Executive Summary

- Implications on anisotropy were obtained by the TA experiment.
  - Energy Spectrum
    - Declination dependence was claimed at **4.3σ** in the energy spectrum using TASD 11 years data
  - Anisotropy
    - **2.9σ** hotspot, oversampling radius: 25° E > **57** EeV was obtained using TASD 11 years data

- Arrangement of the TAx4 detectors:
  - **500 new** SDs with **2.08 km** spacing + TA SDs
    → Coverage of **4 ×** TA SDs ～2800 km^2 → **～4 × TA SD** equivalent events for E > 57 EeV
  - **2 new** FD stations (4+8 HiRes Telescopes) → **～3 × TA SDFD** equivalent hybrid events for E > 10 EeV
- More than half of new SDs (257 SDs) were deployed in 2019.
- Construction of new FDs was finished.
- Stable run of the data acquisition of the new detectors was started.

  SD: from Nov. 2019, FD(north): from 2018 Jun. FD(south): from 2020 Sep.

  Hybrid trigger runs from 2020 June.

- Global significance of the TA hotspot will reach about 6 sigma in 2025 by the TAx4 SDs (TASD 24.5 years equivalent data) from the simple expectation.