The X-IFU is built under the responsibility of RAP and CNES by a consortium of 11 European countries plus USA and Japan.

It is a microcalorimeter instrument:
- the microcalorimeter array and cold front stages are integrated in the Focal Plane Assembly, which also provides magnetic field and EMI shielding.

The X-IFU baseline cryochain totals 22 compressors
- microcalorimeters cooling is challenging
- on-going optimization reducing the number of cryocoolers without affecting the performance

The trade-off of readout electronics vs multiplexing factor is on-going
- fewer channels means less connections from 300 K down to 2 K and lighter warm electronics
- larger frequency spacing between channels (presently 100 Hz), corresponding to a smaller multiplexing factor (from 40 down to 4) loosens the constraints or cost-wise between pixels/crater leakage and intermodulation effects

The on-going TES pixel optimization effort is continued to improve the performance under AC bias and Frequency Division Multiplexing.

Instrument demonstration progresses well towardTRL 5 for mission selection (1/2021)
- see below the multiple X-IFU team contributions to this workshop