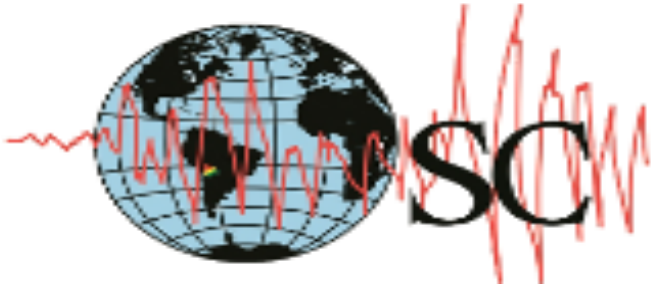
Bolivian Networks and Seismicity

National Geophysical Networks in Latin America – IRIS Workshop



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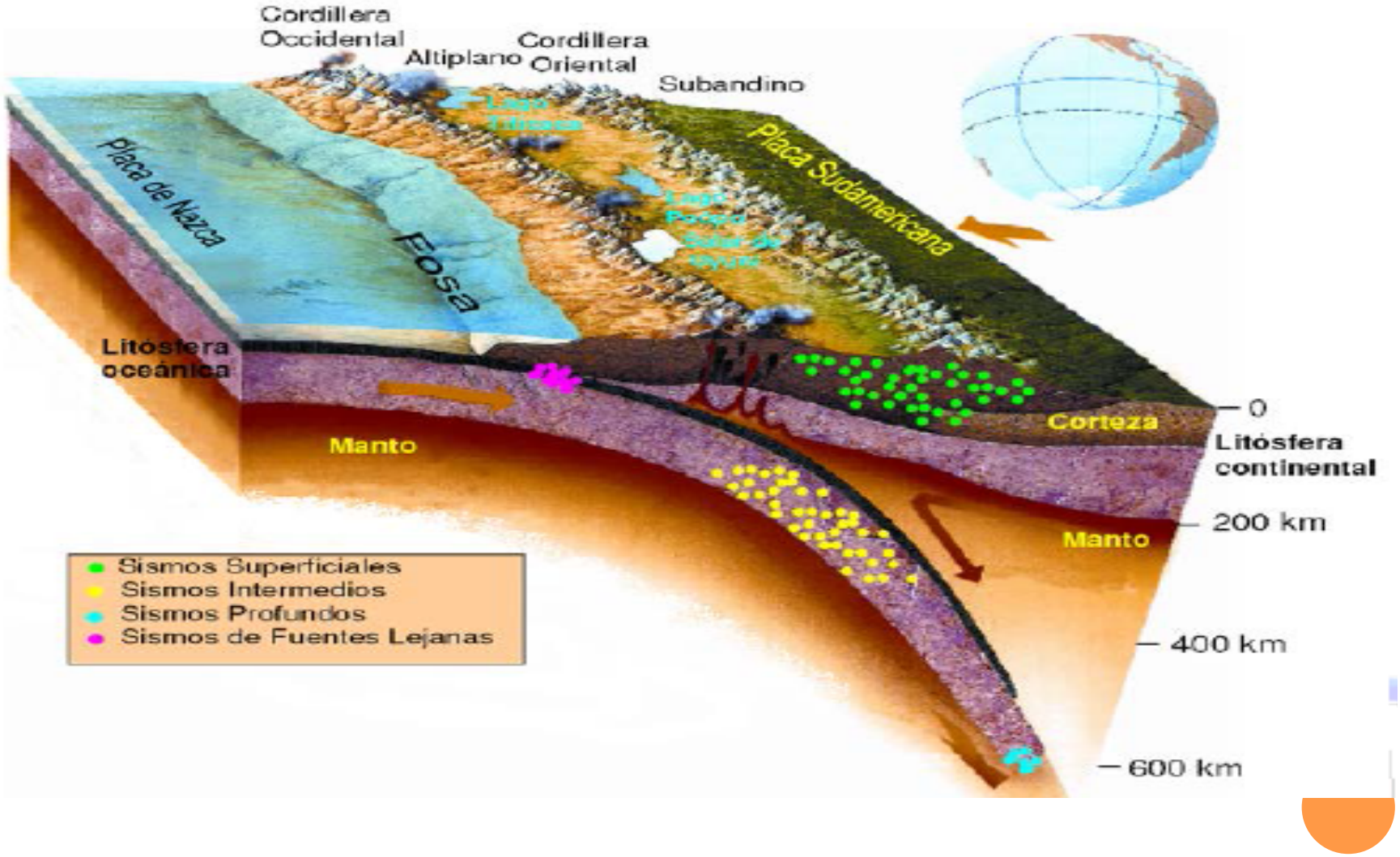
Head of Electronic Section.
Observatorio San Calixto.

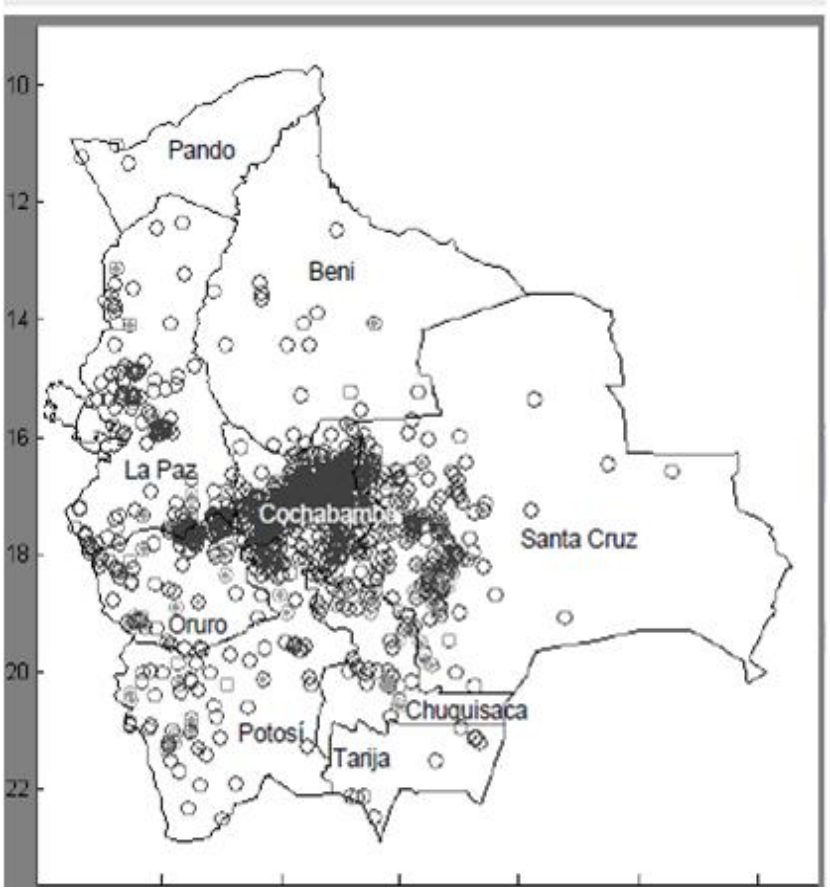
1. INTRODUCTION.-

- Non Profit and private Institution related to Seismic and Infrasound Monitoring.
- 102 years reporting and producing bulletins for all seismicity in Bolivia.
- Hosting three IMS-CTBTO stations PS06, AS08, IS08.
- Working with CEA/DASE French and AFTAC U.S. collaboration.

