



# Open access publication guidelines



## The case of Ozone Profile Phase II – SI<sup>2</sup>N initiative

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## Ozone Profile Phase II – SI2N initiative

- SI2N is a common activity supported by SPARC, IOC (International Ozone Commission), IGACO-O<sub>3</sub>/UV (GAW) and NDACC (Network for Detection of Atmospheric Composition Change) dealing with vertical ozone profile changes relevant in the context of the documentation of effect of the Montreal Protocol .
- Assessment results will be published in the reviewed literature as **a special issue jointly organized** between
  - Atmospheric Chemistry and Physics (ACP)
  - Atmospheric Measurement Techniques (AMT)
  - Earth System Science Data (ESSD):  
Changes in the vertical distribution of ozone – the SI2N report






## Ozone Profile Phase II – SI<sup>2</sup>N initiative



- The special issue contains **publication of individual studies**: the special issue presently contains 33 published papers and 9 papers that are currently under review.
- **Three other papers have been published elsewhere. The papers cover a large part of studies of individual groups relevant for SI<sup>2</sup>N dealing with important aspects** such as data quality and trend analyses of ground-based ozone profile measurements (connected NDACC and GAW) and different satellite series. Six merged satellite series (covering different lengths) were produced used as basis for quasi-global ozone profile trend analysis. Three overview papers summarizing the main results of the study. One of the three overview papers (dealing with the measurements) is published, the other two (on validation of satellite measurements with ground based measurements and on the summary analysis and interpretation) are in preparation.



# Longterm records containing ozone profile information

	1960s	1970s	1980s	1990s	2000s
 Umkehr	█	█	█	█	█
Ozonesondes	█	█	█	█	█
Lidar: z < 25 km			█	█	█
Lidar: z > 25 km			█	█	█
Microwave				█	█
FTIR				█	█
 SBUV (/2)		█	█	█	█
 SAGE			█	█	█
HALOE			█	█	█
MLS			█	█	█ AURA
GOME (/2)				█	█
ODIN				█	█
ENVISAT					█
SCISAT					█
AURA					█

# The SI<sup>2</sup>N Initiative – working group structure

## Long-term ozone changes

Long-term satellite records  
*J. Tamminen, R. Wang*  
SAGE II reprocessing (1984-2005)  
SAGE extensions (1979-81; 2005 on)  
SBUV consolidation (1979-now)

Umkehr (Dobson & Brewer)  
*T. McElroy, I. Petropavlovskikh*  
Brewer data collection  
Retrieval improvement & QA/QC  
40 yr record with increasing coverage

Ozonesondes  
*S. Oltmans, H. Smit*  
Homogenised data set  
Clear documentation  
40 yr record with increasing coverage

