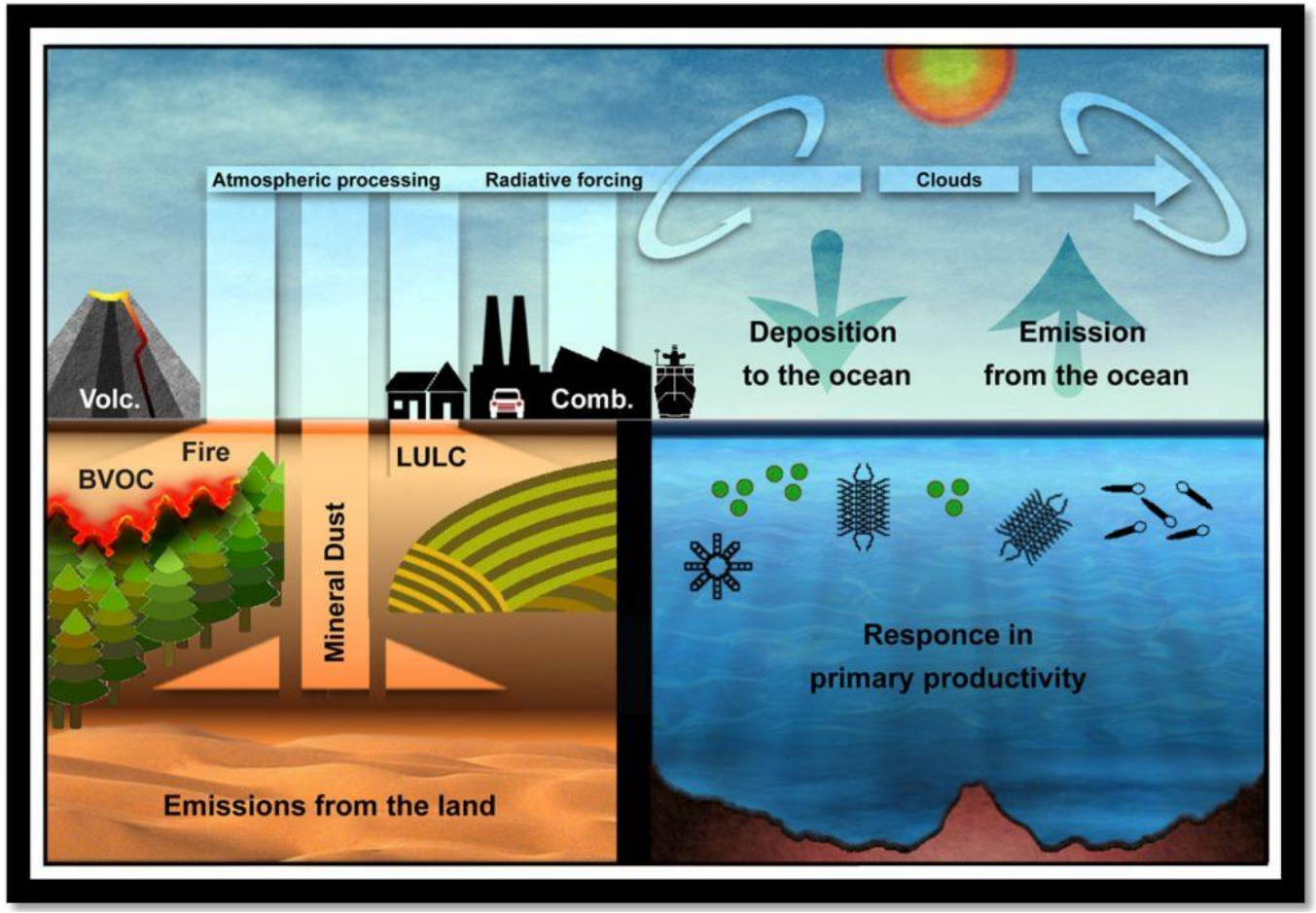
Working Group 167 - RUSTED

Reducing Uncertainty in Soluble aerosol Trace Element Deposition

Douglas S. Hamilton, Akinori Ito, Morgane M.G. Perron, (Rachel Shelley)



