



Cascadia

Existing resources



- ✓ Geological resources
 - ✓ Maps, petrology, geochemistry, geochronology
- ✓ Geophysical resources
 - ✓ Seismic, geodetic, heat flow, ...
- ✓ Turbidite record, Tephra record, well-characterized (and variable) basement

Needed resources



- ✓ Nothing critical to start a GeoPRIMS project
 - ✓ Data availability of previous studies
 - ✓ Geochronology (older rocks), Isotopes, water source for magmas (serpentine)
 - ✓ Experiments (mixed volatiles, crustal response to heat input, ...)
 - ✓ Numerical modeling: both subduction zone wide and more focused (magma reservoir and column)

Synergies - collaborations



- ✓ Cascadia Initiative
- ✓ Earthscope US array
- ✓ PBO
- ✓ Neptune
- ✓ IODP
- ✓ USGS/CVO
- ✓ International collaborations (Japan)

Logistics



- ✓ Help from CVO/USGS
 - ✓ Land managers easier to convince?

Needed experiment



- ✓ Multi-disciplinary experiment focused on a few volcanoes:
 - High-resolution imaging
 - ✓ Densification of geophysical monitoring, going E (E of the Cascades)
 - ✓ Associated geological, petrological, experimental and modeling studies

Societal importance



- ✓ 6 Senators...
- ✓ Cascadia megacity - geohazards
- ✓ Geothermal energy, mineral resources