Find out more

This flyer introduces you to CHARMe, gives an overview of the project and its objectives, and points you towards other sources of information on the project. Please visit the CHARMe website for more detailed information, document downloads and to learn about latest developments. Project contact details are given below:

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Project partners

University of Reading
A university with expertise in climate and atmospheric research
www.met.reading.ac.uk

ASTRIUM AN EADS COMPANY
Provider of Earth observation data and geo-solutions
www.astrium-geo.com

Science & Technology Facilities Council
Organisation providing access to large scale scientific facilities for research
www.stfc.ac.uk

Deutscher Wetterdienst DWD
Wetter und Klima aus einer Hand
Germany's national meteorological service
www.dwd.de

ECMWF
The European centre for research and 24/7 global weather prediction
www.ecmwf.int

Royal Netherlands Meteorological Institute
Ministry of Infrastructure and the Environment
The Netherlands' national meteorological service
www.knmi.nl

CGI
International IT and business process services firm (formerly Logica)
www.cgi.com

TERRA SPATIUM SA
Consultancy specialising in geo-informatics and IT (formerly Spot Infoterra)
www.terraspatium.gr

Met Office
The UK's national meteorological service
www.metoffice.gov.uk

CHARMe

images courtesy of ESA

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Sharing knowledge about climate data

Are you a user or producer of climate data?

Want to know a simple way to judge if a dataset is fit for your intended use?

If so then you are a potential CHARMe user.

The CHARMe project is developing a system for users to apply commentary metadata to climate data sets to enhance their usability.

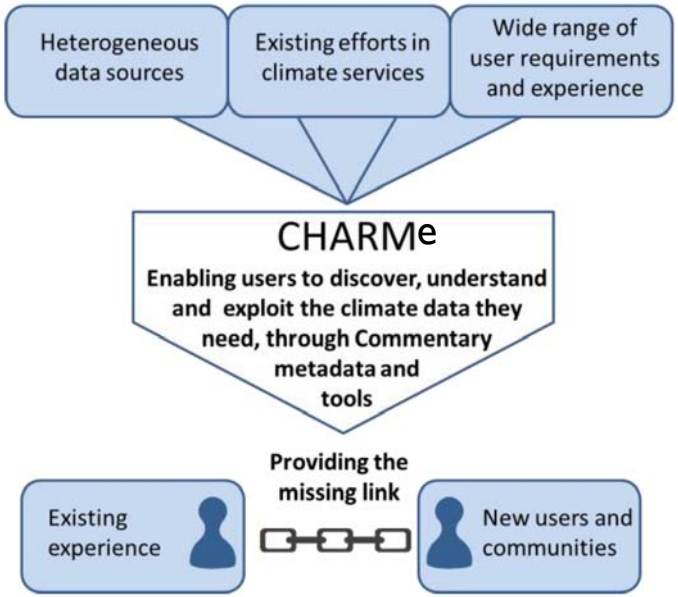
CHARMe is a consortium of nine project partners, tackling the issue on how to widen the use of climate data by both expert and non-expert users for diverse applications.

www.charme.org.uk

Climate data and the concept

Accurate, long-term monitoring of the Earth is of vital importance for gathering information about the climate. This information, in turn, forms an important part of the evidence base for operational and policy decisions that have far reaching effects on society. Climate data are used by both public and private sectors for applications such as controlling greenhouse gas emissions, energy production, food security and flood prediction.

The CHARMe project aims to connect users, and prospective users, of climate datasets with the previous expertise that has accumulated in the community, and enable them to contribute back information on their own experiences, as shown in the figure below.



The CHARMe project aims to develop a web-based system for collecting and sharing metadata to support high quality climate applications and services.

How CHARMe will work

Climate data users require different kinds of supporting information - called metadata - in order to understand the data. The CHARMe system will collect and share annotations associated with climate datasets, and this information is called commentary metadata. Users will be able to add or view commentary metadata, to complement existing information from data providers. The CHARMe system will provide links between datasets and citations and other commentary information using open standards such as Open Annotation. This approach is highly flexible and can adapt to changing user needs as the system grows.

Objectives

The main objectives of CHARMe are:

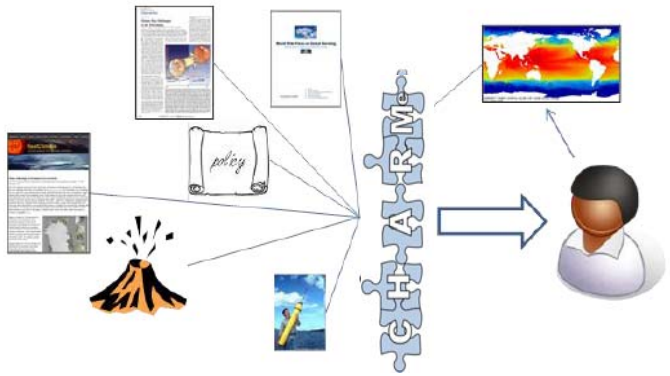
- To develop an open-source system for recording “commentary metadata” that links with climate datasets and other sources of information such as descriptions of sensors and instruments.
- To provide interfaces for commentary metadata to be entered, queried and displayed through existing community websites, and through machine-readable interfaces.
- To identify, and engage with, key strategic stakeholders (including climate data users, producers and high-level global initiatives), and to ensure that the CHARMe concept is understood and supported by both providers and users of climate data.
- To develop tools that demonstrate other ways in which commentary metadata can be produced and exploited in a variety of scenarios.

Commentary Metadata

Commentary metadata allows the annotation of datasets, and in CHARMe this includes:

- Post-fact annotations, such as citations, *ad-hoc* comments, notes.
- Results of assessments, e.g. validation campaigns, intercomparisons with models or other observations, quantitative error assessments, reanalysis.
- Provenance, e.g. dependencies on other datasets, processing algorithm and chain, data source.
- Properties of data distribution, e.g. data policy and licensing, timeliness (is the data delivered in real time?), reliability.
- External events that may affect the data, e.g. volcanic eruptions, El-Niño Southern Oscillation, instrument failure, operational changes to satellite measurements.

Commentary metadata enables both data providers and data consumers to share commentary information linked to the data.



The CHARMe concept is to provide the user with supporting information i.e. previous publications, data policies and external events that may have an influence on the data.