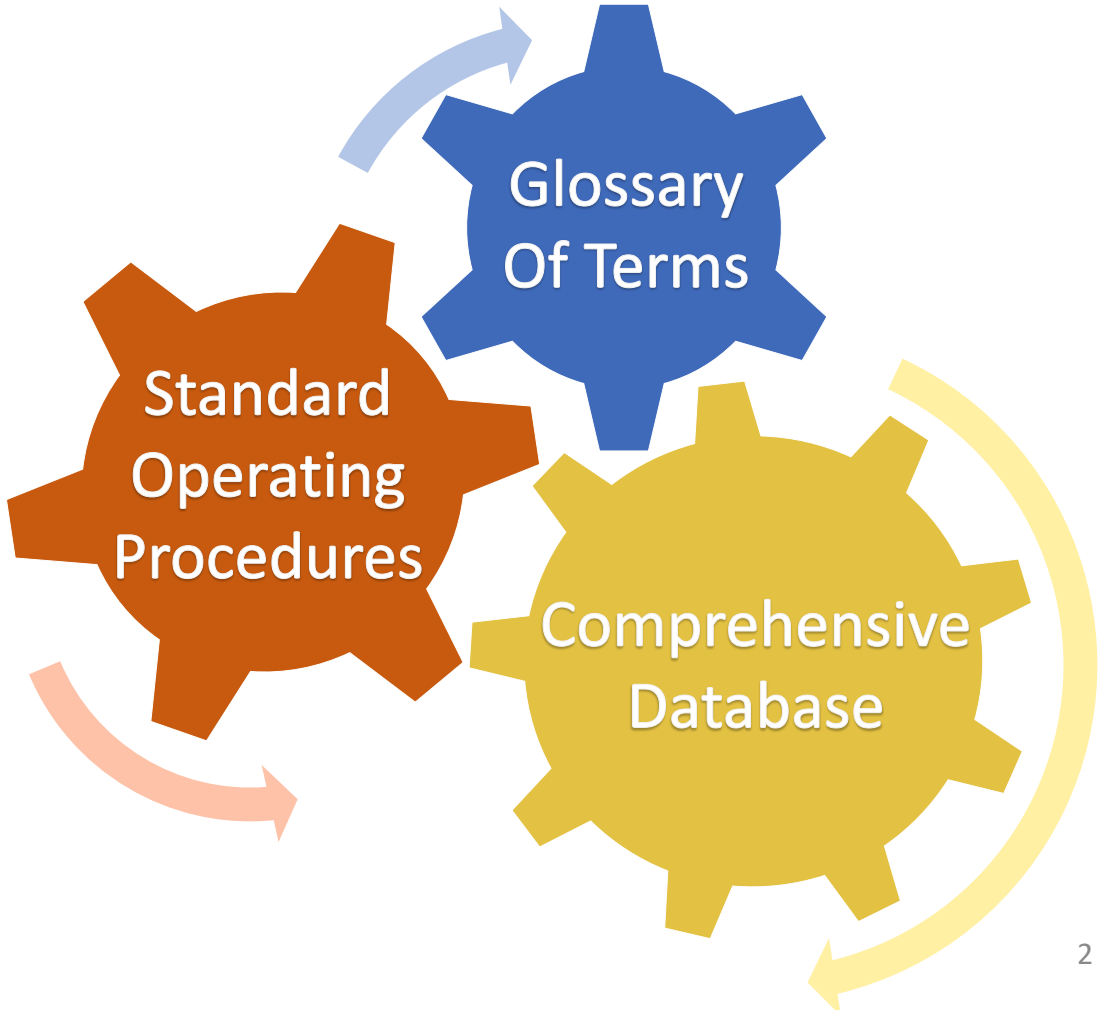
Reducing Uncertainty in Soluble aerosol Trace Element Deposition

Presentation | Outreach | Work in progress

TERMS OF REFERENCE - ToRs

- **ToR 1** — **Literature :** Identify knowledge gaps in linking aerosol geochemistry with micronutrients solubility in the ocean
- **ToR 2** — **Assessment :** Aerosol trace element solubility protocol intercomparison study
- **ToR 3** — **Tools and chemical tracers** to better understand aerosol Fe solubility
- **ToR 4** — **Numerical Models :** from data incorporation to informing future studies

