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Earthquake Prediction

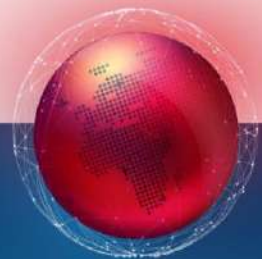
The scientific process and Alert Tools Development

What is IONOTERRA

IONOTERRA is a Scientifically & Realistically proven system, enabling mankind for the first time to Predict & Warn population of an upcoming Earthquake, at least

8 Hours before the Catastrophic Event, with **over 90% precision**. (for magnitude exceeding 4.5 Richter scale).

All theoretical and other research (R&D) activities are finished and finalized after a long term research resulting with international publications and few corresponding patents.



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The 3 IONOTERRA Outputs (3W)

WHERE is the Earthquake going to happen ?

We provide coordinates of the **Earthquake Epicenter**

WHEN is the Earthquake going to happen ?

We provide high precision **Time of Earthquake Beginning**

WHAT Magnitude is it going to have ?

We provide accurate **Earthquake Magnitude**



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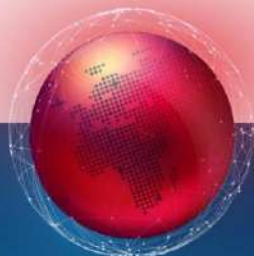
Present GLOBAL Earthquake Prediction Abilities vs. IONOTERRA System

USA system based on sensors and the SANTINEL system satellites provide **up to 180 SECONDS** alert.

JAPAN system based on network of on-shore and off-shore seismic and geodetic instruments to rapidly detect earthquakes, provide **up to 120 SECONDS** alert.

MEXICO system consists of a series of sensors located along the coast that detect shaking from a large earthquake, provide **up to 60 SECONDS** alert.

VS. **IONOTERRA** system based on Ionosphere Radar Scanning, provide at least **8 HOURS** alert.



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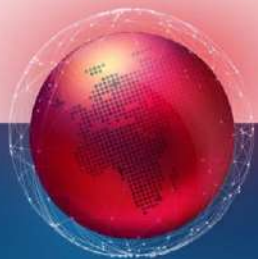
Earthquakes Casualties 2000 - 2016

Earthquakes above 5 in Richter Scale
during years 2000 – 2016:

2,756 Earthquakes

Number of People killed due to Earthquakes
during years 2000 – 2016:

387,000 People Killed (Official Reports)



POC September 2019

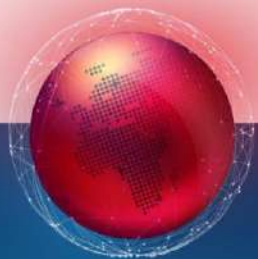
Between 5th of September 2019 and 25th of September 2019, during its public measurement sessions, IONOTERRA system issued 76 forecasts for Greece and Western Turkey region.

68 out of 76 forecasts, representing 89.47%, have been confirmed by the EMSC/CSEM, having 4 missed events and 8 false alarms.

48 out of 68 confirmed forecasts, representing 70.58%, have been 100% confirmed by the EMSC/CSEM, in terms of predicted Location, Time Frame and Magnitude.

20 forecasts out of 68, representing 29.42%, were within the margin error.

All forecasts were apriori time stamped using blockchain technology.



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Case Study

China - Sichuan Earthquake - May 12 2008

48 seconds alert

69,000 people lost their lives

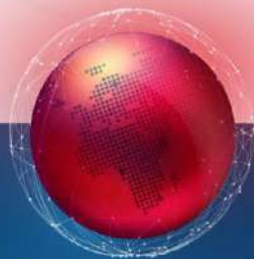
18,222 listed as missing

374,176 were reported injured

10 Million homeless people

15 Million people affected

2008 Sichuan earthquake



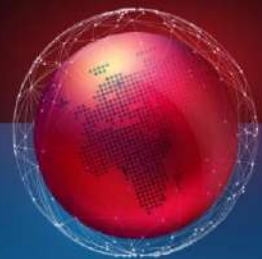
How does it work?