2. Bolivian Seismicity.-

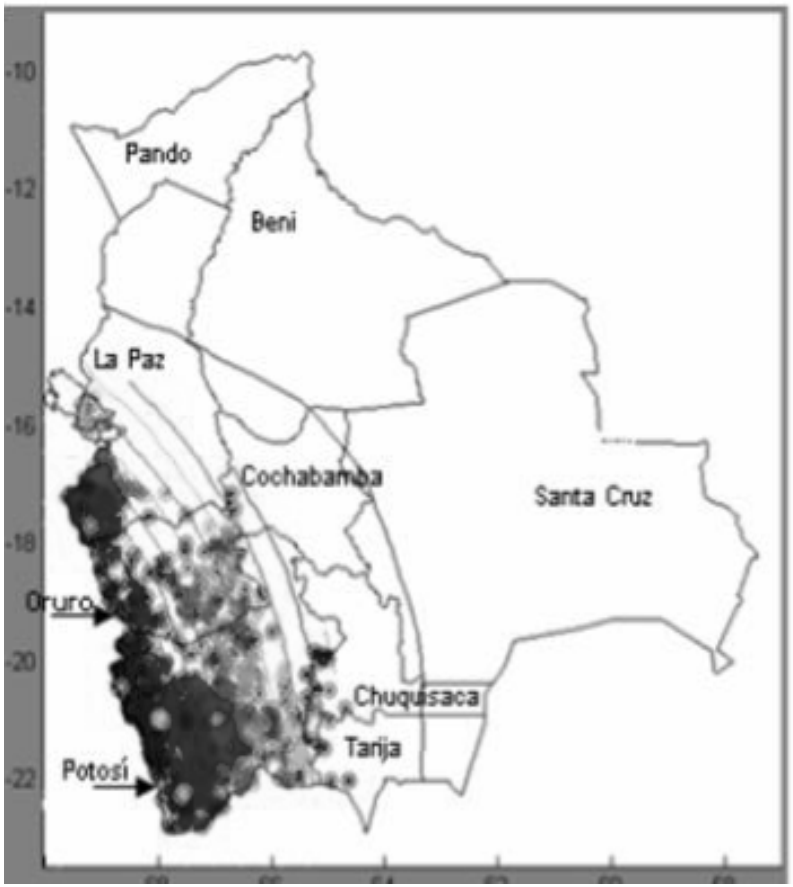


2. Bolivian Seismicity (i).-



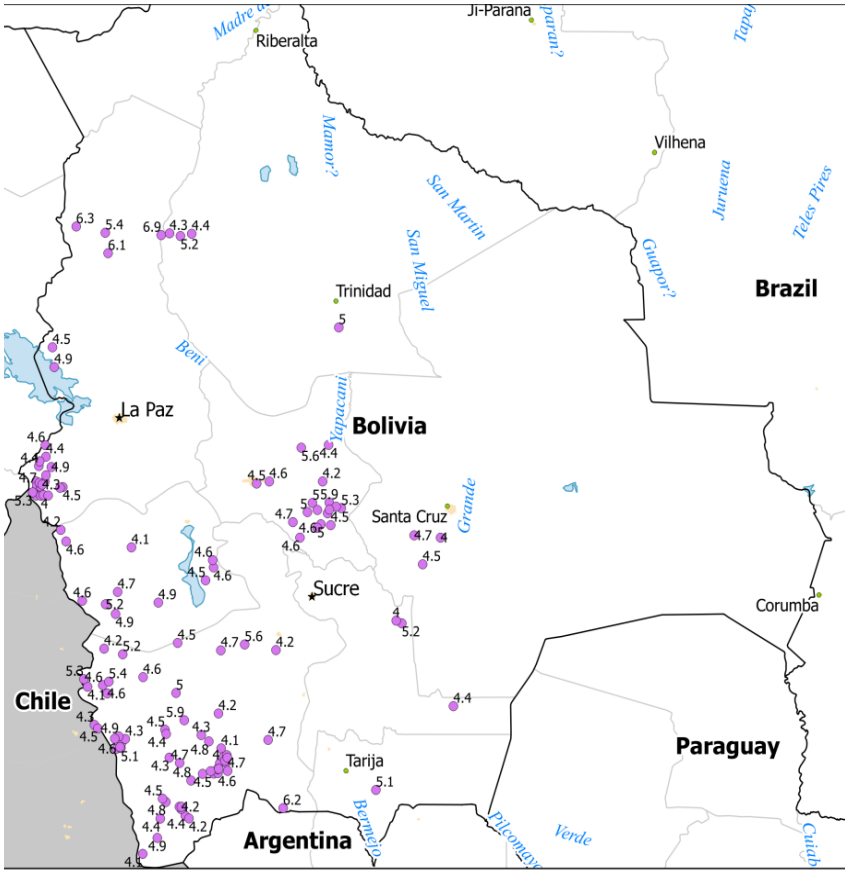
- **Seismogenic Sources according the origin:**
  - Depth lower than 75Km, associated to areas that have the continental deformation.
- **Sub – Source related to the potentially active faults:**
  - Depths greater than 5Km, frequently magnitudes are equal or lower than one.

