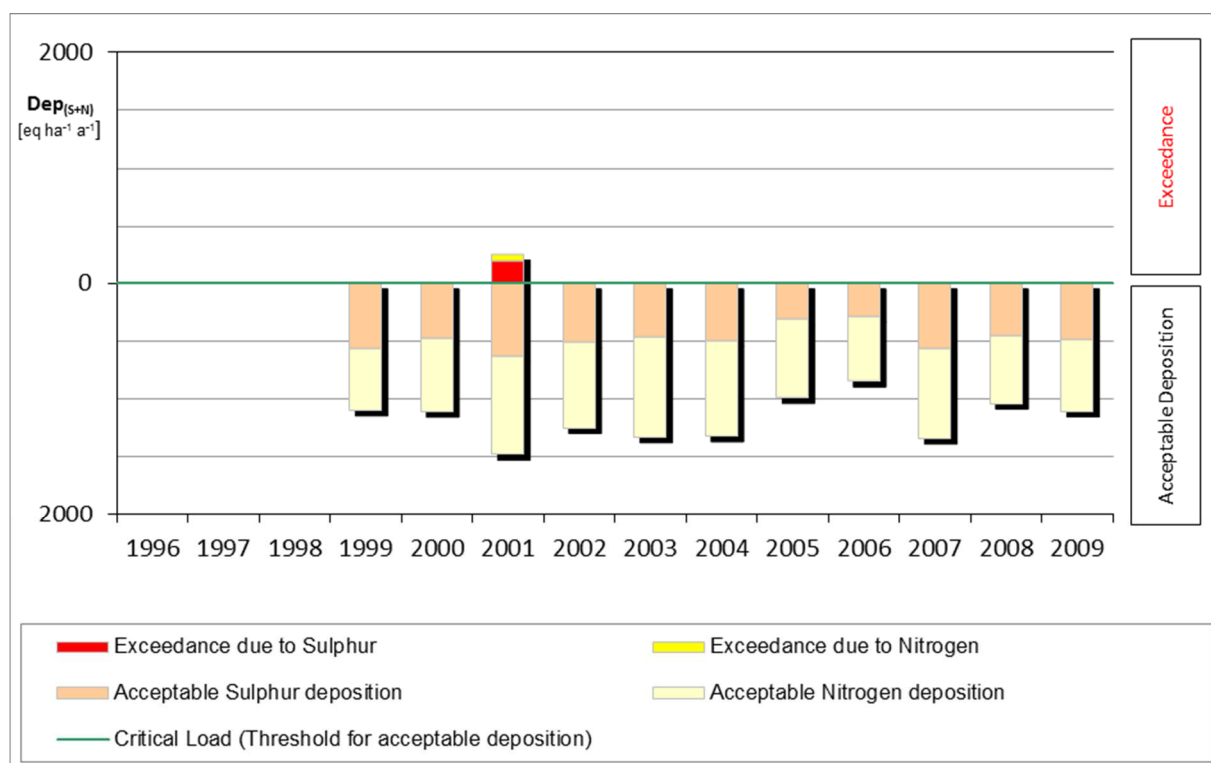
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1999 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

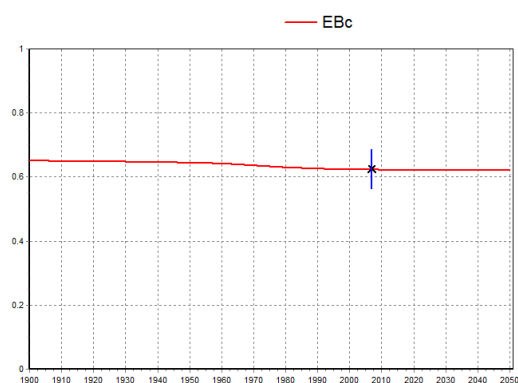
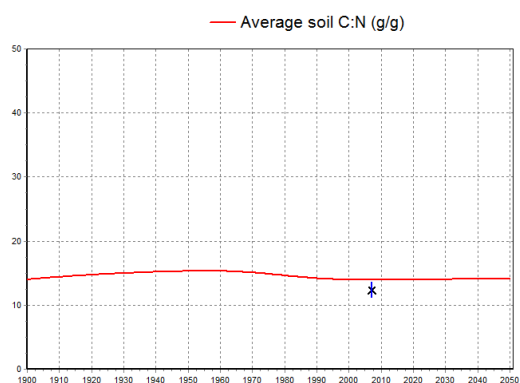
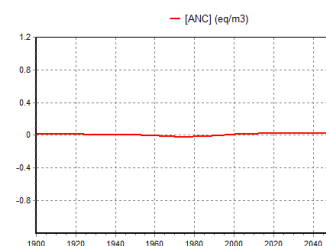
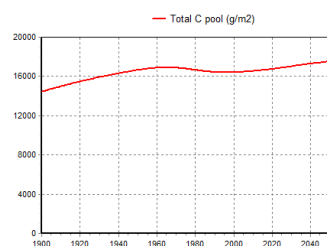
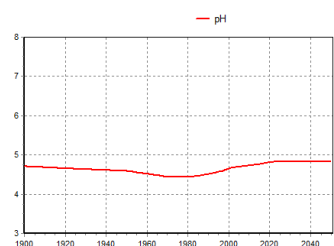
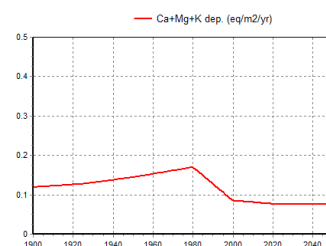
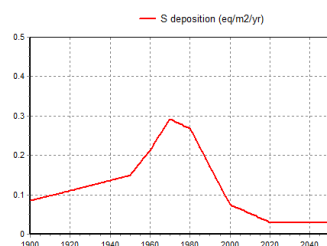
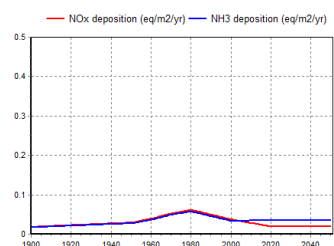
ICP Forest Level II Site

ID 540208

Country: Slovak Republic

VSD+ model

geochemical dynamics



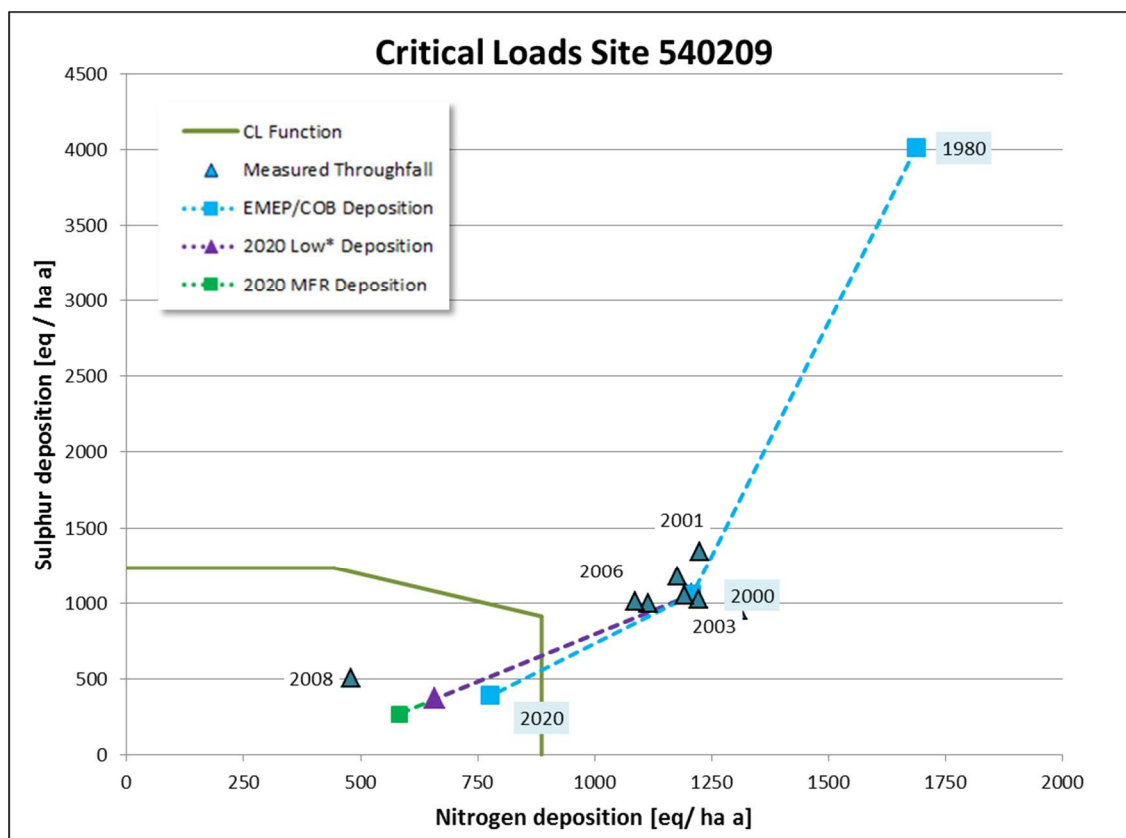
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: ID 540209 Country: Slovak Republic

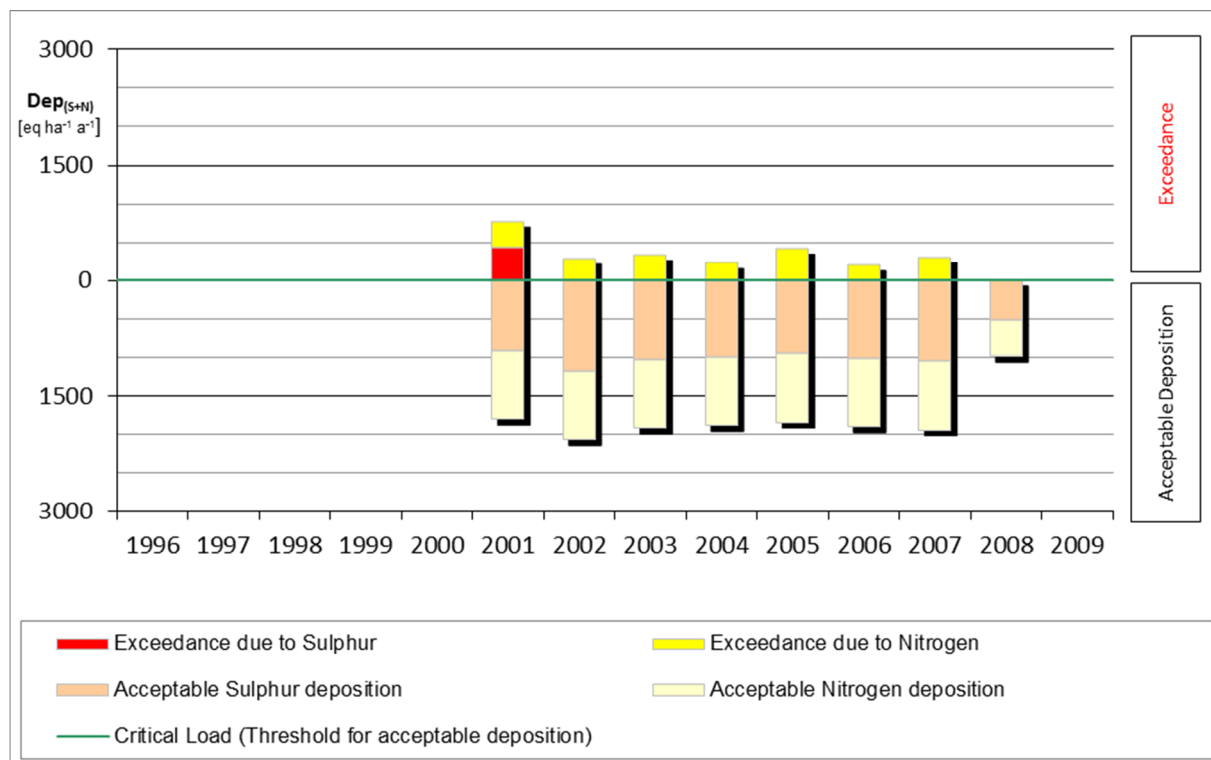
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 2001 – 2008



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



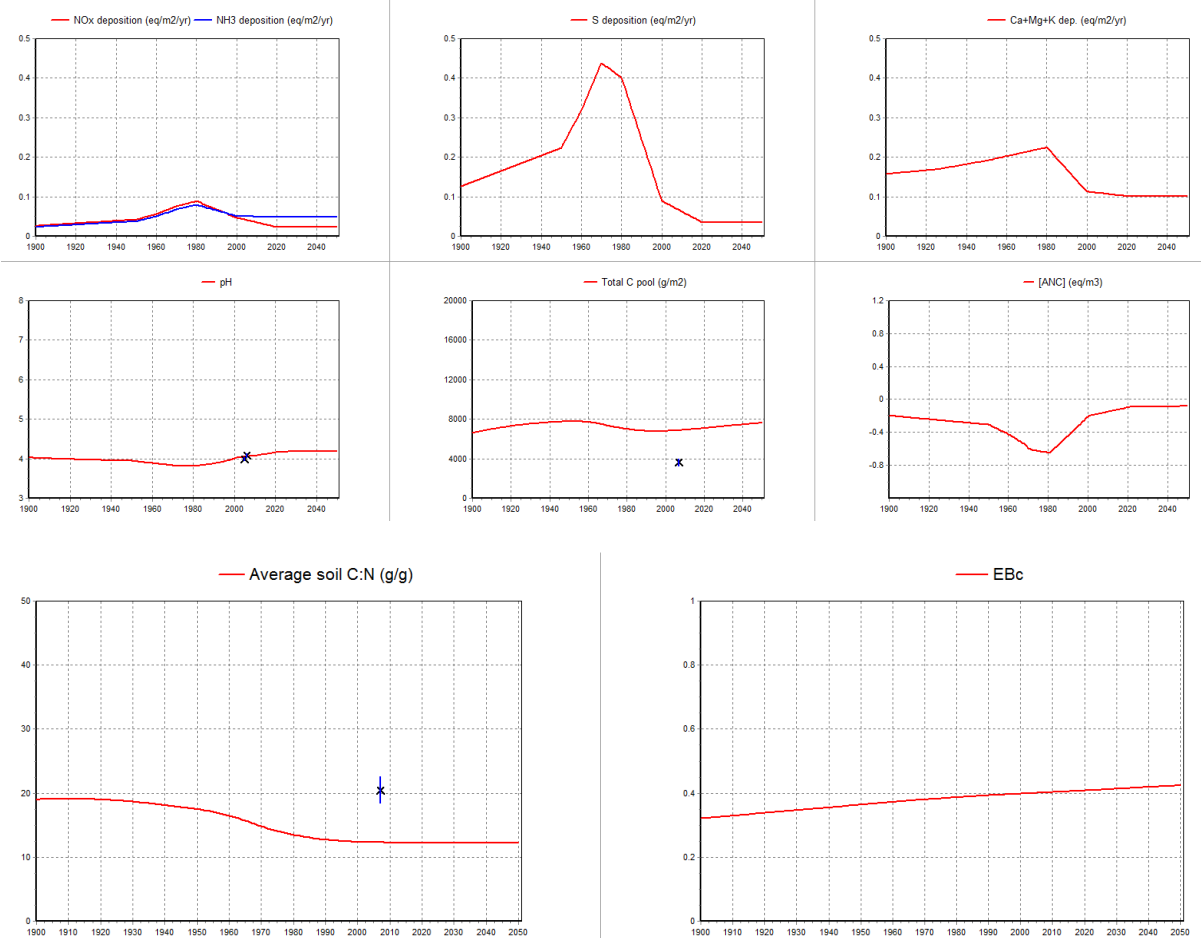
## ICP Forest Level II Site

ID 540209

Country: Slovak Republic

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

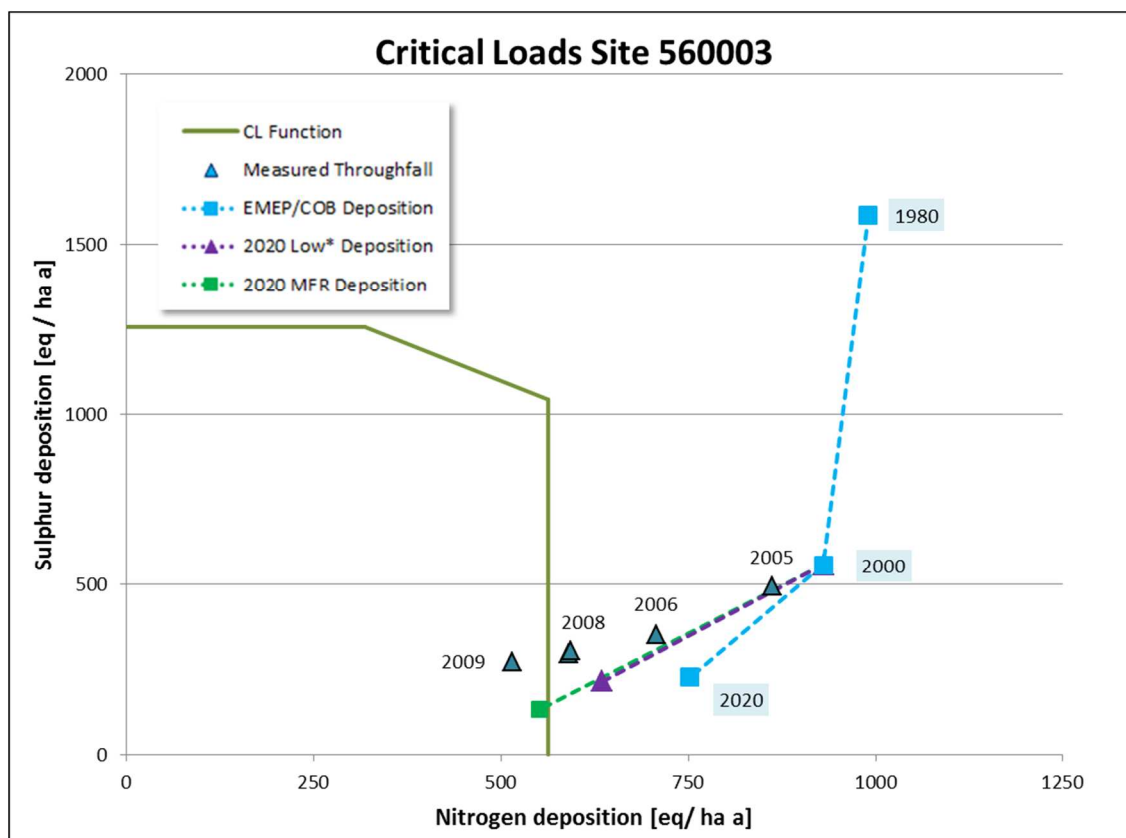
ICP Forest Level II Site: ID 560003

Country: Lithuania

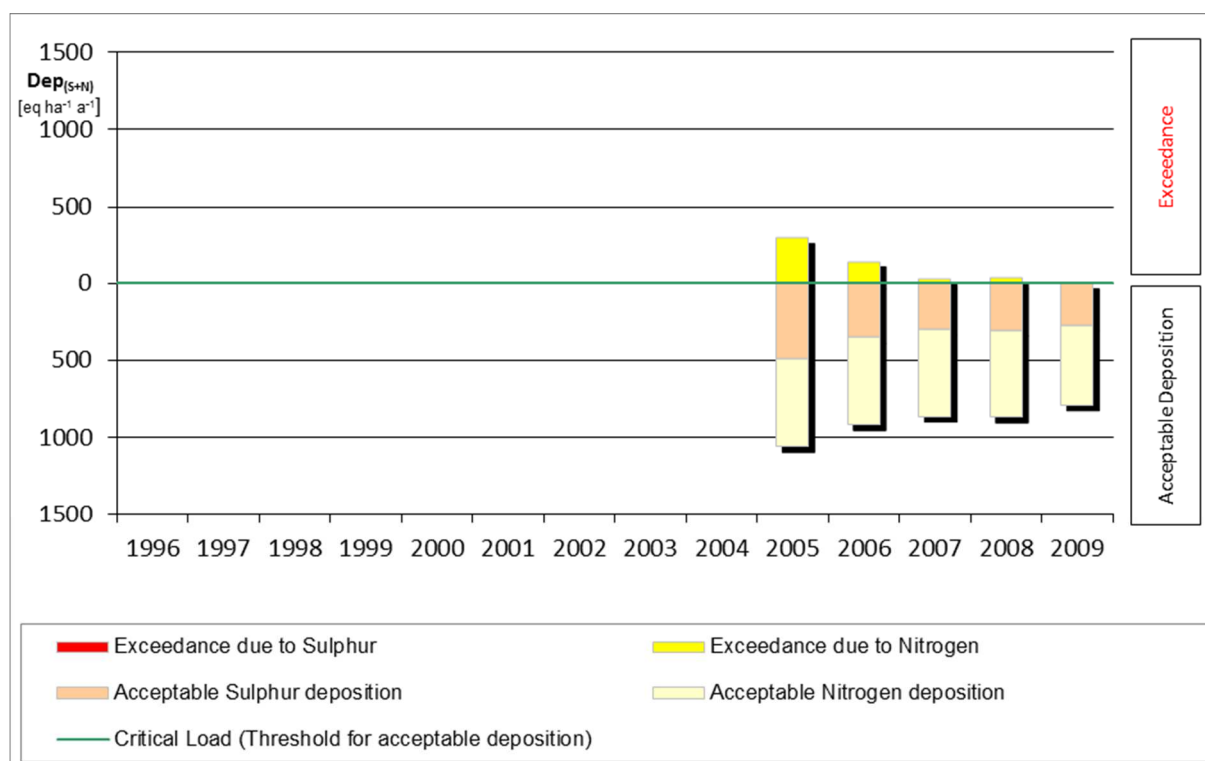
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 2005 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

