

State of the Science on the Origin and Evolution of Plate Boundaries

- **Importance: How are plate boundaries born and how do they succeed?**
- How do these factors come together for the origin and evolution of plate boundaries?
 - the triggers and feedbacks of initiation
 - The dynamic evolution
 - Role of pre-existing conditions
 - Force-balance
 - Mechanical properties of the lithosphere
 - How do we make and maintain the global plate mosaic?

Where do it need to go?

- Need to find locations for
 - Subduction zones
 - Rifts
 - Transform plate boundaries
 - Studies need to focus on local, regional, global processes
- More discussion needed on the understanding
- **Need 3-day workshops**
 - Define problem and synthesis → white paper
 - Identify ways forward
 - Assess what methods and infrastructure is needed
 - Assess the societal relevance