2. Bolivian Seismicity (ii).-



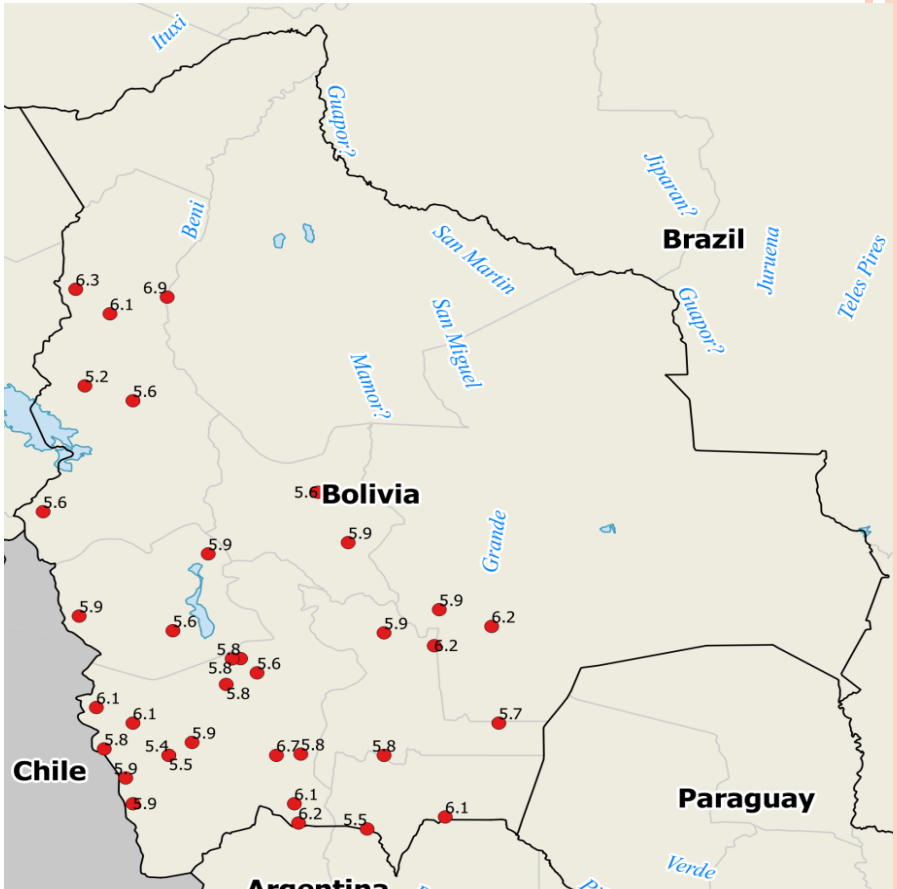
- **Seismogenic Sources due the subduction process:**
  - Originated inside the Nazca Plate, high magnitudes with deeper depth.
- **Intermediate earthquakes:**
  - From 100Km to 350Km, around La Paz, Oruro and Potosi.
- **Deep earthquakes:**
  - From 500Km to 700Km, around Beni, Santa Cruz, Tarija and La Paz, the mean magnitude is 8 Mw.