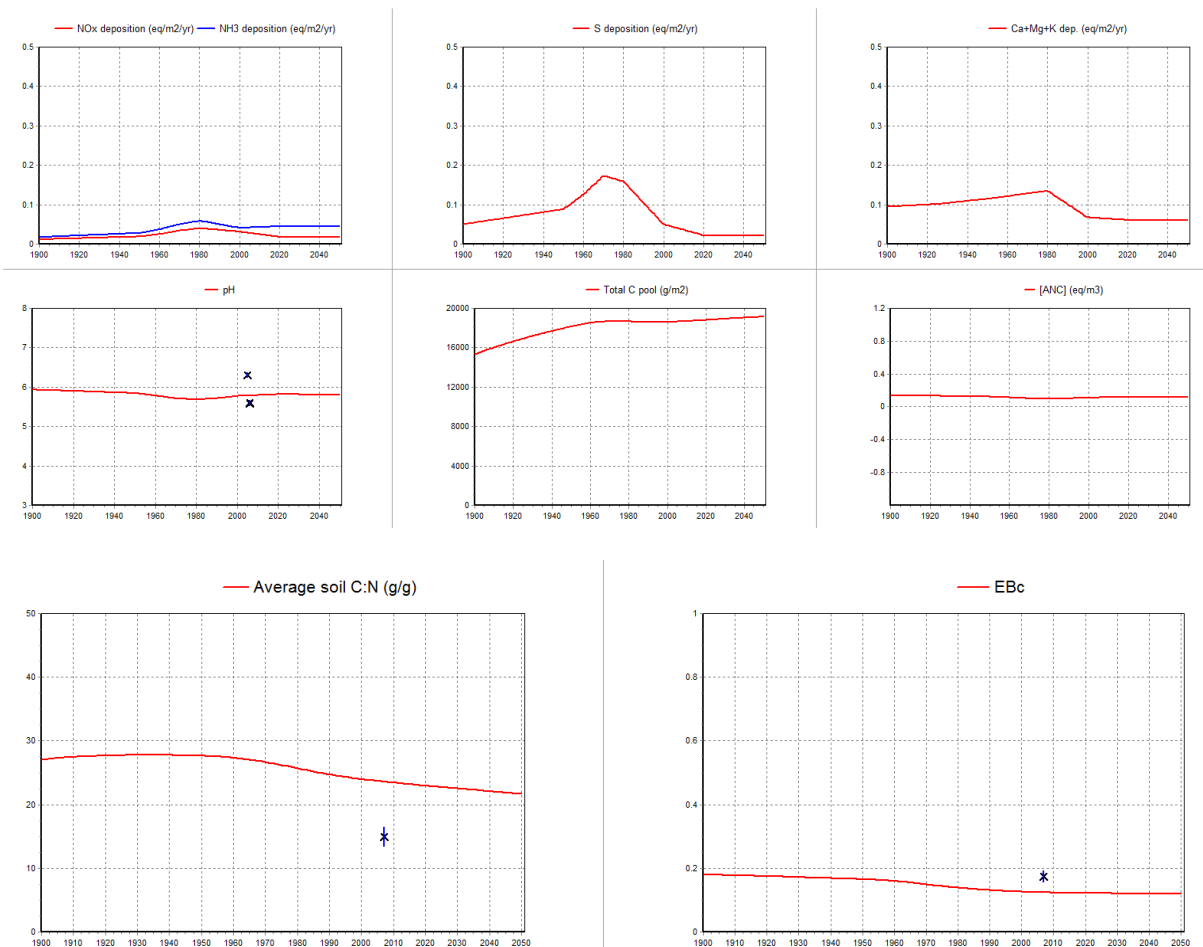
## ICP Forest Level II Site

ID 560003

Country: Lithuania

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

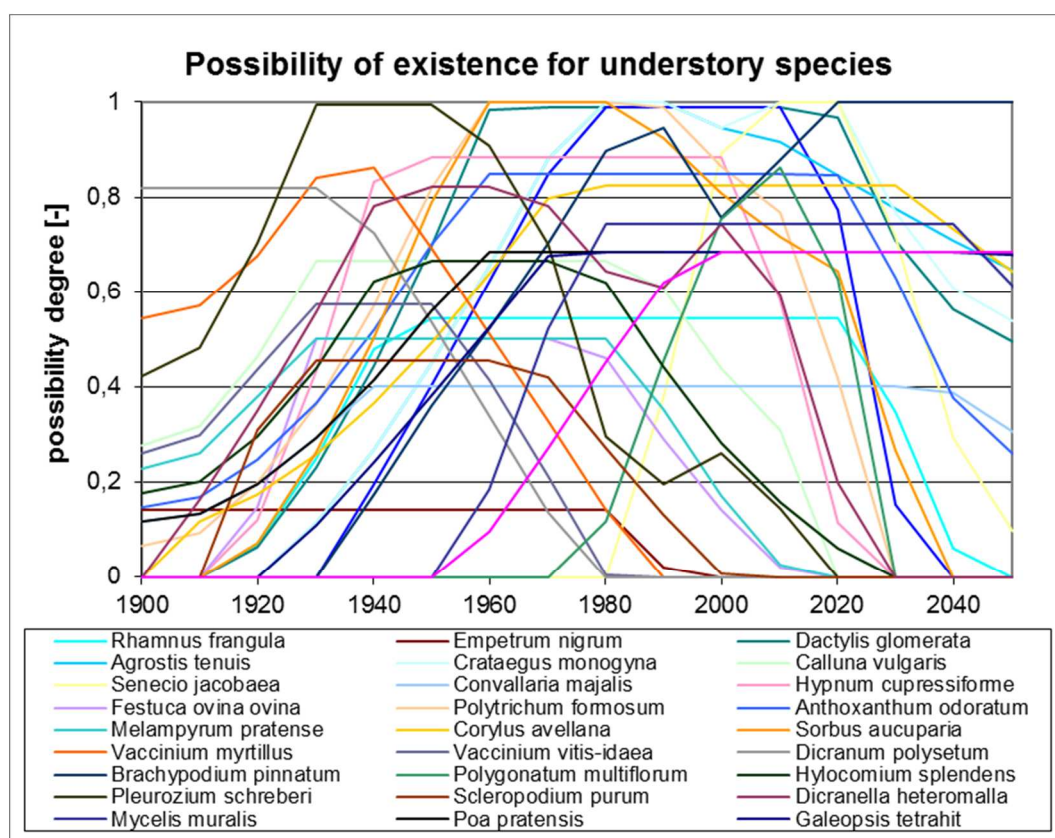
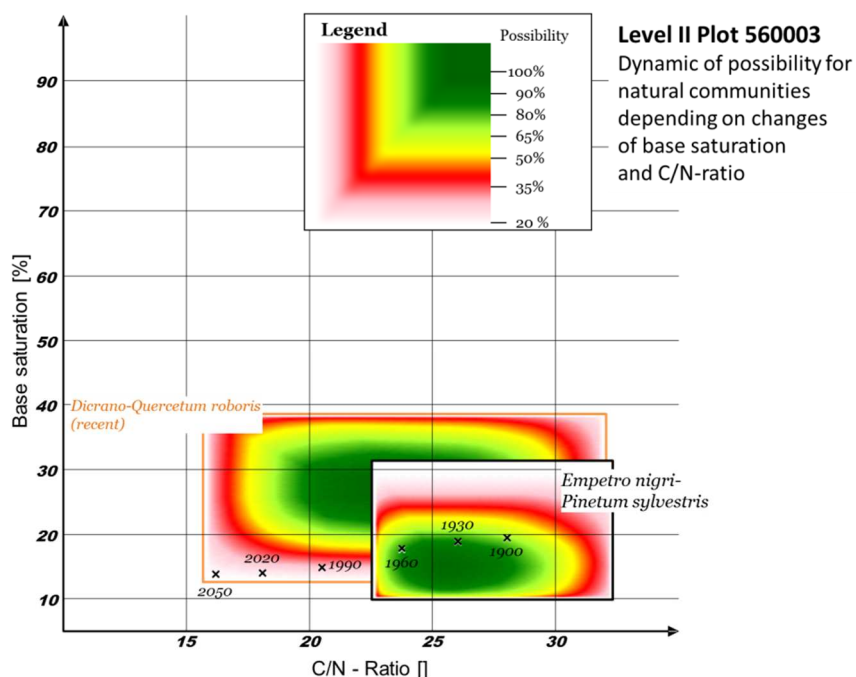
ICP Forest Level II Site

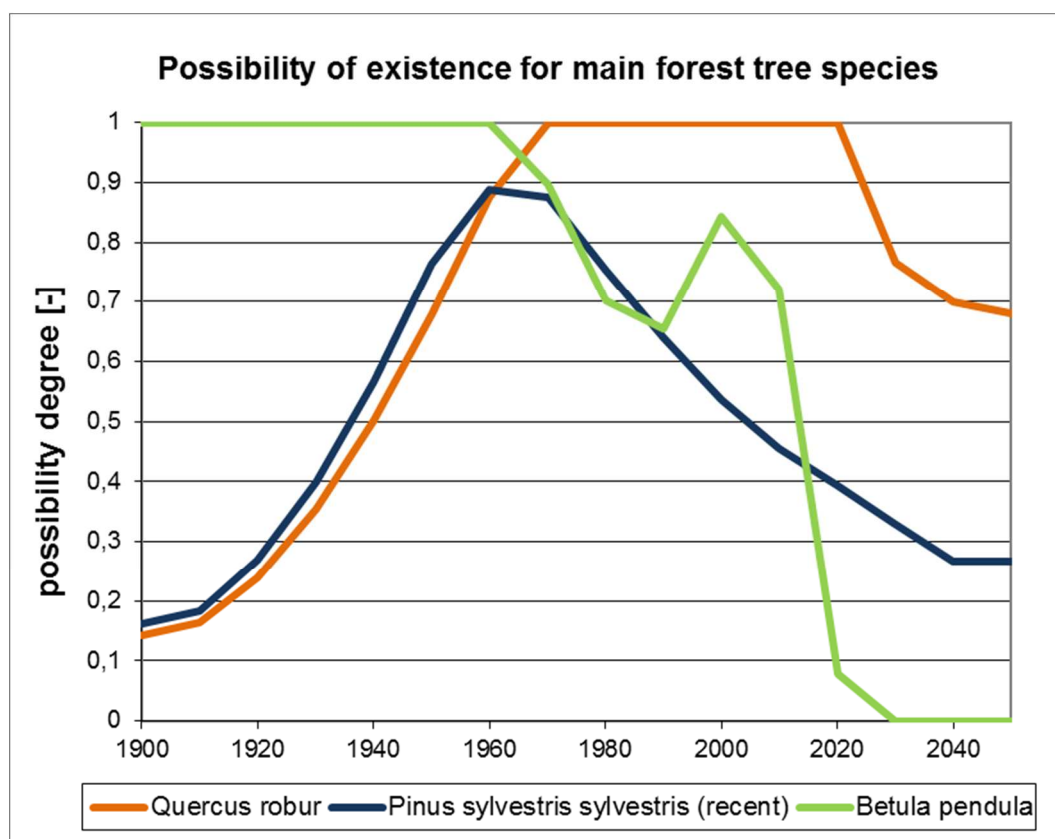
ID 560003

Country: Lithuania

BERN model

biodiversity effects





Conclusion: Changes in main tree species are recommended

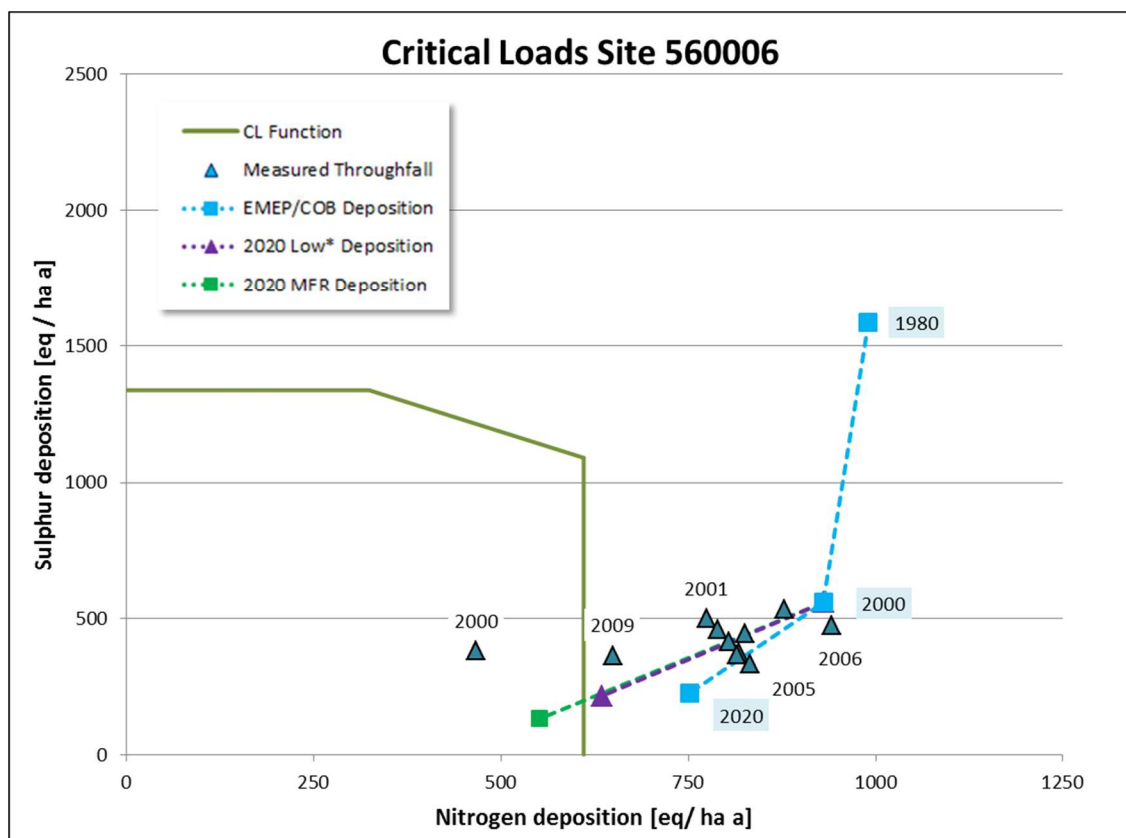
ICP Forest Level II Site: ID 560006

Country: Lithuania

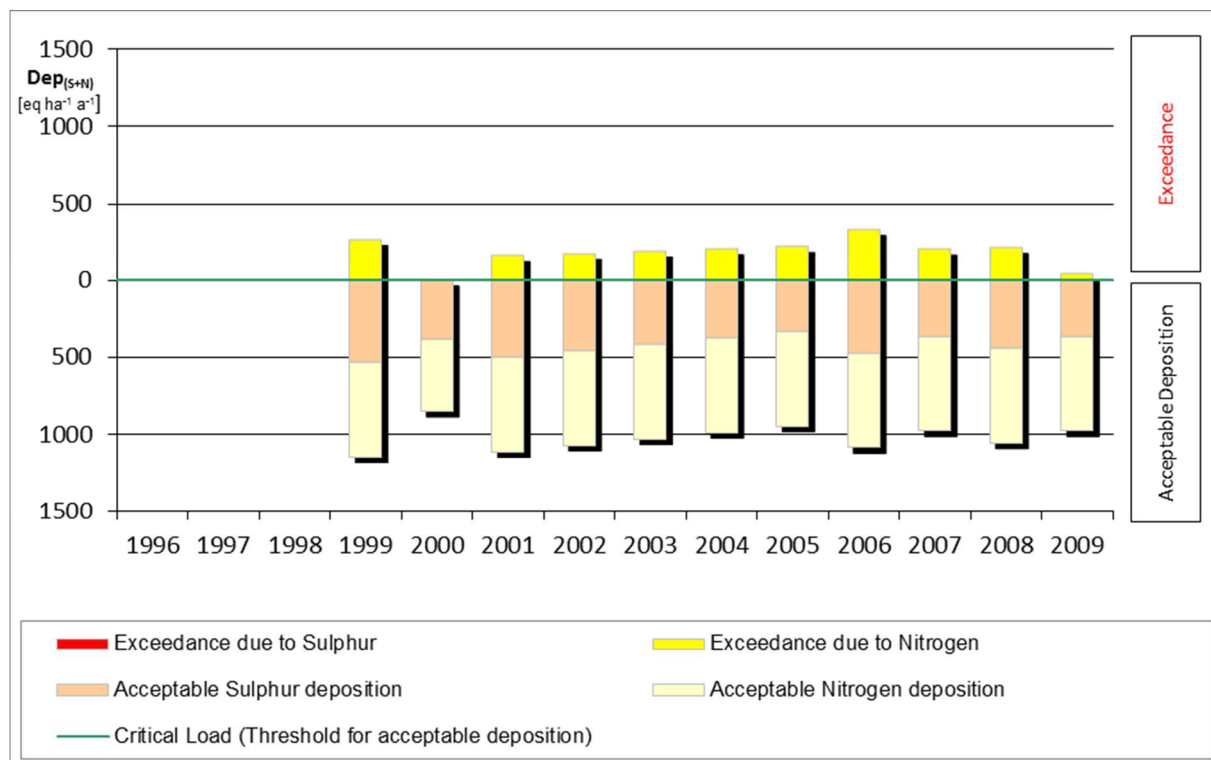
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1999 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