## Climate variability

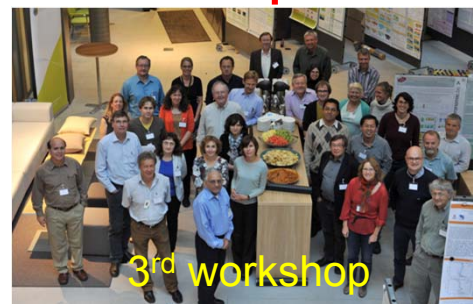
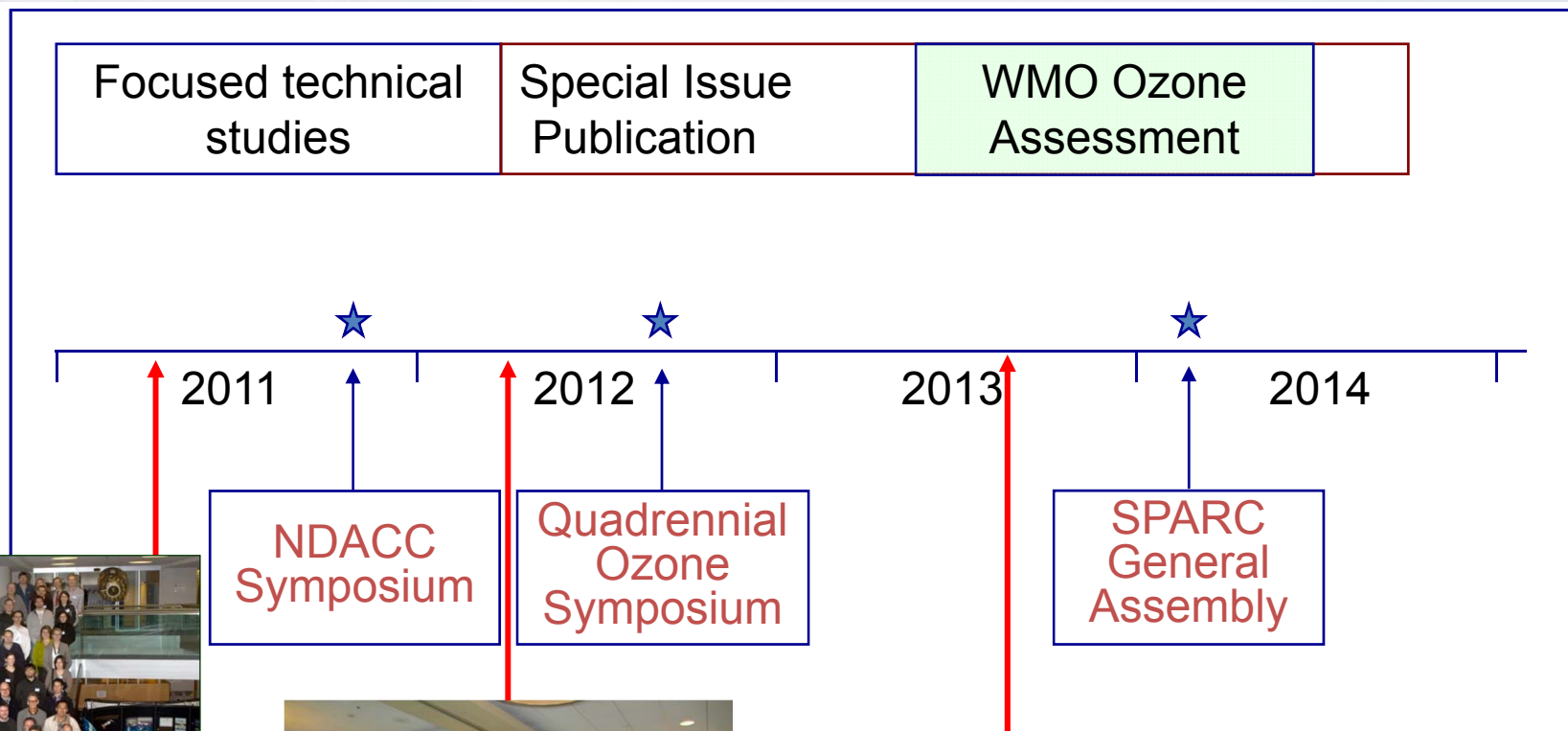
The last decade (satellite)  
*M. van Roozendaal, L. Froidevaux*  
ODIN, ACE, Envisat, Aura  
Existing projects  
SPARC Data Initiative

Ground-based systems  
*NDACC Working groups*  
Lidar, microwave and FTIR  
Internal consistency  
Mainly from ~1990 on

+ 1 on the issues  
associated with  
merging



# The SI<sup>2</sup>N Initiative - Timetable





# The SI<sup>2</sup>N Initiative - Reporting of results

(also see: <http://igaco-o3.fmi.fi/VDO/index.html>)



**SI<sup>2</sup>N summary papers**  
**ACP/AMT/ESSD special issue**

**Measurements**

*Lead*

*B. Hassler (NOAA)*

**Validation**

*Lead*

*J-C. Lambert (BIRA)*

**Analysis & Interpretation**

*Lead*

*N.R.P. Harris (Cambridge)*



**ACP/AMT/ESSD  
Special issue**  
*>40 research papers*

**Other journals**  
*~5 papers*



## Special issue advantages



- Fully peer-reviewed, with the journal review process *strengthened* for the overview papers by merging with the normal report review process (extra reviews and meeting).
- Open access journals, so whole process is transparent and open to public scrutiny.
- All the material is readily accessible.
- Scientists involved get full credit for their efforts in terms of publications (not always the case with reports or assessments), without having to write separate papers.
- Joint special issue allows papers covering technical issues (AMT) and scientific issues (ACP) can be published jointly with databases (ESSD) making process more traceable.
- General shape is quite clear, but no need to define the limits of the material yet, so new developments can easily be included in overview papers or in WMO-UNEP report.
- The facility for publishing supplementary material gives the opportunity to make more of the underlying analyses available.



# Summary

- **Two step publication**: Individual papers and overview parts. This concept allows (a) to present the individual parts of the study as individual papers, (b) internal review by a co-authors review of the submitted overview papers and (c) an external and independent review including the overview papers.
- **Open access journals should have a central role** in the publication of future reports. The number of ‘traditional’ reports should be quite small where the material contained is publishable. **The ‘traditional’ mechanism will probably remain important** for the more technical, less publishable reports including parts that are important e.g. for agencies and material difficult to publish in the open literature.