2. Bolivian Seismicity (iii).-

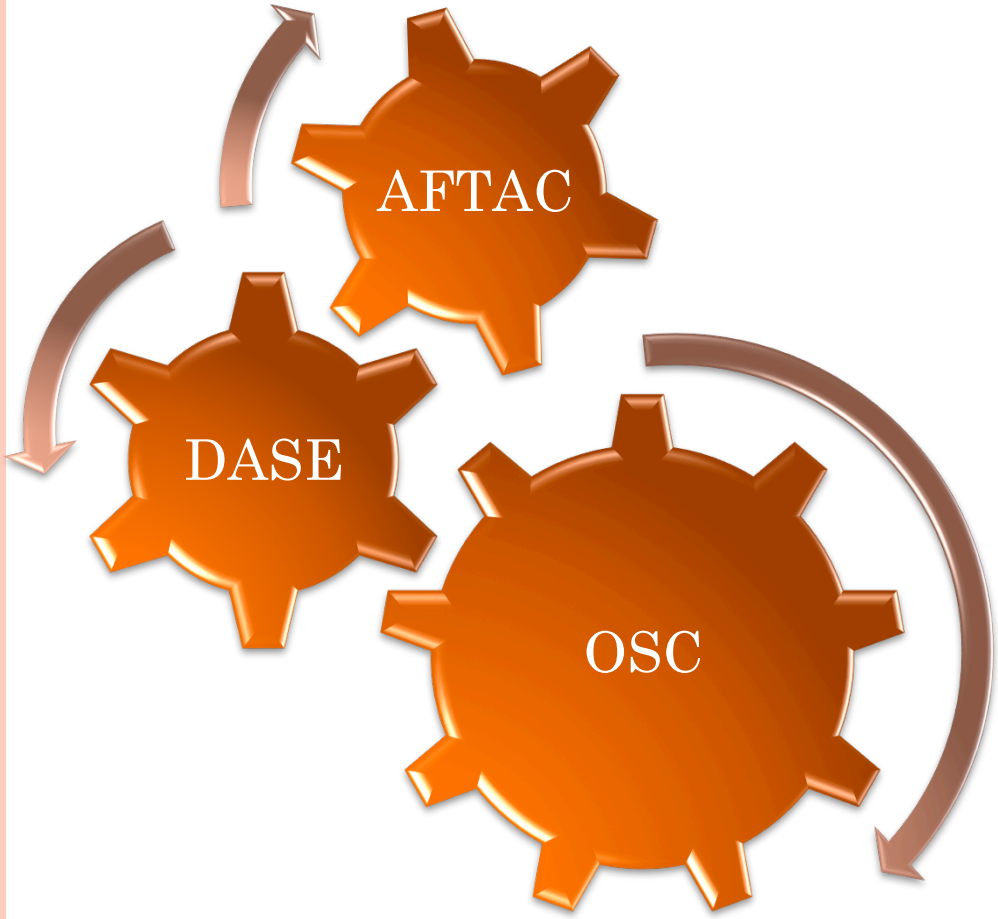


Seismicity >4

Seismicity >6



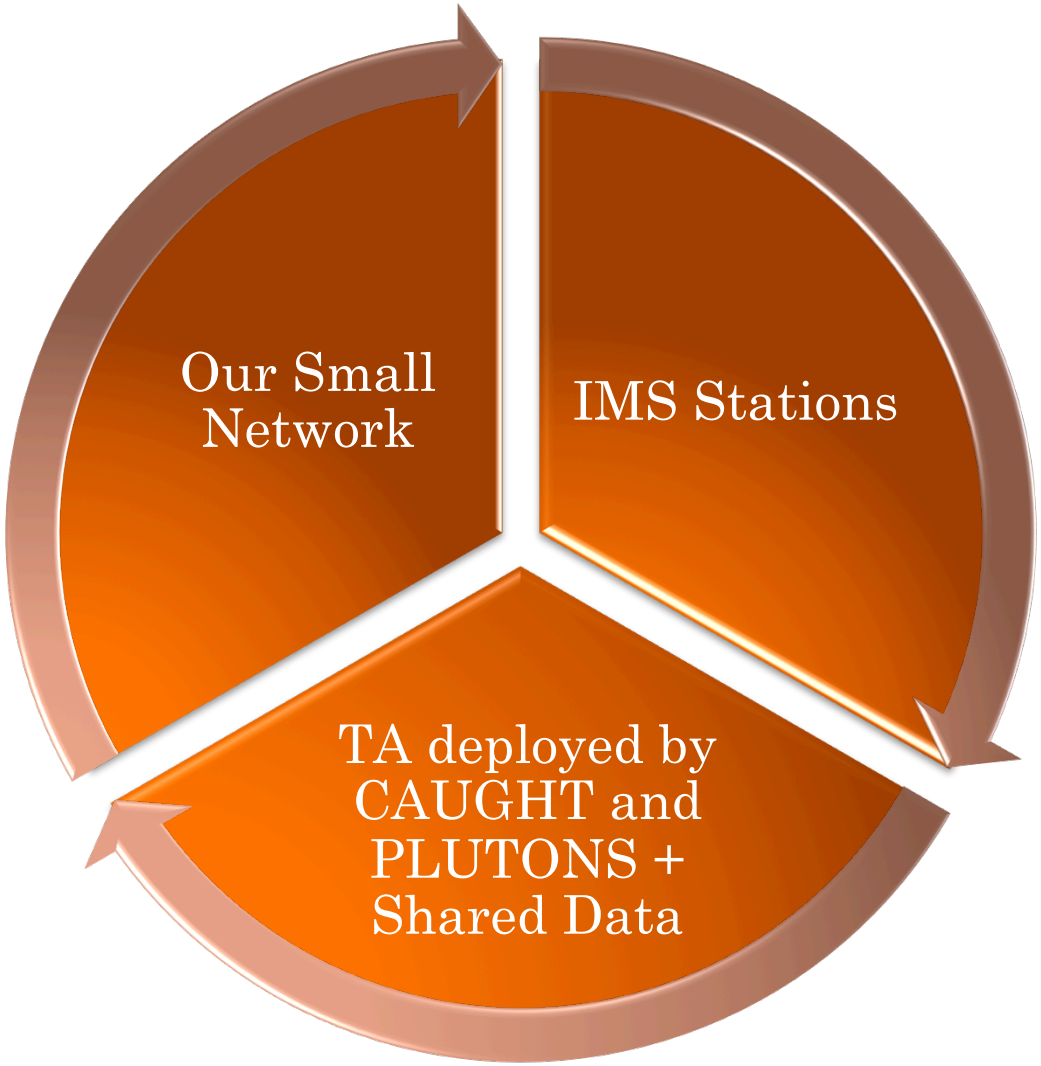
3. Bolivian Seismic Networks.-



Main Network

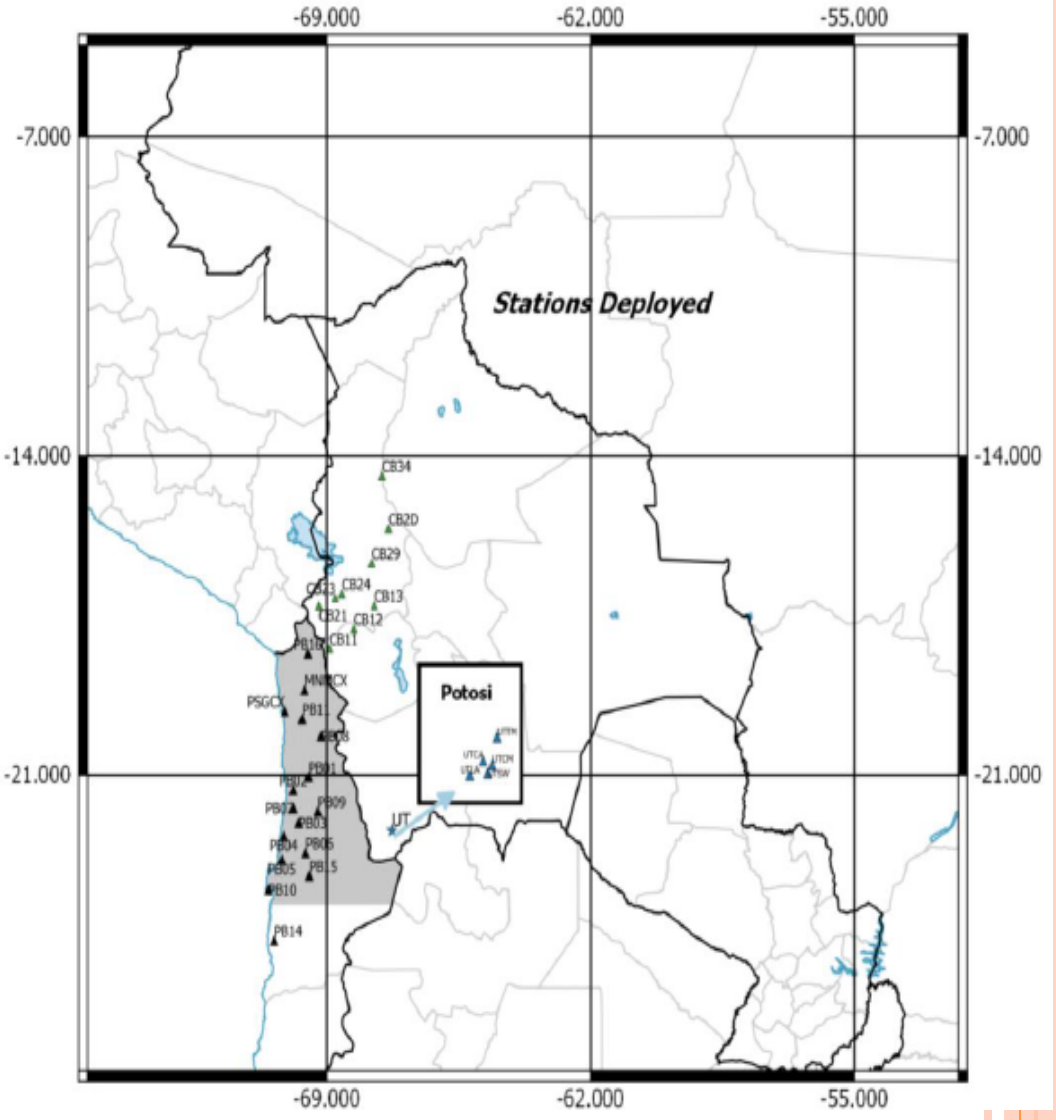
Temporally Stations & Projects

3. Bolivian Seismic Networks (II).-



