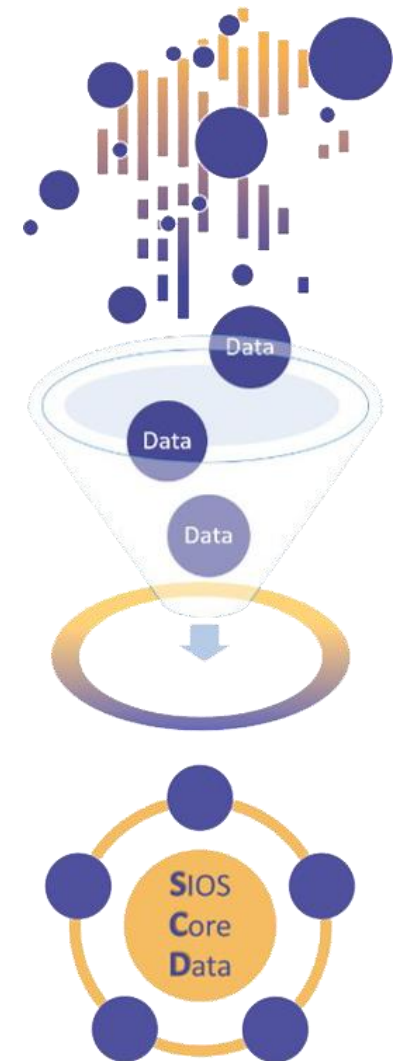


# SIOS Core Data

## Mapping results

Version 1.1  
8<sup>th</sup> December 2020



## List of the SIOS member institutions that commit to delivery the core data (on day 8<sup>th</sup> December 2020):

1. University of Oslo (UiO)
2. Alfred Wegener Institute (AWI)
3. National Centre for Polar and Ocean Research (NCPOR)
4. Institute of Geophysics, Polish Academy of Science (IGF)
5. Andøya Space Center (ASC)
6. Norwegian Meteorological Institute (MET)
7. Norwegian Polar Institute (NPI)
8. Norwegian Institute for Air Research (NILU)
9. Norwegian Water Resources and Energy Directorate (NVE)
10. Norwegian Institute for Water Research (NIVA)
11. University of Bergen (UiB)
12. Institute of Marine Research (IMR)
13. Institute for Atmospheric and Earth System Research of the University of Helsinki (INAR)
14. Swedish Polar Research Secretariat (POLAR.SE)
15. Norwegian Research Centre AS (NORCE)
16. National Research Council of Italy (CNR)

SIOS CORE DATA

SIOS CORE DATA  
CANDIDATE

	ASC	AWI	MET	IGF	NVE	UiO	NPI	CNR
SCD 1.1. WIND SPEED	YES	YES	YES	YES	NO	YES	YES	YES
SCD 1.2. WIND DIRECTION	YES	YES	YES	YES	NO	YES	YES	YES
SCD 1.3. AIR TEMPERATURE	YES	YES	YES	YES	YES	YES	YES	YES
SCD 1.4. NET RADIATION	NO	YES	YES	YES	NO	YES	YES	YES
SCD 1.5. SHORTWAVE RADIATION	NO	YES	YES	YES	NO	YES	YES	YES
SCD 1.6. LONGWAVE RADIATION	NO	YES	YES	YES	NO	YES	YES	YES
SCD 1.7. 24 HOUR PRECIPITATION AMOUNT	NO	YES	YES	YES	NO	NO	YES	YES
SCD 1.8. HUMIDITY	YES	YES	YES	YES	NO	YES	YES	YES
SCD 1.9. UPPER AIR TEMPERATURE	YES	YES	YES	NO	NO	NO	NO	NO
SCD 1.10. UPPER LEVEL WINDS	YES	YES	NO	NO	NO	NO	NO	NO

SIOS CORE DATA

SIOS CORE DATA  
CANDIDATE

	AWI	IGF	NCPOR	INAR	NILU	POLAR.SE	CNR
SCD 1.11. CLOUD TYPES	NO	YES	NO	NO	NO	NO	NO
SCD 1.12. CLOUD HEIGHT	YES	YES	YES	NO	NO	NO	NO
SCD 1.13. WATER VAPOR FLUX	NO	NO	NO	NO	NO	NO	NO
SCD 1.14. CARBON DIOXIDE	NO	NO	NO	NO	YES	NO	NO
SCD 1.15. NITROGEN DIOXIDE	NO	NO	NO	NO	YES	NO	NO
SCD 1.16. OZONE	NO	NO	NO	NO	YES	NO	YES
SCD 1.17. METHANE	NO	NO	NO	NO	YES	NO	NO
SCD 1.18. AEROSOL OPTICAL DEPTH/THICKNESS	YES	YES	NO	NO	YES	NO	NO
SCD 1.19. AEROSOL PARTICLE PROPERTIES	NO	NO	NO	YES	YES	YES	YES
SCD 1.20. CHEMICAL COMPOSITION	NO	NO	NO	NO	YES	NO	YES