All seismic activity on earth is reflected in Ionosphere before, during and after an Earthquake.

IONOTERRA deployed system is constantly scanning a specific Ionosphere region above a seismically active zone via radars triangle.

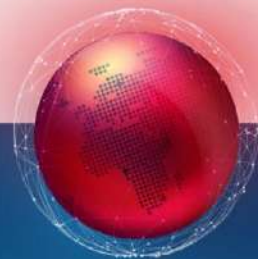
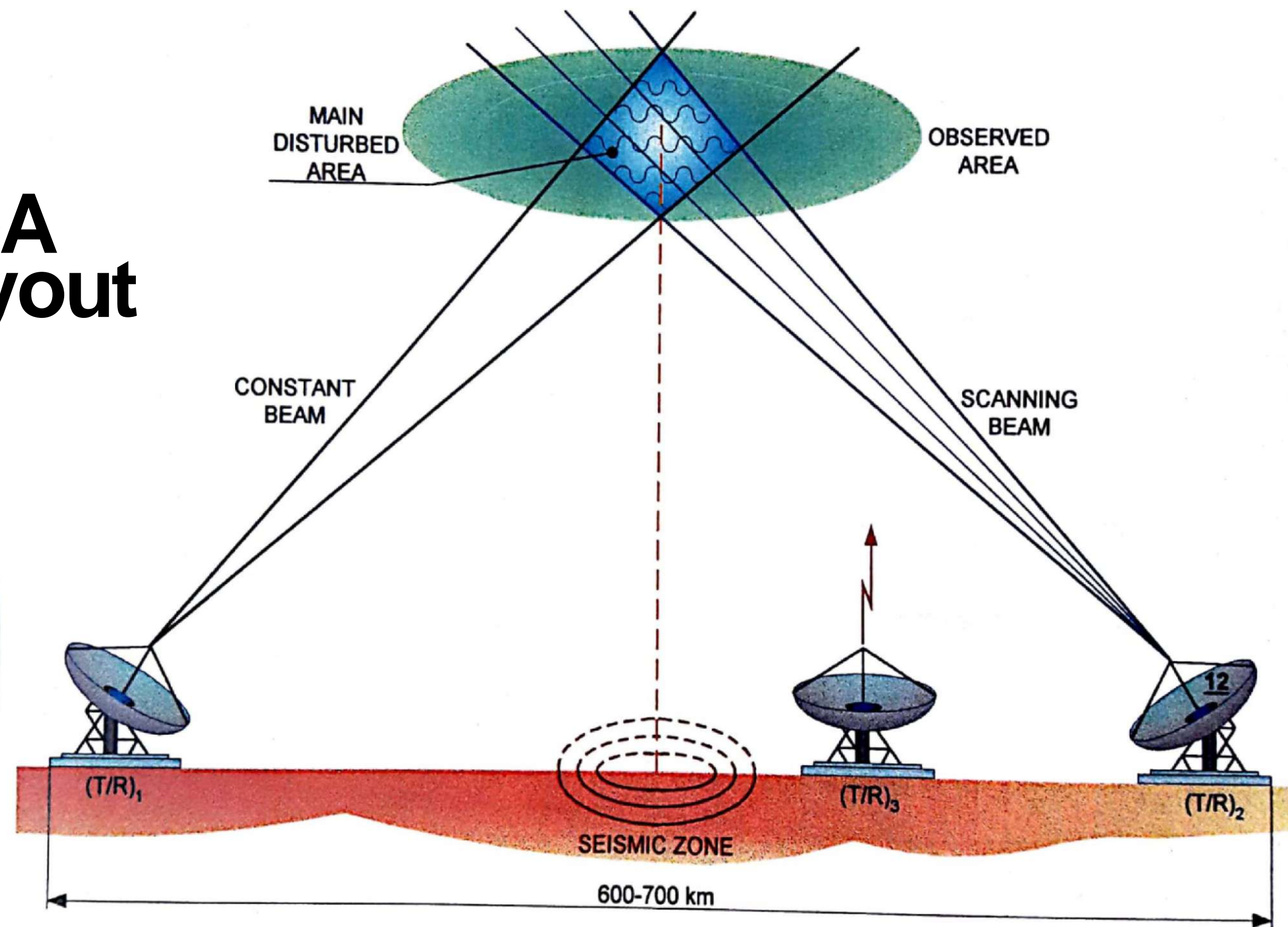
IONOTERRA developed an IP Algorithm analyzing all data coming from the radars & Ionosonders sensors.