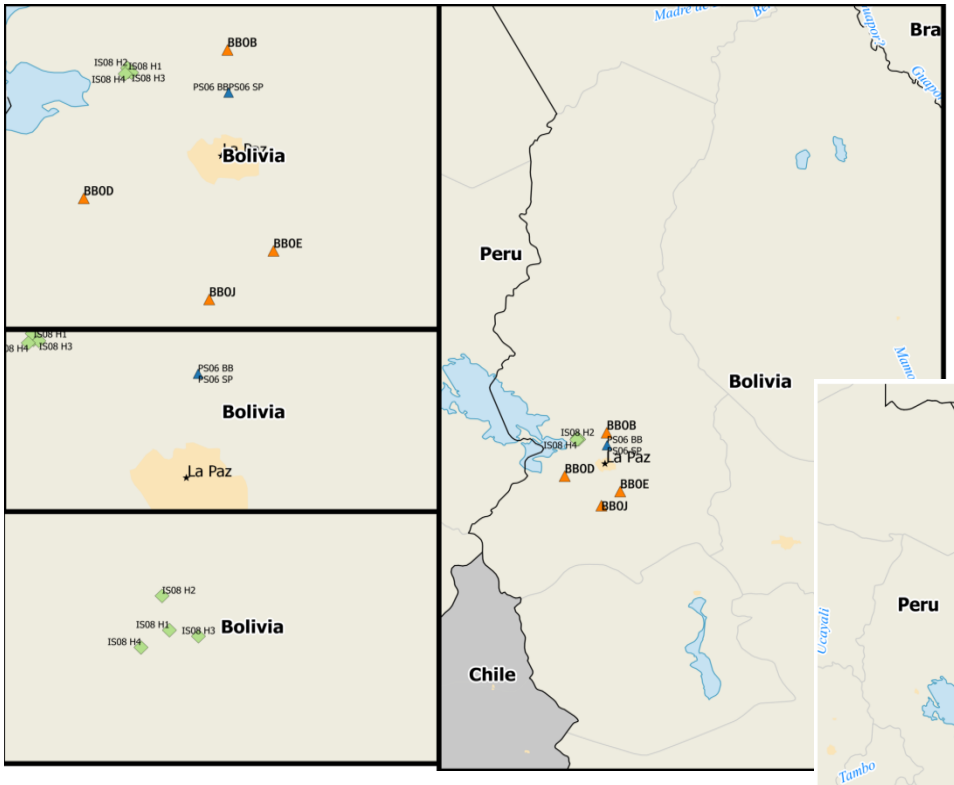
3. Bolivian Seismic Networks (III).-

New Own Network "Closed" due to lost of Telecom Company Support



Rx Data from shared networks

3. Bolivian Seismic Networks (IV).-

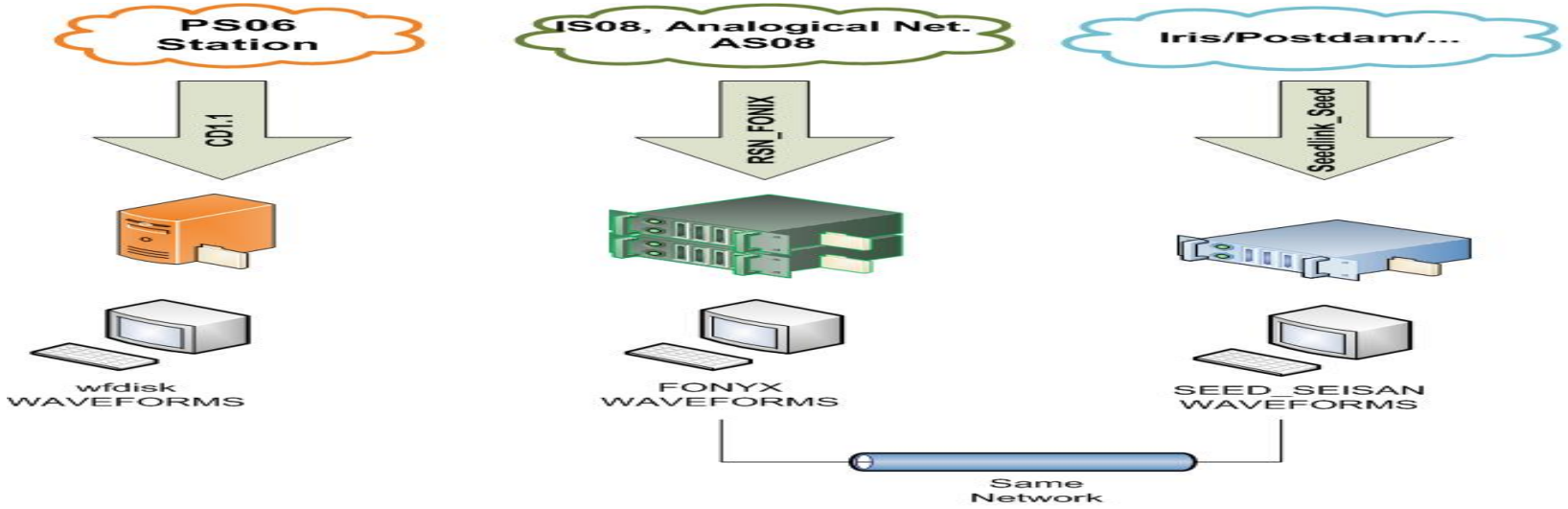


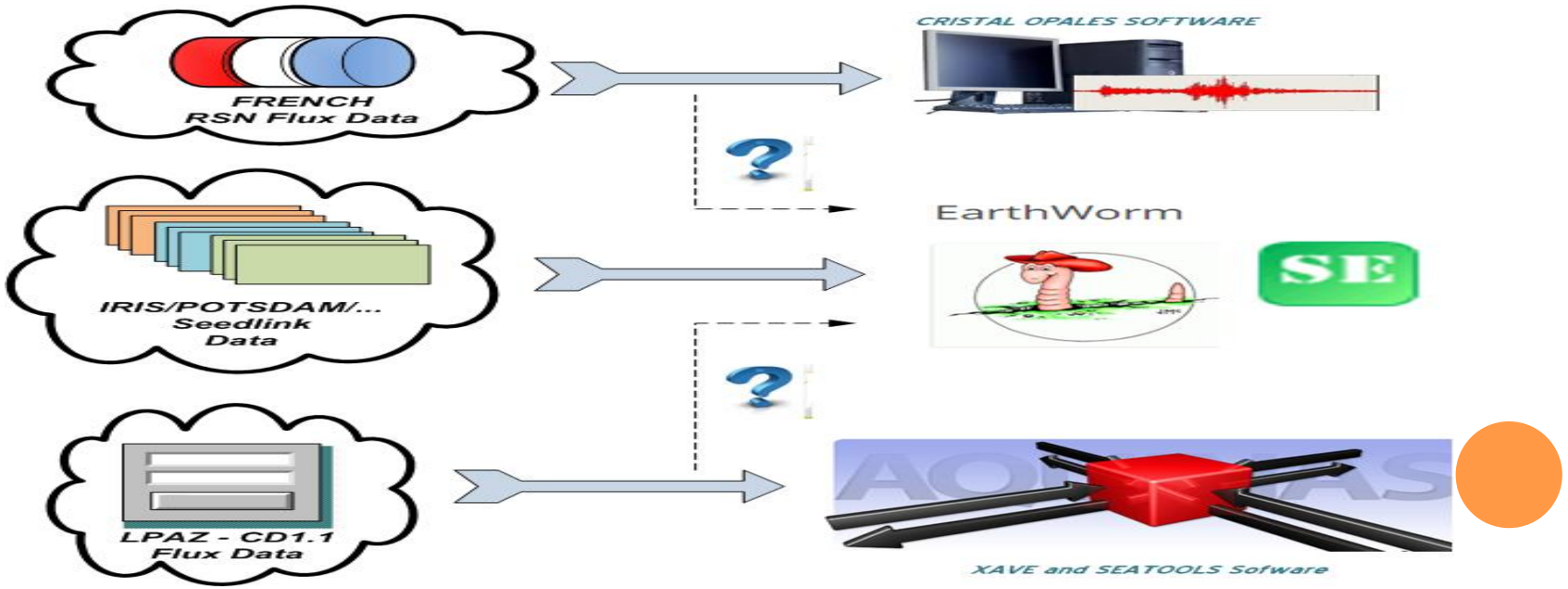
SP from French Cooperation.