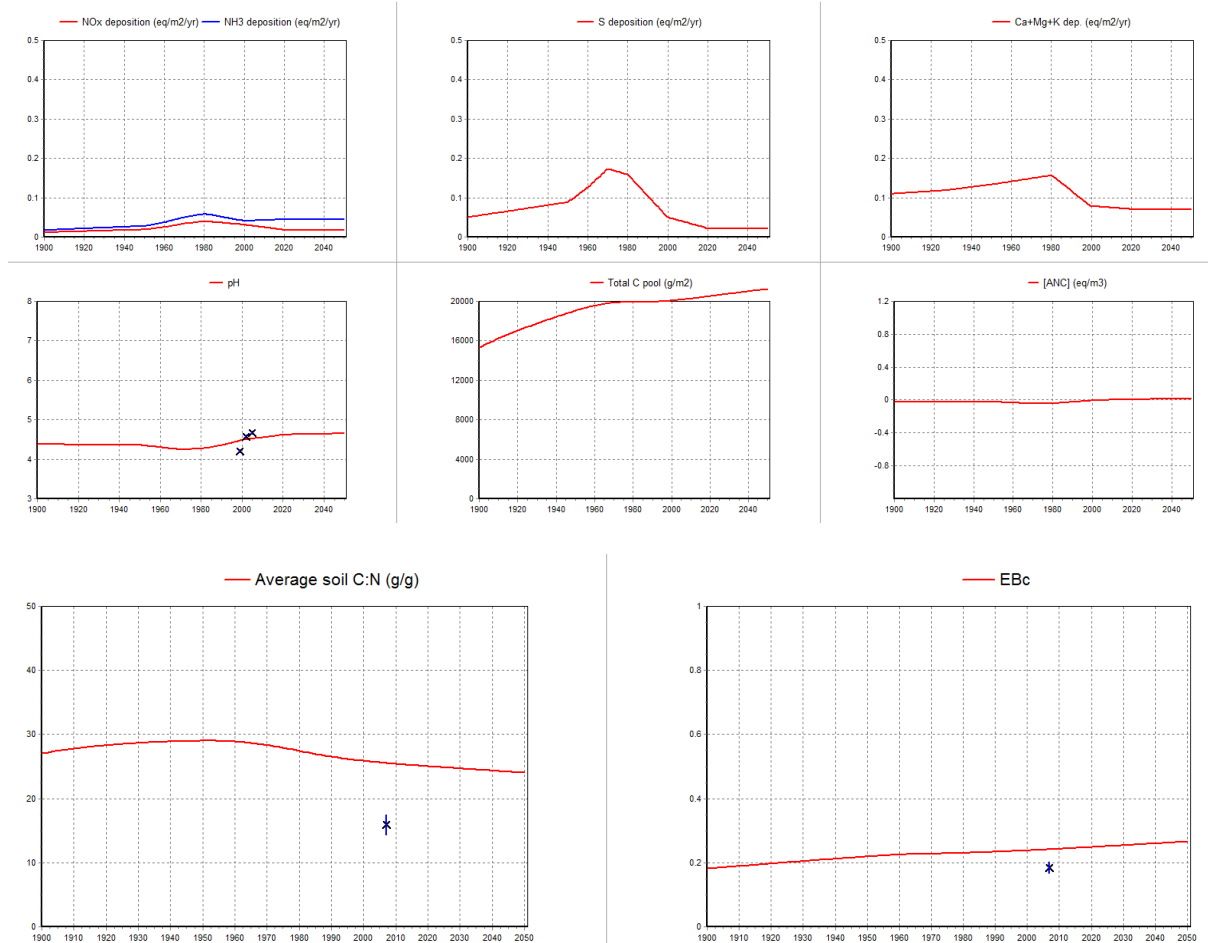
## ICP Forest Level II Site

ID 560006

Country: Lithuania

## VSD+ model

## geochemical dynamics



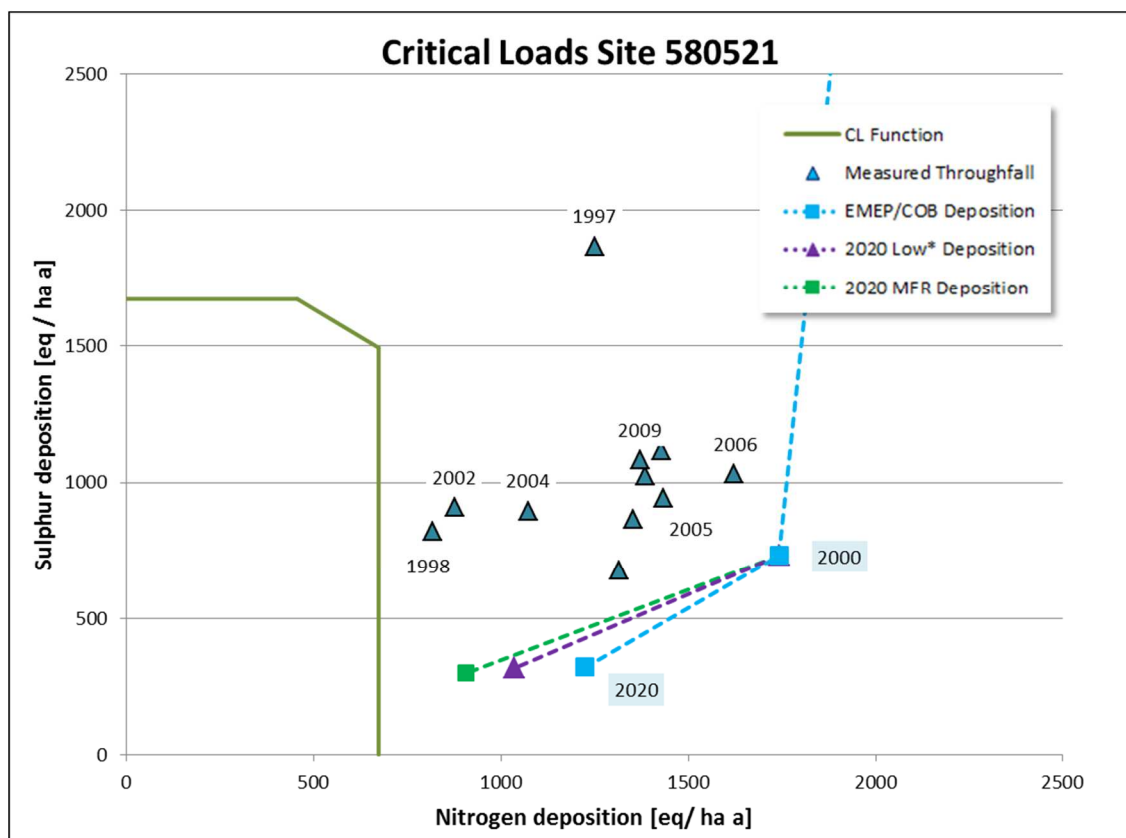
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: ID 580521 Country: Czech Republic

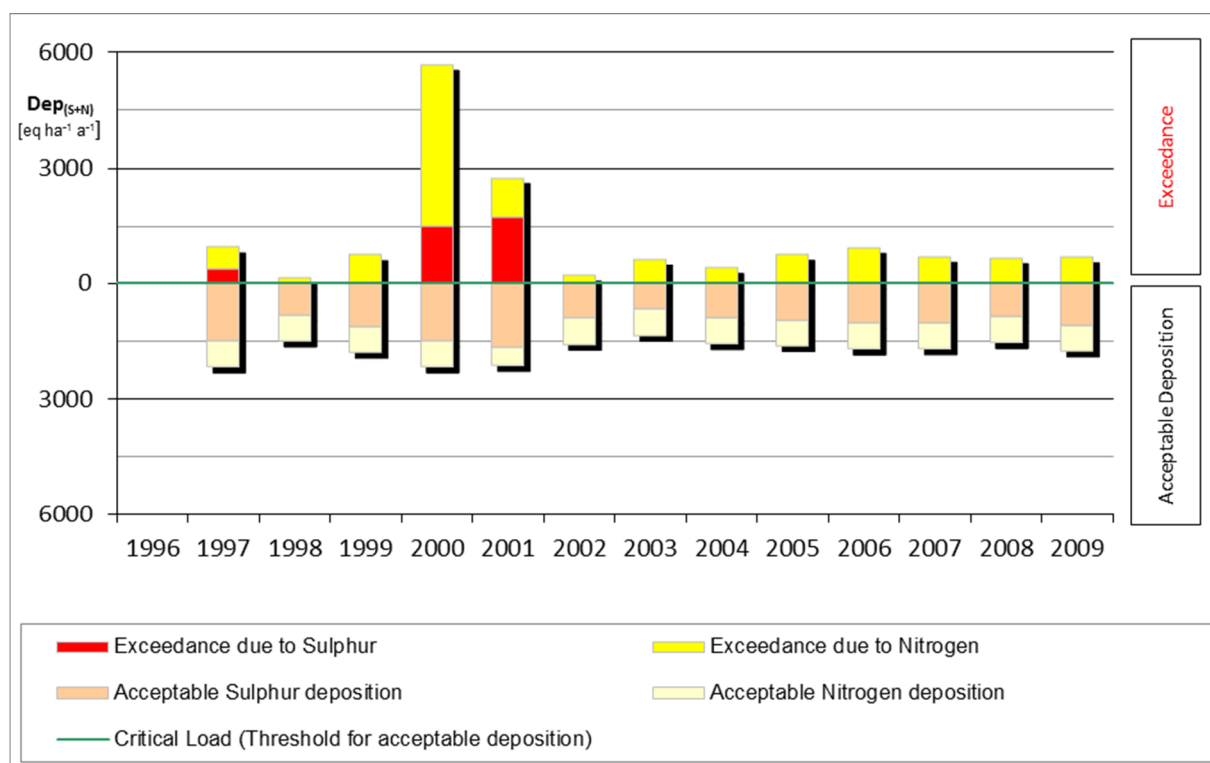
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1997 - 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

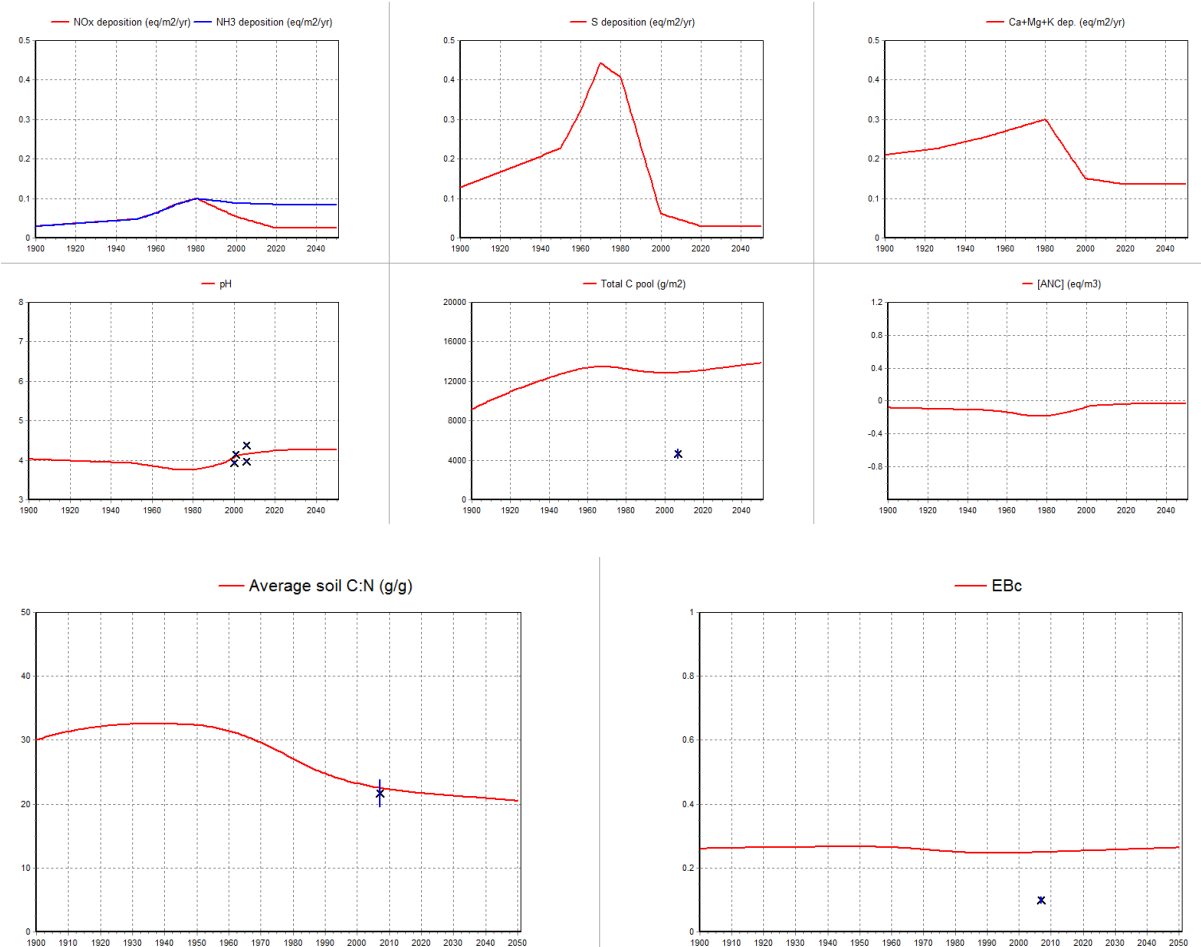
## ICP Forest Level II Site

ID 580521

Country: Czech Republic

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

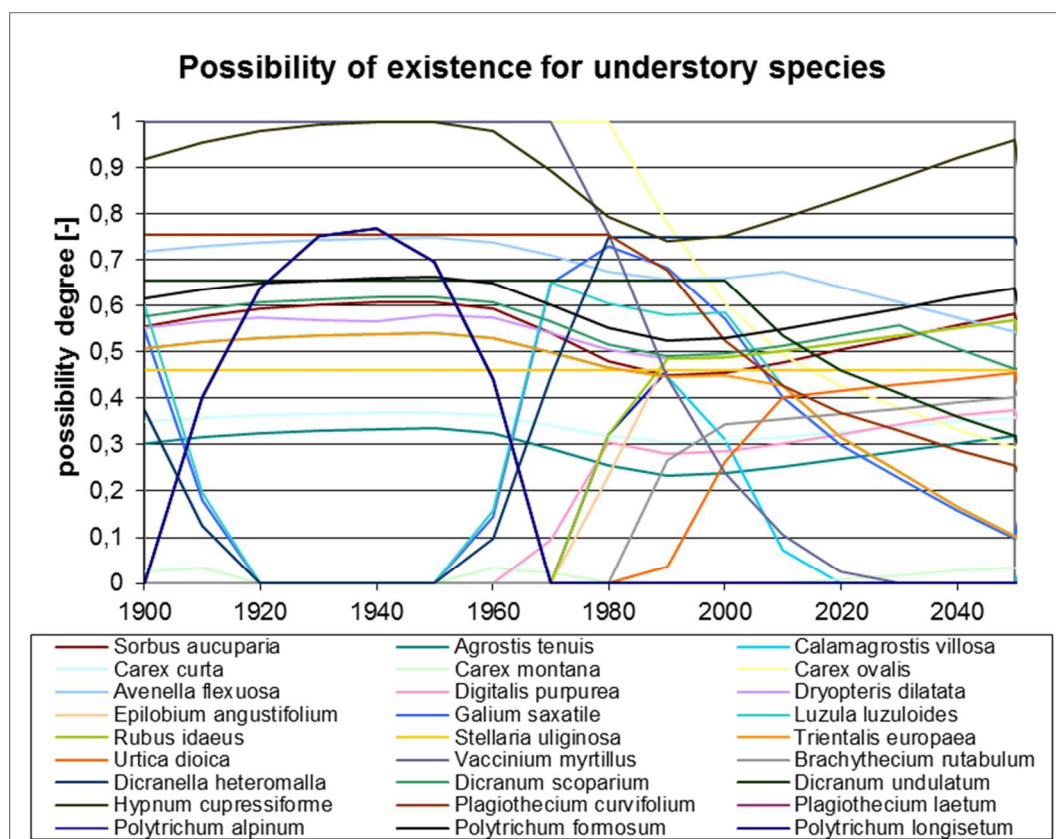
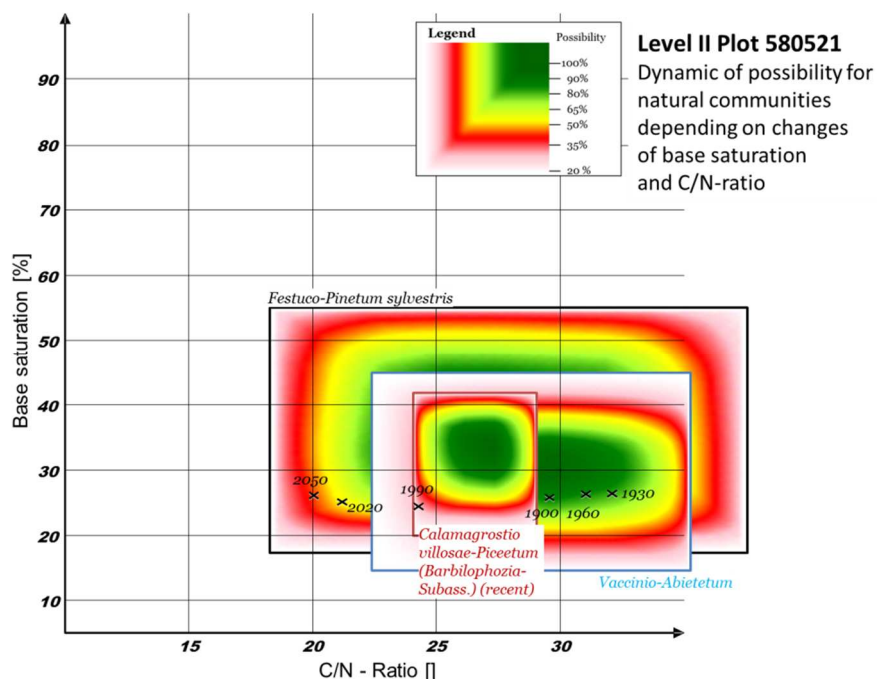
ICP Forest Level II Site

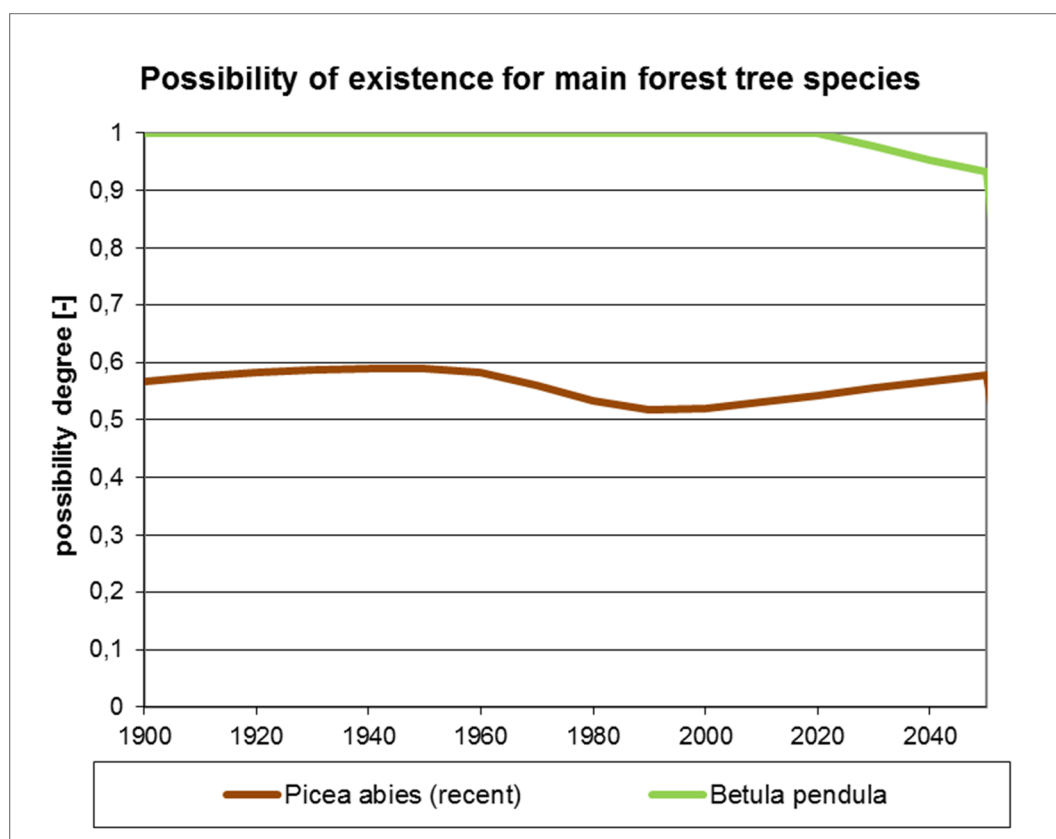
ID 580521

Country: Czech Republic

BERN model

biodiversity effects





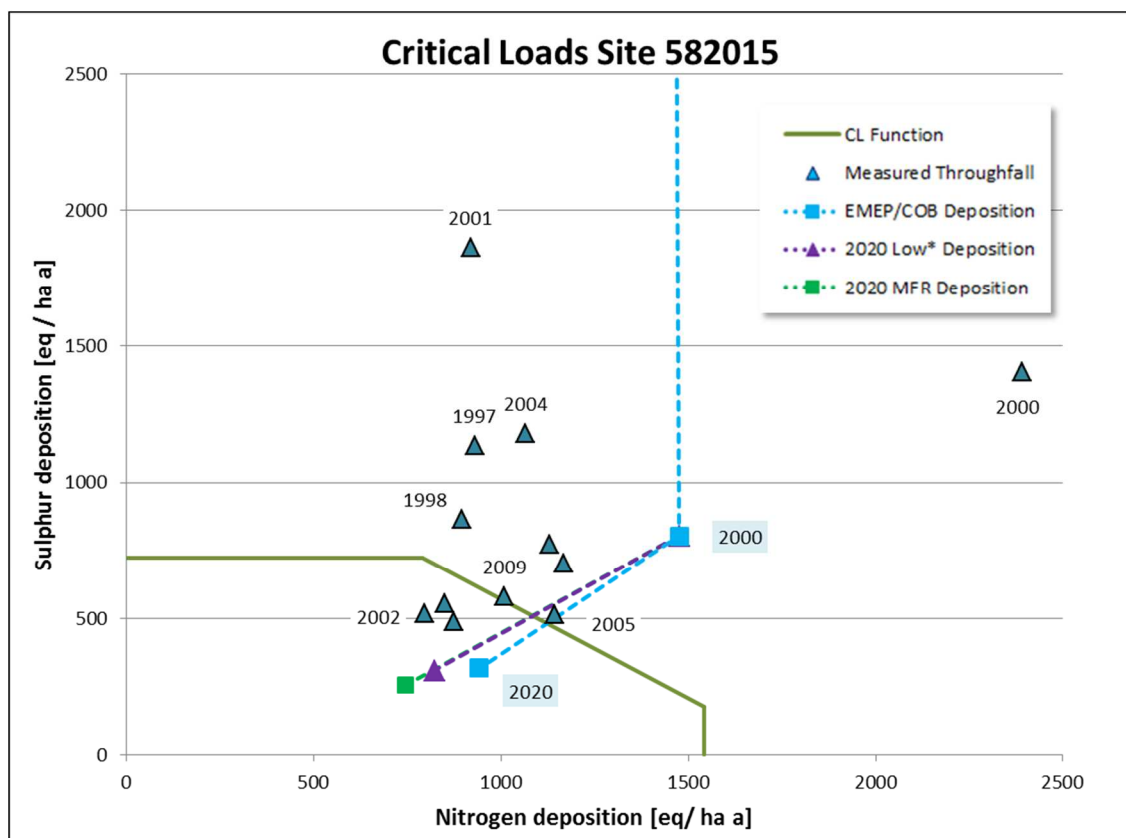
Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site: ID 582015 Country: Czech Republic

