A TEAM across the UK

The UK Met Office Hadley Centre plus 8 NERC centres

CONTACT DETAILS

Project Head:

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Science Manager:

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Technical Manager:

- ✓ **Jeremy Walton (Met Office Hadley Centre)**
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Other core group members:

Aerosol-clouds-radiation:
- ✓ **Jane Mulcahy (Met Office Hadley Centre)**
- ✓ **Steve Rumbold (NCAS)**

Dust-radiation-vegetation:
- ✓ **Stephanie Woodward (Met Office Hadley Centre)**

Land/vegetation:
- ✓ **Rich Ellis (CEH)**
- ✓ **Doug Kelly (CEH)**

Ocean Biogeochemistry:
- ✓ **Julien Palmieri (NOC)**
- ✓ **Lee de Mora (PML)**
- ✓ **Andrew Yool (NOC)**

Ice-Sheets:
- ✓ **Robin Smith (NCAS)**
- ✓ **Anthony Siahaan (BAS)**

Atmospheric chemistry:
- ✓ **Colin Johnson (Met Office Hadley Centre)**

Low resolution configuration manager:
- ✓ **Till Kuhlbrodt (NCAS)**

High resolution configuration manager:
- ✓ **Yongming Tang (Met Office Hadley Centre)**

Coupling and Optimization:
- ✓ **Richard Hill (Met Office Hadley Centre)**
- ✓ **Marc Stringer (NCAS)**

Data management:
- ✓ **Tim Bradshaw (Met Office Hadley Centre)**

Earth observation data:
- ✓ **Robert Parker (NCEO)**

Project management:
- ✓ **Alberto Muñoz (NCAS)**

* 2 more core members to be appointed in the coming months

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The UK Earth System Modelling Project

UKESM

A joint initiative between the UK Met Office Hadley Centre and the Natural Environmental Research Council (NERC)

Met Office

NERC SCIENCE OF THE ENVIRONMENT

http://www.jwcrp.org.uk/research-activity/ukesm.asp

http://www.ukesm.ac.uk

ABOUT US

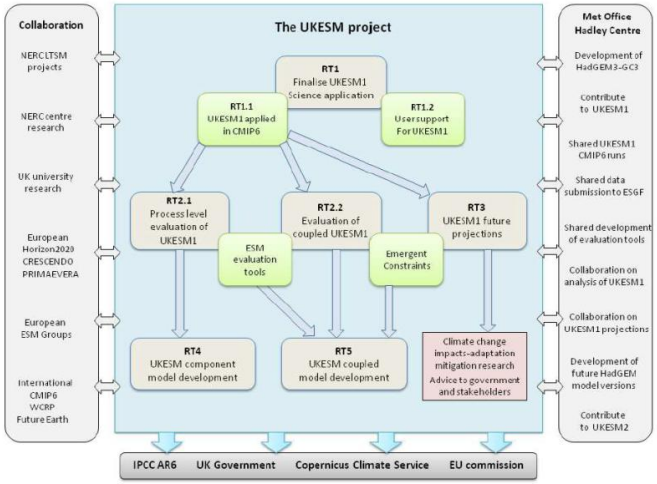
The UKESM project is a collaboration between NERC and the Met Office to develop, apply and analyse the next generation of UK Earth system models.

The UKESM core group was established in 2013, jointly funded by NERC and the Met Office.

UKESM LTSM funds the NERC component of the core group plus a number of NERC centre scientists to work on the development and analysis of UKESM1.

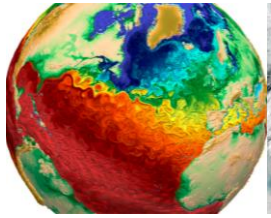
UKESM1 has the global climate model HadGEM3 as its core, coupling in models for:
(i) terrestrial carbon cycle and vegetation,
(ii) ocean biogeochemistry,
(iii) atmospheric chemistry and aerosols and
(iv) continental ice sheets.

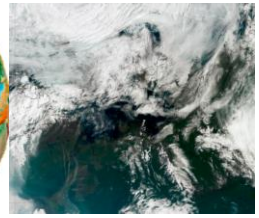
The UKESM project structure:



OUR AIMS

- ❑ **To complete the development and community release of UKESM1**
- ❑ **To apply UKESM1 to investigate a range of Earth system phenomena and their sensitivity to future anthropogenic forcing**
- ❑ **To scientifically evaluate and document the performance of UKESM1**
- ❑ **To analyze and document UKESM1 future projections**
- ❑ **To provide science-based guidance on future Earth system change**
- ❑ **To provide the tools and user support for UK Earth system modelling research**
- ❑ **To initiate the development of a future UKESM2 model**





FUTURE OUTCOMES

The core group is developing UKESM1, with a target release date of early 2017

UKESM as a national capability project:

- ➢ **It will develop and analyse a set of future Earth system projections to support impacts-adaptation-mitigation research and policy making**
- ➢ **UKESM models will be released to the entire NERC community and their use fully supported**

- ➢ **UKESM1 will be the main UK contribution to the 6th Coupled Model Intercomparison Project (CMIP6)**
- ➢ **First UKESM1 users training school is planned for 2017**