The IP Algorithm produces a Geo Seismic Real Time Risk Map for any monitored region, resulting with a clear cut alert in case of an upcoming Earthquake 8 hours in advance.



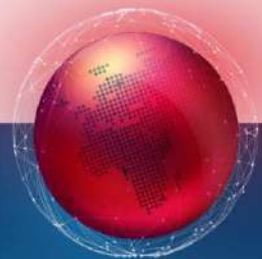
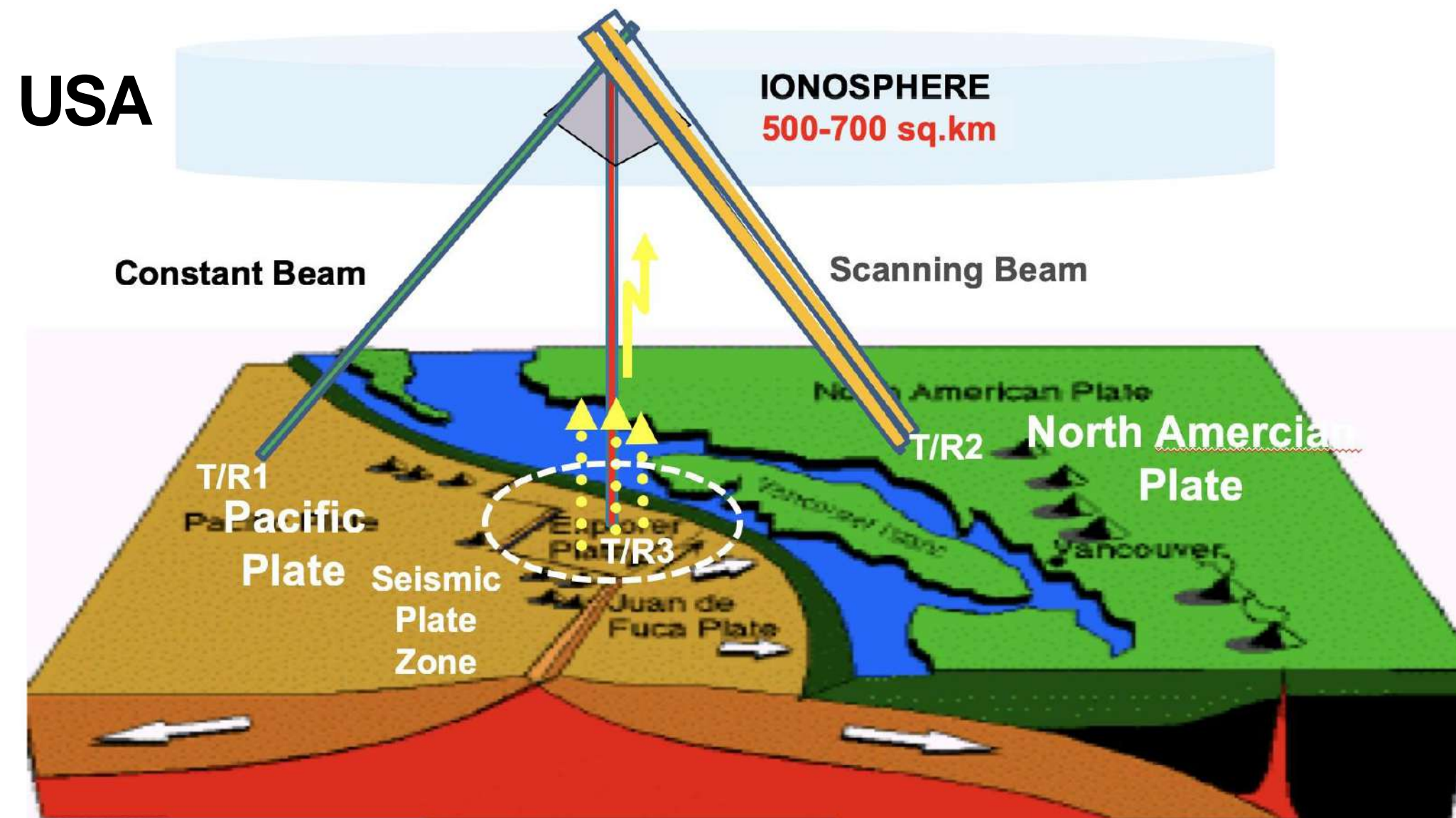
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IONOTERRA System Layout