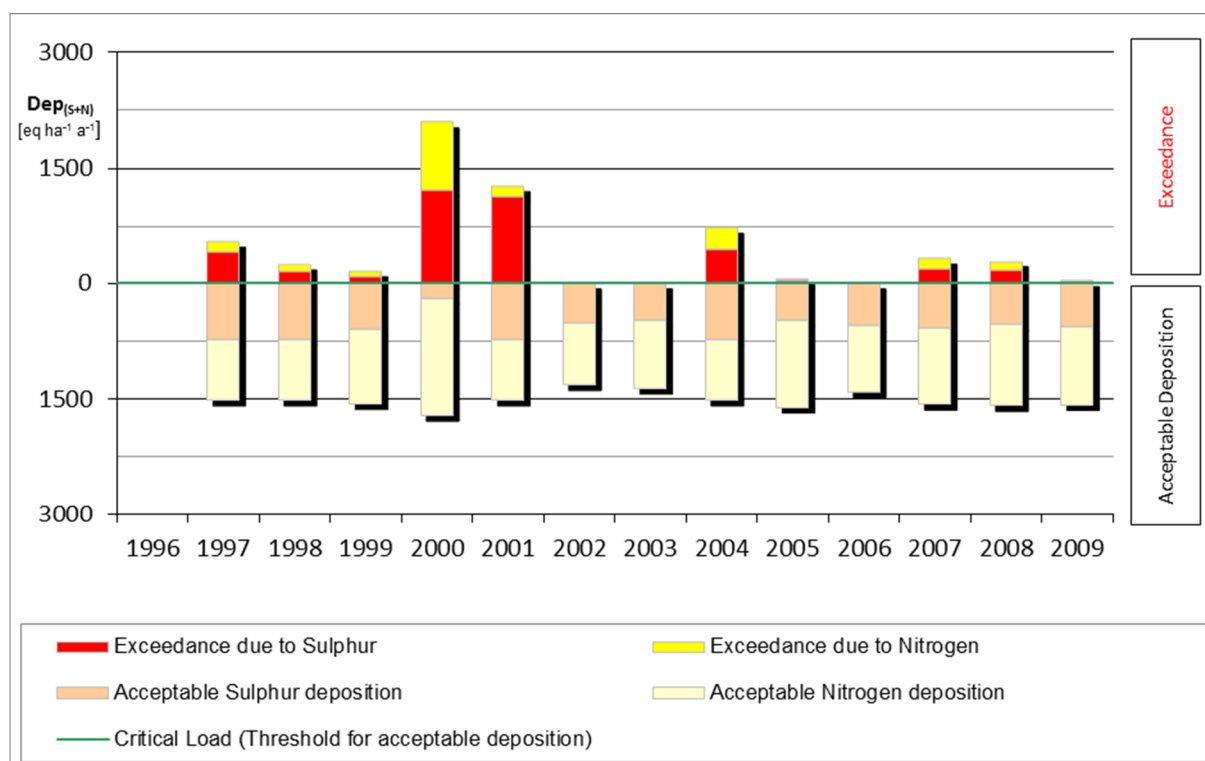
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1997 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



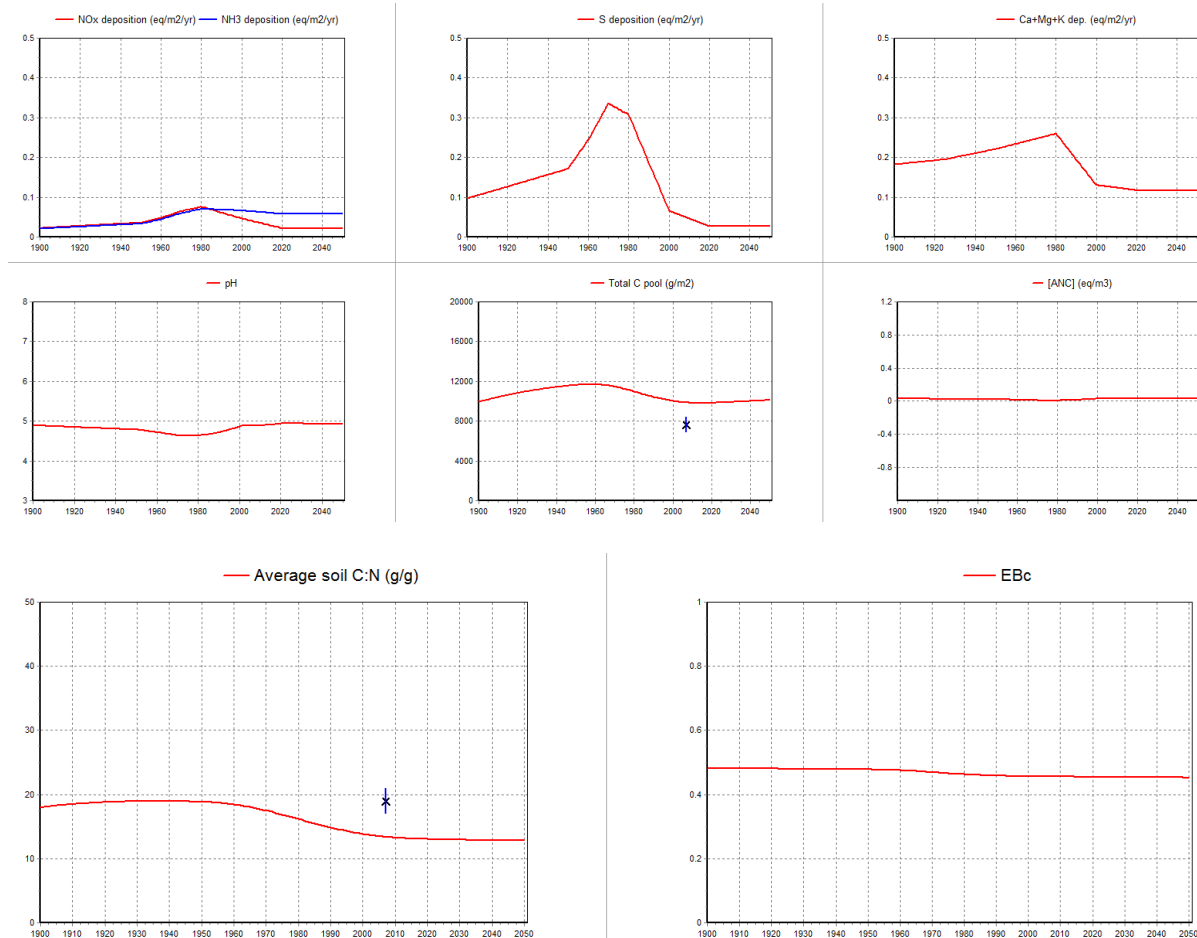
## ICP Forest Level II Site

ID 582015

Country: Czech Republic

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

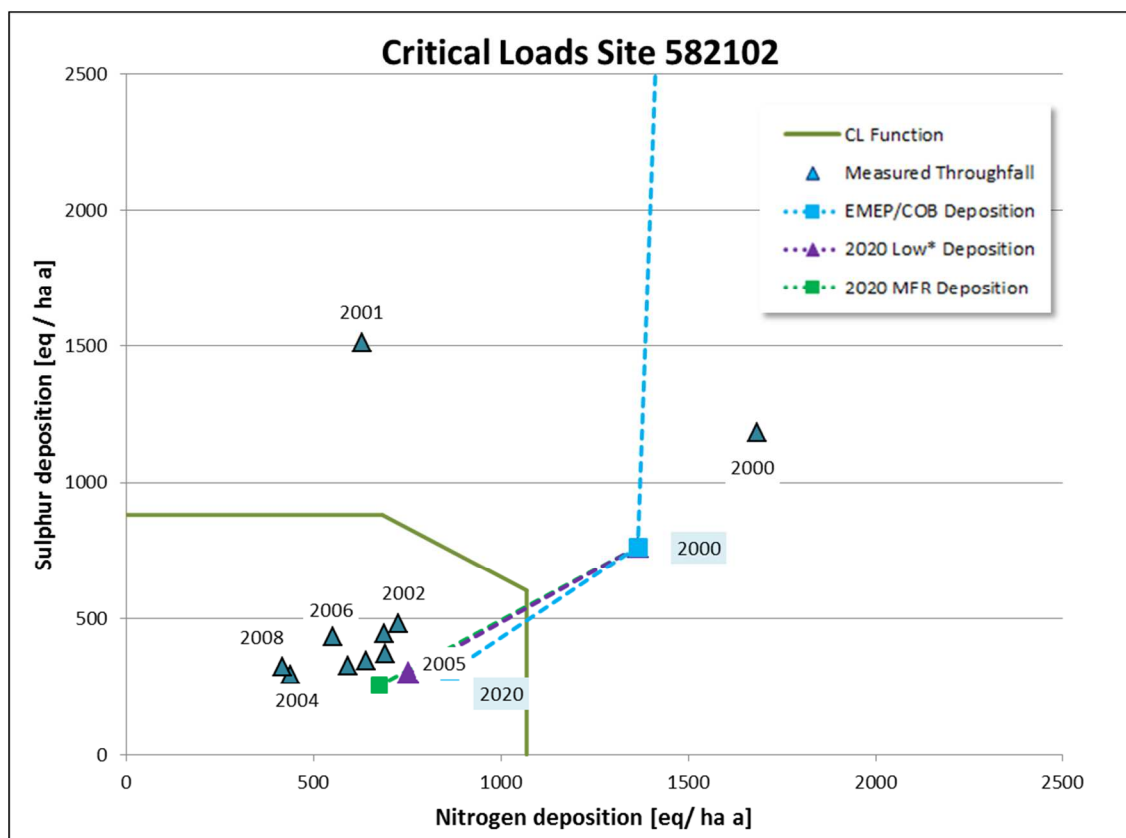
ICP Forest Level II Site: ID 582102

Country: Czech Republic

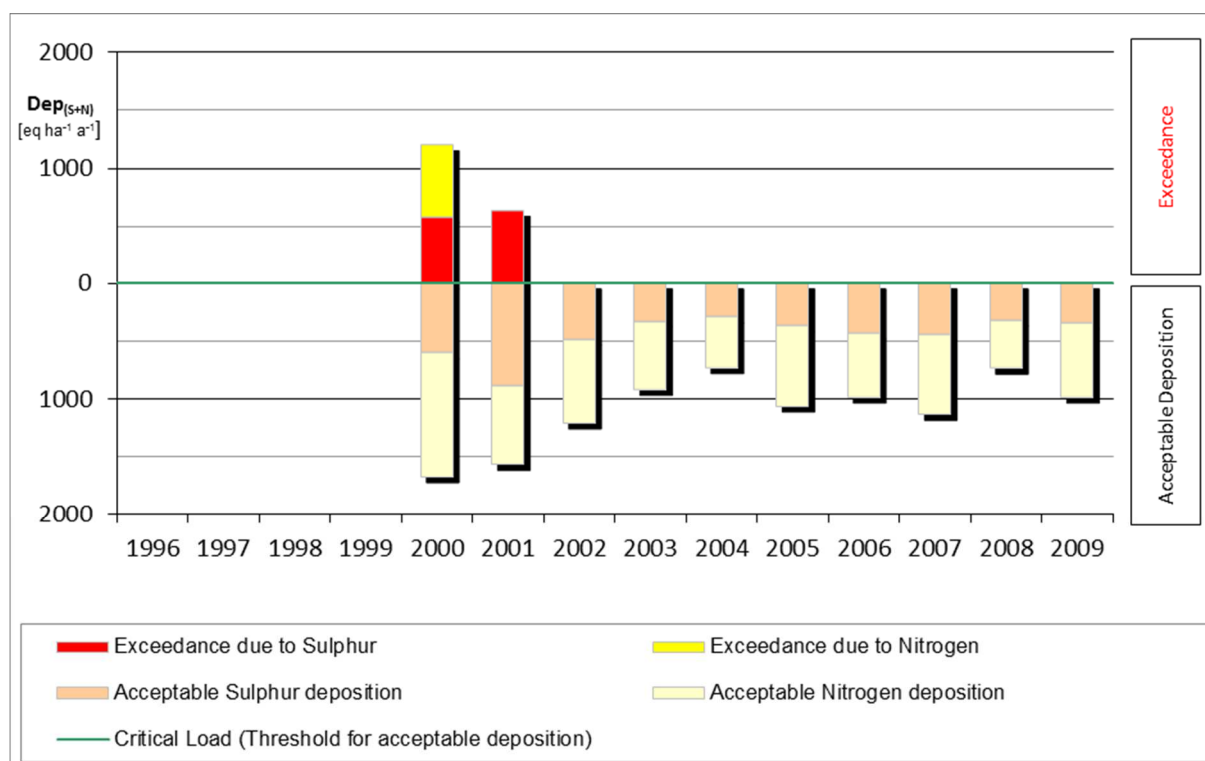
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 2000 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

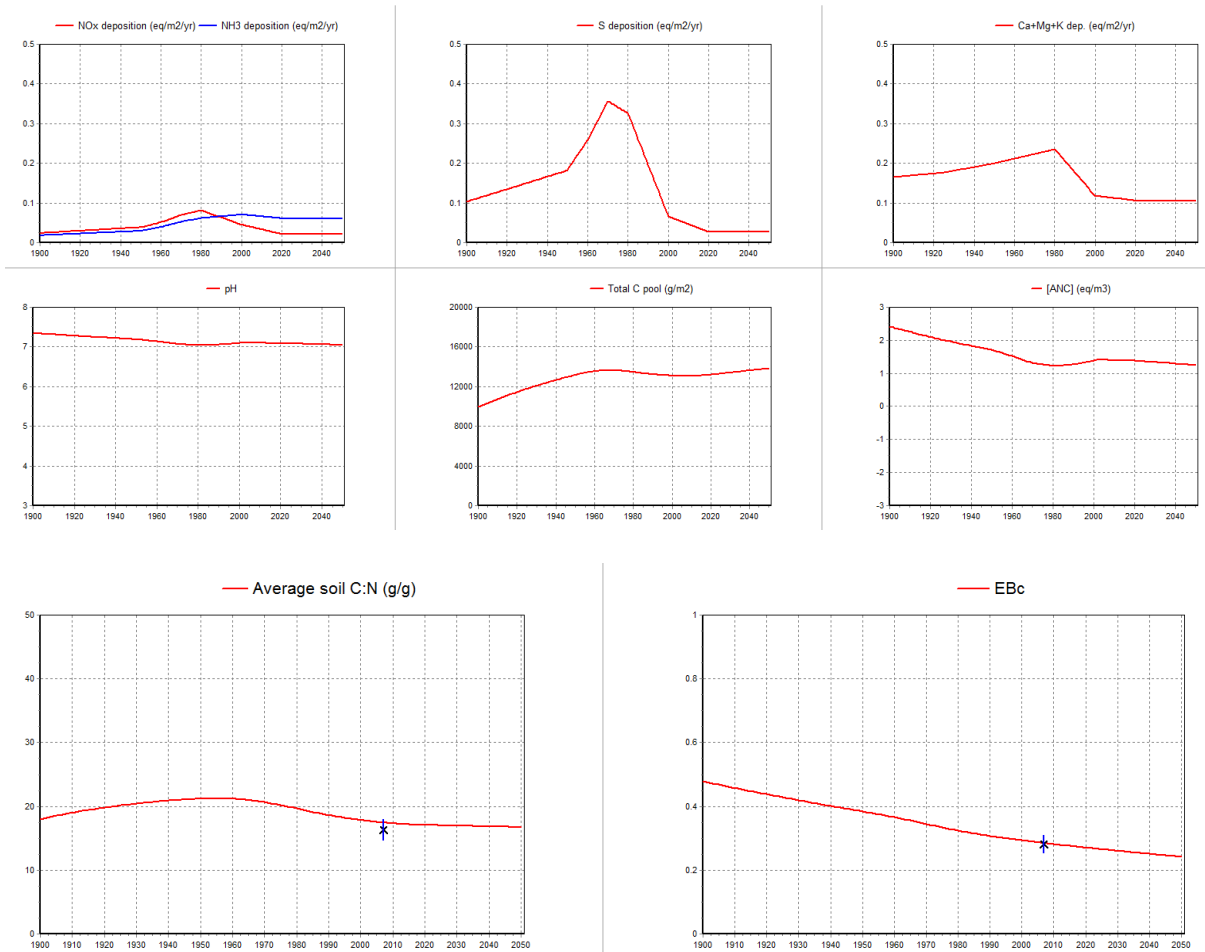
## ICP Forest Level II Site

ID 582102

Country: Czech Republic

## VSD+ model

## geochemical dynamics



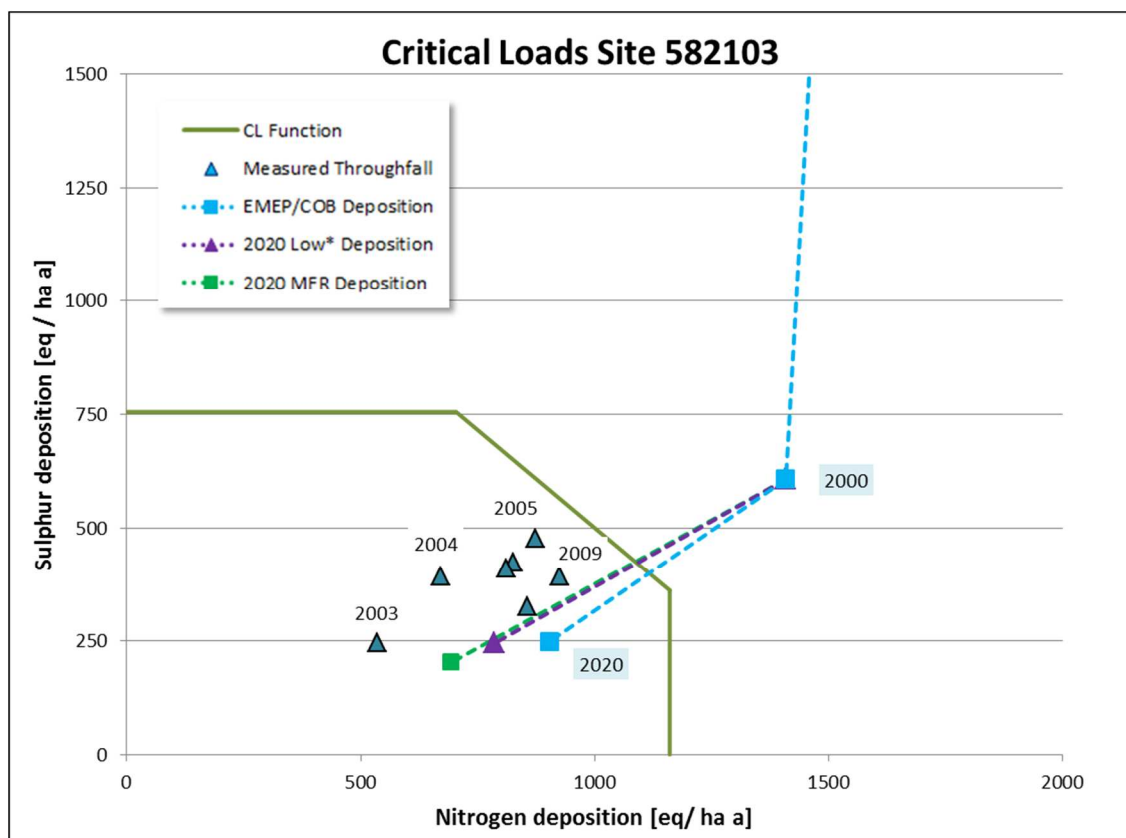
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: ID 582103 Country: Czech Republic