SIOS Core Data

SCD 1

ATMOSPHERE

SIOS CORE DATA

SIOS CORE DATA  
CANDIDATE

	ASC	IGF	NCPOR	NILU	POLAR.SE	CNR
SCD 1.21. CO2, FLUX	NO	NO	NO	NO	NO	YES
SCD 1.22. CH4, FLUX	NO	NO	NO	NO	NO	NO
SCD 1.23. AEROSOL IN SITU ABSORPTION	NO	NO	YES	YES	YES	YES
SCD 1.24. AEROSOL IN SITU SCATTERING	NO	NO	YES	NO	YES	YES
SCD 1.25. BLACK CARBON	NO	NO	YES	YES	YES	NO
SCD 1.26. U/V WIND COMPONENTS	NO	NO	NO	NO	NO	NO
SCD 1.27. TURBULENCE	NO	NO	NO	NO	NO	NO
SCD 1.28. VERTICAL WIND VELOCITY/SPEED	YES	NO	NO	NO	NO	NO
SCD 1.29. All-sky (630.0 nm, 557.7nm, 427.8 nm., cloud observation)	NO	YES	NO	NO	NO	NO
SCD 1.30. Nem(F2), hm(F2) - Peak values ionosphere F2 layer	NO	NO	NO	NO	NO	NO

## SIOS CORE DATA

SIOS CORE DATA  
CANDIDATE

	AWI	MET	IGF	NVE	UiO	POLAR.SE	NPI	NORCE	CNR
SCD 2.1. GLACIER MASS BALANCE	NO	NO	YES	NO	YES	YES	YES	NO	NO
SCD 2.2. GLACIER ELEVATION	NO	NO	YES	NO	NO	YES	NO	YES	NO
SCD 2.3. ICE VELOCITY	NO	NO	NO	NO	NO	YES	YES	YES	NO
SCD 2.4. PERMAFROST TEMPERATURE	YES	YES	YES	NO	NO	NO	NO	NO	NO
SCD 2.5. ACTIVE LAYER	NO	YES	NO	NO	NO	NO	NO	NO	NO
SCD 2.6. PERMAFROST	NO	NO	NO	NO	NO	NO	NO	NO	NO
SCD 2.7. GROUND ICE	NO	NO	NO	NO	NO	NO	YES	NO	NO
SCD 2.8. SNOW DEPTH	YES	YES	YES	YES	YES	NO	YES	NO	YES
SCD 2.9. SNOW WATER EQUIVALENT	YES	NO	YES	YES	NO	NO	YES	NO	NO
SCD 2.10. SNOW COVER	NO	YES	NO	NO	NO	NO	YES	NO	NO
SCD 2.11. SNOW/ICE TEMPERATURE	YES	NO	NO	NO	NO	NO	YES	YES	NO

SIOS Core Data  
SCD 3  
TERRESTRIAL



	AWI	MET
SCD 3.1. SOIL MOISTURE/WATER CONTENT	YES	YES

SIOS Core Data

SCD 4

OCEANS

SIOS CORE DATA

SIOS CORE DATA  
CANDIDATE

	AWI	IGF	NCPOR	NIVA	UiB	IMR	NPI	CNR
SCD 4.1. SEA SURFACE HEIGHT	YES	YES	NO	NO	NO	NO	NO	NO
SCD 4.2. SEA LEVEL RISE	NO	NO	NO	NO	NO	NO	NO	NO
SCD 4.3. OCEAN CURRENTS	YES	NO	YES	NO	YES	YES	YES	YES
SCD 4.4. SEA SURFACE TEMPERATURE	YES	NO	NO	YES	YES	NO	YES	NO
SCD 4.5. SALINITY	YES	YES	YES	YES	YES	NO	YES	YES
SCD 4.6. OCEAN HEAT BUDGET	NO	NO	NO	NO	NO	NO	NO	NO
SCD 4.7. SEA STATE	NO	YES	NO	NO	NO	NO	NO	NO
SCD 4.8. WATER TEMPERATURE	YES	YES	YES	YES	YES	YES	YES	YES
SCD 4.9. CHLOROPHYLL CONCENTRATIONS	YES	YES	YES	YES	NO	NO	YES	NO



More information about the SIOS core data (SCD) can be found here:

[www.sios-svalbard.org/CoreData](http://www.sios-svalbard.org/CoreData)

[SIOS Core Data Documentation](#)

[List of SIOS Core Data v1](#)

[SCD workshop, 5/6 November, 2020](#)



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