Key deliverables



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Full Members

Name	Gender	ECR	Affiliation
Douglas Hamilton	N/Binary	Yes	North Carolina State University
Morgane Perron	F	Yes	LEMAR
Akinoro Ito	M	No	JAMSTEC
Hind Al-Abadleh	F	No	Wilfred Laurier University
Tung-Yuan Ho	M	No	Academia Sinica
Diego Gaiero	M	No	National University of Cordoba
Cassie Gaston	F	Yes	RSMAS/University of Miami
Ashwini Kumar	M	No	CSIR-National Institute of Oceanography
Ying Ye	F	Yes	Alfred Wegener Institute
Mingjin Tang	M	No	GIGCAS
Rachel Shelley	F	No	University of East Anglia

Associate Members

Name	Gender	ECR	Affiliation
Holly Winton	F	Yes	Victoria University of Wellington
Andrew Wozniak	M	No	University of Delaware
Joo-Eun Yoon	F	Yes	University of Cambridge
Yeala Shaked	F	No	Hebrew University of Jerusalem
Nicholas Meskhidze	M	No	North Carolina State University
Peter Croot	M	No	Irish National University, Galway
Cecile Guieu	F	No	LOV
Susanne Fietz	F	No	Stellenbosch University
Andy Bowie	M	No	University of Tasmania
Alex Baker	M	No	University of East Anglia

15 countries - 35% ECR - 45% women

Referee : Marie-Alexandrine Sicre

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Presentation

2024 organisation into subgroups :

Member	Database	Review	Modelling	ECR workshop
Morgane		x	x	x
Douglas	x		x	x
Akinori	x	x	x	x
Hind		x		
Tung-Yuan			x	
Diego		x		
Cassie			x	
Mingjin		x		
Ashwini		x	x	x
Ying			x	x
Holly		x	x	
Andrew		x		
Joo-Eun			x	
Yeala		x		
Nicholas	x			x
Peter	x	x		
Cecile		x	x	
Susanne			x	x
Andy		x		x
Alex	x	x	x	

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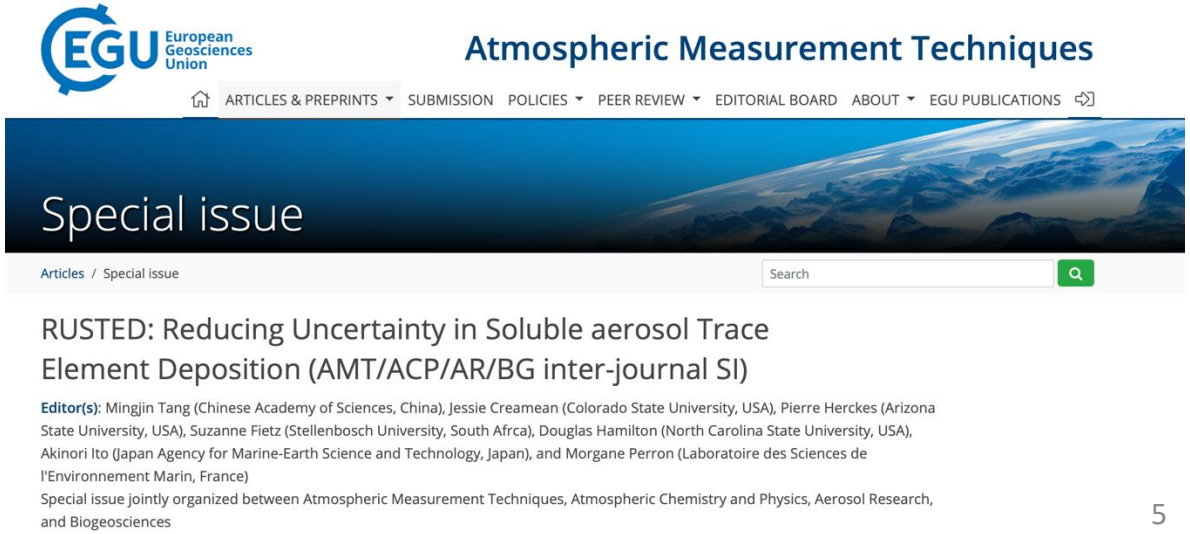
- **RUSTED member meetings**
  - All hands : 2 virtual
  - Co-chairs : monthly communication + 2 virtual
  - Subgroups : 3 virtual + 2 onsite (AGU 2023, Goldschmidt 2024)

- **RUSTED second annual hybrid meeting**

SCOR funding used to support onsite participation of working group members.