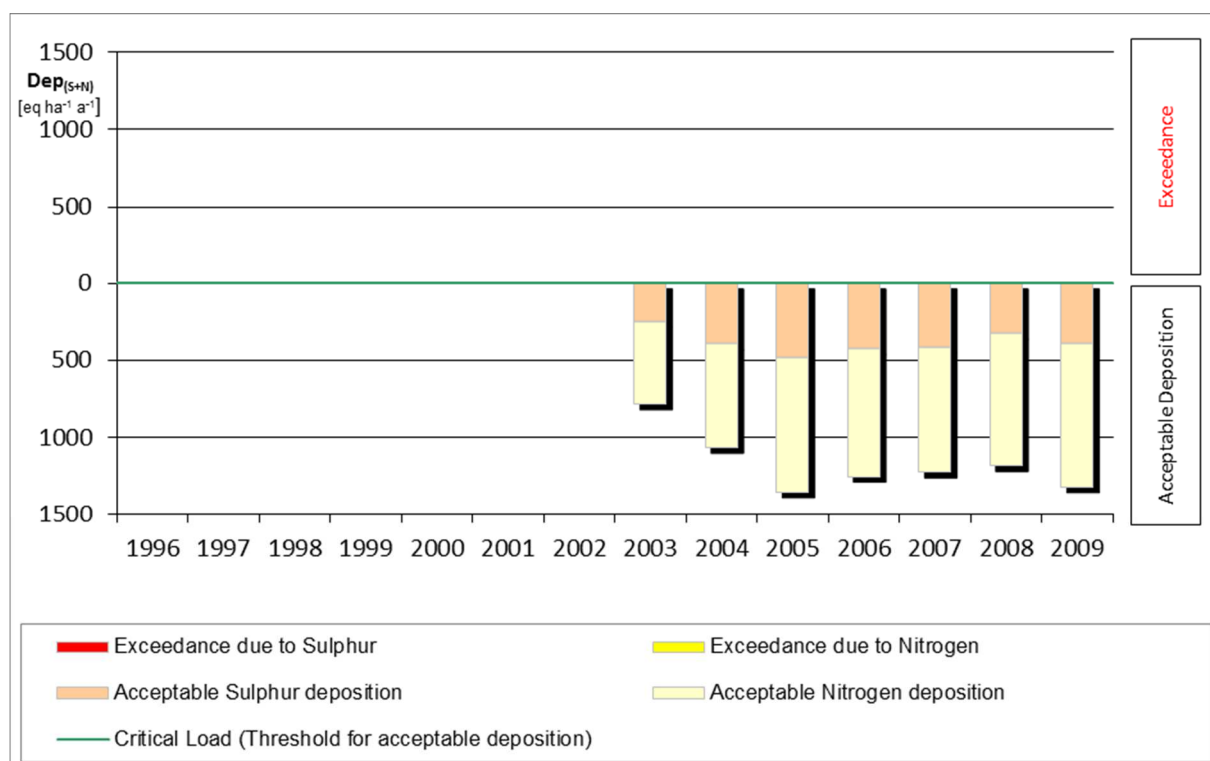
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 2003 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

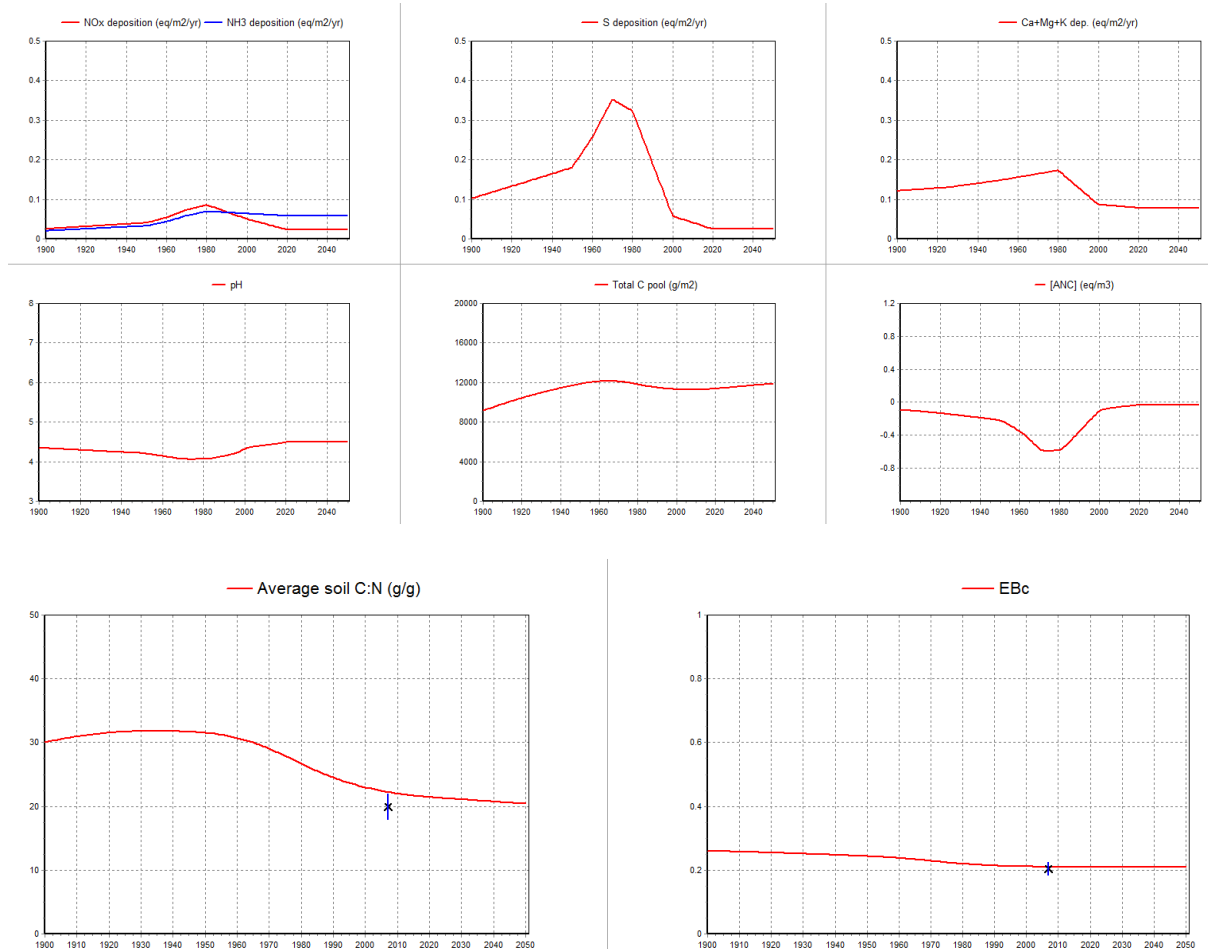
## ICP Forest Level II Site

ID 582103

Country: Czech Republic

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

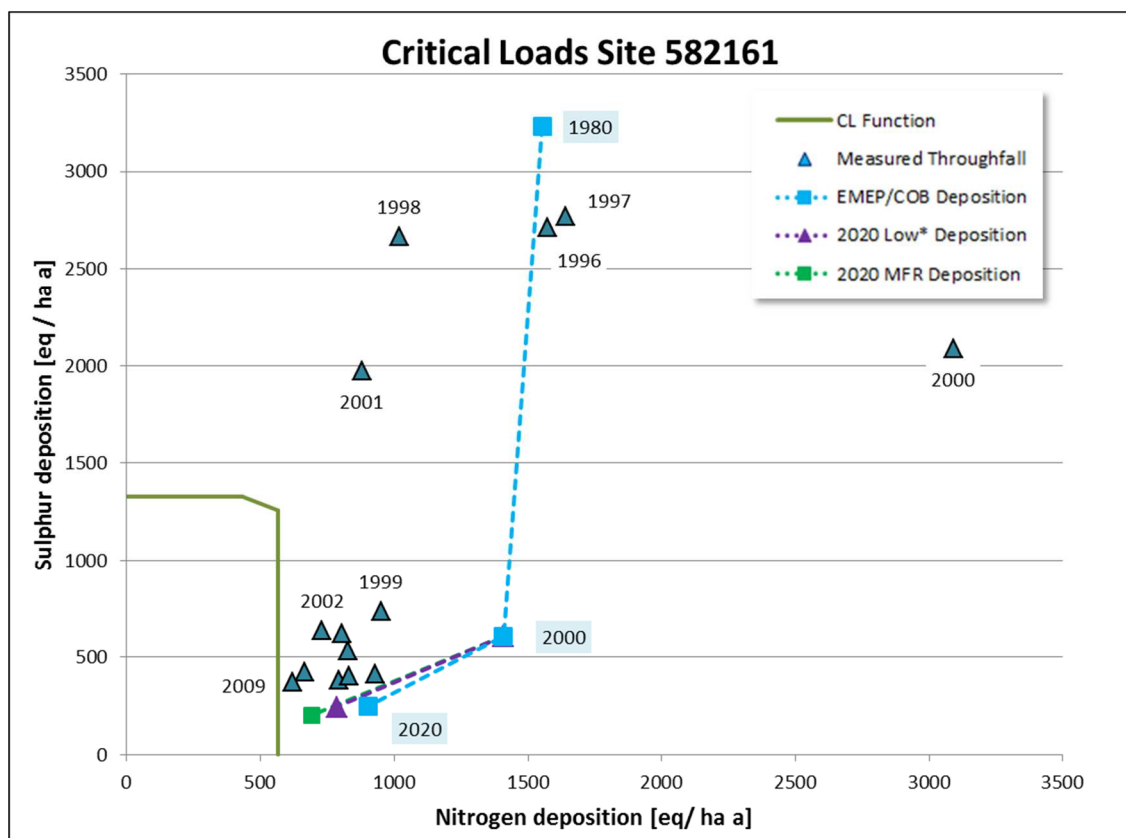
ICP Forest Level II Site: ID 582161

Country: Czech Republic

Critical Load calculation: SMB method

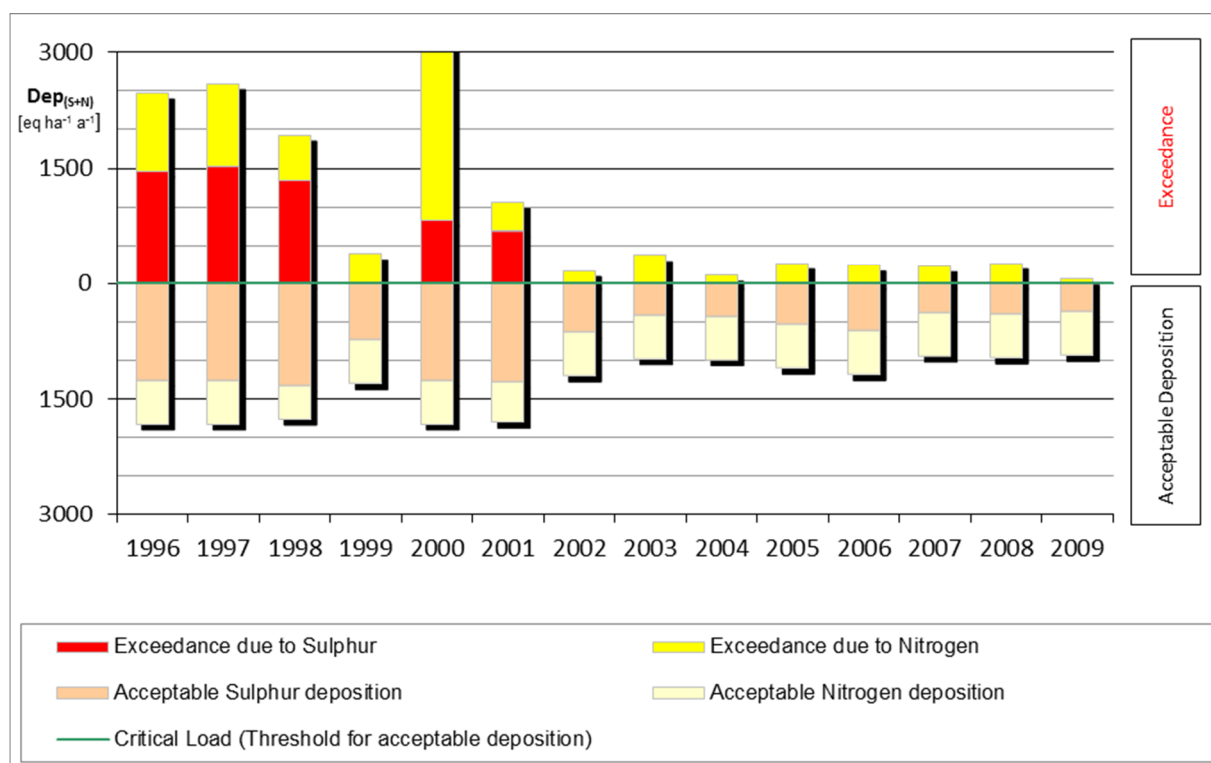
Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1996 – 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

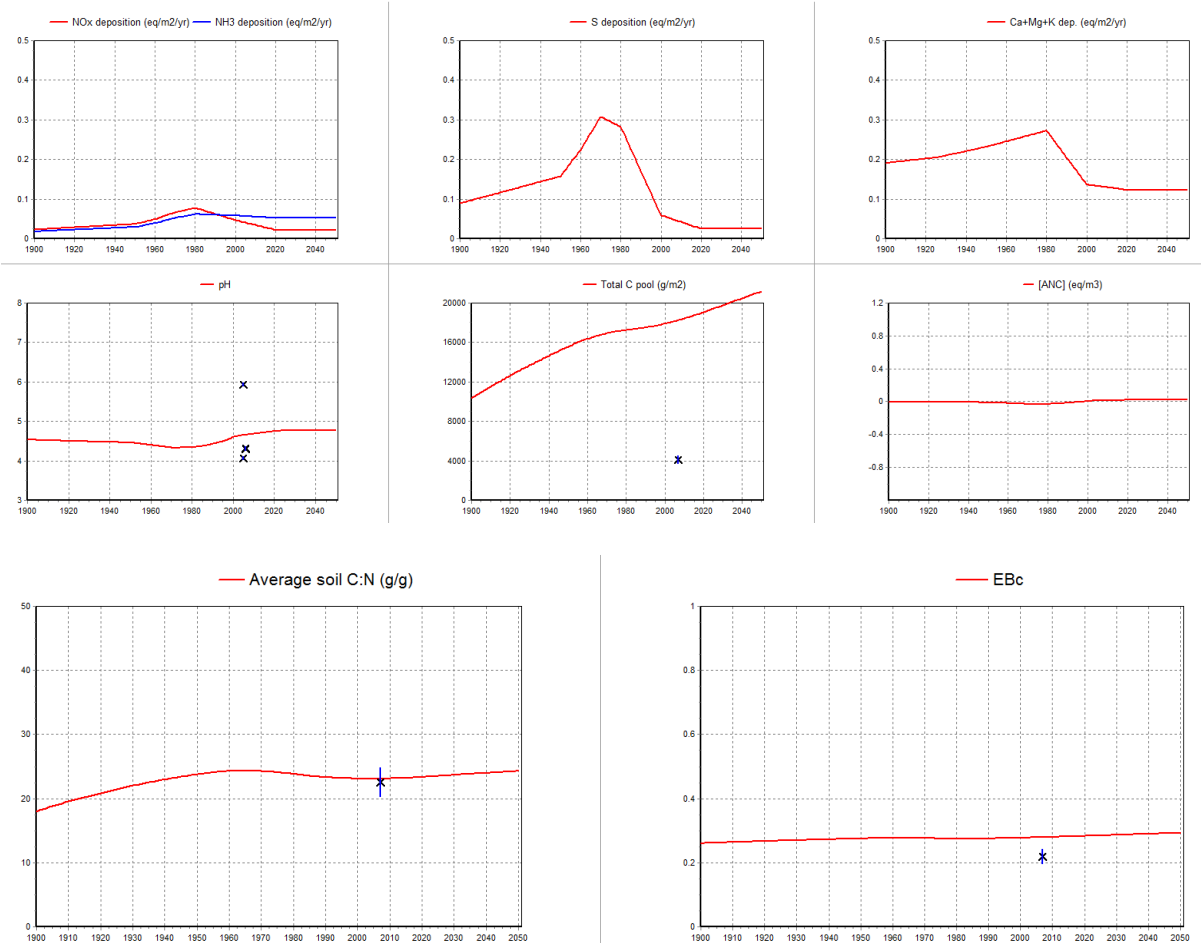
## ICP Forest Level II Site

ID 582161

Country: Czech Republic

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

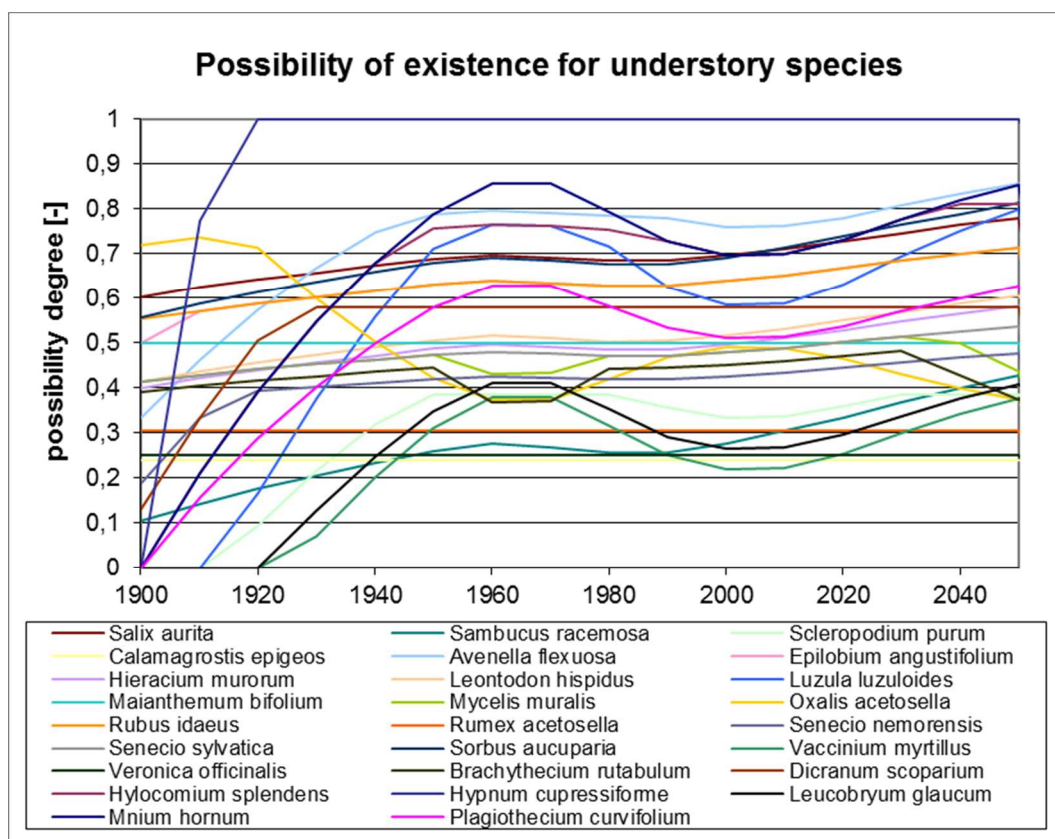
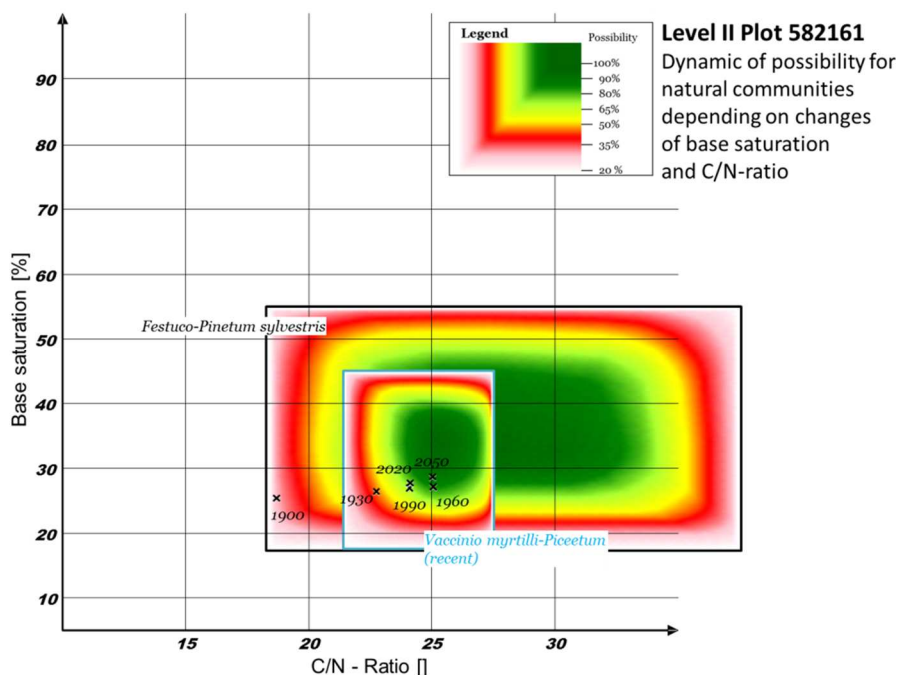
ICP Forest Level II Site

