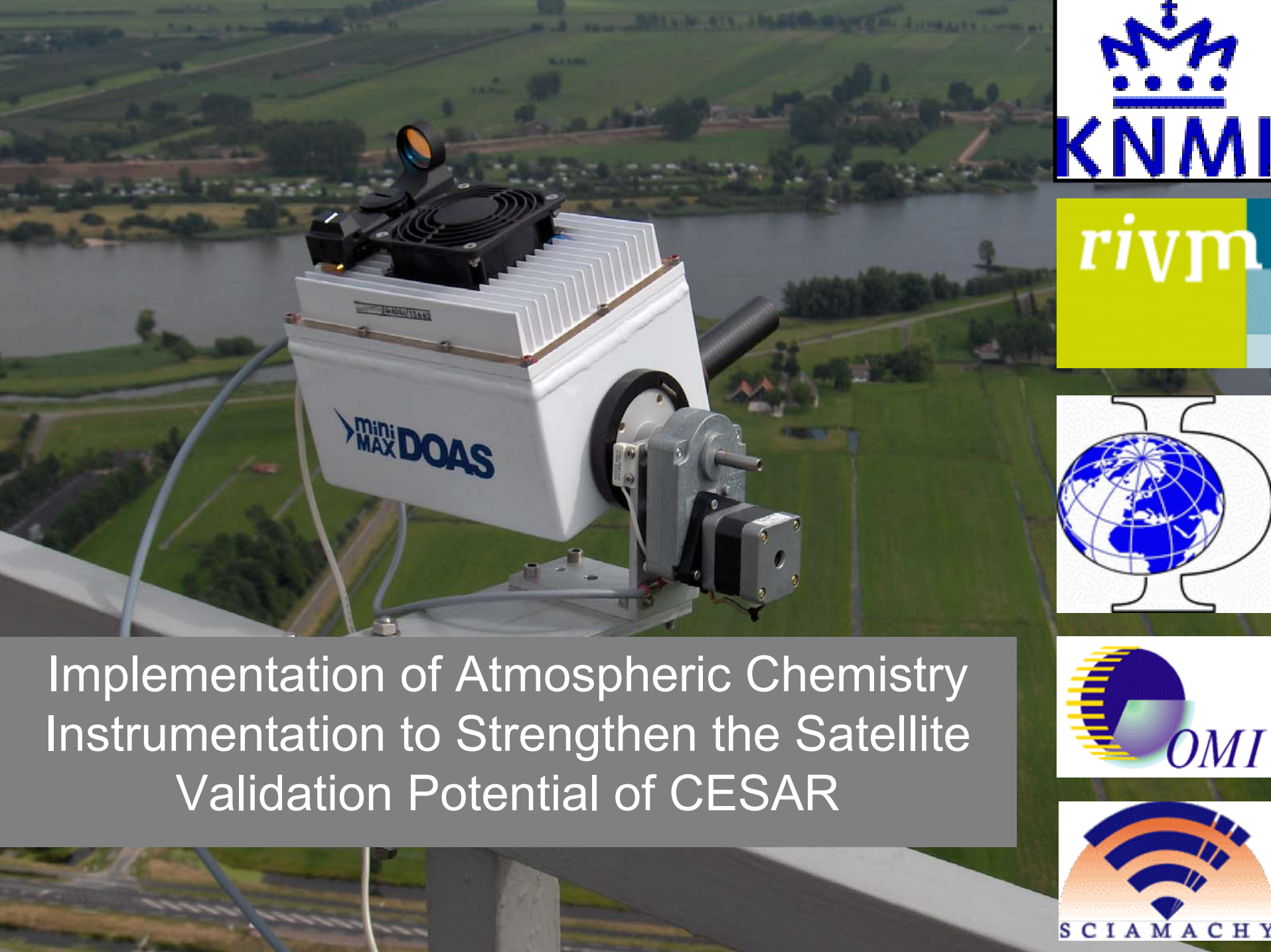


Implementation of Atmospheric Chemistry Instrumentation to Strengthen the Satellite Validation Potential of CESAR

