The goal of this session is to hear about the status of projects necessary to enable more couplings, as well as have a discussion about the feasibility of closing identified gaps. Key topics include methane emissions, ozone feedback on vegetation health, improving the N (&C) cycle, biogenic VOC emissions, fire emissions of trace gases and aerosols, ocean emissions to atmosphere (DMS, hydrocarbons, aerosols, etc.). Please notify the session organizers (Keith Lindsay (klindsay@ucar.edu), David Lawrence (dlawren@ucar.edu), or Louisa Emmons (emmons@ucar.edu) if you have 1-2 slides to present on any of these topics.