- **RUSTED outreach**
  . RUSTED Special Issue : 7 papers submitted
  . SOLAS Open Science Conference

November 2024, India : 1 Discussion, 1 Poster
  . SOLAS ECR workshop



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RUSTED Activities

Inter-Comparison

Mingjin T.

All data received : Feb 24

Statistical analysis done

Data interpretation - Ms outline

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Presentation | Outreach | **Work in progress**

RUSTED Activities

Inter-Comparison

Mingjin T.

- All data received : Feb 24 ✓
- Statistical analysis : Sept 24 ✓
- Data interpretation - Ms outline ◔

Database

Douglas H. / Alex B.

- Which repository?
- Collaborative work?

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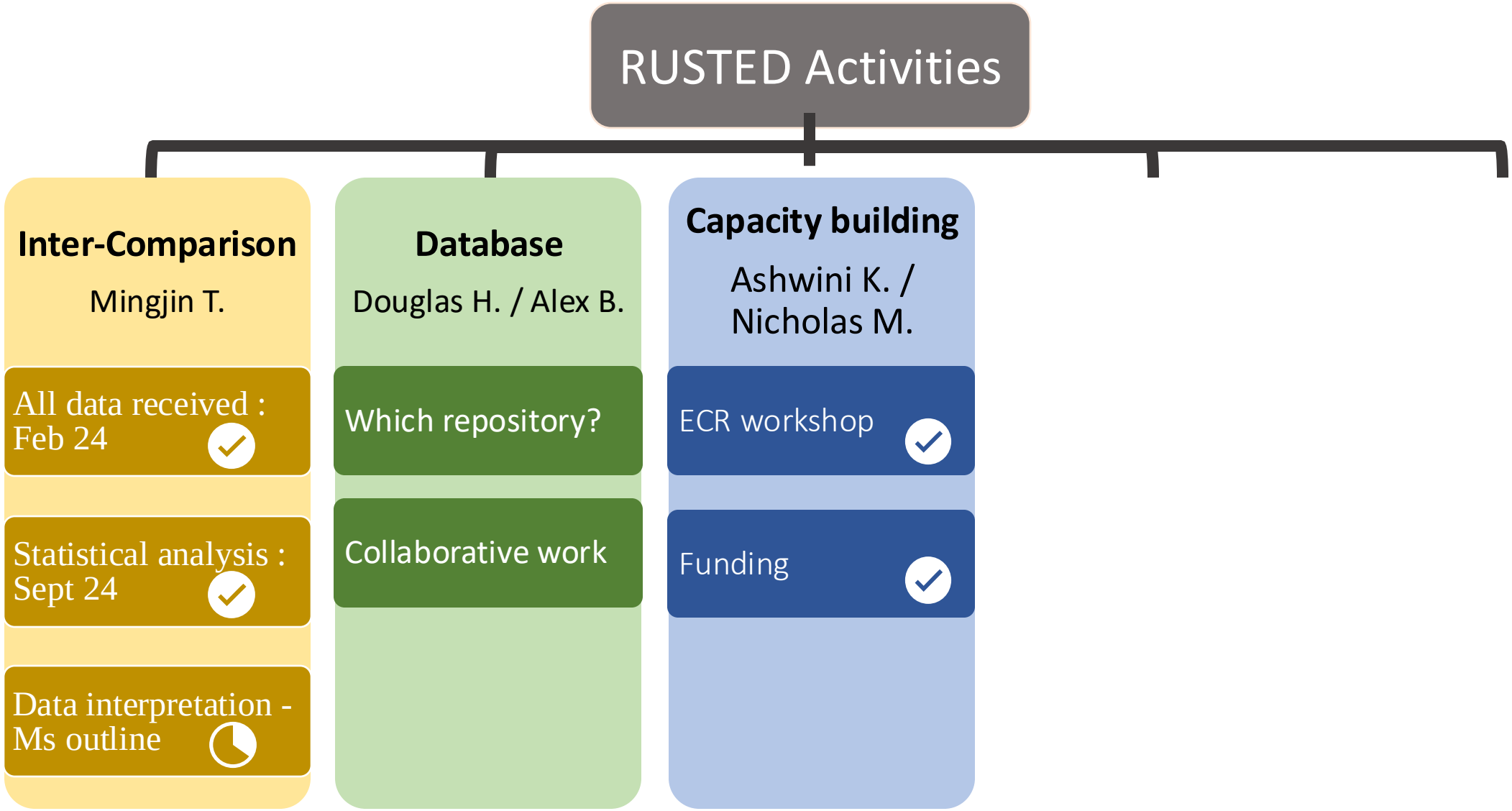
Presentation | Outreach | **Work in progress**