IONOTERRA System

SEISMIC PLATE COVERAGE DEPLOYMENT SIMULATION



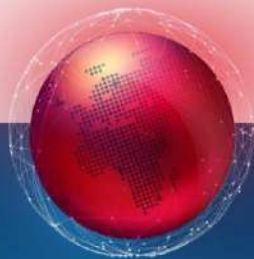
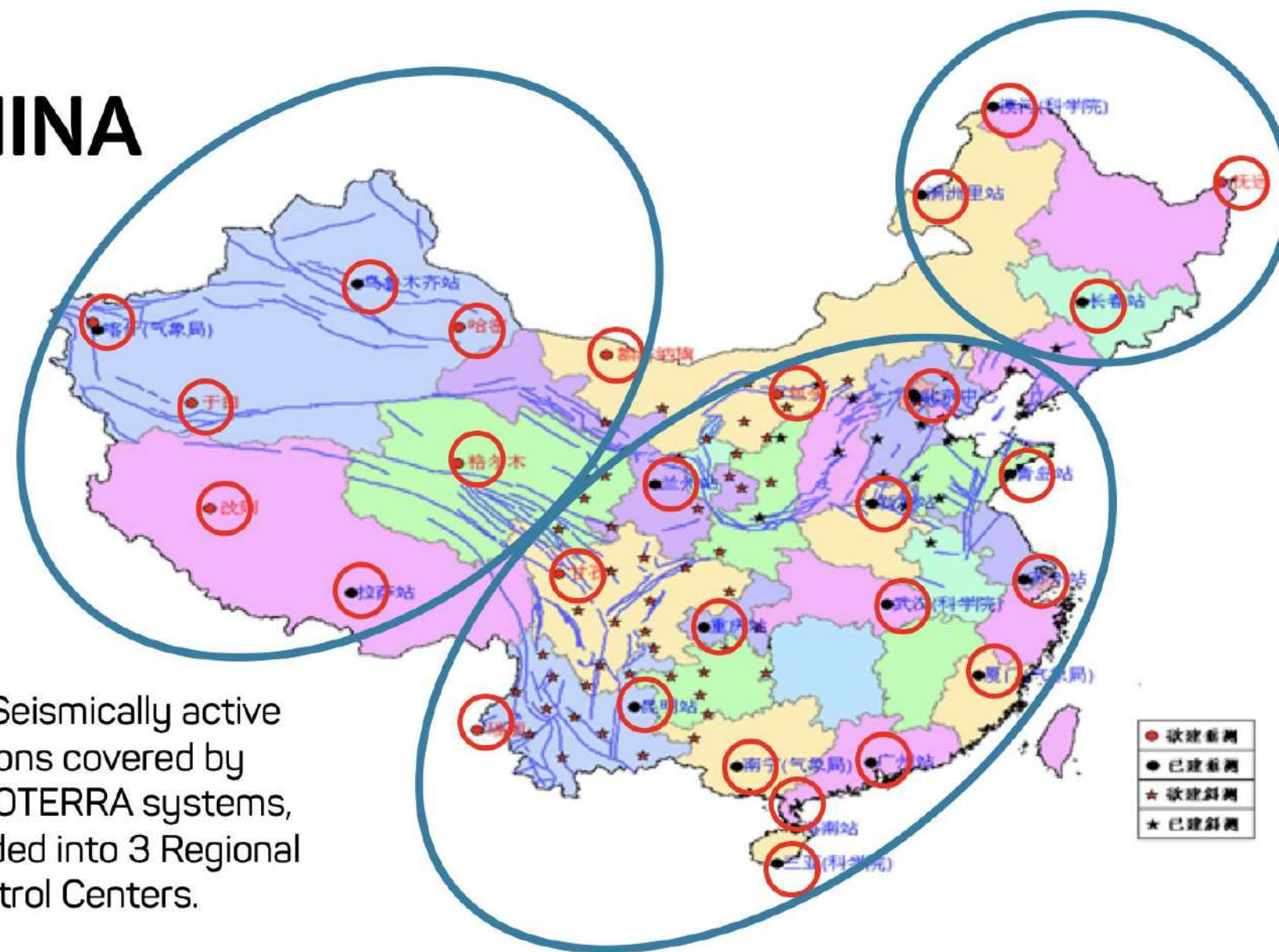
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IONOTERRA System