BB from US Cooperation (IMS network).

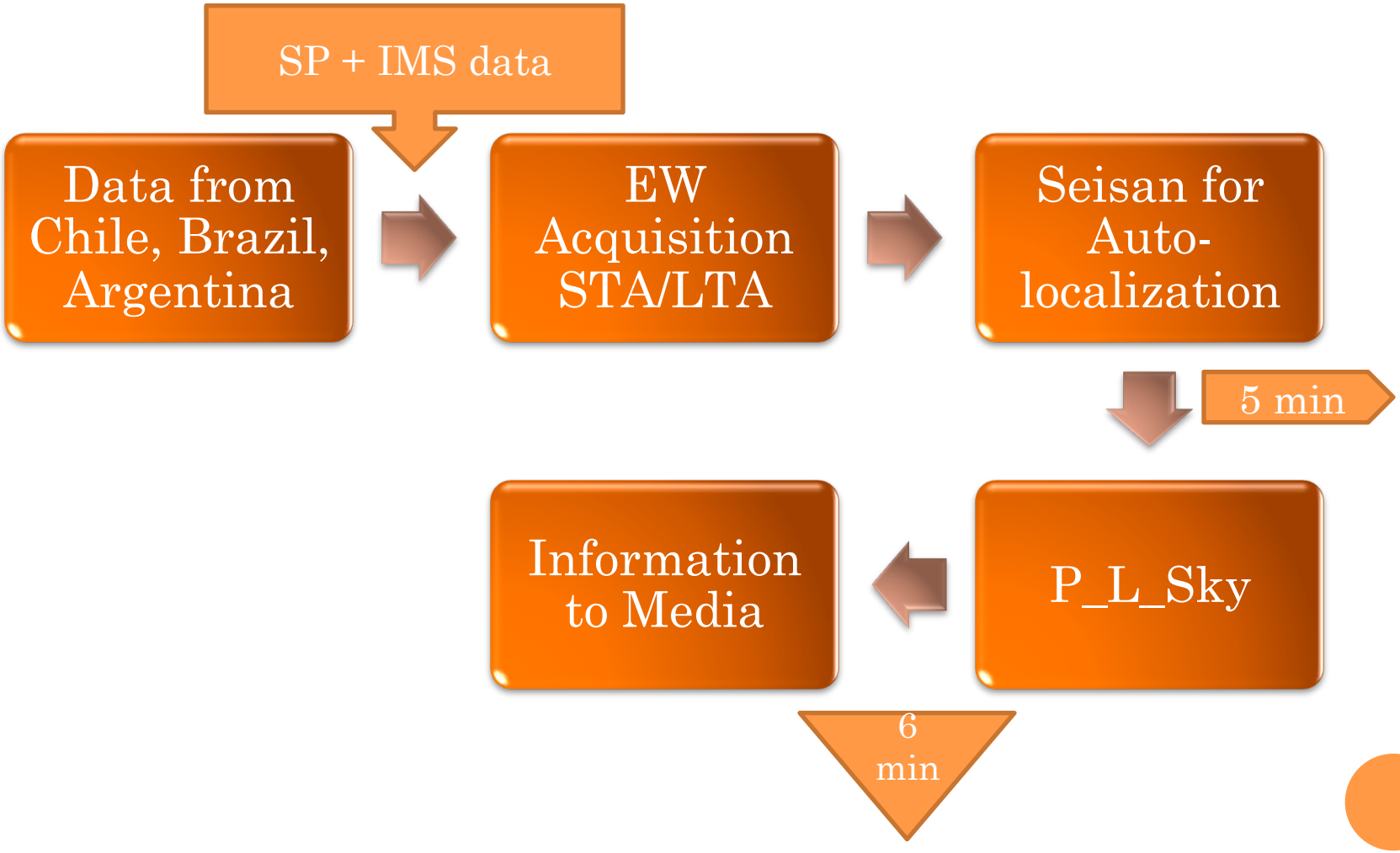
LP's from French Cooperation (IMS network).

