

## The Young Earth System Scientists (YESS) Community

A platform for Early Career Researchers in the Earth System Sciences

### Background

Early career researchers (ECR) with a background in Earth system science have established an international, interdisciplinary, and bottom-up community open to all young researchers working in the field, including scientists in WMO's leading research programmes: the World Climate Research Programme (WCRP), the World Weather Research Programme (WWRP) and Global Atmospheric Watch (GAW). This community, the Young Earth System Scientists (YESS) network, aims to unify early career professionals in an influential organization to enhance collaborations and promote both local and global exchange across multiple disciplines related to Earth system sciences. Well-connected with prominent international partner organizations and other ECR networks, YESS gives young researchers a collective voice and leverage, while supporting career development. As a new generation of interdisciplinary-educated Earth system scientists, we have a critical role in shaping the future of Earth system science. We seek to fill the gaps between traditional disciplines by incorporating a powerful network of both natural and social scientists to work towards a seamless understanding and prediction of the Earth system and its impacts on society.

### Achievements of the past year

In 2015 YESS was challenged to become a truly international and interdisciplinary network. A core group of 27 ECR from 18 different countries formed the first YESS council and is responsible for organizing community events as well as promoting and growing the network in all parts of the world. Financial support jointly provided by the WCRP, WWRP, and GAW enabled the YESS council to come together for the first Earth System Science Frontiers workshop in October 2015 (hosted at the DWD Offenbach, Germany). Several key Earth system science frontier topics were comprehensively discussed: "Seamless Earth system prediction / Representation of scale interactions", "Communication of uncertainty / Sustainability of user-driven science" and "Earth System Science Frontiers / Interdisciplinarity". Participants also identified the structural needs of an ECR network necessary to tackle these science challenges and developed an implementation strategy to expand the network internationally and enhance its reach and impacts. Representatives of WCRP, WWRP, and GAW joined the meeting to follow the discussions and to provide advice. Key points that emerged from the workshop are summarized in a white paper, which received the editorial approval from the Bulletin of the American Meteorological Society soon. YESS was present at the Scientific Steering Committee of WWRP in November 2015, where YESS received formal approval of WWRP.

### YESS Plans for 2016

YESS is currently in negotiation for funding for a central YESS directorate which will be responsible for further developing and promoting the vision of our initiative, in close collaboration with and support from WMO's research programmes WCRP, WWRP, and GAW. We believe that we can shape a truly international and sustainable ECR network that will compliment and integrate on-going activities within the WMO research programmes, both in the short- and long-term by training and creating opportunities for future scientific leaders.

### Proposed direction of WCRP's connection to YESS

With this proposal, the JSC invites to decide on WCRP's commitment to the YESS community. WCRP support of YESS provides the opportunity for young researchers in WCRP to develop and strengthen collaborations across regional and scientific borders, towards a unified approach to Earth system science aiming at serving society.

The following recommendations should be considered:

- The JSC encourages and acknowledges continuous close involvement of YESS in all WCRP activities, including all core projects, Grand Challenges, and working groups (e.g. ECR-leading scientific activities and leading roles in coordination);
  - The JSC stimulates further enhancement of the participation of ECRs in the core WCRP activities, including panels and projects;
  - The JSC requests WCRP (through JPS) to continue collaborating closely with WWRP to solicit resources for a "YESS coordination office", for both logistical arrangements and for activity support.
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