TURNkey Consortium



TURNkey Kick-Off Meeting, 13-14 June 2019, Oslo, Norway.



www.earthquake-turnkey.eu

For any information and clarifications about the TURNkey project, please write to: info@earthquake-turnkey.eu

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You Tube

Coordinator **NORSAR**



TURNkey

Towards more Earthquakeresilient Urban Societies through a Multi-sensor-based Information System enabling Earthquake Forecasting, Early Warning and **Rapid Response actions**













This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 821046.

About TURNkey Project

TURNkey is a three-year European project that is part of the **Horizon 2020** programme. The project is conducted by researchers from **21 partner institutions** from 10 European countries, who are experts in natural and physical sciences, probability and statistics, engineering, and social sciences. They cooperate to provide effective disaster risk management.

The main objective of the project is to contribute to earthquake risk mitigation by reducing future economic and social losses in Europe. To do that, TURNkey wants to make big steps forward on the topics of **Operational Earthquake Forecasting (OEF), Earthquake Early Warning (EEW)**, and its use both in real-time (during an event) and in near real-time, when **rapidly responding to earthquake impacts (RRE)**.

The multi-disciplinary (technical, social, economic) research framework of TURNkey is developed, implemented and validated in eight testbeds (i.e. two roaming testbeds and six geographical European testbeds, equipped with appropriate monitoring instrumentation), with the continuous support and feedback of many stakeholders.



The overall purpose of the project is to distribute to stakeholders both reliable and fast information on the occurrence of an earthquake and most probable damage scenarios in near realtime, as well as on the estimation of direct and indirect losses due to the mainshock and aftershocks.

TURNkey Final Outcomes

- TURNkey FWCR (Forecasting Early Warning Consequence Prediction – Response) platform, a multi-sensor-based earthquake information system, facilitating earthquake forecasting and enabling early warning and rapid response actions.
- Versatile and cost-efficient TURNkey multi-sensor units consisting of seismic (vibration) sensors optimized for EEW along with GNSS receivers suitable for various monitoring tasks (structural health monitoring, monitoring of rockfalls, rock/landslides, avalanches, tsunamis) and different installation possibilities (free field vs building/ infrastructure, rural vs urban deployment).

TURNkey's Geographical European Testbeds



TB-2: Pyrenees Mountain Range France



TB-3: Húsavík and Hveragerði Iceland



TB-4: Patras and Aegio Greece



TB-5: Maritime Port of Gioia Tauro





TB-6: Groningen Province Netherlands