4. How to get a fast Solution with low resources.-

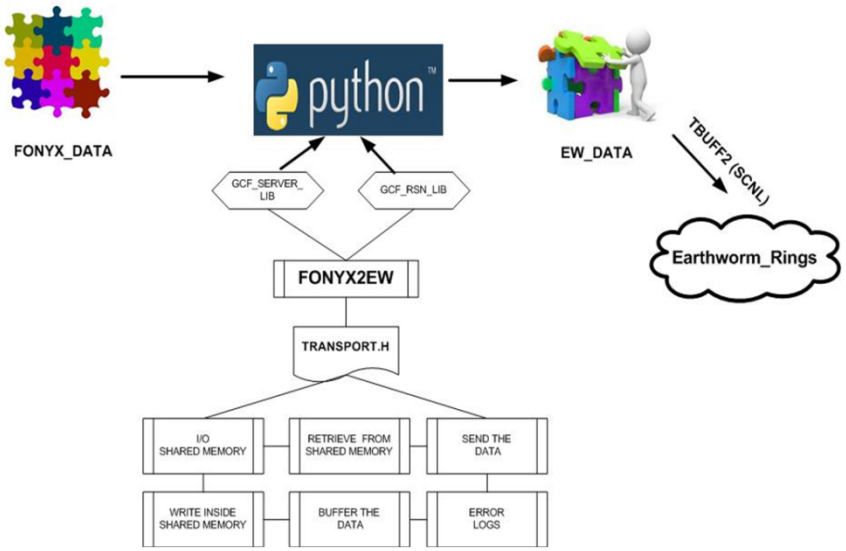




4. How to get a fast Solution with low resources (I).-



4. How to get a fast Solution with low resources (II).-



IRIS

GFZ Helmholtz Centre Potsdam

INPRES

CSN Centro Sismológico Nacional Universidad de Chile

seedlink

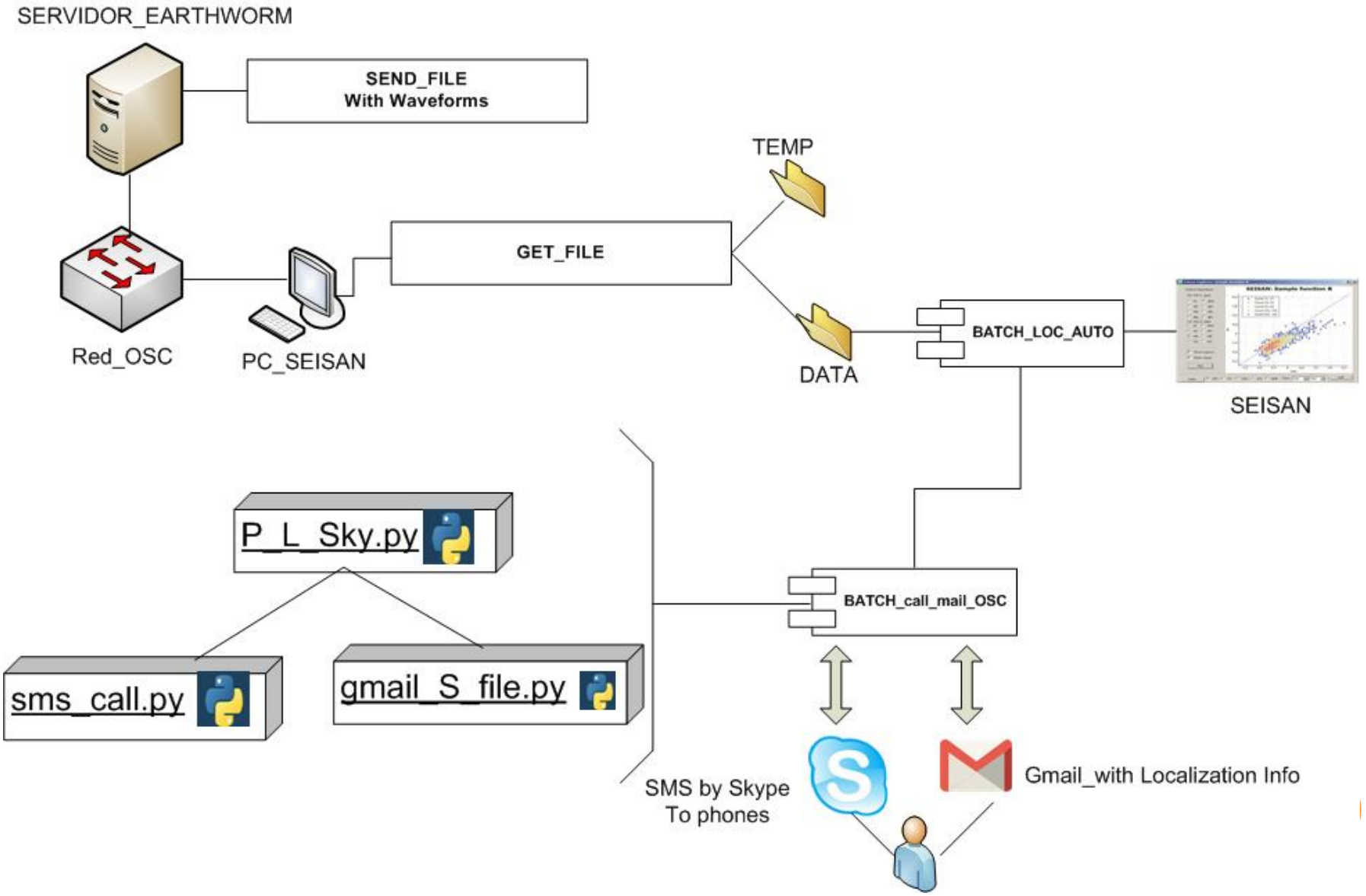
rsn2ew

SEISAN_AUTOSIG

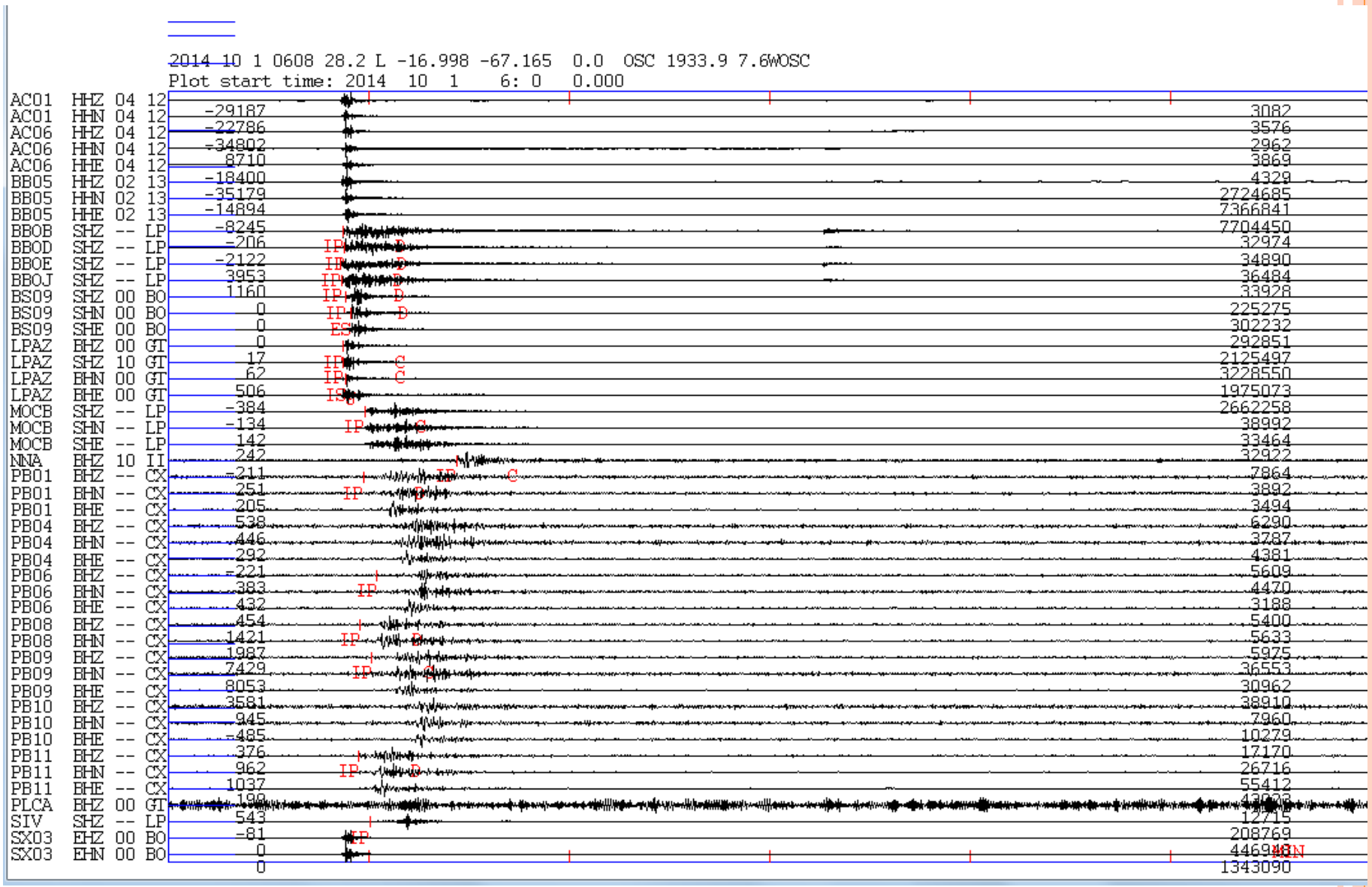
SE

EW_STA/LTA_fine tunning

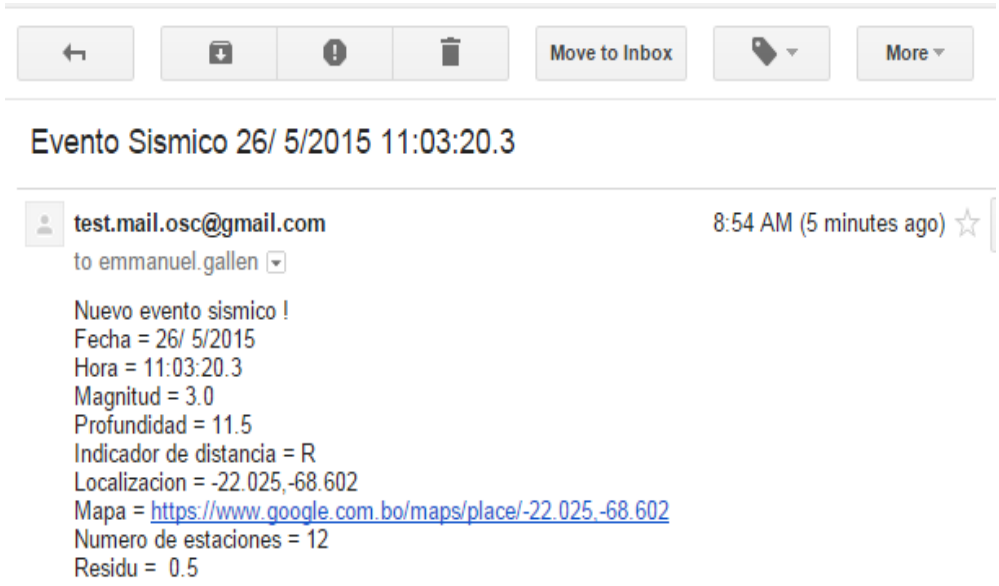
