

ADDITIONAL COLLABORATIVE ACTIVITIES

Collaborative Research Administration Environment and Data Library (CRAEDL)

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Beyond its primary scientific mission, the CMEDE consortium faces three key challenges:

1. Managing the research efforts of hundreds of researchers distributed across the country;
2. Sharing large data sets across institutional boundaries; and
3. Igniting collaborative efforts through data discovery.

Crædl, the Collaborative Research Administration Environment and Data Library, is a tool being developed to overcome these challenges. Accessible at <https://hemi.craedl.org>, Crædl provides a secure environment for CMEDE affiliates to store their data, share it with collaborators, and search the data shared by other affiliates.

Crædl balances structure and flexibility, enabling researchers to incorporate it directly into their workflow. By doing so, researchers can take advantage of Crædl's automatic metadata population capabilities to document their work in small increments over the life of a project. This metadata — the data that describes the data — is crucially important because it facilitates searching, which prevents data from getting lost and helps colleagues discover otherwise hidden data. Importantly, the researcher maintains complete control over his or her data: All of a researcher's

data remains private unless explicitly shared with a collaborator, at which time the data becomes visible to the collaborator's searches.

Researchers log in to Crædl using the credentials of their home institution or with using identity providers. It organizes the network of CMEDE researchers by tracking their grants, projects, data, publications, and presentations to assist in the management of CMEDE's distributed research groups. Crædl facilitates the sharing of large data sets (up to tens of terabytes) using the Globus file transfer service and is currently underpinned by a 350 TB file storage system.

Crædl was released to the MEDE CRA affiliates at the 2017 CMEDE Fall Meeting.