NATION WIDE COVERAGE DEPLOYMENT SIMULATION

CHINA

28 Seismically active regions covered by IONOTERRA systems, divided into 3 Regional Control Centers.



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The TEAM



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C.E.O.

Nathan Blaunstein, Prof., PhD, DSc, Israel Inventor of
the patent, Physical Models and Algorithms of
ionosphere and ionospheric precursors prediction

Avi Angelovitch, Operational Design,
Operational Management, Radar Expertise

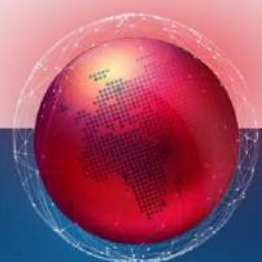
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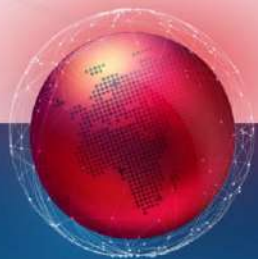
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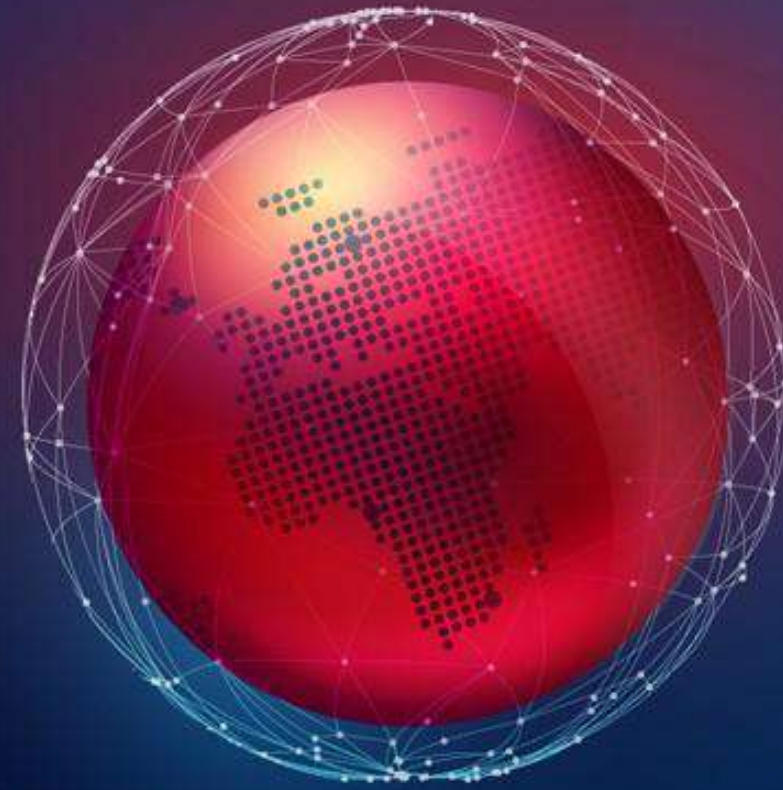
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