

Partner 21: Güralp Systems Limited

<http://www.Güralp.com>

- **Güralp Systems Ltd** is a leading designer and manufacturer of seismological instruments, digitizers, acquisition modules and software. The company is international in scope and has provided equipment for many major projects worldwide
- In FUTUREVOLC, **Güralp** will design, construct and advise on the installation of a new seismometer package for operation on glaciers. Instruments capable of functioning on glaciers will be a significant step forward for this project and beyond
- The development will utilize a combination and modification of existing Güralp technologies to construct the instrument
- **Güralp's** unique contribution will be a quantitative assessment of the effects of tilt on the instrument performance.
- Multi-disciplinary monitoring of glaciers is a rapidly growing area and the development of robust seismic instruments for this purpose opens a worldwide niche business opportunity for **Güralp** and provides important data for the FUTUREVOLC consortium.

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Main tasks in FUTUREVOLC:

- **Güralp Systems Ltd** participates in WP5, *Task 5.1 New geophysical station development and installation*, where they have a very specific RTD role.
- Two prototype glacier sensors will be constructed and tested in a simulated environment in the laboratory, considering:
 - low temperature
 - melt water
 - freeze-thaw action
 - on-going tilt
 - GPS time-stamp dropouts
 - translations
- The laboratory data will be analysed by both Güralp and by the seismology groups in WP5 prior to field installation
- The results will be summarized in a report, which is part of deliverable **D5.2 Moment tensor inversion and glacial seismometer performance**, due Month 24
- IMO will be responsible for installing the instruments, which will be marked by Milestone **MS39 Glacier seismometers installed**, at Month 24

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Seismometer installations in Vatnajökull ice cap:

- **XXXX**

