

## Phase-I TOBA

(2009-2011)

## Phase-II TOBA

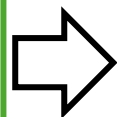
(2012-2014)

Principle test

$10^{-8} / \sqrt{\text{Hz}}$  (achieved)

20 cm bars

Room temperature



## Phase-III TOBA

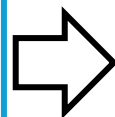
(2018-now)

Technical demonstration  
Earthquake early warning  
Newtonian noise detection

$10^{-15} / \sqrt{\text{Hz}}$  (target)

35 cm bars

Cryogenic temperature



## Final TOBA

(Future)

GW observation

$10^{-19} / \sqrt{\text{Hz}}$  (target)

10 m bars

Cryogenic temperature

Research on  
seismic noise  
(2016)



SWIM<sub>μν</sub>

(2010-2011)

Spaceborne rotating TOBA