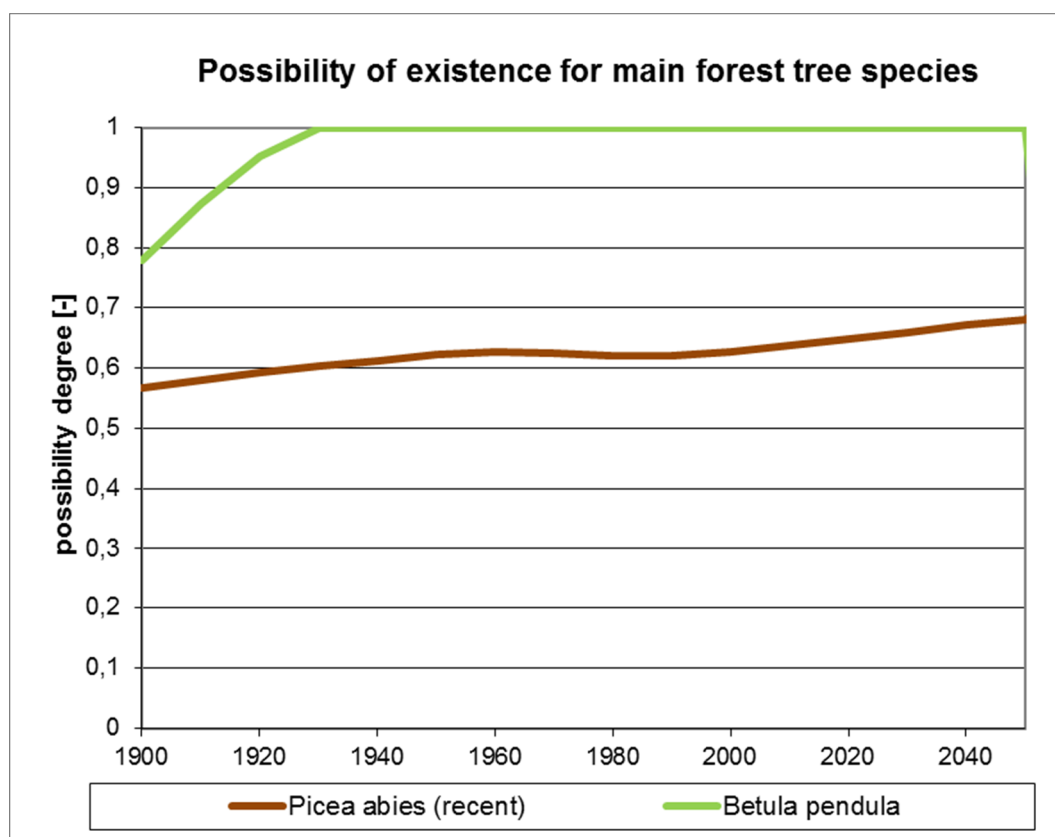
ID 582161

Country: Czech Republic

BERN model

biodiversity effects





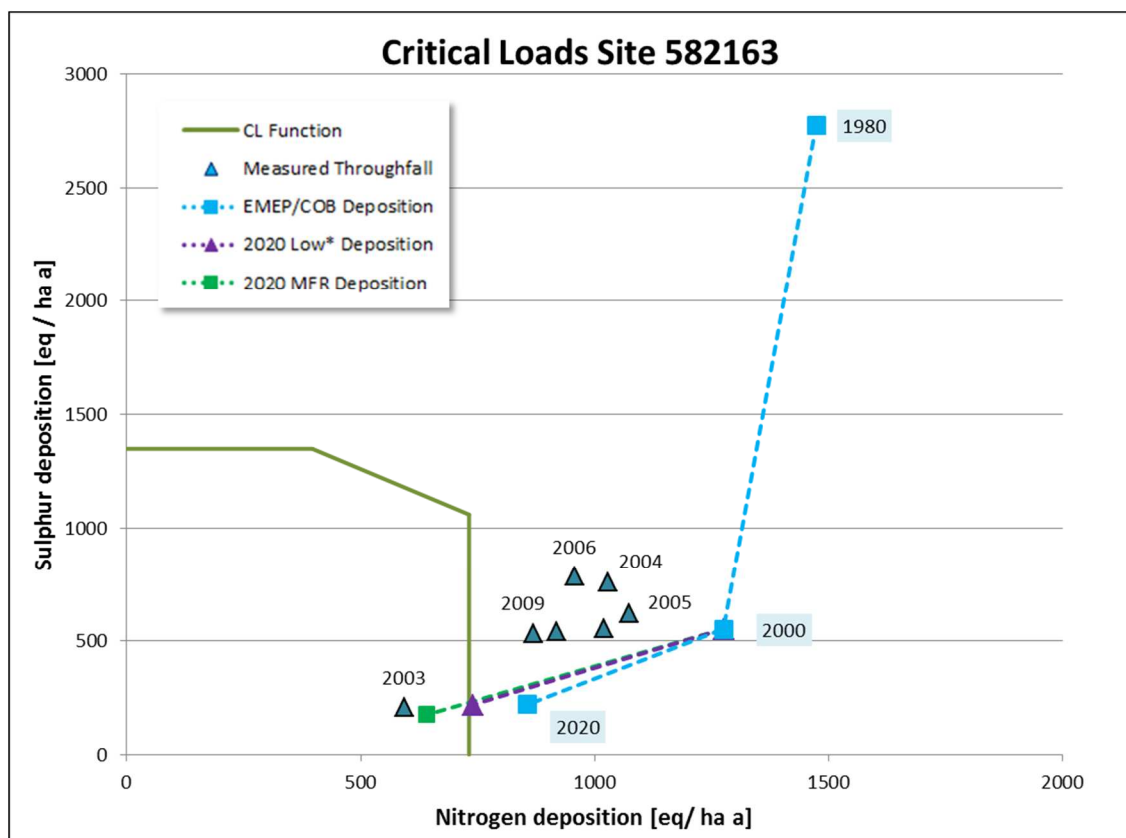
Conclusion: Tree species correspond to site conditions and will remain adapted

ICP Forest Level II Site: ID 582163 Country: Czech Republic

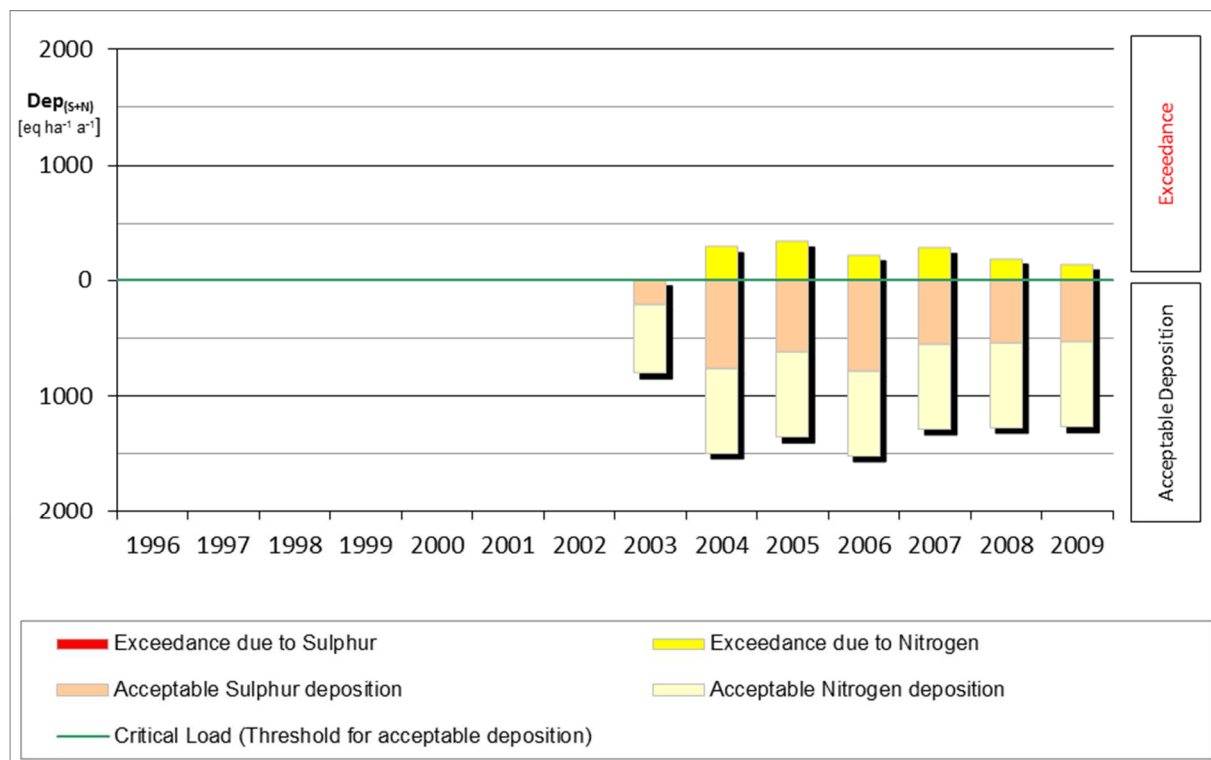
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 2003 - 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

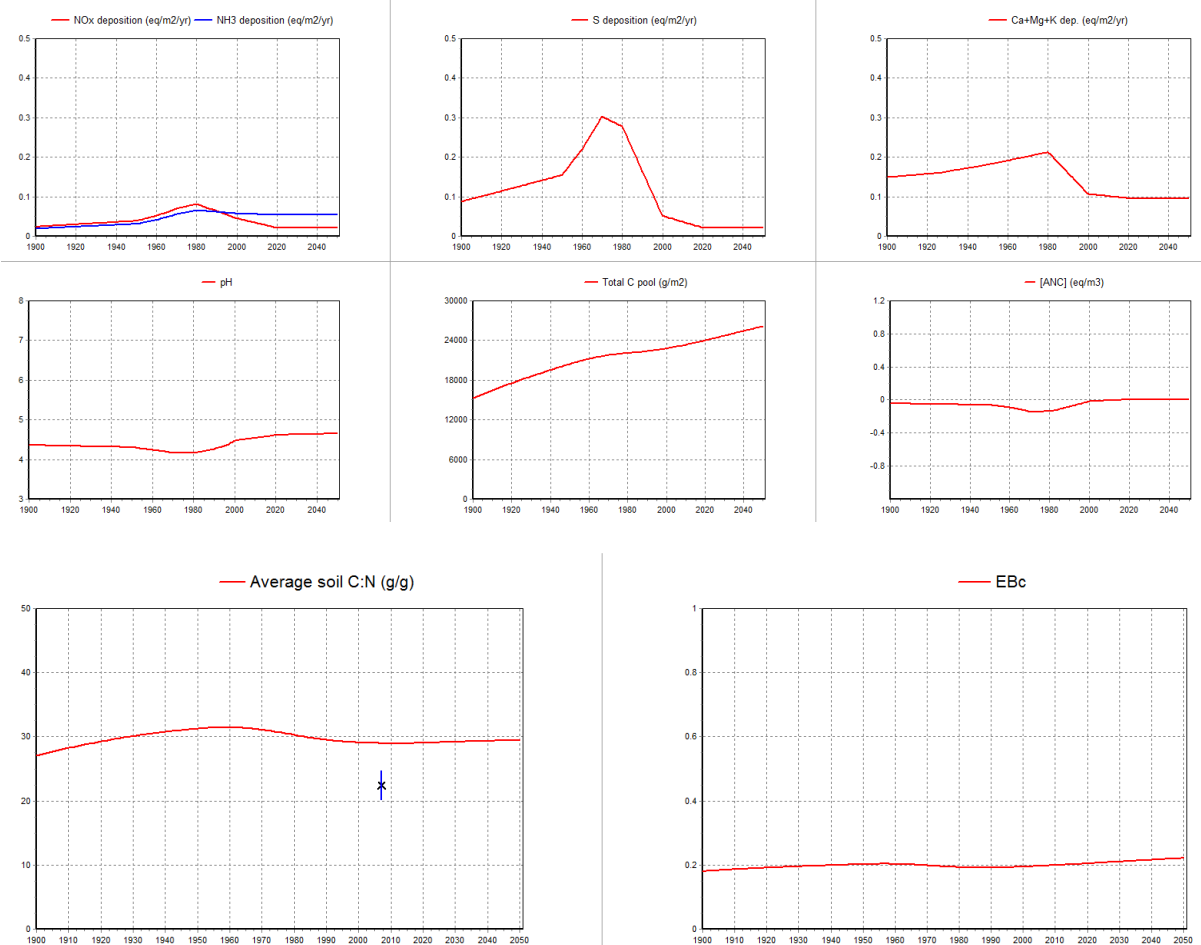
## ICP Forest Level II Site

ID 582163

Country: Czech Republic

VSD+ model

geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

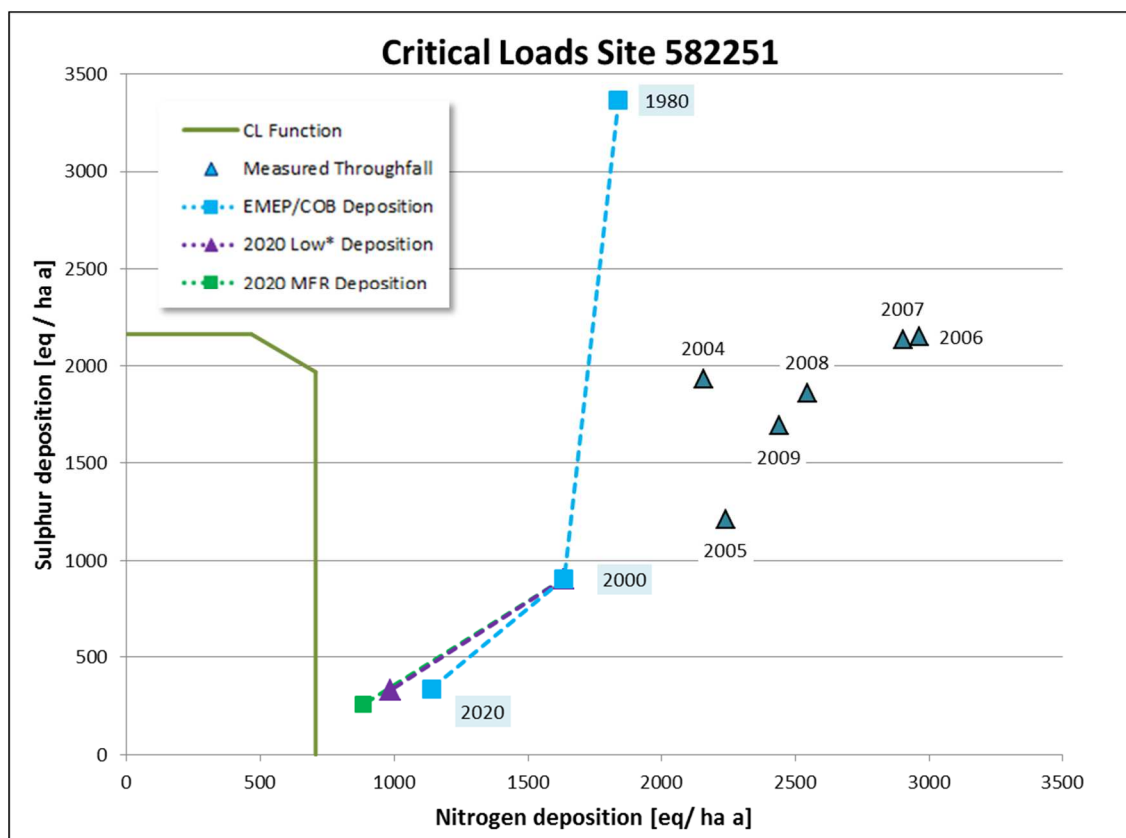
ICP Forest Level II Site: ID 582251

Country: Czech Republic

Critical Load calculation: SMB method

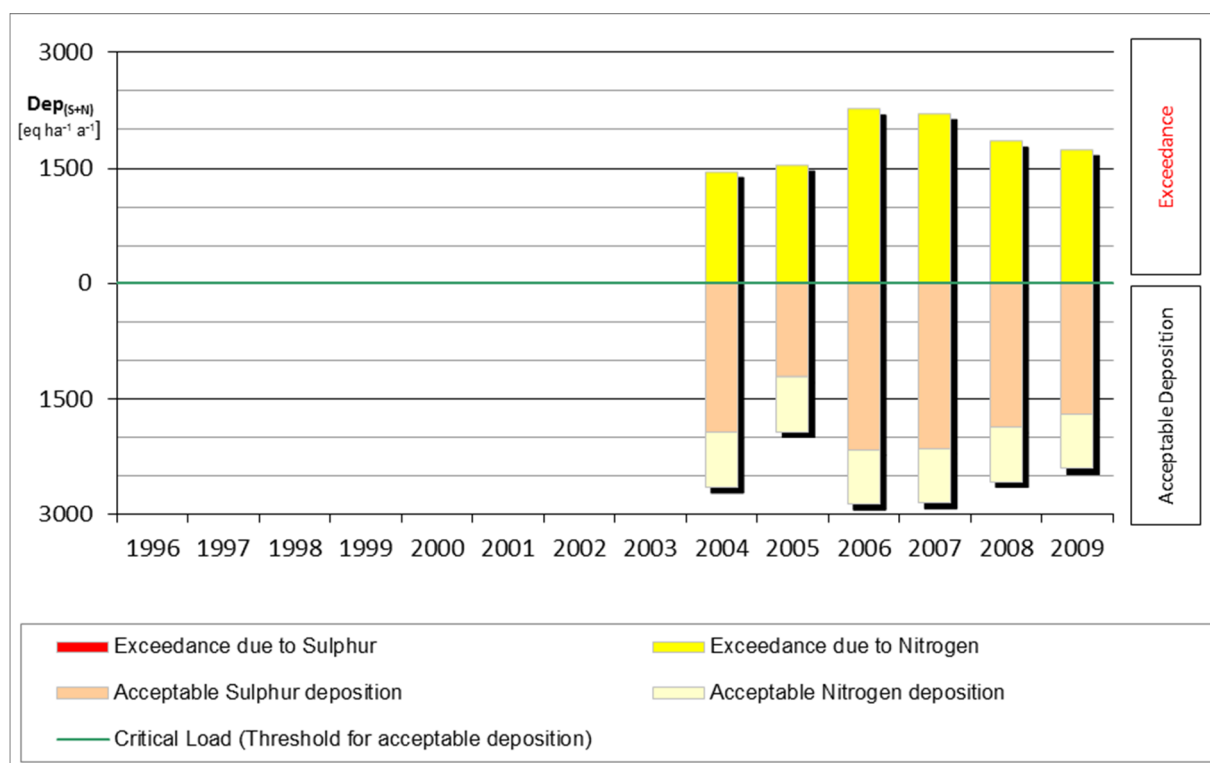
Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 2004 - 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge





Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

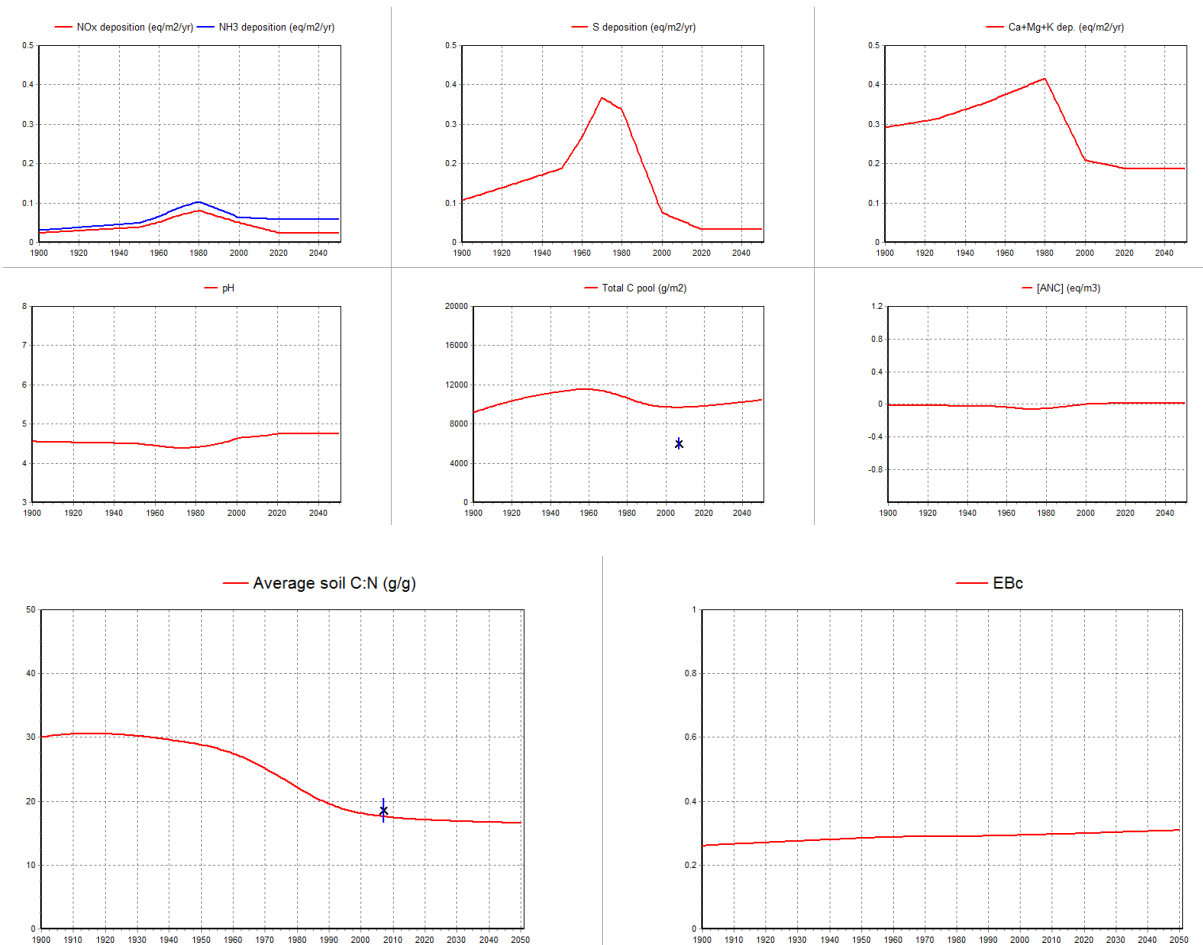
## ICP Forest Level II Site

ID 582251

Country: Czech Republic

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

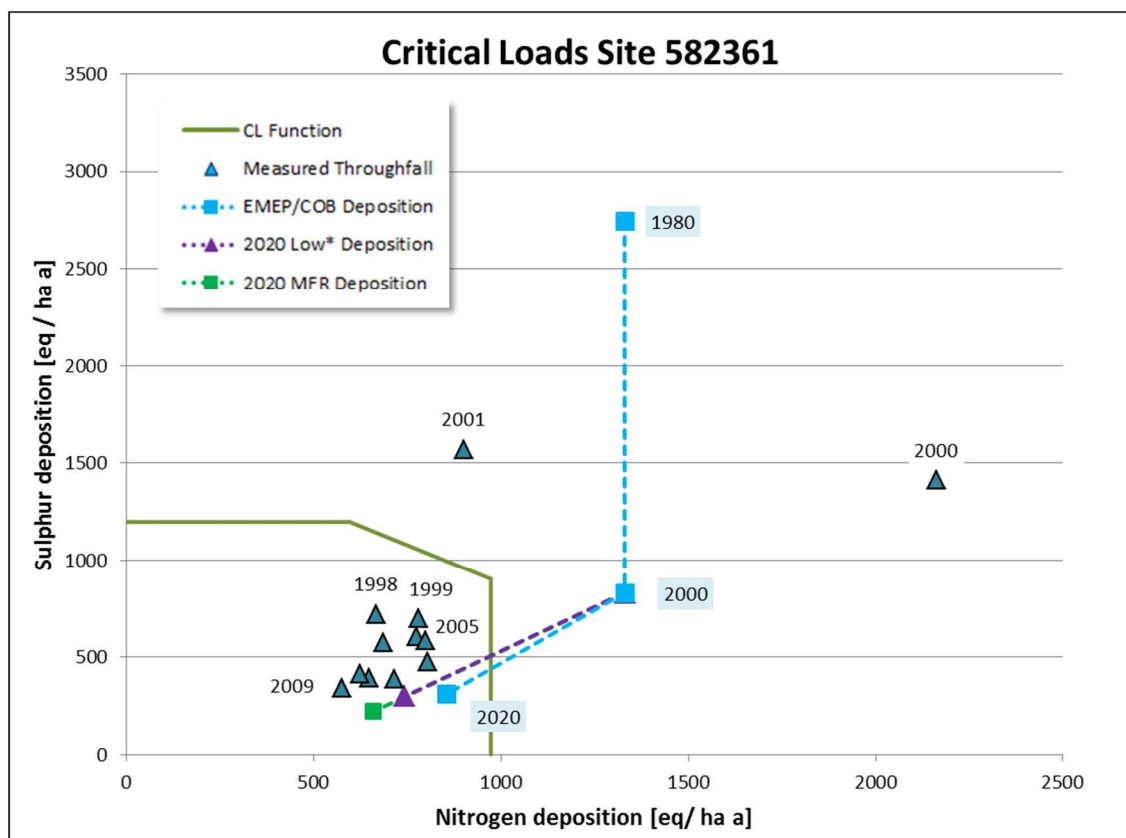
ICP Forest Level II Site: ID 582361

Country: Czech Republic

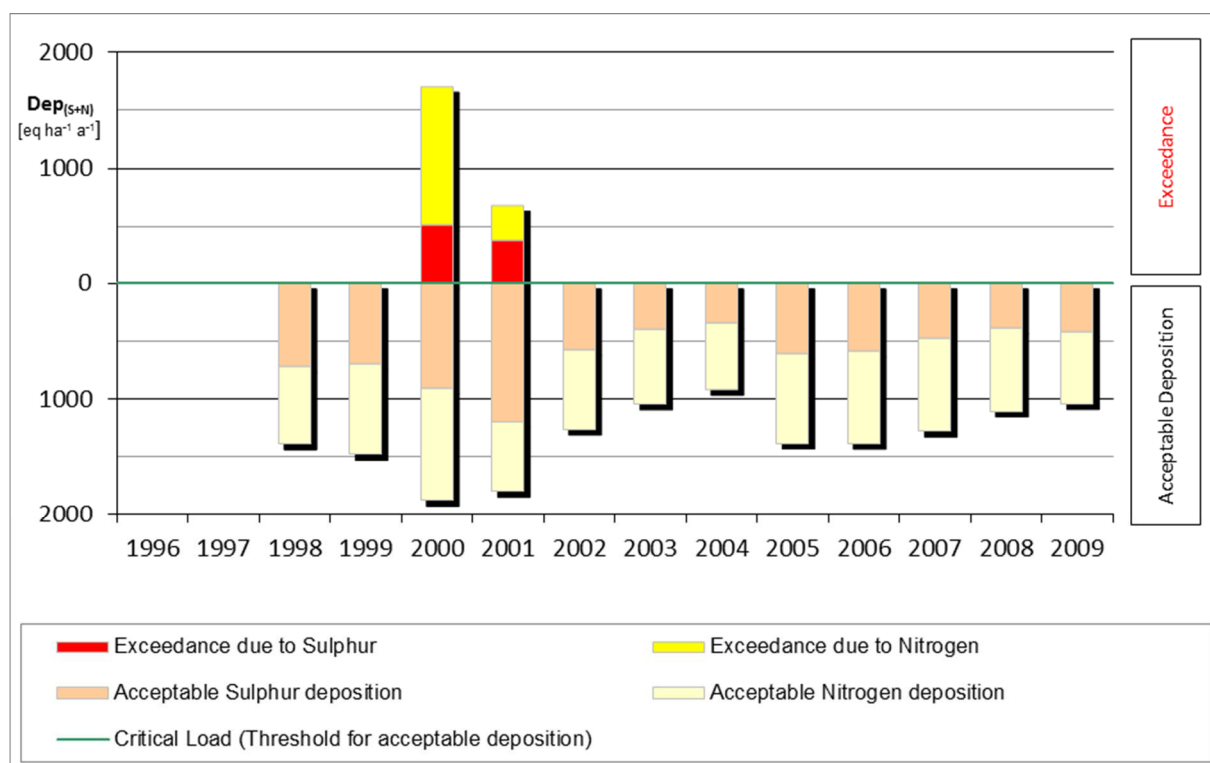
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 1998 - 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

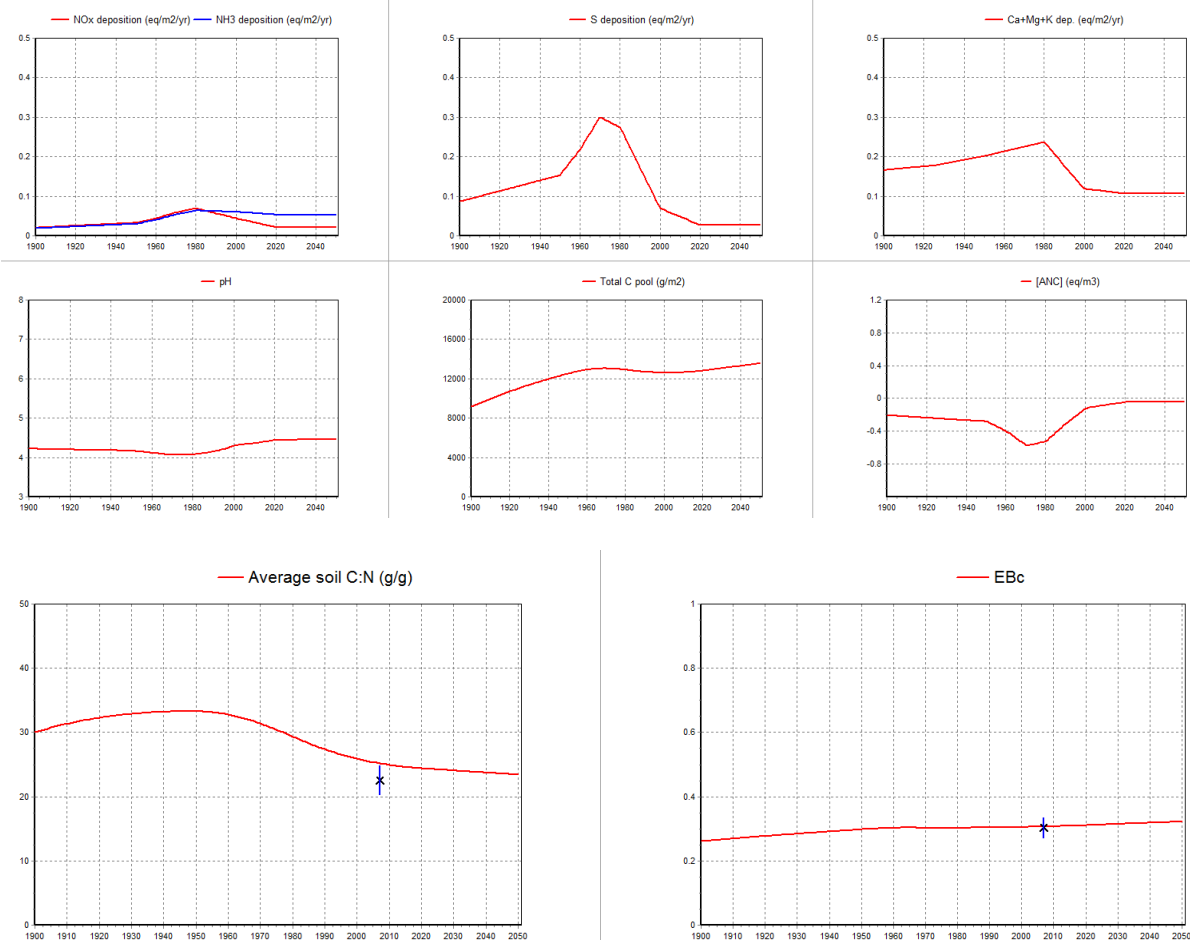
## ICP Forest Level II Site

ID 582361

Country: Czech Republic

VSD+ model

geochemical dynamics



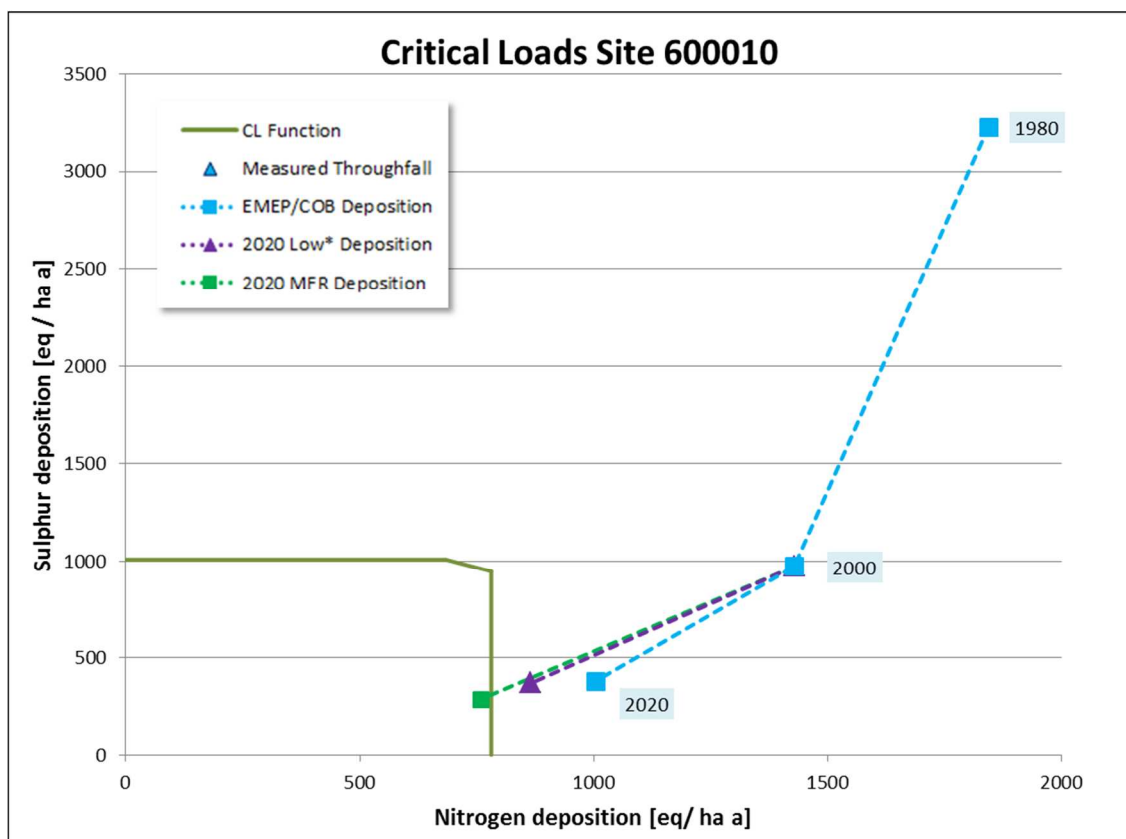
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: ID 600010

Country: Slovenia

Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020



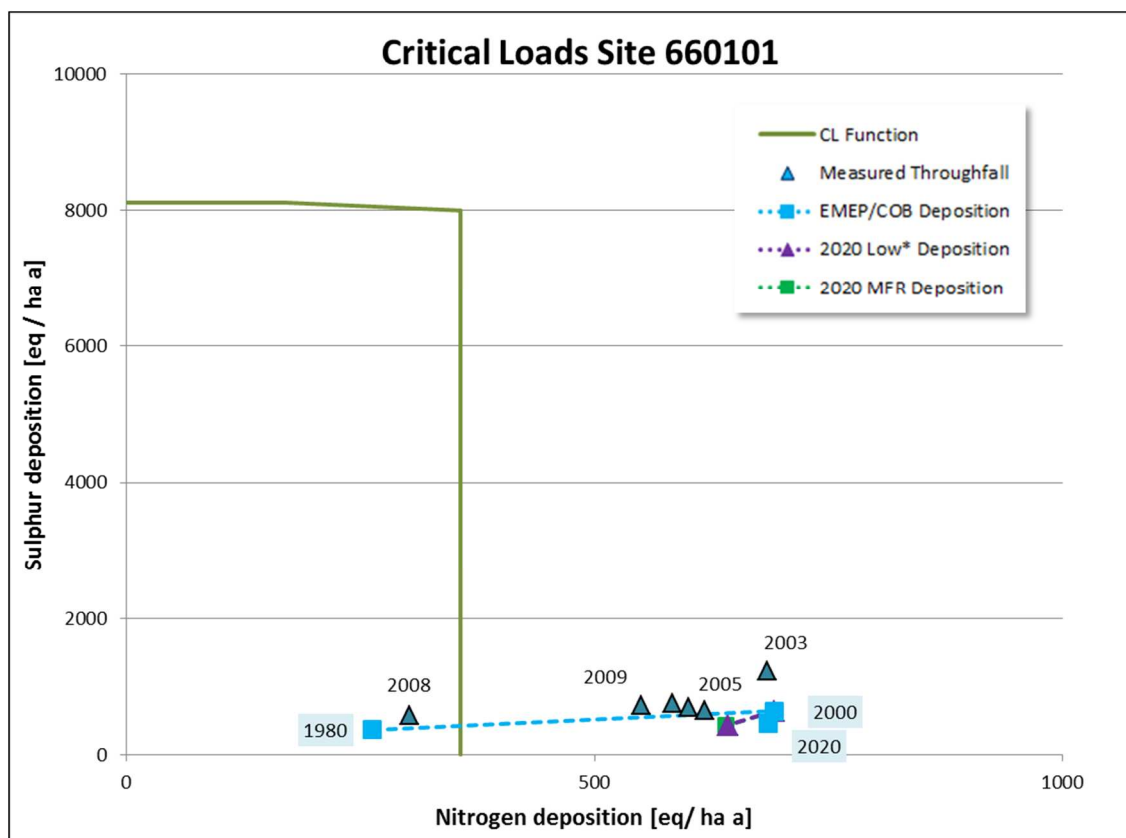
Critical and deposition loads of sulphur and nitrogen in different years

ICP Forest Level II Site: ID 660101 Country: Cyprus

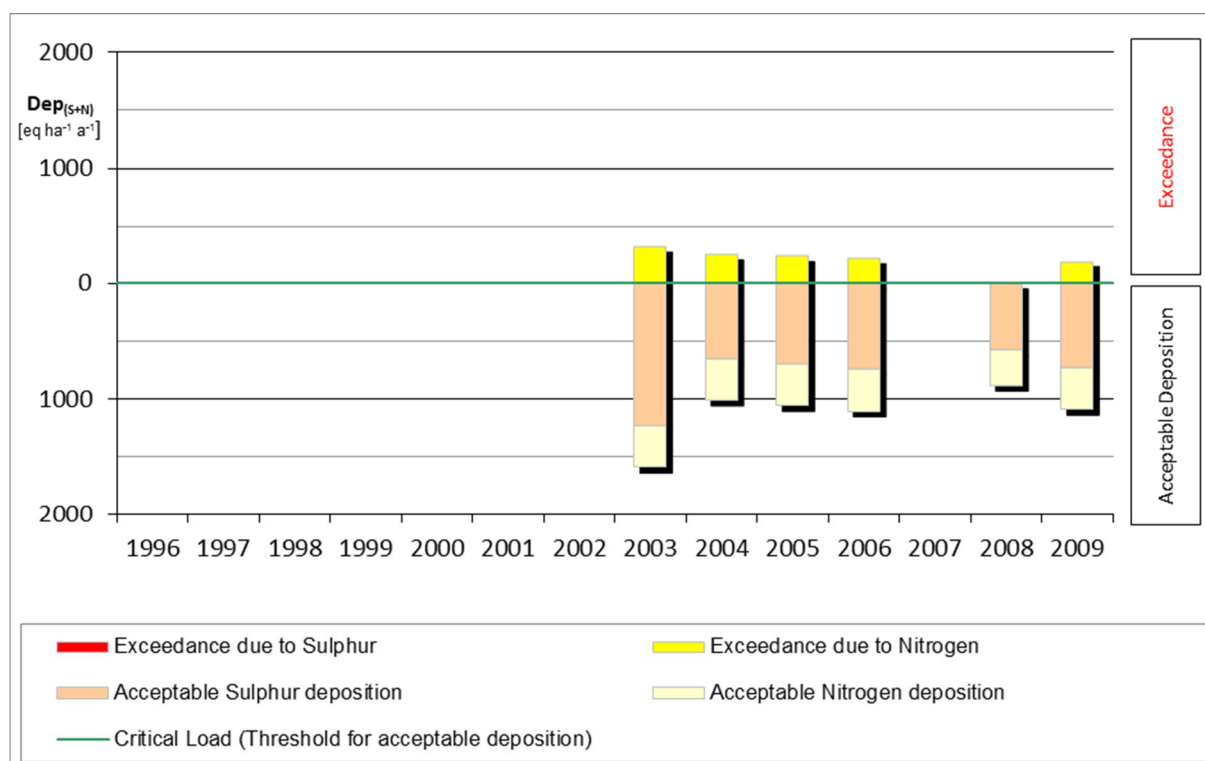
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 2003 – 2006, 2008, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen



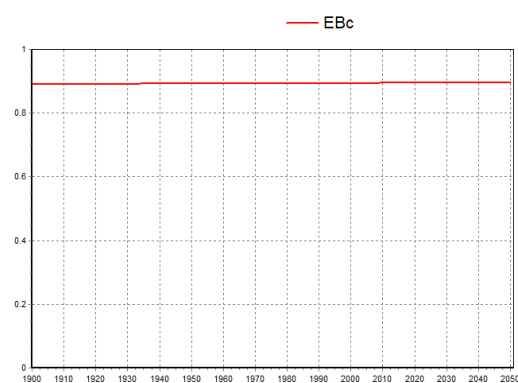
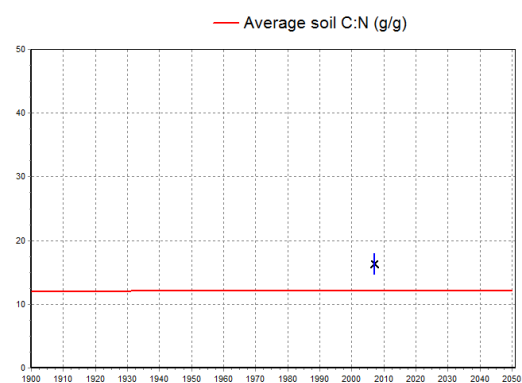
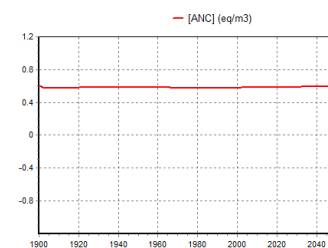
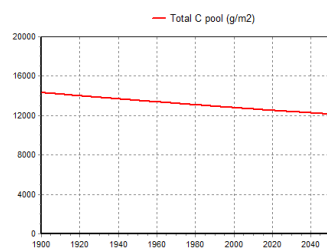
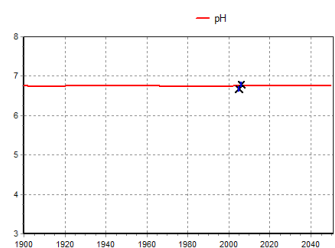
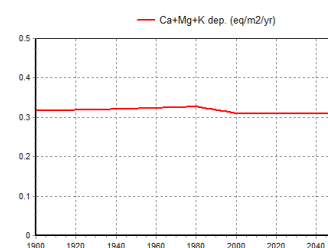
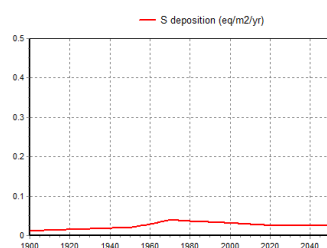
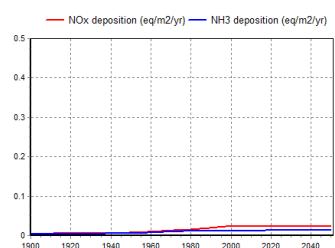
## ICP Forest Level II Site

ID 660101

Country: Cyprus

VSD+ model

geochemical dynamics



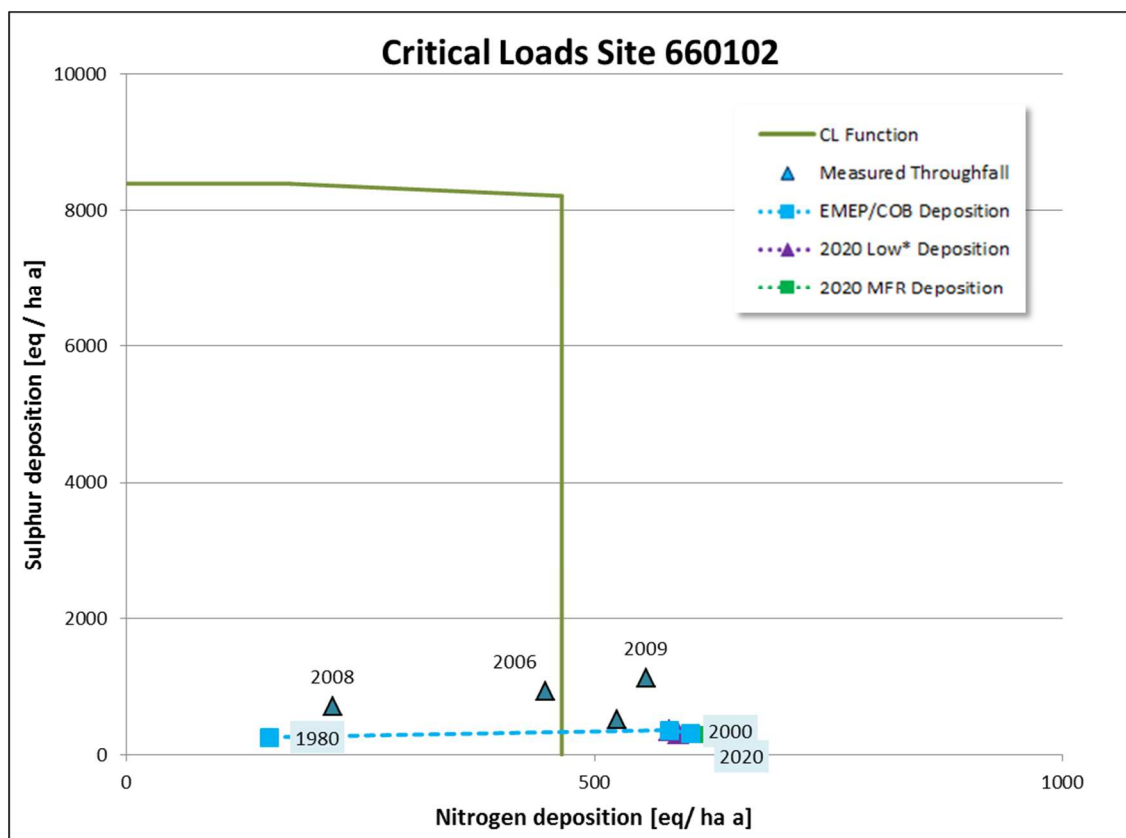
Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

ICP Forest Level II Site: ID 660102 Country: Cyprus

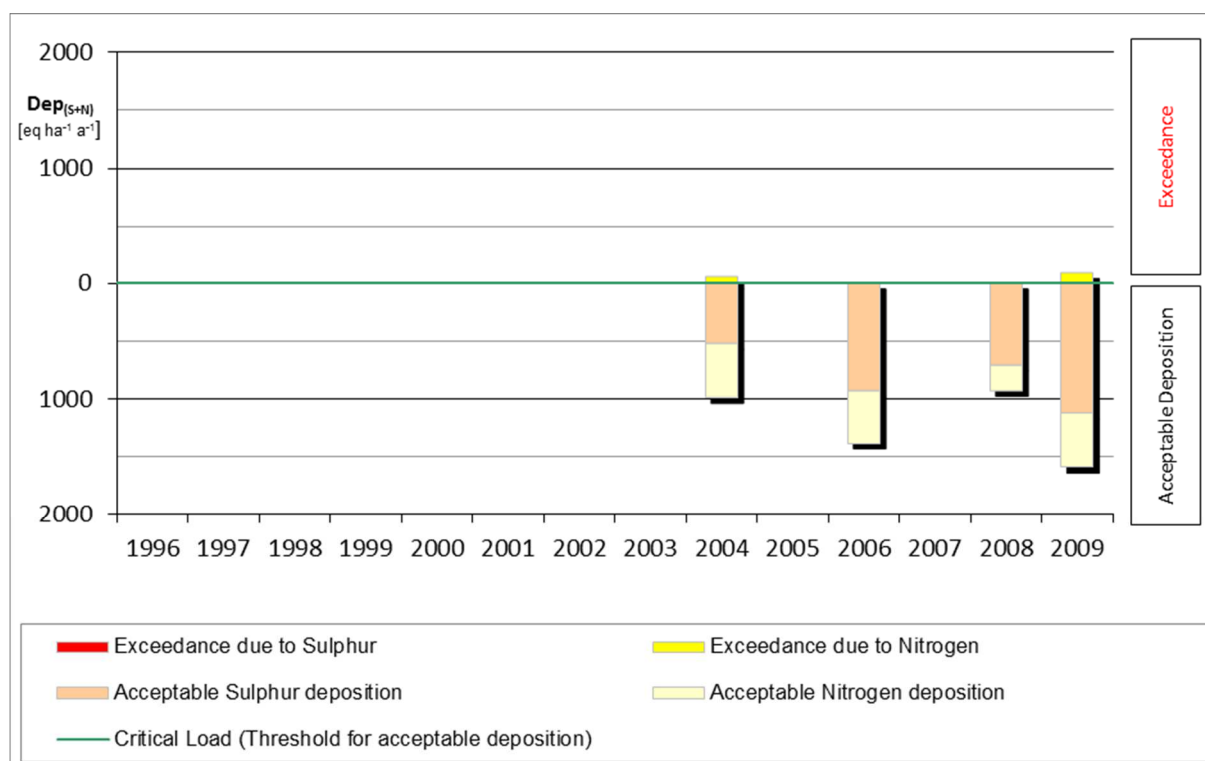
Critical Load calculation: SMB method

Deposition modelled: EMEP 1980, NATIONAL 2000, COB 2020, Low\* 2020, MFR 2020

Deposition measured: 2004, 2006, 2008, 2009



Critical and deposition loads of sulphur and nitrogen in different years, inside the critical load function (green line) significant harmful effects of acidification or eutrophication do not occur according to present knowledge



Acceptable intake and critical load exceedances by measured deposition due to sulphur and nitrogen

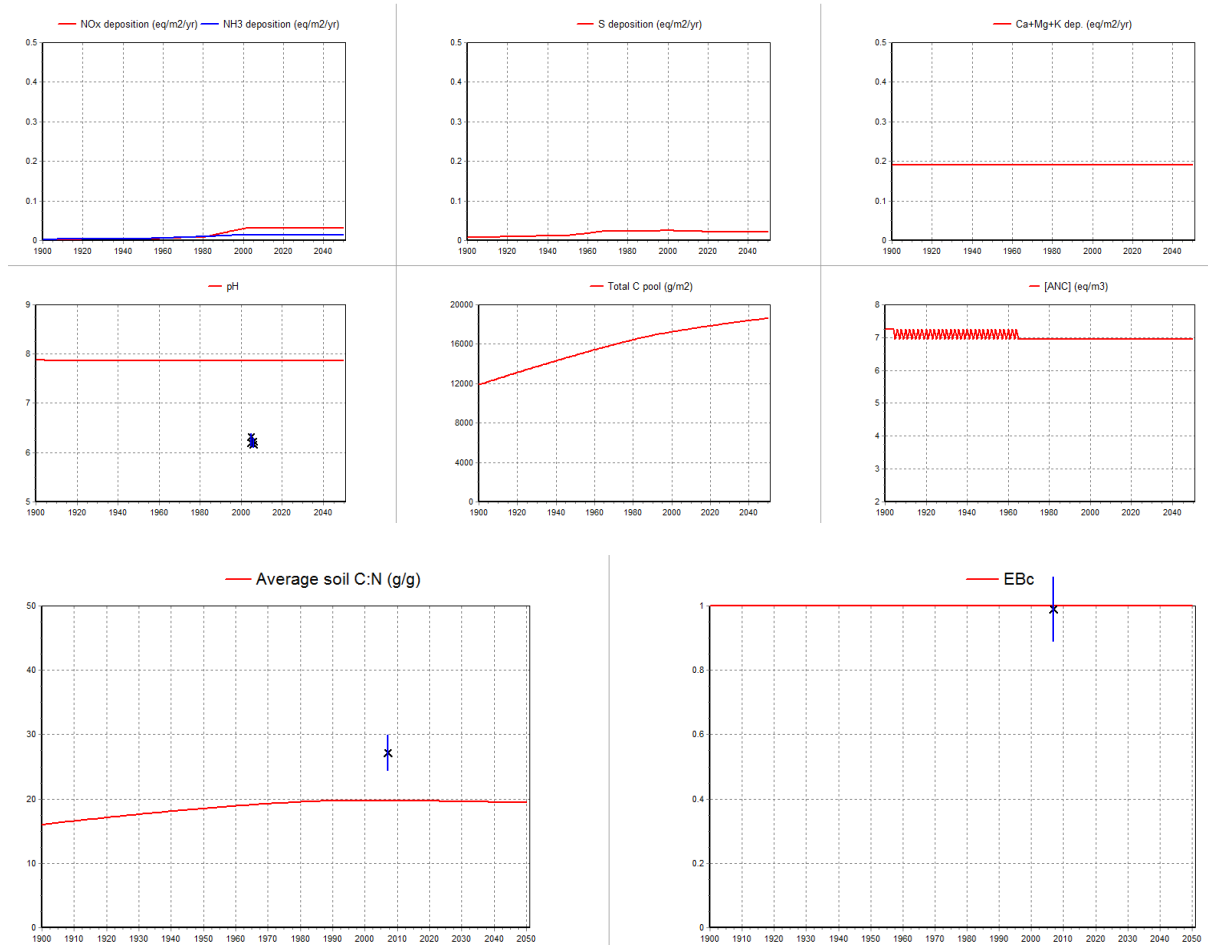
## ICP Forest Level II Site

ID 660102

Country: Cyprus

## VSD+ model

## geochemical dynamics



Dynamic change of geochemical parameters, modelled with VSD+ (lines) and measured / observed values (points)

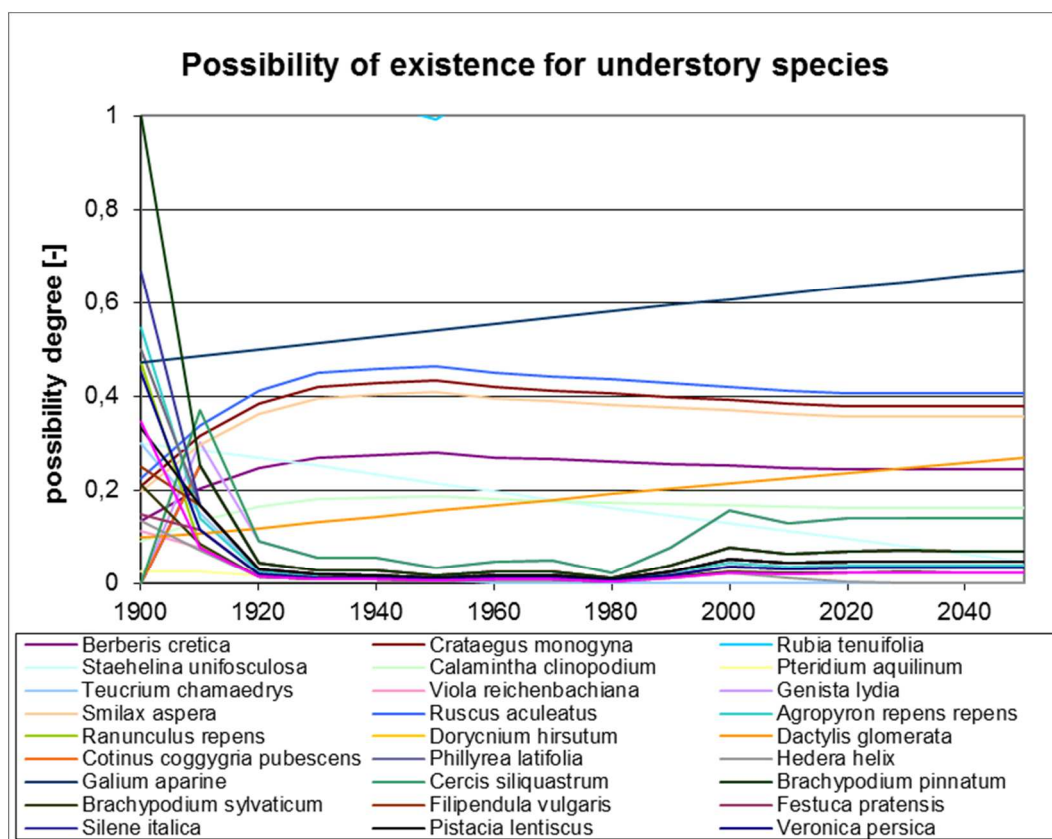
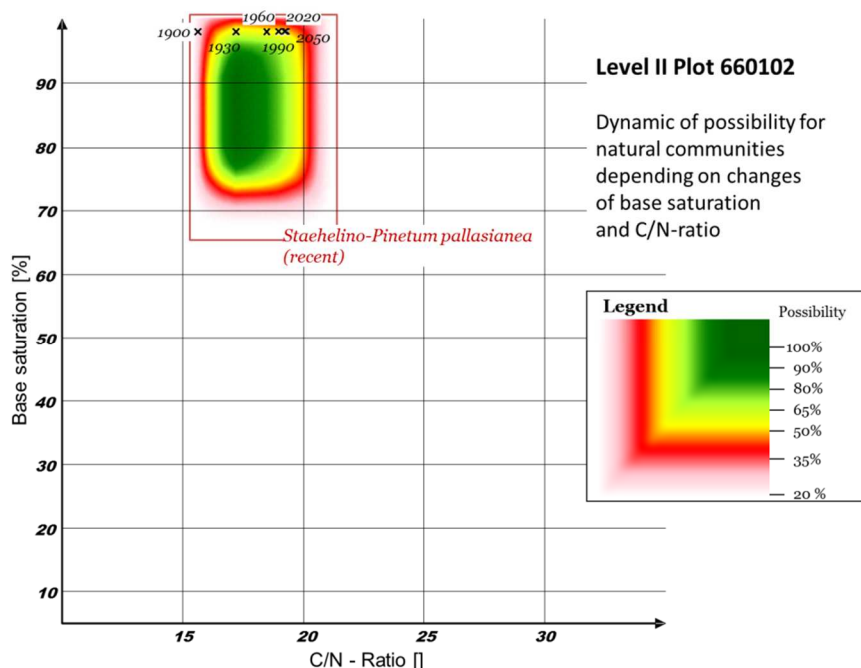
ICP Forest Level II Site

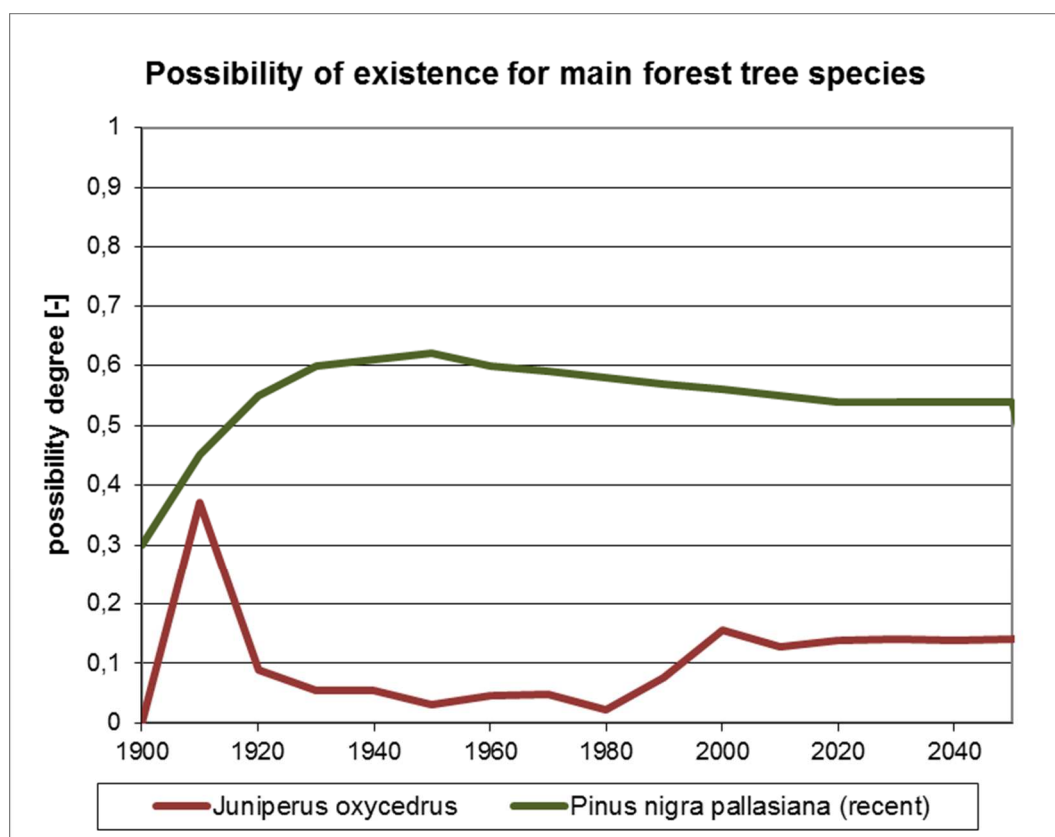
ID 660102

Country: Cyprus

BERN model

biodiversity effects





Conclusion: Tree species correspond to site conditions and will remain adapted