



## MANAGEMENT AND GOVERNANCE PLAN

### Organization

- CHRONOS (or CHRONOS System) is a cooperative arrangement among geoscientists, information technology specialists, graduate and undergraduate students who are working together to build a cyberinfrastructure for paleontological, paleobiological and sedimentary geochemistry research. Its activities are led by an Executive Director and an Internal Coordinating Committee, who are in turn advised by an External Advisory Board, an Educational Advisory Board and various continuing and ad hoc working groups.

### Governing bodies

- CHRONOS is currently supported under and bound by the Cooperative Agreement (EAR-0524285) between Iowa State University and the National Science Foundation.
- Our External Advisory Board provides advice and guidance to CHRONOS.
- Our Internal Coordinating Committee advises the Executive Director and establishes strategic direction and scope.

### Management

- **Executive Director:**
  - *Appointment:* The Internal Coordinating Committee recommends to NSF the Executive Director who is also the PI of the project.
  - *Term:* The appointment of the Executive Director shall be for the duration of the Cooperative Agreement or until the incumbent resigns or is removed.
  - *Removal.* The Executive Director can be removed by the National Science Foundation.
  - *Responsibilities:* In addition to all aspects of the administration of the project, the Executive Director coordinates the agenda of the IT director and is directly responsible for the CHRONOS community building and educational initiatives.
- **Information Technology Director**
  - *Appointment:* The IT director is nominated and appointed by the Executive Director.
  - *Term:* The appointment of the IT Director shall be for the duration of the project or until the incumbent resigns or is removed.
  - *Removal.* The IT Director can be removed by the Executive Director after consultation with the Internal Coordinating Committee.
  - *Responsibilities:* Coordinate and oversee the activities of the IT team;

- maintain contacts with other parallel projects; ensure the implementation of state-of-the-art technology for data management, tool implementation, account management, and web development.
- **Internal Coordinating Committee (ICC)**
    - *Purpose:* The Internal Coordinating Committee establishes the strategic direction and scientific scope of the project.
    - *Composition:* The Internal Coordinating Committee consists of six members plus the Executive Director and IT director (nonvoting) selected from both funded and non-funded participants and subcontractors to maintain the appropriate representation of educators, information technology specialists, stratigraphic researchers, and tool developers..
    - New ICC members are selected by the ICC from recommendations by Executive Director, ICC, External Advisory Board, NSF, and attendees of the annual retreat.
    - *Term:* Initially, three of the six members will serve for two years and three for three years. Following this initial period, members will serve one 3-year term with possibility of renewal at the discretion of the ICC and External Advisory Board.
    - *Removal:* Individual members of the ICC can be removed by the other members of the ICC with a two-third majority vote of the other members.
    - *Responsibilities:* Recommend appointment of Executive Director; advise Executive Director; identify and determine outreach opportunities; recommend candidates for the external advisory board to the External Advisory Board; select new members of the ICC; participate in monthly conference calls for progress report and planning and yearly meetings; review web materials; promote and participate in CHRONOS activities.
  - **External Advisory Board**
    - *Purpose:* The External Advisory Board reviews the progress and status of CHRONOS and recommends future directions to the Executive Director and the Internal Coordinating Committee.
    - *Composition:* The External Advisory Board consists of six to ten members representing academia, federal agencies, industry, museums, and the international community selected to maintain a diversity of scientists, educators, and technologists.
    - New External Advisory Board members are selected from recommendations Executive Director, ICC, External Advisory Board, NSF, and attendees of the annual retreat.
    - *Term:* Initially, half of the members will serve for two years and the other half for three years. Following this initial period, members will serve one 3-year term with possibility of renewal at the discretion of the board members.
    - *Responsibilities:* The External Advisory Board promotes CHRONOS within its respective communities; advises on how to address the needs of these communities; select its own chair and replacement members.
  - **Education Advisory Board**

- *Purpose:* The Education Advisory Board reviews the progress and status of CHRONOS's education and outreach activities and recommends future directions to the Executive Director.
- *Composition:* The Education Advisory Board consists of members involved in educational activities and representing academia, federal agencies, industry, museums, and the international community.
- New Education Advisory Board members are selected from recommendations Executive Director, ICC, External Advisory Board, Education Advisory Board, NSF, and attendees of the annual retreat.
- *Term:* The members of the Education Advisory Board serve one 3-year term with possibility of renewal at the discretion of the board members.
- *Responsibilities:* The Education Advisory Board promotes CHRONOS within the programs, agencies, institutions, and educational communities of its members; advises the Executive Director on how to address the needs of the various educational communities; selects its own chair of advisory board and replacement members.
- **Working groups**
  - *Purpose:* The Working Groups are composed of volunteers from the scientific and IT communities who have agreed to contribute to the development of CHRONOS.
  - *Composition:* The Working Group members are representatives of the academic, federal agency, industry, museum, and international communities selected by the Executive Director and the ICC. Based on their scientific expertise, working group members are either involved in the paleobiology/biostratigraphy or the sedimentary geochemistry working group.
  - *Term:* The Working Group members serve one 3-year term with possibility of renewal at the discretion of the ICC.
  - *Responsibilities:* The Working Group members maintain regular communication with their respective communities; act as liaison between the management of CHRONOS and the members' communities; coordinate their activities in conjunction with the development of CHRONOS; provide the CHRONOS IT team with scientific expertise and feedback on data sources and quality.
- **Annual retreat**
  - All funded PIs, ICC members, members of the IT development team, representatives from the advisory board and federated database shall meet at least once a year.
  - The CHRONOS annual retreat shall be advertised and open to anyone interested in attending.