KNMI

rivm

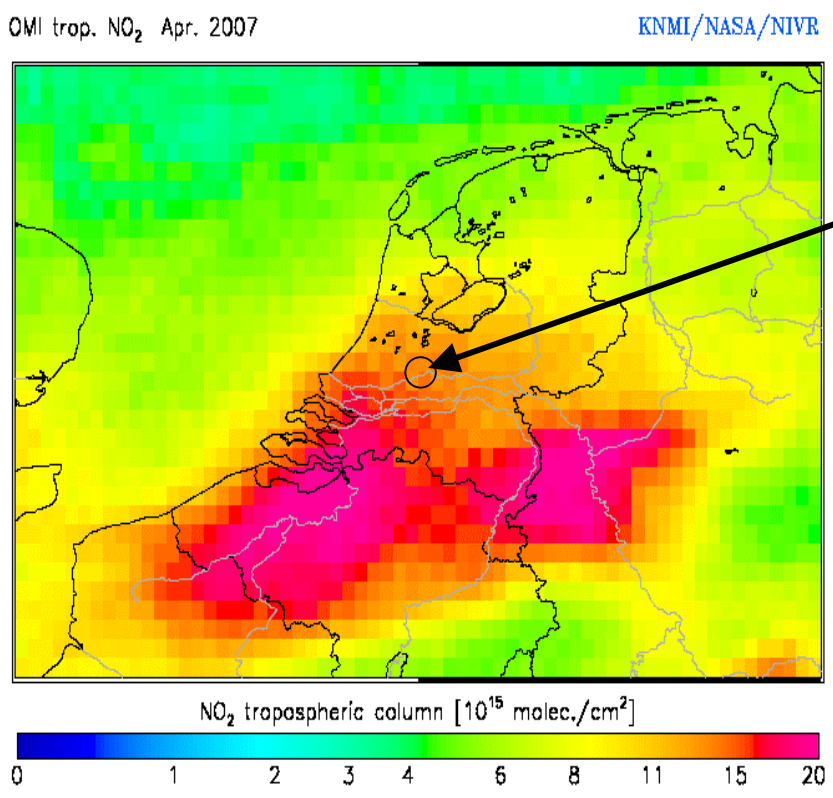
OMI

SCIAMACHY

Cabauw site (CESAR):
- meteorological data
- radiation measurements
- *atmospheric chemistry measurements*

Focus of this project:

- Tropospheric NO2 & O3



Instrum.	*Species*		*Location*	*Frequency*	*Funding*
RADIAL	ozone profile	1-15 km	Bilthoven	1 / week	USP / RIVM
	aerosol optical prop.	1-3 km			
Brewer	ozone column	total column	De Bilt	Contin.	KNMI
	NO_2 column				
ozone sondes	ozone profile	0-30 km	De Bilt	1/week	KNMI
Mini-MaxDOAS	NO_2, O_3, aerosol, HCHO, SO_2, O_2-O_2	BL col. (day)	Cabauw & De Bilt	Contin.	USP / KNMI
		Col. (twilight)			
		BL profile (*)			
Max DOAS	NO_2, O_3, aerosol, HCHO, SO_2, O_2-O_2	BL col. (day)	Cabauw	Contin.	Uni.Heidel EUSAAR
		Col. (twilight)			
		BL profile (*)			
NO_2 lidar	NO_2 profile	0-2.5 km	Mobile	campaign	USP / RIVM
In situ sampler	NO_2, O_3 and other species	ground level	Cabauw (and other Dutch.locations)	Contin.	RIVM

Plans:

- NO_2 and O_3 campaign in May 2008 along with the EUCAARI IOP campaign at Cabauw (clouds & aerosols)
- Intention to play a part in the AMFIC project (SO_2 and NO_2 in China) with the Mini-MAX DOAS
- Continuous measurements at De Bilt (KNMI) and / or Cabauw of NO_2 and O_3