4. How to get a fast Solution with low resources (III).-



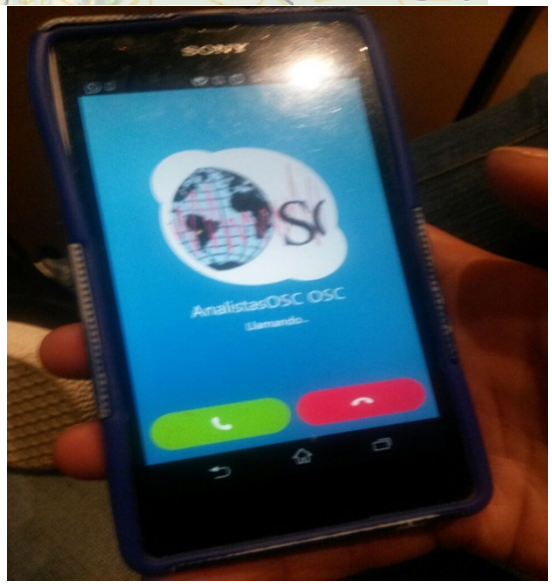
4. How to get a fast Solution with low resources (iv).-



4. How to get a fast Solution with low resources (v).-

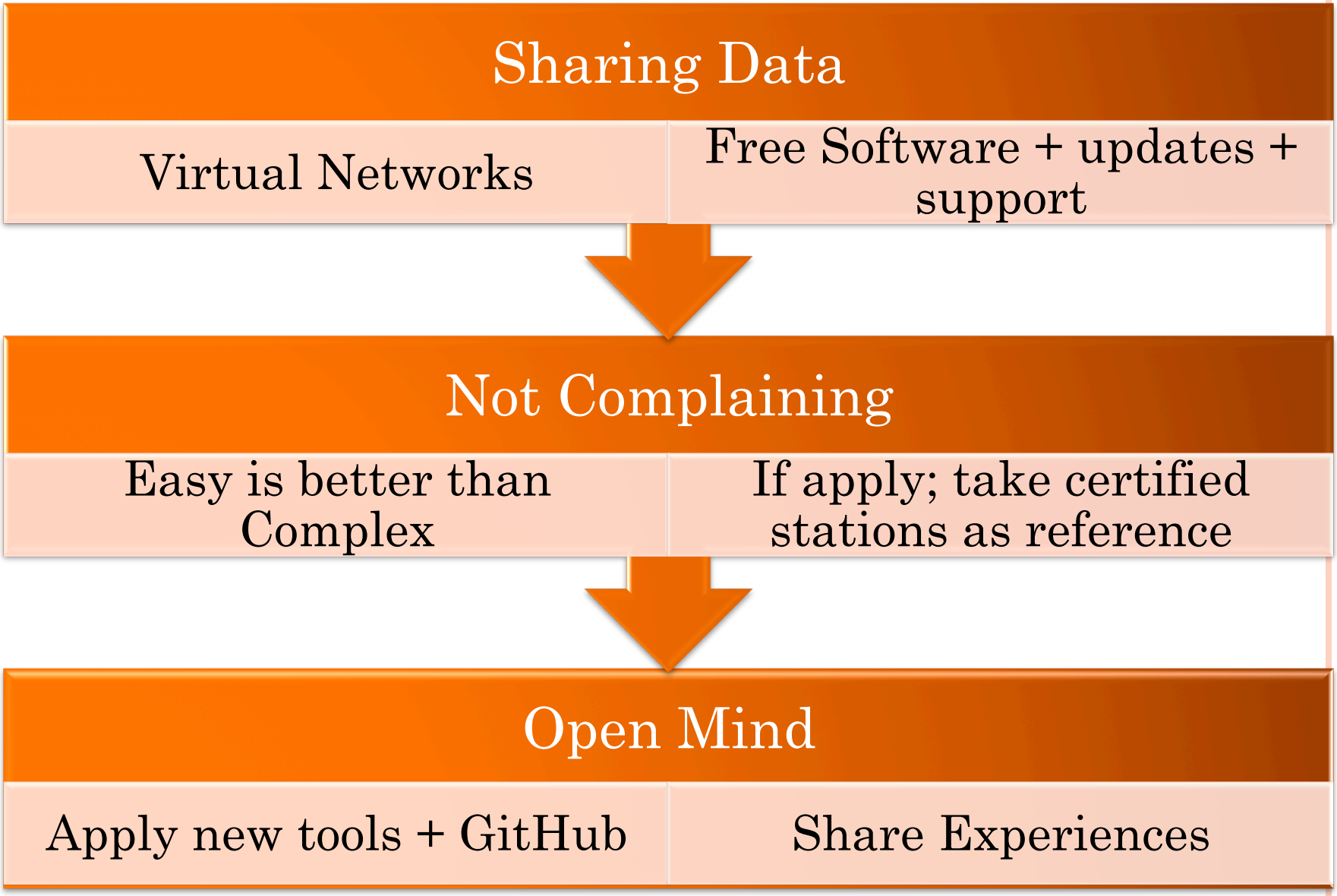


From 4 to 6 minutes, this information helps the analyst to calm down the media



Of course our app is open and waits some <u>feedback…to improve it and share it</u>

5. HIGHLIGHTS.-



Thank you for
your attention