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Capacity building
Ashwini K. / Nicholas M.

- ECR workshop ✓
- Funding ✓

Literature Review
Morgane P.

- Review ✓
- Impact on modelling
- Manuscript ◔

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Modelling
Akinori I.

- Preliminary discussions ✓
- Meeting planned ✓

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Literature Review

- Review paper manuscript being drafted

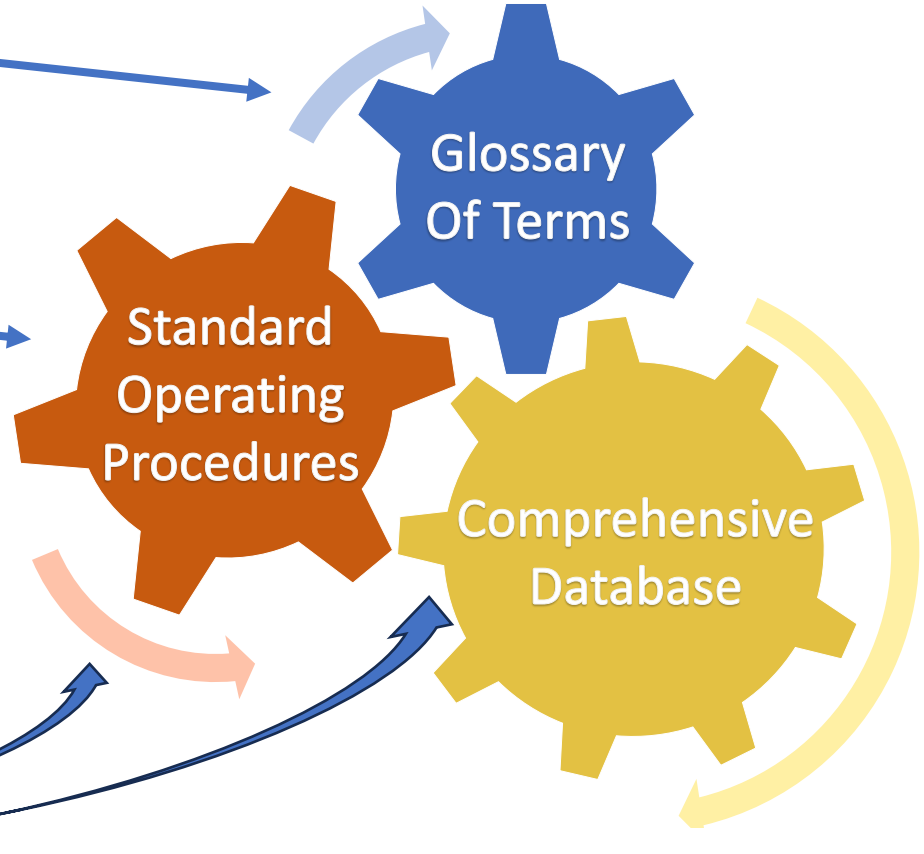
Inter-comparison study

- Data interpretation
- Manuscript drafting
- SOPs

Capacity building

- RUSTED ECR workshop (Goa, November 2024)
- Special Issue in Copernicus journals (ongoing)
- Research workshop in Asheville, USA

Key deliverables



Ocean-Atmosphere Modelling work to be initiated in 2025

The RUSTED Working Group 167 is deeply grateful for SCOR support since October 2022.

Thank you